



2022

# Product Catalogue

Market leading solutions to **cool, heat, ventilate & control** the nation's buildings

[les.mitsubishielectric.co.uk](https://les.mitsubishielectric.co.uk)



# Welcome to **Mitsubishi Electric**

Mitsubishi Electric is a market leader in providing solutions to cool, heat, ventilate and control our buildings.

As a major manufacturer of some of these pivotal technologies, we hold the UK's energy challenges close to our heart. We want to help the nation achieve its climate goals; we want to help individuals and businesses reduce the energy consumption of their buildings, whilst also helping to reduce their annual running costs.

At Mitsubishi Electric, we are constantly evolving and today our areas of expertise go way beyond the advanced air conditioning systems that formed the foundation of our business. Here in the UK, we provide advanced solutions that cool, heat, ventilate and control buildings in the most energy efficient and cost-effective ways possible. Through technical expertise, experience and an innovative product range, we enable buildings everywhere to significantly improve energy efficiency, reduce running costs and adhere to increasingly tough legislation. **We also provide a variety of additional services and benefits to our customers which include:**

- Product training and technical support
- Contractor Partner Programme
- CPD guides and presentations
- Design and consultancy services
- Apps and tools

## Working towards a better use of energy in buildings

Mitsubishi Electric's global framework for realising a sustainable planet - **Environmental Sustainability Vision 2050** - is translated in the UK into our **Green Gateway philosophy**, which is central to the way we do business. With this initiative, we are seeking to use our position as a manufacturer of key technologies to increase awareness and improve energy use in the built environment.

By constantly challenging everyone involved to combat the issues we all face and encouraging constructive dialogue throughout the industry, we aim to help everyone address their energy use and to work towards a more sustainable future. Working within the construction industry in this way we are continually developing energy efficient cooling, heating and ventilation solutions - all managed by the most advanced control systems available.



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# Air Conditioning

Designed to reduce energy consumption  
and running costs in the built environment





# The need for Air Conditioning

Today's commercial buildings are increasingly air tight and filled with heat generating office equipment and lighting, which presents a problem for anyone trying to maintain a stable and comfortable internal environment. With buildings accounting for around half of all UK greenhouse emissions, legislation is demanding increased energy efficiency and higher standards of air quality.

To reduce the impact of the built environment, the challenge is to find cooling, heating, ventilation and control solutions that match energy efficiency with complete flexibility of design and control.

Our innovative and pioneering air conditioning systems offer more than double the efficiency levels of 10-15 year old systems and can also be far more efficient than traditional methods of cooling and heating buildings, resulting in reduced running costs and lower carbon emissions. Today's systems can simultaneously heat and cool different spaces to balance energy use across a building and sanitary hot water can even be supplied from the same system.



## Energy Efficient Air Conditioning Systems

### The benefits of our Air Conditioning Systems

As a market leader, we pride ourselves in providing high performance and competitive systems with low running costs.

By utilising heat pump technology, our air conditioning units not only provide cooling, but also heating and often sanitary hot water. Heat pump technology requires only a small amount of electricity to harvest, upgrade and move heat from one location to another, and providing heating and hot water as part of an integrated air conditioning system is far more efficient than traditional heating methods such as gas.

The 2014 F-Gas Regulations will bring about significant changes to the air conditioning industry however, affecting end users, facilities managers, specifiers and installers alike. This landmark ruling has one key objective: to reduce F-Gas emissions by 79% between 2015 and 2030, by cutting the availability of hydrofluorocarbons (HFCs) with a high Global Warming Potential (GWP).

### It's time therefore to look at alternative, lower GWP refrigerants such as R32

Already making up 50% of the existing R410A refrigerant found in many current air conditioning systems, R32 has a GWP of 675 (one third that of R410A), is highly energy efficient and is easy to recycle. Plus, the volumetric capacity of R32 is around 20% higher than that of R410A, which means system refrigerant volumes are lower.

**R32 refrigerant is now being utilised in our newest, state-of-the-art products.**

#### Benefits of R32

- Lower GWP of 675
- High efficiency refrigerant
- F-Gas phase down compliant
- Less refrigerant volume requirement compared to R410A
- Affordable & readily available
- A single component refrigerant
- Easy to handle, reuse and recycle



TIME FOR  
**R32**



### Ideal products that make a world of difference

There are two main types of air conditioning systems; **Split-Systems** which include the M Series and Mr Slim ranges, and **Variable Refrigerant Flow (VRF) Systems** which incorporate the City Multi range.

#### Split-Systems

Mitsubishi Electric Split-Systems were the first products in our range to begin the switch to the lower GWP refrigerant, R32. Consisting of our M Series and Mr Slim ranges of air conditioning, these systems are an ideal option for all medium sized premises such as offices, retail establishments or leisure facilities that have a heating or cooling requirement.

Our entire range of split-systems now utilise R32 refrigerant - these are made up of our M Series wall and floor mounted ranges, our MXZ Multi-Split range of products, and our Mr Slim Power Inverter, Standard Inverter and Inverter systems.

Split-Systems are also able to operate with up to six indoor units connected to a single outdoor unit, so with a full range of indoor units available in ceiling cassettes, ceiling concealed ducted, wall mounted, ceiling suspended or floor mounted types, the application options are considerable.



## Energy Efficient Air Conditioning Systems

### Ideal products that make a world of difference

#### VRF & Hybrid VRF Systems

First developed 30 years ago, City Multi is the market leader in VRF (Variable Refrigerant Flow) technology and now utilises R32 refrigerant. Specifically designed to deliver comfort and control for today's building requirements, it addresses all the key market issues.

VRF is a multi and direct expansion type air conditioning system where one outdoor unit is connected with multiple indoor units, intelligently modulating the flow of refrigerant depending upon the capacity requirements of each zone within a building. Its ultimate purpose is to regulate the internal air temperature and comfort levels in the most effective and efficient manner possible.

**The Hybrid VRF (HVRF)** system delivers optimum comfort and efficiency, using an innovative combination of unique 2-pipe VRF technology and water to provide simultaneous heating and cooling with heat recovery.

Providing a complete modern solution for a variety of applications, Hybrid VRF is quick, easy & flexible to design and install using the same control and network as VRF systems. With water at the indoor units, Hybrid VRF provides comfortable and stable air temperature control with no refrigerant in occupied spaces, meaning simple compliance to BS EN378 and removing the need for leak detection.



**City Multi**  
VRF the UK's  
first R32 Heat  
Recovery & Heat  
Pump Systems

**R32**  
REFRIGERANT



**City Multi**  
HYBRID VRF  
the World's  
first R32 Hybrid  
Solution

**R32**  
REFRIGERANT



## Plasma Quad Connect Air Purifying Device

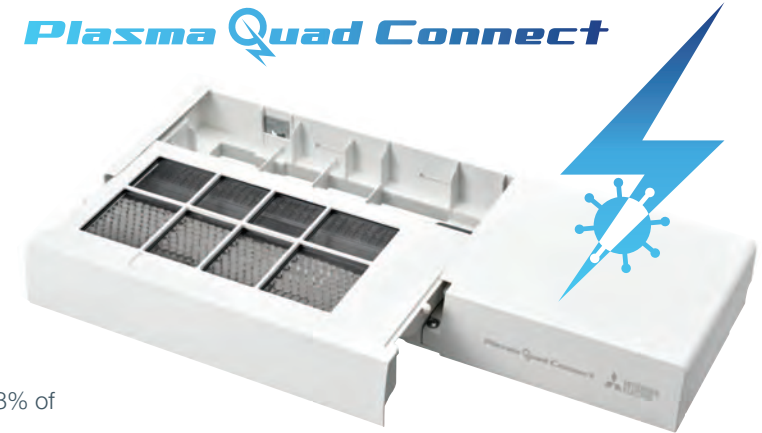
Good Indoor Air Quality (IAQ) is vital, and Mitsubishi Electric's powerful bolt-on air purifying device delivers Plasma Quad Technology to both new and existing installations of our **M Series**, **Mr Slim** and **City Multi** indoor units.

Plasma Quad Technology significantly improves indoor air quality by neutralising 6 key indoor pollutants, as well as inhibits 99.8% of SARS-CoV-2\*, providing peace of mind and reassurance for the physical and mental wellbeing of building occupants.

Plasma Quad Connect is the ideal solution for a broad range of applications; including hotels, education, healthcare, leisure and offices. It works like an electrical curtain to catch and neutralise even microscopic particles in the air, significantly improving indoor air quality.

### Key Features & Benefits

- Plasma Quad Technology effectively neutralises 6 key indoor pollutants, as well as inhibits 99.8% of SARS-CoV-2\*
- Broad compatibility - allowing connectivity to a wide range of M Series, Mr Slim and City Multi indoor units
- Install flexibility - cost-effective bolt-on solution for new and existing air conditioning systems
- Premium construction allows for easy maintenance and low cost of ownership



Plasma Quad Technology inhibits SARS-CoV-2 by **99.8%**



### How it Works

#### Stage One ➡

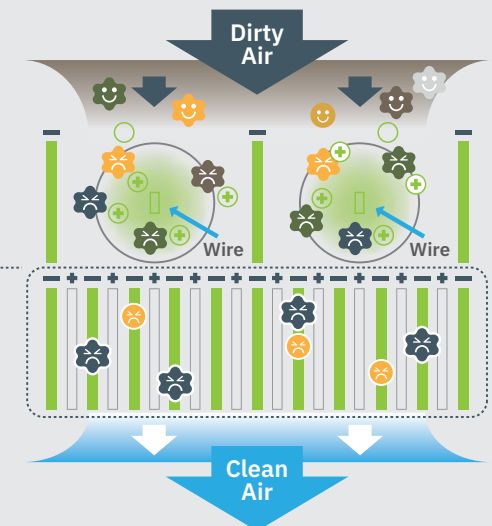
Produces plasma to:

- Inhibit viruses and bacteria
- Break down allergens and mould
- Electrically (+) charge dust and microscopic particles PM2.5

#### Stage Two ➡

Creates a strong electrical (-) field to:

- Absorb dust and microscopic particles PM2.5



Notes: \* Derived from and subject to test results, for and on behalf of Mitsubishi Electric, conducted at the Microbial Testing Laboratory, Japan Textile Quality and Technology Centre, Kobe, Japan.

Energy Efficient Air Conditioning Systems

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M Series 1.2



Mr Slim 1.3



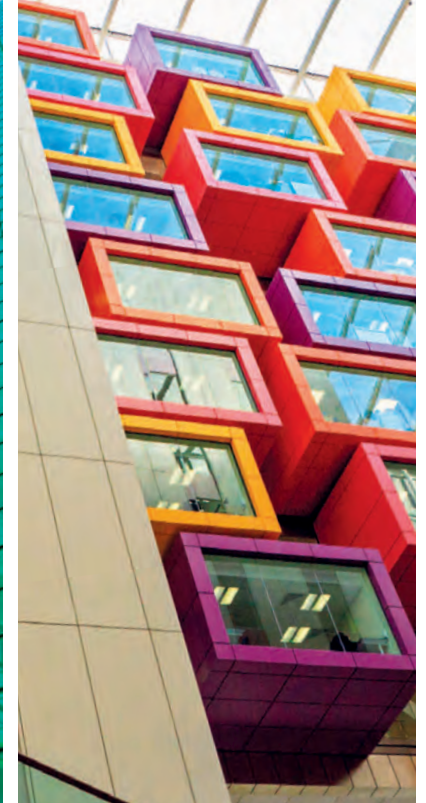
Multi-Splits 1.4



City Multi VRF 1.5



City Multi Hybrid VRF 1.6



# M Series

Room Air Conditioning





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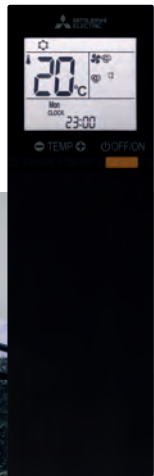
**M**series

Room Air Conditioning

# The Adaptable **M Series Range**

Designed to cool or heat small to medium sized spaces, such as residential, retail and small office applications, the M Series range provides a versatile, yet affordable air conditioning solution.

Quick to install, the range includes some of the quietest units on the market. Available in a variety of options, the M Series range fits in wherever it's needed, with a choice of wall or floor mounted indoor units.



# R32

## Wall Mounted Systems

- Top of the range Premium Inverter series, available in red, black or white
- Stylish Zen Inverter series, available in black, silver or white
- Mid-range Elegance Inverter series designed to suit popular demand
- Cost effective Classic Inverter series

## Floor Mounted Systems

- Extremely versatile
- Designed for wall installation at floor level
- Compact design makes installation easy
- 3 models available from 2.5 - 5.0kW



## Key Features

- The entire M Series range is available using lower GWP R32 refrigerant
- Wi-Fi enabled, allowing control and monitoring via the MELCloud app (compatible with Amazon Alexa or Google Assistant-enabled devices)
- Stylish indoor units, available in a variety of colours

works with  
**Hey Google**





Indoor Model	Range	kW	1.5 <sup>*1</sup>	1.8 <sup>*1</sup>	2.0	2.2 <sup>*1</sup>	2.5	3.5	4.2	5.0	6.1	7.1
Wall Mounted	MSZ-LN <sup>*2</sup> <b>R32</b>			●			●	●		●	●	
	MSZ-EF <sup>*3</sup> <b>R32</b>			●		●	●	●		●		
	MSZ-AP <b>R32</b>		●		●		●	●	●	●	●	●
	MSZ-HR <b>R32</b>						●	●		●	●	●
Floor Mounted	MFZ-KT <b>R32</b>						●	●		●		

\*1 Multi-split only \*2 Also available in pearl white, onyx black and natural white \*3 Also available in silver and white

# MSZ-LN R32

## Premium Wall Mounted System

### Inverter Heat Pump



Ruby Red (R)



Onyx Black (B)



Pearl White (V)



Natural White (W)



The **MSZ-LN** range is our flagship wall mounted system, that blends energy efficiency with a sophisticated streamlined design. Finished with a choice of four rich colours and a premium quality feel, this range features the latest product innovations, all designed to enhance the user experience, and is an excellent choice for residential or small commercial applications.

### Key Features & Benefits

- Built-in Plasma Quad Technology neutralises viruses, bacteria, allergens, PM2.5, mould and dust, inhibiting 99.8% of SARS-CoV-2\*
- 3D i-see sensor provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures
- Built in Wi-Fi interface enables system control & monitoring via the Mitsubishi Electric MELCloud app; plus voice control - compatible with Amazon Alexa or Google Assistant-enabled devices
- Dual-Barrier Coating to the heat exchanger, fan and air duct prevents dust and grease accumulation
- Energy efficient, ultra-quiet operation with a choice of fan speeds
- User-friendly backlit controller for remote operation, including scheduling options



MSZ-LN - INDOOR UNITS		MSZ-LN18VG2 R/B/V/W	MSZ-LN25VG2 R/B/V/W	MSZ-LN35VG2 R/B/V/W	MSZ-LN50VG2 R/B/V/W	MSZ-LN60VG2 R/B/V/W
CAPACITY (KW)	Heating (nominal)	2.0 (0.9 - 4.0)	3.2 (0.8 - 5.4)	4.0 (1.0 - 6.3)	6.0 (1.0 - 8.2)	6.8 (1.8 - 9.3)
	Cooling (nominal)	1.8 (0.9 - 3.0)	2.5 (1.0 - 3.5)	3.5 (0.8 - 4.0)	5.0 (1.0 - 6.0)	6.1 (1.4 - 6.9)
	Heating (UK)	-	2.64 (0.66 - 4.45)	3.3 (0.83 - 5.2)	4.94 (0.82 - 6.75)	5.6 (1.48 - 7.66)
	Cooling (UK)	-	2.48 (0.99 - 3.47)	3.47 (0.79 - 3.96)	4.95 (0.99 - 5.94)	6.05 (1.38 - 6.84)
SHF (nominal)	-	0.97	0.90	0.77	0.75	
COP / EER (nominal)	-	5.52 / 5.15	5.00 / 4.27	4.05 / 3.62	3.76 / 3.41	
SCOP / SEER (BS EN14825)	-	5.2 / 10.5	5.1 / 9.5	4.6 / 8.5	4.6 / 7.5	
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	-	A+++ / A+++	A+++ / A+++	A++ / A+++	A+ / A++
AIRFLOW (l/s)	Heating (SLo-Lo-Mi-Hi-SHi)	67-95-118-142-240	67-95-118-142-240	71-97-118-142-228	90-107-142-178-262	110-158-192-227-262
	Cooling (SLo-Lo-Mi-Hi-SHi)	71-97-118-147-198	71-97-118-147-198	71-97-118-147-213	95-127-148-177-232	118-147-177-212-262
PIPE SIZE MM (in)	Gas	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating (SLo-Lo-Mi-Hi-SHi)	19-24-29-36-45	19-24-29-36-45	19-24-29-36-45	25-29-34-39-47	29-37-41-45-49
	Cooling (SLo-Lo-Mi-Hi-SHi)	19-23-29-36-42	19-23-29-36-42	19-24-29-36-43	27-31-35-39-46	29-37-41-45-49
SOUND POWER LEVEL (dBA)	-	58	58	58	60	65
DIMENSIONS (mm)	Width x Depth x Height	890 x 233 x 307	890 x 233 x 307	890 x 233 x 307	890 x 233 x 307	890 x 233 x 307
WEIGHT (kg)	-	15.5	15.5	15.5	15.5	15.5
ELECTRICAL SUPPLY	-	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	-	6	6	6	6	6
INTERCONNECTING CABLE No. CORES	-	4	4	4	4	4

Notes: MSZ-LN18VG2 only available with R32 MXZ Multi-Split outdoor units. Ruby Red (R), Onyx Black (B), Pearl White (V), Natural White (W).

MUZ-LN - OUTDOOR UNITS		MULTI-SPLIT ONLY	MUZ-LN25VG2	MUZ-LN35VG2	MUZ-LN50VG2	MUZ-LN60VG2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	-	49 / 46	50 / 49	54 / 51	55 / 55
SOUND POWER LEVEL (dBA)	Cooling	-	60	61	64	65
WEIGHT (kg)	-	-	35	35	40	55
DIMENSIONS (mm)	Width x Depth x Height	-	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714	840 x 330 x 880
ELECTRICAL SUPPLY	-	-	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	-	-	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	-	0.580 / 0.485	0.800 / 0.820	1.480 / 1.380	1.810 / 1.790
	Heating/Cooling (UK)	-	0.523 / 0.406	0.722 / 0.686	1.335 / 1.151	1.632 / 1.494
STARTING CURRENT (A)	-	-	3.0	4.0	6.8	7.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	-	3.0 / 2.5 [7.1]	4.0 / 3.9 [9.9]	6.8 / 6.3 [13.9]	7.9 / 7.9 [15.2]
FUSE RATING (BS88) - HRC (A)	-	-	10	10	16	16
MAINS CABLE No. CORES	-	-	3	3	3	3
MAX PIPE LENGTH (m)	-	-	20	20	30	30
MAX HEIGHT DIFFERENCE (m)	-	-	12	12	12	15
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675) - 7m	-	-	1.0 / 0.68	1.0 / 0.68	1.25 / 0.85	1.45 / 0.98
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)	-	-	0.26 / 0.18	0.26 / 0.18	0.26 / 0.18	0.46 / 0.32

\* Derived from and subject to test results, for and on behalf of Mitsubishi Electric conducted at the Microbial Testing Laboratory, Textile Quality and Technology Center, Kobe, Japan.

## Accessories

### Indoor Units

#### MAC-1300RC-E

Natural white remote controller holder

### Outdoor Units

#### MAC-881SG

Air outlet guide for MUZ-LN25/35VG2

#### MAC-882SG

Air outlet guide for MUZ-LN50VG2

#### MAC-886SG

Air outlet guide for MUZ-LN60VG2

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

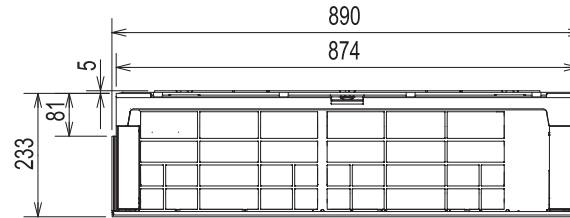
#### MELCORETAIL MINI

Retail control and input / output interface

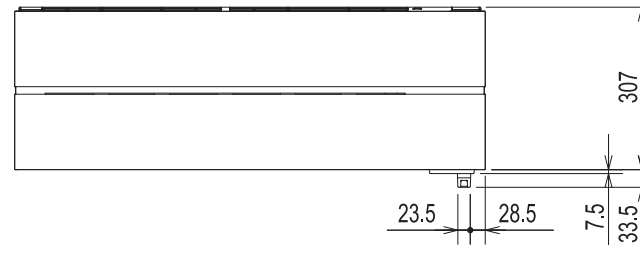
## Product Dimensions

MSZ-LN18/25/35/50/60VG2 R/B/V/W

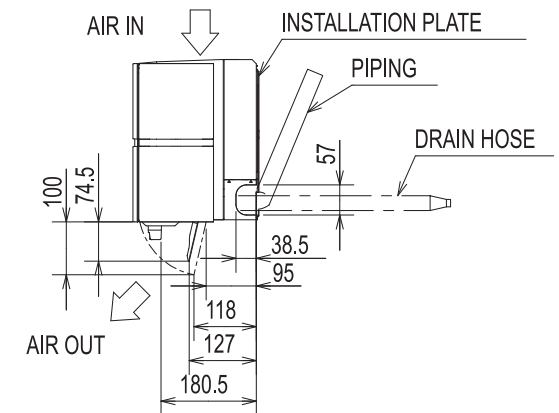
Upper View



Front View



Side View



# MSZ-EF R32

## Zen Wall Mounted System

### Inverter Heat Pump



Black (B)



Silver (S)



White (W)



The **MSZ-EF** is a modern, small-scale wall mounted air conditioning system that effortlessly blends energy efficiency, low noise, Wi-Fi control and air filtration with a sophisticated, streamlined design. Available in capacities from 1.8kW to 5kW and connectable as a single or multi-split system, Zen is the perfect solution for residential and small office applications.

### Key Features & Benefits

- Stylish design in a range of three distinct colours - black, silver and white
- Built in Wi-Fi interface enables system control & monitoring via the Mitsubishi Electric MELCloud app; plus voice control - compatible with Amazon Alexa or Google Assistant-enabled devices
- In-room air purification through our advanced V-Blocking filter, neutralising viruses, allergens, dust and mould
- Easy operation via a backlit controller with 7 day time clock
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



MSZ-EF B/S/W - INDOOR UNITS		MSZ-EF18VGK B/S/W	MSZ-EF22VGK B/S/W	MSZ-EF25VGK B/S/W	MSZ-EF35VGK B/S/W	MSZ-EF50VGK B/S/W
CAPACITY (kW)	Heating (nominal)	2.0 (0.9 - 4.0)	2.6 (1.0-4.5)	3.2 (1.0-4.2)	4.0 (1.3-5.1)	5.8 (1.4-7.5)
	Cooling (nominal)	1.8 (0.9 - 3.0)	2.2 (1.0-3.2)	2.5 (0.9-3.4)	3.5 (1.1-4.0)	5.0 (1.4-5.4)
	Heating (UK)	-	-	2.65 (0.91-3.49)	3.32 (1.08-4.23)	4.82 (1.16-6.23)
	Cooling (UK)	-	-	2.48 (0.89-3.37)	3.47 (1.09-3.96)	4.96 (1.39-5.36)
SHF (nominal)		-	-	0.97	0.80	0.70
COP / EER (nominal)		-	-	4.57 / 4.63	4.21 / 3.85	3.72 / 3.25
SCOP / SEER (BS EN14825)		-	-	4.7 / 9.1	4.6 / 8.8	4.5 / 7.5
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	-	-	A++ / A+++	A++ / A+++	A+ / A++
AIRFLOW (l/s)	Heating/Cooling - SL-Lo-Mi-Hi-SH	67-77-103-148-198 / 67-77-105-138-175	67-77-103-148-198 / 67-77-105-138-175	67-77-103-148-198 / 67-77-105-138-175	67-77-103-148-212 / 67-77-105-138-175	107-120-150-185-243 / 97-113-132-153-188
PIPE SIZE mm (in)	Gas	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling - SL-Lo-Mi-Hi-SH	21-24-29-37-45 / 19-23-29-36-42	21-24-29-37-45 / 19-23-29-36-42	21-24-29-37-45 / 19-23-29-36-42	21-24-30-38-46 / 21-24-30-36-42	30-33-37-43-49 / 30-33-36-40-43
SOUND POWER LEVEL (dBA)		60	60	60	60	60
DIMENSIONS (mm)	Width x Depth x Height	885 x 195 x 299	885 x 195 x 299	885 x 195 x 299	885 x 195 x 299	885 x 195 x 299
WEIGHT (kg)		11.5	11.5	11.5	11.5	11.5
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
INTERCONNECTING CABLE No. CORES		4	4	4	4	4

Notes: Black (B), Silver (S), White (W)

MUZ-EF - OUTDOOR UNITS		MULTI-SPLIT ONLY	MULTI-SPLIT ONLY	MUZ-EF25VG	MUZ-EF35VG	MUZ-EF50VG
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	-	-	48 / 47	50 / 49	52 / 52
SOUND POWER LEVEL (dBA)	Cooling	-	-	58	62	65
WEIGHT (kg)		-	-	31	34	40
DIMENSIONS (mm)	Width x Depth x Height	-	-	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714
ELECTRICAL SUPPLY		-	-	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		-	-	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	-	-	0.70 / 0.54	0.95 / 0.91	1.56 / 1.54
	Heating/Cooling (UK)	-	-	0.64 / 0.44	0.87 / 0.73	1.42 / 1.24
STARTING CURRENT (A)		-	-	3.6	4.4	7.1
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	-	-	3.6 / 3.0 [6.8]	4.4 / 4.2 [6.8]	7.1 / 6.9 [13.6]
FUSE RATING (BS88) - HRC (A)		-	-	10	10	16
MAINS CABLE No. CORES		-	-	3	3	3
MAX PIPE LENGTH (m)		-	-	20	20	30
MAX HEIGHT DIFFERENCE (m)		-	-	12	12	15
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675) - 7m		-	-	0.62 / 0.42	0.74 / 0.50	1.05 / 0.71
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)		-	-	0.26 / 0.18	0.26 / 0.18	0.46 / 0.31

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect Air Purifying Device

#### MAC-1300RC-E

Natural white remote controller holder

### Outdoor Units

#### MAC-881SG

Air outlet guides for MUZ-EF25/35VG

#### MAC-882SG

Air outlet guides for MUZ-EF50VG

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

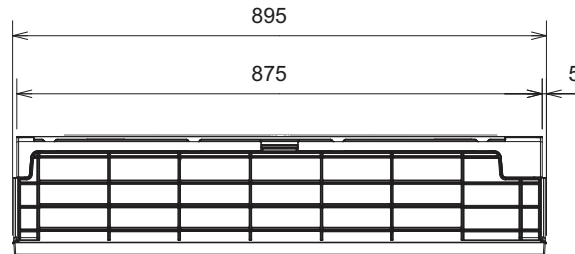
#### MELCORETAIL MINI

Retail control and input / output interface

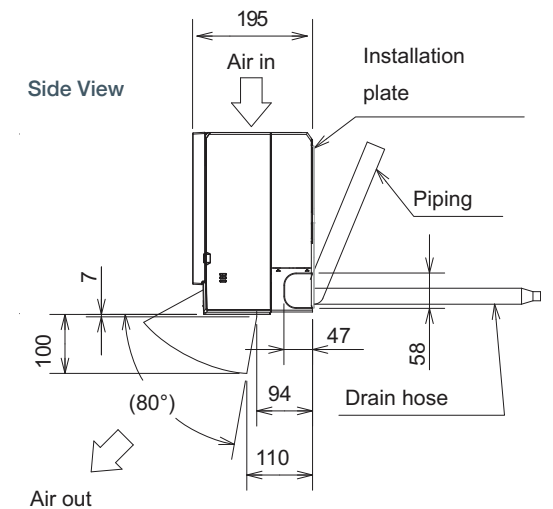
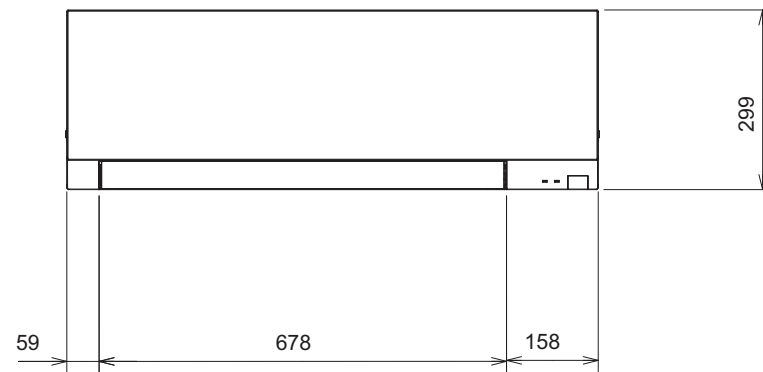
## Product Dimensions

MSZ-EF18/22/25/35/50VGK B/S/W

Upper View



Front View



# MSZ-AP R32

## Elegance Wall Mounted System

### Inverter Heat Pump

The **MSZ-AP** wall mounted system delivers excellent flexibility and energy efficiency for air conditioning projects. With an extensive range of capacities from 1.5kW to 7.1kW and connection to multi-split systems as well as single splits, the Elegance series is a great fit for a huge array of applications from small residential to light commercial installations.

### Key Features & Benefits

- Compact and stylish white design
  - Built in Wi-Fi interface enables system control & monitoring via the Mitsubishi Electric MELCloud app; plus voice control - compatible with Amazon Alexa or Google Assistant-enabled devices
  - 30m pipe run (sizes 60 & 71)
  - Easy operation via a backlit controller with 7 day time clock
  - Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust.
- For more information, please refer to page 1.1.7



MSZ-AP - INDOOR UNITS		MSZ-AP15VGK	MSZ-AP20VGK	MSZ-AP25VGK	MSZ-AP35VGK	MSZ-AP42VGK	MSZ-AP50VGK	MSZ-AP60VGK	MSZ-AP71VGK
CAPACITY (kW)	Heating (nominal)	1.7 (1.2-3.0)	2.5 (0.5-3.5)	3.2 (1.0-4.1)	4.0 (1.6-4.3)	5.4 (1.3-6.0)	5.8 (1.4-7.3)	6.8 (2.0-8.6)	8.0 (2.2-10.3)
	Cooling (nominal)	1.5 (0.9-2.7)	2.0 (0.6-2.7)	2.5 (0.9-3.4)	3.5 (1.1-3.8)	4.2 (0.9-4.5)	5.0 (1.4-5.4)	6.1 (1.4-7.3)	7.1 (2.0-8.7)
	Heating (UK)	-	2.06 (0.4-2.9)	2.64 (0.8-3.4)	3.3 (1.1-3.8)	4.45 (1.1-4.9)	4.78 (1.2-6.0)	5.6 (1.6-7.1)	6.68 (1.8-8.6)
	Cooling (UK)	-	1.98 (0.6-2.7)	2.48 (0.9-3.4)	3.47 (1.1-3.8)	4.17 (0.9-4.5)	4.95 (1.4-5.3)	6.05 (1.4-7.2)	7.04 (2.0-8.6)
SHF (nominal)	-	0.80	0.92	0.88	0.77	0.74	0.83	0.77	
COP / EER (nominal)	-	4.17 / 4.35	4.10 / 4.17	3.88 / 3.54	3.62 / 3.23	3.63 / 3.23	4.07 / 3.84	3.82 / 3.53	
SCOP / SEER (BS EN14825)	-	4.10 / 8.60	4.80 / 8.60	4.70 / 8.60	4.70 / 7.80	4.70 / 7.40	4.60 / 7.40	4.40 / 7.20	
EP ENERGY EFFICIENCY CLASS	Heating/Cooling	-	A+ / A+++	A++ / A+++	A++ / A+++	A++ / A++	A++ / A++	A++ / A++	A+ / A++
AIRFLOW (l/s)	Heating (SLo-Lo-Mid-Hi-SHi)	62-73-83-100-113	62-73-83-100-122	82-98-122-148-215	82-98-122-148-215	88-102-128-157-233	93-108-137-167-233	180-223-257-290-338	170-192-220-255-320
	Cooling (SLo-Lo-Mid-Hi-SHi)	58-65-77-92-107	58-65-77-92-115	82-98-118-145-190	82-98-118-145-190	90-108-128-155-190	100-120-140-167-210	157-183-220-267-315	160-192-220-255-310
PIPE SIZE MM (in)	Gas	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")	12.7 (1/2")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating (SLo-Lo-Mid-Hi-SHi)	21-26-30-35-40	21-26-30-35-42	19-24-34-39-45	19-24-31-38-45	21-29-35-40-45	28-33-38-43-48	30-37-41-45-48	30-37-41-45-51
	Cooling (SLo-Lo-Mid-Hi-SHi)	21-26-30-35-40	21-26-30-35-42	19-24-30-36-42	19-24-30-36-42	21-29-34-38-42	28-33-36-40-44	30-37-41-45-48	30-37-41-45-49
SOUND POWER LEVEL (dBA)		59	60	57	57	57	58	65	65
DIMENSIONS (mm)	Width x Depth x Height	760 x 178 x 250	760 x 178 x 250	798 x 219 x 299	798 x 219 x 299	798 x 219 x 299	798 x 219 x 299	1100 x 257 x 325	1100 x 257 x 325
WEIGHT (kg)		8.2	8.2	10.5	10.5	10.5	10.5	16	17
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6	6
INTERCONNECTING CABLE No. CORES		4	4	4	4	4	4	4	4

MUZ-AP - OUTDOOR UNITS		MULTI-SPLIT ONLY	MUZ-AP20VG	MUZ-AP25VG	MUZ-AP35VG	MUZ-AP42VG	MUZ-AP50VG	MUZ-AP60VG	MUZ-AP71VG
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	-	48 / 47	48 / 47	50 / 49	51 / 50	52 / 52	57 / 56	55 / 55
SOUND POWER LEVEL (dBA)	Cooling	-	59	59	61	61	64	65	65
WEIGHT (kg)		-	31	31	31	35	40	40	55
DIMENSIONS (mm)	Width x Depth x Height	-	800 x 285 x 550	800 x 285 x 550	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714	800 x 285 x 714	840 x 330 x 880
ELECTRICAL SUPPLY		-	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		-	Single	Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	-	0.60 / 0.46	0.78 / 0.60	1.03 / 0.99	1.49 / 1.30	1.60 / 1.55	1.67 / 1.59	2.12 / 2.01
	Heating/Cooling (UK)	-	0.52 / 0.38	0.70 / 0.50	0.93 / 0.83	1.34 / 1.09	1.44 / 1.29	1.51 / 1.33	1.91 / 1.68
STARTING CURRENT (A)		-	3.2	3.6	4.7	6.6	7.0	7.4	9.3
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	-	3.2 / 2.6 [7.0]	3.6 / 2.9 [7.06]	4.7 / 4.5 [8.46]	6.6 / 5.8 [9.6]	7.0 / 6.9 [13.6]	7.4 / 7.1 [14.0]	9.3 / 8.8 [16.4]
FUSE RATING (BS88) - HRC (A)		-	10	10	10	10	16	16	20
MAINS CABLE No. CORES		-	3	3	3	3	3	3	3
MAX PIPE LENGTH (m)		-	20	20	20	20	20	30	30
MAX HEIGHT DIFFERENCE (m)		-	12	12	12	12	12	15	15
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	- R32 (GWP 675) - 7m	-	0.55 / 0.38	0.55 / 0.37	0.55 / 0.37	0.70 / 0.47	1.00 / 0.68	1.05 / 0.71	1.50 / 1.02
	MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)	-	0.26 / 0.18	0.26 / 0.18	0.26 / 0.18	0.26 / 0.18	0.26 / 0.18	0.30 / 0.21	0.30 / 0.21

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect Air Purifying Device

#### MAC-1300RC-E

Natural white remote controller holder

### Outdoor Units

#### MAC-881SG

Air outlet guide for MUZ-AP20/25/35/42VG

#### MAC-882SG

Air outlet guide for MUZ-AP50/60VG

#### MAC-886SG

Air outlet guide for MUZ-AP71VG

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

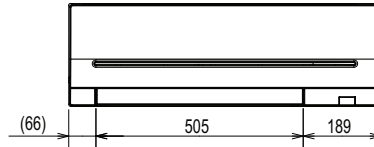
#### MELCORETAIL MINI

Retail control and input / output interface

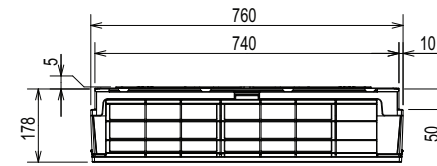
## Product Dimensions

MSZ-AP15-20VGK

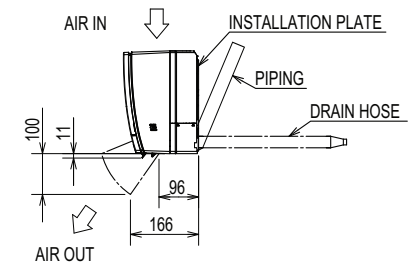
Front View



Upper View



Side View



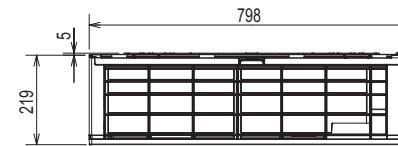
## Product Dimensions

MSZ-AP25-50VGK

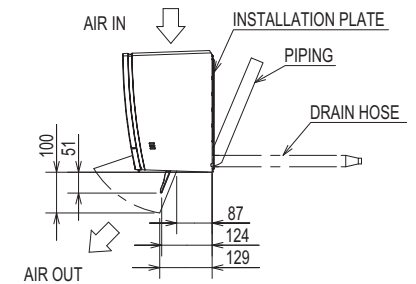
Front View



Upper View



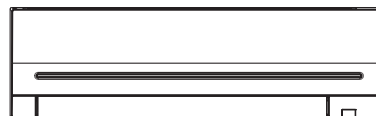
Side View



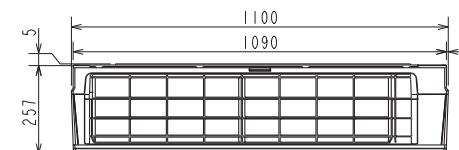
## Product Dimensions

MSZ-AP60-71VGK

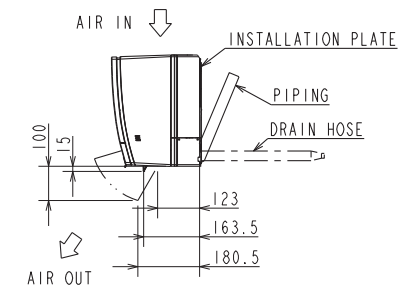
Front View



Upper View



Side View



# MSZ-HR R32

## Classic Wall Mounted System

### Inverter Heat Pump

The **MSZ-HR** range of wall mounted split systems is now available in capacities up to 7.1kW, making them ideal for light commercial applications such as small offices & retail spaces. With efficient & quiet operation, as well as optional Wi-Fi control, these systems provide excellent value for money as single or multi-split systems.

### Key Features & Benefits

- Stylish white design
- Utilises lower GWP R32 refrigerant
- Optional Wi-Fi interface enabling control & monitoring via the MELCloud app
- Daily timer for greater control of scheduling
- Multi-Split connection to MXZ-HA
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



MSZ-HR - INDOOR UNITS		MSZ-HR25VF	MSZ-HR35VF	MSZ-HR50VF	MSZ-HR60VF	MSZ-HR71VF
CAPACITY (kW)	Heating (nominal)	3.15 (0.7-3.5)	3.6 (0.9-3.7)	5.4 (1.4-6.5)	6.8 (1.5-9.0)	8.1 (1.5-9.0)
	Cooling (nominal)	2.5 (0.5-2.9)	3.4 (0.9-3.4)	5.0 (1.3-5.0)	6.1 (1.7-7.4)	7.1 (1.8-7.4)
	Heating (UK)	2.61 (0.6-2.9)	2.99 (0.75-3.1)	4.48 (1.16-5.39)	5.64 (1.25-7.47)	6.72 (1.25-7.47)
	Cooling (UK)	2.48 (0.5-2.8)	3.37 (0.89-3.4)	4.96 (1.29-4.96)	5.98 (1.67-7.25)	6.96 (1.76-7.25)
SHF (nominal)		0.78	0.78	0.73	0.79	0.74
COP / EER (nominal)		3.71 / 3.13	3.69 / 2.81	3.48 / 2.44	3.76 / 3.37	3.32 / 3.05
SCOP / SEER (BS EN14825)		4.30 / 6.20	4.30 / 6.20	4.30 / 6.50	4.50 / 7.20	4.30 / 7.00
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Heating/Cooling - Lo-Mi-Hi-SHi	55-90-123-168 / 60-90-120-162	55-90-123-175 / 60-93-130-195	102-138-187-242 / 107-153-187-218	178-218-278-327 / 173-210-257-327	178-218-278-327 / 173-210-257-327
PIPE SIZE mm (in)	Gas	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")	12.7 (1/2")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling - Lo-Mi-Hi-SHi	21-30-37-43 / 21-30-37-43	21-30-37-44 / 22-31-38-46	27-34-41-47 / 28-36-40-45	33-38-44-50 / 33-38-44-50	33-38-44-50 / 33-38-44-50
SOUND POWER LEVEL (dBA)		57	60	60	65	65
DIMENSIONS (mm)	Width x Depth x Height	838 x 228 x 280	838 x 228 x 280	838 x 228 x 280	923 x 263 x 305	923 x 263 x 305
WEIGHT (kg)		8.5	8.5	9	12.5	12.5
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
INTERCONNECTING CABLE No. CORES		4	4	4	4	4

MUZ-HR - OUTDOOR UNITS		MUZ-HR25VF	MUZ-HR35VF	MUZ-HR50VF	MUZ-HR60VF	MUZ-HR71VF
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	50 / 50	51 / 51	51 / 50	57 / 53	57 / 53
SOUND POWER LEVEL (dBA)	Cooling	63	64	64	65	66
WEIGHT (kg)		23	24	35	40	40
DIMENSIONS (mm)	Width x Depth x Height	699 x 249 x 538	699 x 249 x 538	800 x 285 x 550	800 x 285 x 714	800 x 285 x 714
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	0.85 / 0.80	0.98 / 1.21	1.55 / 2.05	1.81 / 1.81	2.44 / 2.33
	Heating/Cooling (UK)	0.77 / 0.63	0.89 / 0.96	1.40 / 1.62	1.63 / 1.52	2.20 / 1.96
STARTING CURRENT (A)		4.1	5.9	9.0	8.0	10.8
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	4.1 / 3.8 [4.8]	4.6 / 5.9 [6.4]	6.9 / 9.0 [9.6]	8.0 / 8.0 [14.1]	11.8 / 10.3 [14.1]
FUSE RATING (BS88) - HRC (A)		10	10	16	16	16
MAINS CABLE No. CORES		3	3	3	3	3
MAX PIPE LENGTH (m)		20	20	20	20	20
MAX HEIGHT DIFFERENCE (m)		12	12	12	12	12
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)		0.40 / 0.27	0.45 / 0.30	0.80 / 0.54	1.05 / 0.71	1.05 / 0.71
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)		0.26 / 0.18	0.26 / 0.18	0.26 / 0.18	0.46 / 0.32	0.46 / 0.32



## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect Air Purifying Device

#### MAC-1200RC-E

Natural white remote controller holder

### Outdoor Units

#### MAC-883SG

Air outlet guide for MUZ-HR25/35VF

#### MAC-881SG

Air outlet guide for MUZ-HR50VF

#### MAC-882SG

Air outlet guide for MUZ-HR60/71VF

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

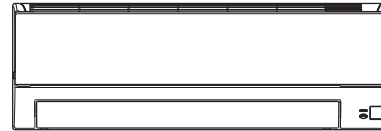
#### MELCORETAIL MINI

Retail control and input / output interface

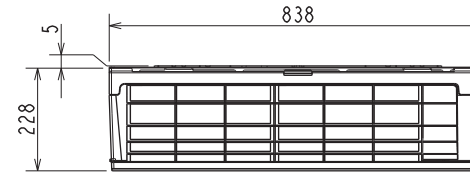
## Product Dimensions

MSZ-HR25/35/50VF

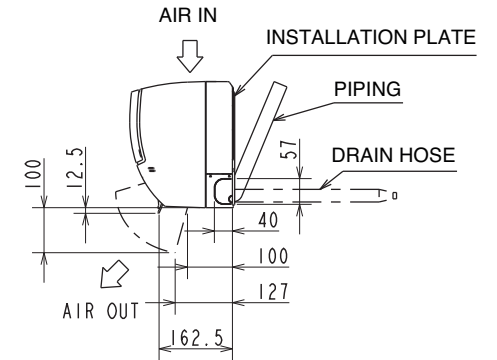
Front View



Upper View



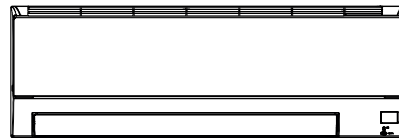
Side View



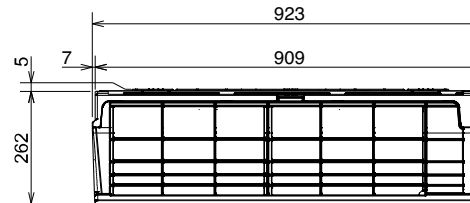
## Product Dimensions

MSZ-HR60/71VF

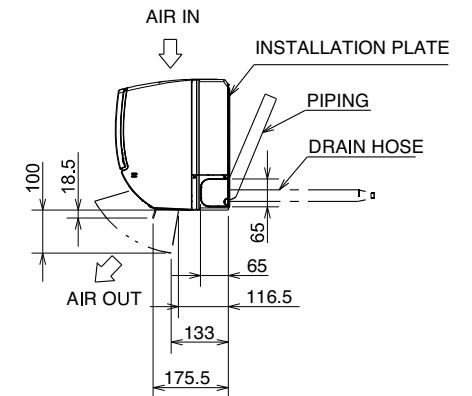
Front View



Upper View



Side View



# MFZ-KT R32

## Floor Mounted System

### Inverter Heat Pump

The **MFZ-KT** floor mounted system is extremely versatile and is designed for wall-attached installation at floor level. Lightweight and compact in design, this unit is ideal for applications such as conservatories, garden rooms and small offices where wall space is limited.

### Key Features & Benefits

- Lightweight, floor mounted design for easy installation
- Auto-swing vane feature provides a natural and comfortable airflow
- Controller with built-in timer
- Optional Wi-Fi interface enabling control & monitoring via the MELCloud app

MFZ-KT - INDOOR UNITS		MFZ-KT25VG	MFZ-KT35VG	MFZ-KT50VG
CAPACITY (kW)	Heating (nominal)	3.4 (1.3-4.2)	4.3 (1.1-5.0)	6.0 (1.5-7.2)
	Cooling (nominal)	2.5 (1.6-3.2)	3.5 (0.9-3.9)	5.0 (1.2-5.6)
	Heating (UK)	2.79 (1.07-3.44)	3.53 (0.9-4.10)	4.92 (1.23-5.90)
	Cooling (UK)	2.45 (1.57-3.14)	3.43 (0.88-3.82)	4.90 (1.18-5.49)
SHF (nominal)		0.79	0.70	0.72
COP / EER (nominal)		3.74 / 4.03	3.41 / 3.30	3.23 / 3.23
SCOP / SEER (BS EN14825)		4.2 / 6.5	4.4 / 6.6	4.2 / 6.8
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Heating - Silent-Lo-Mi-Hi-SHi	58-67-93-122-162	58-67-93-122-162	100-128-157-193-233
	Cooling - Silent-Lo-Mi-Hi-SHi	65-80-108-130-148	65-80-108-130-148	93-112-143-173-205
PIPE SIZE mm (in)	Gas	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling - Silent-Lo-Mi-Hi-SHi	19-23-30-37-44 / 19-24-31-37-41	19-23-30-37-44 / 19-24-31-37-41	29-35-40-44-49 / 28-32-37-42-48
SOUND POWER LEVEL (dBA)		54	54	60
DIMENSIONS (mm)	Width x Depth x Height	750 x 215 x 600	750 x 215 x 600	750 x 215 x 600
WEIGHT (kg)		14.5	14.5	15
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6
INTERCONNECTING CABLE No. CORES		4	4	4

SUZ-M - OUTDOOR UNITS		SUZ-M25VAR2	SUZ-M35VAR2	SUZ-M50VAR2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	46 / 45	48 / 48	49 / 48
SOUND POWER LEVEL (dBA)	Cooling	59	59	64
WEIGHT (kg)		30	35	41
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714
ELECTRICAL SUPPLY		220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
PHASE		Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	0.80 / 0.71	1.07 / 1.00	1.61 / 1.54
	Heating/Cooling (UK)	0.68 / 0.61	0.91 / 0.86	1.37 / 1.32
STARTING CURRENT (A)		3.7	5.0	8.0
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	3.7 / 3.0 [6.8]	5.0 / 4.1 [8.5]	8.0 / 7.1 [13.5]
FUSE RATING (BS88) - HRC (A)		10	10	20
MAINS CABLE No. CORES		3	3	3
MAX PIPE LENGTH (m)		20	20	30
MAX HEIGHT DIFFERENCE (m)		12	12	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T) - R32 (GWP 675) - 7M		0.65 / 0.44	0.90 / 0.61	1.20 / 0.81
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T) - R32 (GWP 675)		0.26 / 0.18	0.26 / 0.18	0.46 / 0.31



## Accessories

### Outdoor Units

#### MAC-881SG

Air outlet guide for SUZ-M25/35VAR2

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

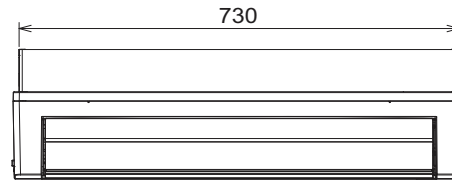
#### MELCORETAIL MINI

Retail control and input / output interface

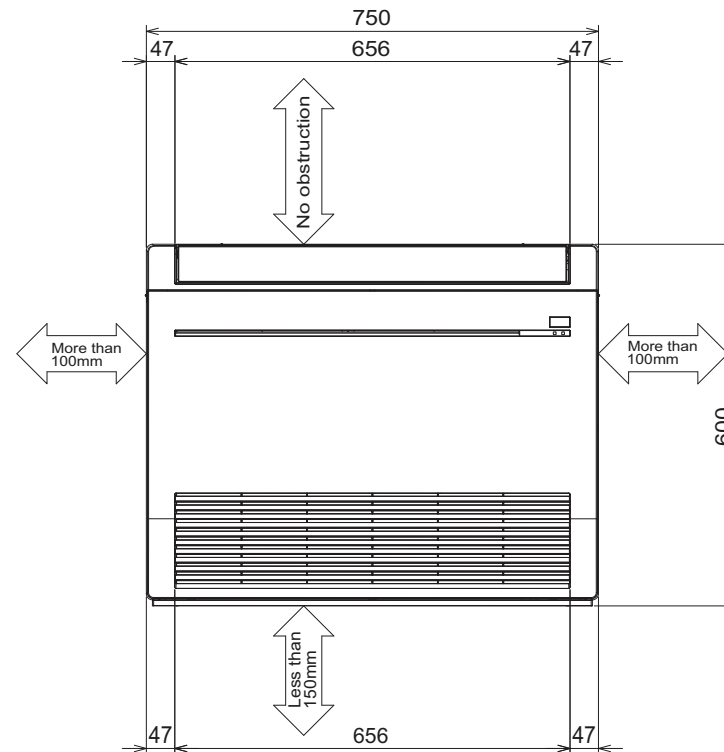
## Product Dimensions

MFZ-KT25/35/50VG

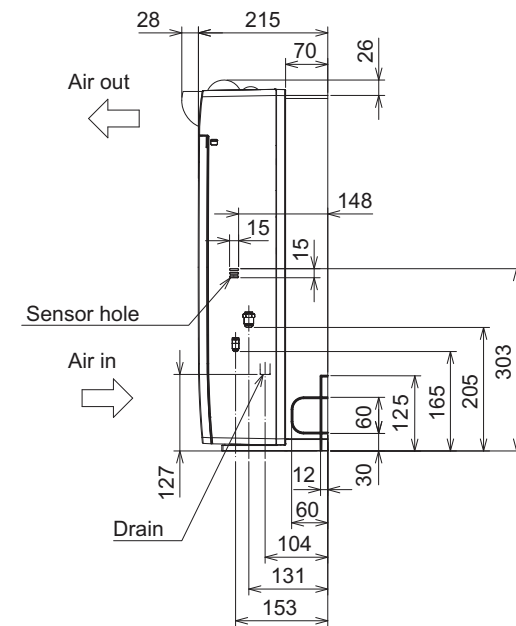
Upper View



Front View

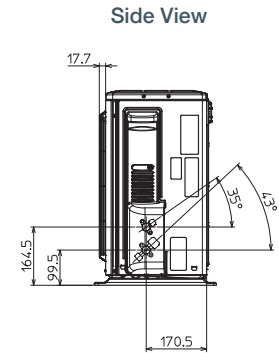
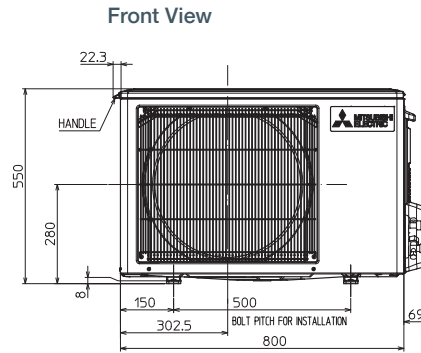
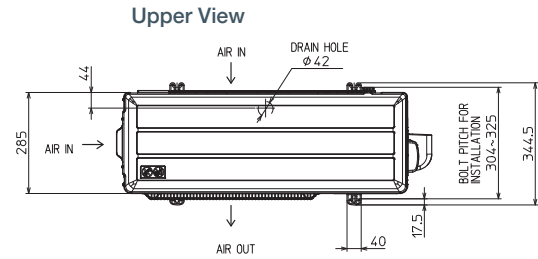


Side View

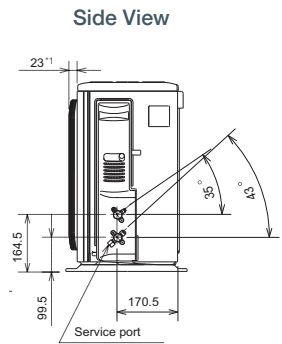
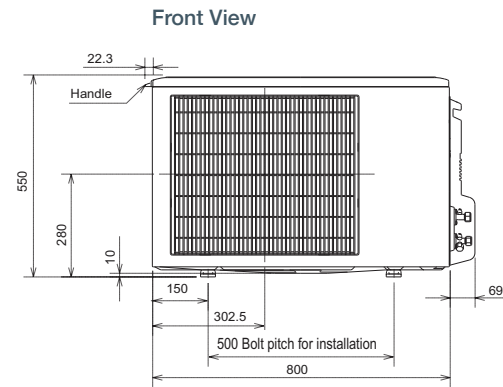
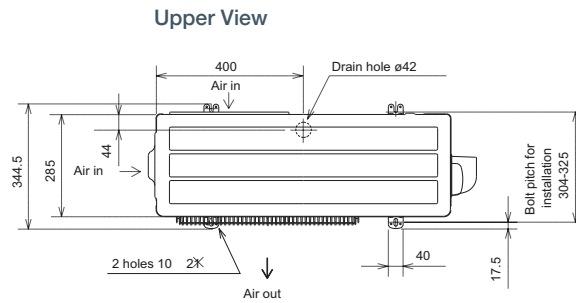


# Outdoor Units

**Product Dimensions** MUZ-LN25/35VG2, MUZ-AP20/25/35/42VG, MUZ-HR50VF

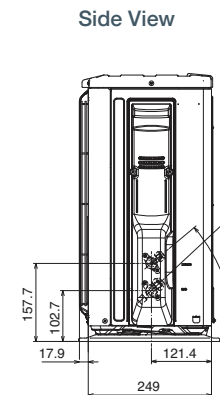
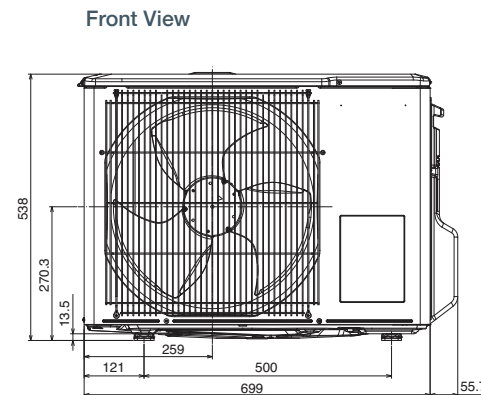
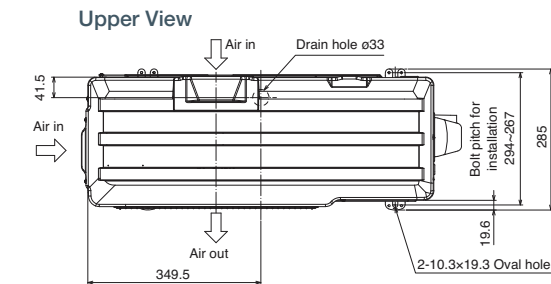


**Product Dimensions** MUZ-EF25/35VG, SUZ-M25/35VAR2



\*1 17mm for SUZ-M25/35VAR2

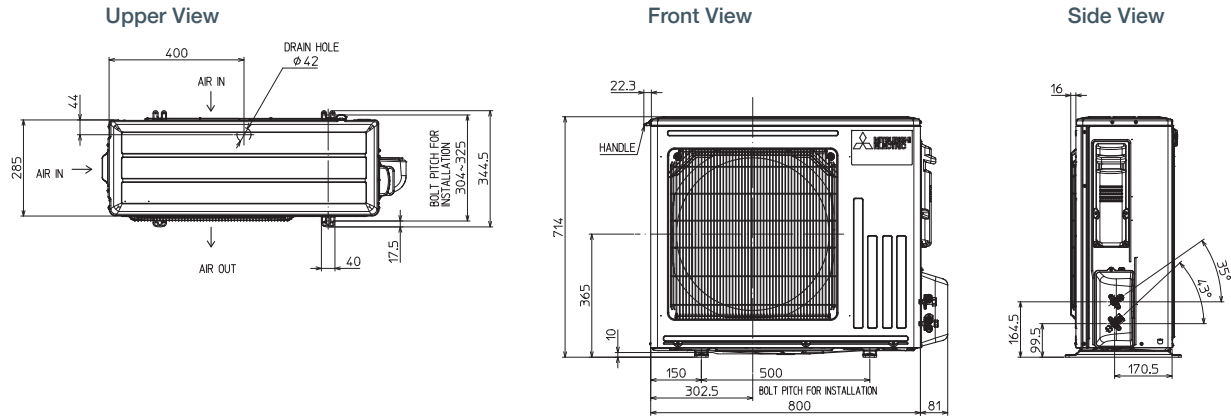
**Product Dimensions** MUZ-HR25/35VF



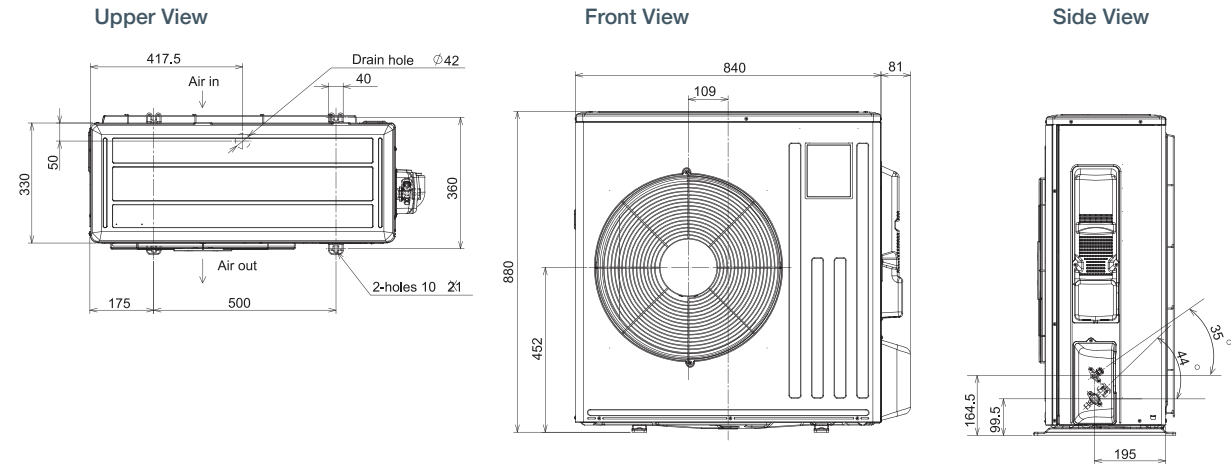
# Outdoor Units



**Product Dimensions** MUZ-LN50VG2, MUZ-EF50VG, MUZ-AP50/60VG, MUZ-HR60/71VF, SUZ-M50VAR2



**Product Dimensions** MUZ-LN60VG2, MUZ-AP71VG



# M Series Accessories / Optional Extras

INDOOR UNITS	DESCRIPTION
MAC-100FT-E	Plasma Quad Connect air purifying device for MSZ-EF, MSZ-AP, MSZ-HR
MAC-1300RC-E	Natural white remote controller holder for MSZ-LN, MSZ-EF, MSZ-AP
MAC-1200RC-E	Natural white remote controller holder for MSZ-HR

OUTDOOR UNITS	DESCRIPTION
MAC-881SG	Air outlet guide for MUZ-LN25/35VG2, MUZ-EF25/35VG, MUZ-AP20/25/35/42VG, MUZ-HR50VF, SUZ-M25/35VAR2
MAC-883SG	Air outlet guide for MUZ-HR25/35VF
MAC-882SG	Air outlet guide for MUZ-LN50VG2, MUZ-EF50VG, MUZ-AP50/60VG, MUZ-HR60/71VF, SUZ-M50VAR2
MAC-886SG	Air outlet guide for MUZ-LN60VG2, MUZ-AP71VG

SYSTEM CONTROL UNITS	DESCRIPTION
PAR-41MAA	Standard wired remote controller for MSZ-LN, MSZ-EF, MSZ-AP, MSZ-HR, MFZ-KT
MAC-334IF-E	Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output. Now includes a heating interlock mode
MAC-497IF-E	Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output
MAC-587IF-E	Interface for connection to Wi-Fi MELCloud service (Included as standard on MSZ-LN, MSZ-EF and MSZ-AP models)
PAR-CT01MAA-SB	Touch screen wired remote controller
PAR-CT01MAA-PB	Touch screen wired remote controller (Premium finish)
MELCOBEMS MINI	Modbus/BACnet MSTP CN105 adaptor
MELCORETAIL MINI	Retail control and input/output interface

# Mr Slim

Packaged Split-System Air Conditioning







# Contents

<b>PLA-ZM</b> R32 4-Way Blow Ceiling Cassette System, Power Inverter Heat Pump	<b>1.3.6</b>
<b>PLA-M</b> R32 4-Way Blow Ceiling Cassette System, Standard Inverter Heat Pump	<b>1.3.10</b>
<b>PLA-SM</b> R32 4-Way Blow Ceiling Cassette System, Inverter Heat Pump	<b>1.3.14</b>
<b>SLZ-M</b> R32 600x600 4-Way Blow Ceiling Cassette System, Standard Inverter Heat Pump	<b>1.3.16</b>
<b>PKA-M</b> R32 Wall Mounted System, Power Inverter Heat Pump	<b>1.3.18</b>
<b>PKA-M</b> R32 Wall Mounted System, Standard Inverter Heat Pump	<b>1.3.20</b>
<b>PEAD-M</b> R32 Ceiling Concealed Ducted System, Power Inverter Heat Pump	<b>1.3.22</b>
<b>PEAD-M</b> R32 Ceiling Concealed Ducted System, Standard Inverter Heat Pump	<b>1.3.26</b>
<b>PEA-M</b> R32 Large Capacity Ceiling Concealed Ducted System, Power Inverter Heat Pump	<b>1.3.30</b>
<b>PEA-M</b> R32 Large Capacity Ceiling Concealed Ducted System, Standard Inverter Heat Pump	<b>1.3.32</b>
<b>SEZ-M</b> R32 Ceiling Concealed Ducted System, Standard Inverter Heat Pump	<b>1.3.34</b>
<b>PCA-M</b> R32 Ceiling Suspended System, Power Inverter Heat Pump	<b>1.3.36</b>
<b>PCA-M</b> R32 Ceiling Suspended System, Standard Inverter Heat Pump	<b>1.3.40</b>
<b>PCA-M-HA2</b> R32 Stainless Steel Ceiling Suspended System, Power Inverter Heat Pump	<b>1.3.44</b>
<b>PSA-M</b> R32 Floor Standing System, Power Inverter Heat Pump	<b>1.3.46</b>
<b>HP DX 2.0</b> R32 Air Curtain System, Power Inverter Heat Pump	<b>1.3.48</b>
<b>PAC-IF</b> R32 / R410A Air Handling Unit Controller	<b>1.3.50</b>
<b>R32 Mr Slim Twin, Triple &amp; Quadruple Multi-Split Systems</b>	<b>1.3.52</b>
<b>Outdoor Units</b> Product Dimensions	<b>1.3.58</b>
<b>Accessories / Optional Extras</b>	<b>1.3.60</b>

## The Versatile Mr Slim Range

Suitable to cool or heat a huge variety of applications, such as offices and retail units, our Mr Slim range is one of Britain's best selling air conditioning split-systems. Now available utilising lower GWP R32 refrigerant - combine the efficiency with the complete versatility that this range has to offer and the possibilities are virtually infinite.

# R32



### R32 Power Inverter

- Top of the range Power Inverter technology optimised for high seasonal efficiencies and increased pipe lengths
- Available as single and three phase outdoor units
- 12 sizes available from 3.5-22kW
- Available with four way blow cassettes, ceiling concealed ducted, wall mounted, ceiling suspended or floor standing indoor units



### R32 Standard Inverter

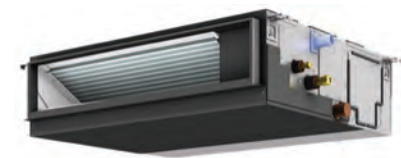
- High quality, cost effective Standard Inverter
- Available as single and three phase outdoor units
- 13 sizes available from 2.5-22kW
- Available with four way blow cassettes, ceiling concealed ducted, wall mounted or ceiling suspended indoor units

**INVERTER**

### R32 Inverter

- Cost effective
- Available as single and three phase outdoor units
- Available with four way blow cassettes from 7.1-14kW

**INVERTER**



Indoor Model	Range	kW	1.5*1	2.5	3.5	5.0	6.0	7.1	10.0	12.5	14.0	19.0	22.0
4-Way Blow Ceiling Cassette	PLA-ZM/M <b>R32</b>				●	●	●	●	●	●	●		
	PLA-SM <b>R32</b>							●	●	●	●		
	SLZ-M (600x600) <b>R32</b>		●	●	●	●	●						
Wall Mounted	PKA-M <b>R32</b>				●	●	●	●	●				
Ceiling Concealed Ducted	PEAD-M <b>R32</b>				●	●	●	●	●	●	●		
	PEA-M <b>R32</b>											●	●
	SEZ-M <b>R32</b>			●	●	●	●	●					
Ceiling Suspended	PCA-M <b>R32</b>					●	●	●	●	●	●		
	PCA-M-HA2 <b>R32</b>							●					
Floor Standing	PSA-M <b>R32</b>							●	●	●	●		
Air Curtain	HP DXE 2.0*2 <b>R32</b>							●		●	●	●	

\*1 Multi-Split only. \*2 Available as recessed or exposed versions.

# PLA-ZM R32 4-Way Blow Ceiling Cassette System

## Power Inverter Heat Pump (Single Phase)

The **PLA-ZM Power Inverter** range is a ceiling cassette system that blends a host of outstanding features with a sophisticated, streamlined design. Offering high seasonal efficiency, advanced control options and extended pipe runs, this range is extremely flexible, and also provides energy monitoring (via PAR-41MAA controller) as standard.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100-140), increasing application capability
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D Total Airflow casement to allow 360° directional delivery of air (requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D i-see sensor grille provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures (PLP-6EAE)
- Optional filter-lowering operation, down to 4m (PLP-6EAJ)
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PLA-ZM - INDOOR UNITS		PLA-ZM35EA2	PLA-ZM50EA2	PLA-ZM60EA2	PLA-ZM71EA2	PLA-ZM100EA2	PLA-ZM125EA2	PLA-ZM140EA2
CAPACITY (kW)	Heating (nominal)	4.1 (1.6-5.2)	6.0 (2.5-7.3)	7.0 (2.8-8.2)	8.0 (3.5-10.2)	11.2 (4.5-14.0)	14.0 (5.0-16.0)	16.0 (5.7-18.0)
	Cooling (nominal)	3.6 (1.6-4.5)	5.0 (2.3-5.6)	6.1 (2.7-6.5)	7.1 (3.3-8.1)	9.5 (4.9-11.4)	12.5 (5.5-14.0)	13.4 (6.2-15.0)
	Heating (UK)	3.5 (1.35-4.4)	5.1 (2.15-6.2)	6.0 (2.38-6.97)	6.8 (3.0-8.65)	9.5 (3.85-11.9)	11.9 (4.25-13.6)	13.6 (4.85-15.3)
	Cooling (UK)	3.3 (1.45-4.15)	4.6 (2.1-5.15)	5.6 (2.48-5.98)	6.55 (3.05-7.45)	9.2 (4.5-10.5)	11.5 (5.05-12.9)	12.9 (5.7-14.1)
SHF (nominal)		0.95	0.85	0.77	0.72	0.77	0.70	0.70
COP / EER (nominal)		5.00 / 5.10	4.40 / 4.52	4.10 / 4.20	4.40 / 4.30	4.30 / 4.60	3.81 / 3.70	3.71 / 3.55
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.70 / 7.50	4.90 / 7.60	4.60 / 7.20	4.80 / 7.60	4.80 / 7.70	4.70 (185.1%) / 7.40 (303.3%)	4.60 (181.1%) / 7.00 (285.7%)
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling	A++ / A++	A++ / A++	A++ / A++	A++ / A++	A++ / A++	-	-
AIRFLOW (l/s)	Lo-Mi-Mi2-Hi	183-217-250-267	200-233-267-300	200-233-267-300	283-317-350-383	317-367-417-467	350-400-433-483	400-433-483-533
PIPE SIZE MM (in)	Gas/Liquid	12.7 (1/2") / 6.35 (1/4")	12.7 (1/2") / 6.35 (1/4")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Mi2-Hi	26-28-29-31	27-29-31-32	27-29-31-32	28-30-33-36	31-34-37-40	33-36-39-41	36-39-42-44
SOUND POWER LEVEL (dBA)		51	54	54	57	61	62	65
DIMENSIONS (mm)	Width x Depth x Height (Grille)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)
WEIGHT (kg)	Unit / Grille	21 / 5	21 / 5	21 / 5	24 / 5	26 / 5	26 / 5	26 / 5
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6
INTERCONNECTING CABLE NO. CORES		4	4	4	4	4	4	4
GRILLE REFERENCE		PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E

PUZ-ZM - OUTDOOR UNITS		PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100VKA2	PUZ-ZM125VKA2	PUZ-ZM140VKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	46 / 44	46 / 44	49 / 47	49 / 47	51 / 49	52 / 50	52 / 50
	Cooling	65	65	67	67	69	70	70
SOUND POWER LEVEL (dBA)		46	46	70	70	116	116	118
WEIGHT (kg)		46	46	70	70	116	116	118
DIMENSIONS (mm)	Width x Depth x Height	809 x 300 x 630	809 x 300 x 630	950 x 330 + 25 x 943	950 x 330 + 25 x 943	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	0.820 / 0.705	1.363 / 1.106	1.707 / 1.452	1.818 / 1.651	2.604 / 2.065	3.674 / 3.378	4.312 / 3.772
	Heating/Cooling (UK)	0.73 / 0.59	1.21 / 0.94	1.43 / 1.15	1.61 / 1.39	2.09 / 1.77	3.27 / 2.87	3.83 / 3.15
STARTING CURRENT (A)		4.3	4.3	5.3	5.3	10.7	13.2	13.2
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	3.89 / 3.51 [13.2]	6.05 / 5.00 [13.2]	7.39 / 6.31 [19.2]	7.79 / 7.06 [19.3]	11.25 / 8.97 [27.0]	15.77 / 14.53 [27.0]	18.41 / 15.88 [28.7]
FUSE RATING (BS88) - HRC (A)		16	16	25	25	32	32	40
MAINS CABLE NO. CORES		3	3	3	3	3	3	3
MAX PIPE LENGTH (m)		50	50	55	55	100	100	100
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.00 / 1.35 (30m)	2.00 / 1.35 (30m)	2.80 / 1.89 (30m)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	0.30 / 0.20	0.30 / 0.20	0.80 / 0.54	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62



## Accessories

### Indoor Units

- PLP-6EA**  
Grille for PLA-ZM35-140EA2
- PLP-6EAE**  
3D i-see sensor grille for PLA-ZM35-140EA2
- PLP-6EAJ**  
Self elevating grille for PLA-ZM35-140EA2
- PAC-SE1ME-E**  
Corner panel with i-see sensor for PLA-ZM35-140EA2
- PAR-SE9FA-E**  
Corner panel with signal receiver for PLA-ZM35-140EA2
- PAC-SJ37SP-E**  
Shutter plate for PLA-ZM35-140EA2
- PAC-SJ41TM-E**  
Multi-function casement for PLA-ZM35-140EA2
- PLP-U160ELR-E**  
3D Total Airflow casement for PLA-ZM35-140EA2
- PAC-SK36HK-E**  
Insulation kit (14°C cooling) for PLA-ZM35-140EA2
- PAC-SJ39HR-E**  
Power supply kit for PLA-ZM35-140EA2
- PAR-SL101A-E**  
Wireless remote controller for PLA-ZM35-140EA2
- PAC-SH59KF-E**  
High efficiency filter for PLA-ZM35-140EA2
- PAC-SK53KF-E**  
V Blocking air purifying filter for PLA-ZM35-140EA2
- PAC-SK51FT-E**  
Plasma Quad Connect air purifying device for PLA-ZM35-140EA2

### Outdoor Units

- PAC-SJ07SG**  
Air outlet guide for PUZ-ZM35-50VKA2
- PAC-SG59SG**  
Air outlet guide for PUZ-ZM60-71VHA2
- PAC-SH96SG**  
Air outlet guide for PUZ-ZM100-140VKA2
- PAC-SJ71FM-E**  
30Pa outdoor fan motor for PUZ-ZM100-140VKA2

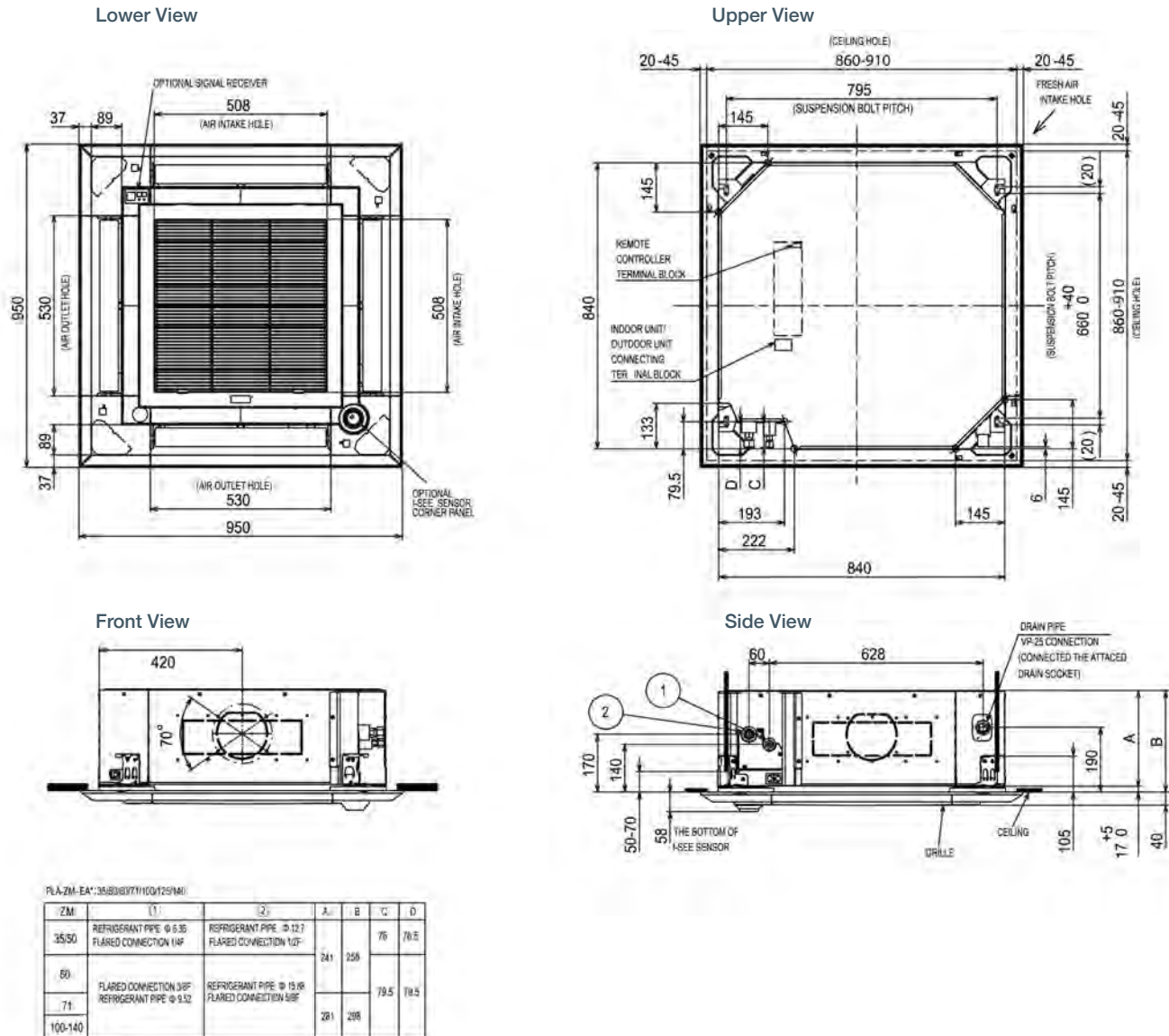
### System Control Units

- PAC-SA89TA**  
Remote on/off adaptor (3 wire adaptor)
- PAC-SA88HA**  
Run/fault adaptor (5 wire adaptor)
- PAC-SE41TS-E**  
Remote sensor
- PAR-CT01MAA-SB/PB**  
Touch screen wired remote controller (PB=Premium Finish)
- PAR-41MAA**  
Standard wired remote controller
- MAC-5871F-E**  
Interface for connection to Wi-Fi MELCloud service
- MELCOBEMS MINI**  
Modbus and BACnet MSTP CN105 adaptor
- MELCORETAIL MINI**  
Retail control and input / output interface
- PAC-SK15MA-E**  
M-NET adaptor for size 35 and 50
- PAC-SJ95MA**  
M-NET adaptor for size 60 to 140

Note: Please see page 1.3.60 for the full range of accessories.

## Product Dimensions

PLA-ZM35/50/60/71/100/125/140EA2



# PLA-ZM R32 4-Way Blow Ceiling Cassette System

## Power Inverter Heat Pump (Three Phase)



The **PLA-ZM Power Inverter** range is a ceiling cassette system that blends a host of outstanding features with a sophisticated, streamlined design. Offering high seasonal efficiency, advanced control options and extended pipe runs, this range is extremely flexible, and also provides energy monitoring (via PAR-41MAA controller) as standard.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run, increasing application capability
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D Total Airflow casement to allow 360° directional delivery of air (requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D i-see sensor grille provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures (PLP-6EAE)
- Optional filter-lowering operation, down to 4m (PLP-6EAJ)
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PLA-ZM - INDOOR UNITS		PLA-ZM100EA2	PLA-ZM125EA2	PLA-ZM140EA2
CAPACITY (kW)	Heating (nominal)	11.2 (4.5-14.0)	14.0 (5.0-16.0)	16.0 (5.7-18.0)
	Cooling (nominal)	9.5 (4.9-11.4)	12.5 (5.5-14.0)	13.4 (6.2-15.0)
	Heating (UK)	9.5 (3.85-11.9)	11.9 (4.25-13.6)	13.6 (4.85-15.3)
	Cooling (UK)	9.2 (4.5-10.5)	11.5 (5.05-12.9)	12.9 (5.7-14.1)
SHF (nominal)		0.77	0.70	0.70
COP / EER (nominal)		4.30 / 4.60	3.81 / 3.70	3.71 / 3.55
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.80 / 7.50	4.70 (185.1%) / 7.20 (301.1%)	4.60 (181.1%) / 6.90 (283.9%)
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling	A++ / A++	-	-
AIRFLOW (l/s)	Lo-Mi-Mi2-Hi	317-367-417-467	350-400-433-483	400-433-483-533
PIPE SIZE MM (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Mi2-Hi	31-34-37-40	33-36-39-41	36-39-42-44
SOUND POWER LEVEL (dBA)		61	62	65
DIMENSIONS (mm)	Width x Depth x Height (Grille)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)
WEIGHT (kg)	Unit / Grille	26 / 5	26 / 5	26 / 5
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6
INTERCONNECTING CABLE NO. CORES		4	4	4
GRILLE REFERENCE		PLP-6EA	PLP-6EA	PLP-6EA
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E
PUZ-ZM - OUTDOOR UNITS		PUZ-ZM100YKA2 <sup>③</sup>	PUZ-ZM125YKA2 <sup>③</sup>	PUZ-ZM140YKA2 <sup>③</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	51 / 49	52 / 50	52 / 50
SOUND POWER LEVEL (dBA)	Cooling	69	70	70
WEIGHT (kg)		123	125	131
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	2.604 / 2.065	3.674 / 3.378	4.312 / 3.772
	Heating/Cooling (UK)	2.09 / 1.77	3.27 / 2.87	3.83 / 3.15
STARTING CURRENT (A)		2.6	3.3	3.3
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	3.75 / 2.96 [8.5]	5.32 / 4.89 [10.0]	6.23 / 5.37 [13.7]
FUSE RATING (BS88) - HRC (A)		16	16	16
MAINS CABLE NO. CORES		5	5	5
MAX PIPE LENGTH (m)		100	100	100
MAX HEIGHT DIFFERENCE (m)		30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) - 40m	3.60 / 2.43	3.60 / 2.43	3.60 / 2.43
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62

③ Three Phase

## Accessories

### Indoor Units

#### PLP-6EA

Grille for PLA-ZM100-140EA2

#### PLP-6EAE

3D i-see sensor grille for PLA-ZM100-140EA2

#### PLP-6EAJ

Self elevating grille for PLA-ZM100-140EA2

#### PAC-SE1ME-E

Corner panel with i-see sensor for PLA-ZM100-140EA2

#### PAR-SE9FA-E

Corner panel with signal receiver for PLA-ZM100-140EA2

#### PAC-SJ37SP-E

Shutter plate for PLA-ZM100-140EA2

#### PAC-SJ41TM-E

Multi-function casement for PLA-ZM100-140EA2

#### PLP-U160ELR-E

3D Total Airflow casement for PLA-ZM100-140EA2

#### PAC-SK36HK-E

Insulation kit (14°C cooling) for PLA-ZM100-140EA2

#### PAC-SJ39HR-E

Power supply kit for PLA-ZM100-140EA2

#### PAR-SL101A-E

Wireless remote controller for PLA-ZM100-140EA2

#### PAC-SH59KF-E

High efficiency filter for PLA-ZM100-140EA2

#### PAC-SK53KF-E

V Blocking air purifying filter for PLA-ZM100-140EA2

#### PAC-SK51FT-E

Plasma Quad Connect air purifying device for PLA-ZM100-140EA2

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-ZM100-140YKA2

#### PAC-SJ71FM-E

30Pa outdoor fan motor for PUZ-ZM100-140YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-5871F-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Retail control and input / output interface

#### MELCORETAIL MINI

Retail control and input / output interface

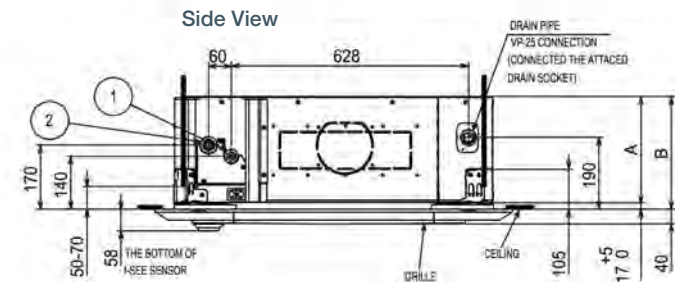
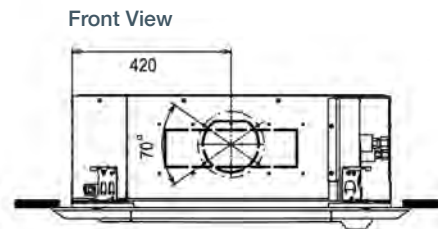
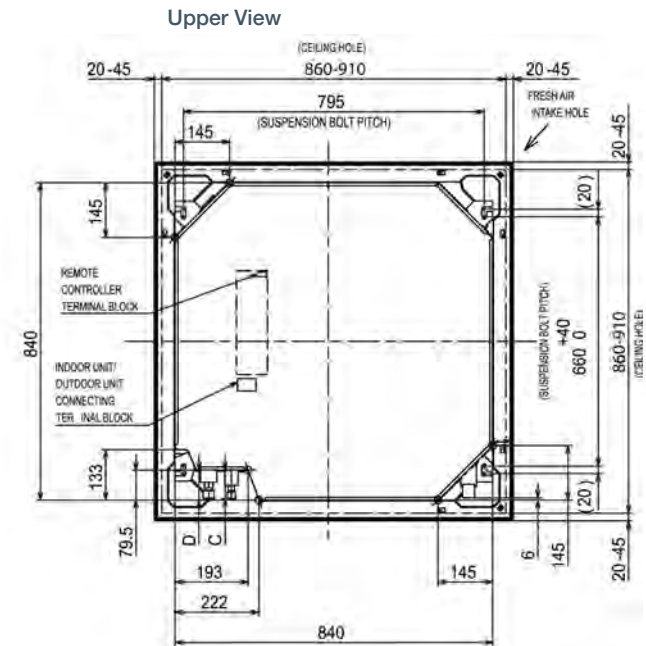
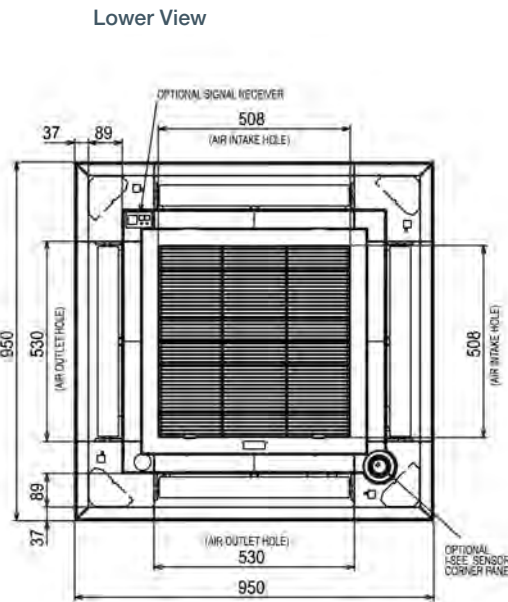
#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

Note: Please see page 1.3.60 for the full range of accessories.

## Product Dimensions

PLA-ZM100/125/140EA2



PLA-ZM-EA\*: 100/125/140

ZM	(1)	(2)	A	B	C	D
100-140	FLARED CONNECTION 3/8" REFRIGERANT PIPE φ 9.52	REFRIGERANT PIPE φ 12.50 FLARED CONNECTION 3/8"	261	268	79.5	79.5

# PLA-M R32 4-Way Blow Ceiling Cassette System

## Standard Inverter Heat Pump (Single Phase)

The cost effective **PLA-M** Standard Inverter range is a ceiling cassette system that blends a host of outstanding features with a sophisticated, streamlined design. Offering advanced control options and quiet operation, this range provides extreme flexibility and ease of installation, alongside energy monitoring (via PAR-41MAA controller) as standard.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features (size 100-140)
- 14°C set point option; ideal for applications where a specialist ambient condition is required (size 100-140; requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D Total Airflow casement to allow 360° directional delivery of air (size 100-140; requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D i-see sensor grille provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures (PLP-6EAE)
- Optional filter-lowering operation, down to 4m (PLP-6EAJ)
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PLA-M - INDOOR UNITS		PLA-M35EA2	PLA-M50EA2	PLA-M60EA2	PLA-M71EA2	PLA-M100EA2	PLA-M125EA2	PLA-M140EA2
CAPACITY (kW)	Heating (nominal)	4.1 (1.0-5.0)	6.0 (1.5-7.2)	7.0 (1.6-8.0)	8.0 (2.0-10.2)	11.2 (2.8-12.5)	13.5 (4.1-15.0)	15.0 (4.2-15.8)
	Cooling (nominal)	3.6 (0.8-3.9)	5.5 (1.2-5.6)	6.1 (1.6-6.3)	7.1 (2.2-8.1)	9.5 (4.0-10.6)	12.1 (5.8-13.0)	13.4 (5.8-14.1)
	Heating (UK)	3.49 (0.85-4.26)	5.11 (1.28-6.13)	6.13 (1.36-6.81)	6.81 (1.70-8.68)	9.63 (2.41-10.75)	11.49 (3.49-12.77)	12.77 (3.57-13.45)
	Cooling (UK)	3.31 (0.74-3.60)	5.06 (1.10-5.15)	5.61 (1.47-5.80)	6.53 (2.02-7.45)	8.65 (3.64 - 9.65)	11.01 (5.28-11.83)	12.19 (5.28-12.83)
SHF (nominal)		0.91	0.77	0.79	0.74	0.77	0.72	0.70
COP / EER (nominal)		4.20 / 4.00	3.46 / 3.40	3.80 / 3.30	3.61 / 3.70	3.71 / 3.50	3.71 / 3.01	3.41 / 2.70
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.70 / 7.40	4.10 / 6.70	4.40 / 6.60	4.50 / 7.50	4.60 / 7.00	4.1 (162%) / 5.6 (231.9%)	4.1 (161.3%) / 5.7 (232.7%)
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A++ / A++	A+ / A++	A+ / A++	A+ / A++	A++ / A++	A+ / A+	A+ / A+
AIRFLOW (l/s)	Lo-Mi-Mi2-Hi	183-217-250-267	200-233-317-350	200-233-317-350	233-283-317-350	317-383-433-483	350-417-467-517	400-433-483-533
PIPE SIZE mm (in)	Gas/Liquid	9.52 (3/8") / 6.35 (1/4")	12.7 (1/2") / 6.35 (1/4")	15.88 (5/8") / 6.35 (1/4")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Mi2-Hi	26-28-29-31	27-29-31-32	27-29-31-32	28-30-32-34	31-34-37-40	33-37-41-44	36-39-42-44
SOUND POWER LEVEL (dBA)		51	54	54	56	61	65	65
DIMENSIONS (mm)	Width x Depth x Height (Grille)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)
WEIGHT (kg)	Unit / Panel	19 / 5	19 / 5	21 / 5	21 / 5	24 / 5	26 / 5	26 / 5
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4	4	4	4	4
GRILLE REFERENCE		PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E

SUZ-M / PUZ-M - OUTDOOR UNITS		SUZ-M35VAR2	SUZ-M50VAR2	SUZ-M60VAR2	SUZ-M71VAR1	PUZ-M100VKA2	PUZ-M125VKA2	PUZ-M140VKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	48 / 48	48 / 49	49 / 51	49 / 51	51 / 54	54 / 56	55 / 57
SOUND POWER LEVEL (dBA)	Cooling	59	64	65	66	70	72	73
WEIGHT (kg)		35	41	54	55	76	84	84
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 714	840 x 330 x 880	840 x 330 x 880	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	0.97 / 0.90	1.73 / 1.61	1.84 / 1.84	2.21 / 1.91	3.01 / 2.71	3.63 / 4.01	4.39 / 4.96
	Heating/Cooling (UK)	0.83 / 0.77	1.47 / 1.39	1.56 / 1.58	1.88 / 1.64	2.71 / 2.50	3.27 / 3.33	3.59 / 4.12
STARTING CURRENT (A)		5.0	5.7	7.6	10.0	7.1	2.9	2.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	5.0 / 4.1 [8.5]	8.0 / 7.1 [13.5]	9.3 / 8.4 [14.8]	9.5 / 9.1 [14.8]	13.0 / 11.7 [20]	15.6 / 17.4 [26.5]	19.0 / 21.5 [30]
FUSE RATING (BS88) - HRC (A)		10	20	20	20	32	32	40
MAINS CABLE No. Cores		3	3	3	3	3	3	3
MAX PIPE LENGTH (m)		20	30	30	30	55	65	65
MAX HEIGHT DIFFERENCE (m)		12	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	0.90 / 0.61	1.20 / 0.81	1.25 / 0.84	1.45 / 0.98	3.10 / 2.09	3.60 / 2.43	3.60 / 2.43
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	1.16 / 0.78	1.66 / 1.12	1.71 / 1.15	2.37 / 1.80	4.10 / 2.77	5.00 / 3.38	5.00 / 3.38

Note: No duty/standby operation on SUZ-M35/50/60/71VAR2/1.





## Accessories

### Indoor Units

- PLP-6EA**  
Grille for PLA-M35-140EA2
- PLP-6EAE**  
3D i-see sensor grille for PLA-M35-140EA2
- PLP-6EAJ**  
Self elevating grille for PLA-M35-140EA2
- PAC-SE1ME-E**  
Corner panel with i-see sensor for PLA-M35-140EA2
- PAR-SE9FA-E**  
Corner panel with signal receiver for PLA-M35-140EA2
- PAC-SJ37SP-E**  
Shutter plate for PLA-M35-140EA2
- PAC-SJ41TM-E**  
Multi-function casement for PLA-M35-140EA2
- PLP-U160ELR-E**  
3D Total Airflow casement for PLA-M100-140EA2
- PAC-SK36HK-E**  
Insulation kit (14°C cooling) for PLA-M100-140EA2
- PAC-SJ39HR-E**  
Power supply kit for PLA-M35-140EA2
- PAR-SL101A-E**  
Wireless remote controller for PLA-M35-140EA2
- PAC-SH59KF-E**  
High efficiency filter for PLA-M35-140EA2
- PAC-SK53KF-E**  
V Blocking air purifying filter for PLA-M35-140EA2
- PAC-SK51FT-E**  
Plasma Quad Connect air purifying device for PLA-M35-140EA2

### Outdoor Units

- MAC-881SG**  
Air outlet guide for SUZ-M35VAR2
- MAC-882SG**  
Air outlet guide for SUZ-M50VAR2
- MAC-886SG**  
Air outlet guide for SUZ-M60VAR2 / SUZ-M71VAR1
- PAC-SH96SG**  
Air outlet guide for PUZ-M100-140VKA2

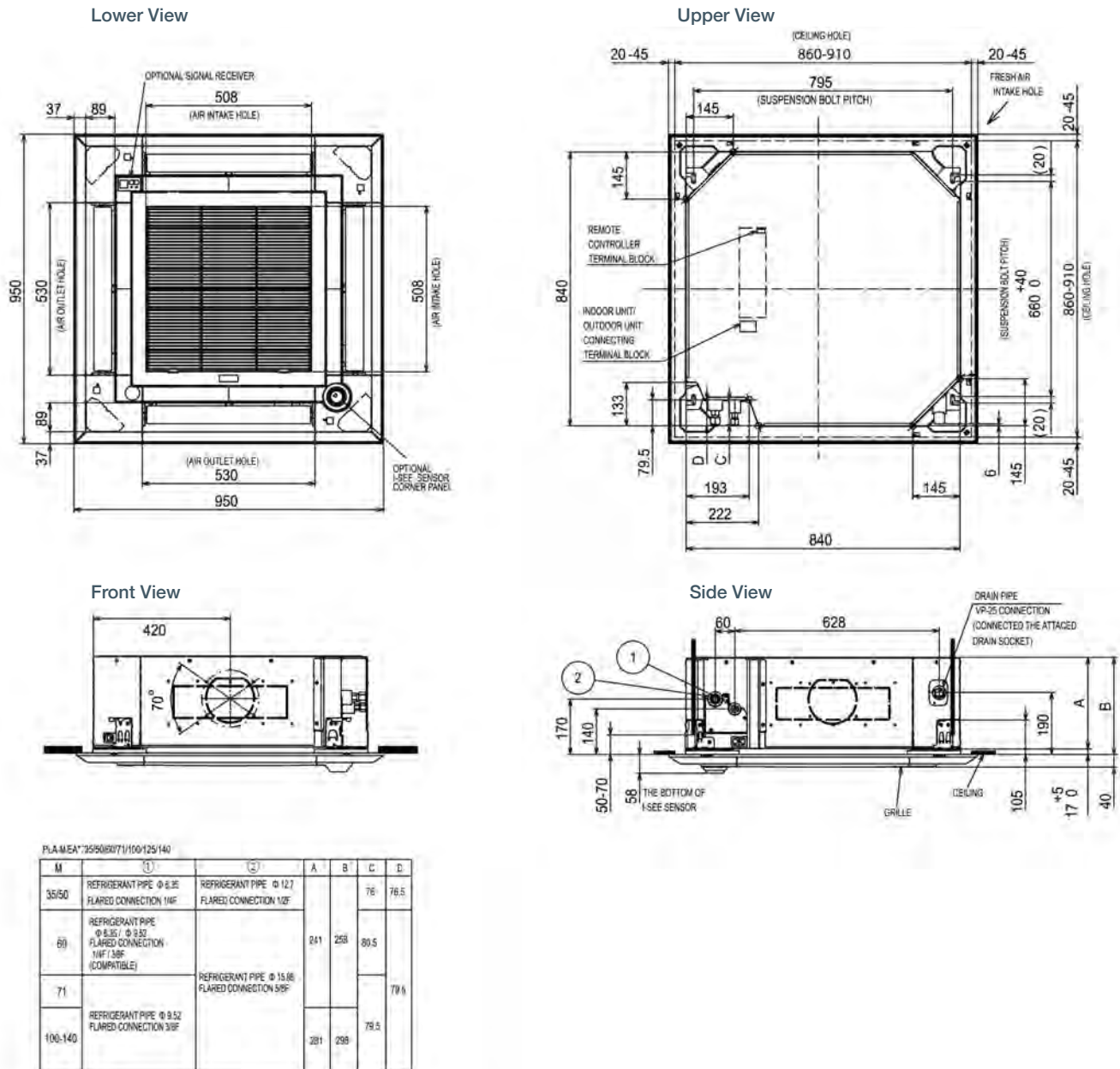
### System Control Units

- PAC-SA89TA**  
Remote on/off adaptor (3 wire adaptor)
- PAC-SA88HA**  
Run/fault adaptor (5 wire adaptor)
- PAC-SE41TS-E**  
Remote sensor
- PAR-CT01MAA-SB/PB**  
Touch screen wired remote controller (PB=Premium Finish)
- PAR-41MAA**  
Standard wired remote controller
- MAC-334IF-E**  
Interface for M-NET, MA remote controller, on/off input and run/fault output
- MAC-497IF-E**  
Interface for MA remote controller, on/off input and run or fault output
- MAC-587IF-E**  
Interface for connection to Wi-Fi MELCloud service
- MELCOBEMS MINI**  
Modbus and BACnet MSTP CN105 adaptor
- MELCORETAIL MINI**  
Retail control and input / output interface
- PAC-SJ95MA**  
M-NET adaptor for size 100 to 140

Note: Please see page 1.3.60 for the full range of accessories.

## Product Dimensions

PLA-M35/50/60/71/100/125/140EA2



# PLA-M R32 4-Way Blow Ceiling Cassette System

## Standard Inverter Heat Pump (Three Phase)



The cost effective **PLA-M Standard Inverter** range is a ceiling cassette system that blends a host of outstanding features with a sophisticated, streamlined design. Offering advanced control options and quiet operation, this range provides extreme flexibility and ease of installation, alongside energy monitoring (via PAR-41MAA controller) as standard.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D Total Airflow casement to allow 360° directional delivery of air (requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D i-see sensor grille provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures (PLP-6EAE)
- Optional filter-lowering operation, down to 4m (PLP-6EAJ)
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PLA-M - INDOOR UNITS		PLA-M100EA2	PLA-M125EA2	PLA-M140EA2
CAPACITY (kW)	Heating (nominal)	11.2 (2.8-12.5)	13.5 (4.1-15.0)	15.0 (4.2-15.8)
	Cooling (nominal)	9.5 (4.0-10.6)	12.1 (5.8-13.0)	13.4 (5.8-14.1)
	Heating (UK)	9.63 (2.41-10.75)	11.49 (3.49-12.77)	12.77 (3.57-13.45)
	Cooling (UK)	8.65 (3.64-9.65)	11.01 (5.28-11.83)	12.19 (5.28-12.83)
SHF (nominal)		0.77	0.72	0.70
COP / EER (nominal)		3.71 / 3.50	3.71 / 3.01	3.41 / 2.70
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.60 / 7.00	4.1 (162%) / 5.6 (231.9%)	4.1 (161.3%) / 5.7 (232.7%)
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A++ / A++	A+ / A+	A+ / A+
AIRFLOW (l/s)	Lo-Mi-Mi2-Hi	317-383-433-483	350-417-467-517	400-433-483-533
PIPE SIZE mm (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Mi2-Hi	31-34-37-40	33-37-41-44	36-39-42-44
SOUND POWER LEVEL (dBA)		61	65	65
DIMENSIONS (mm)	Width x Depth x Height (Grille)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)
WEIGHT (kg)	Unit / Panel	24 / 5	26 / 5	26 / 5
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4
GRILLE REFERENCE		PLP-6EA	PLP-6EA	PLP-6EA
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E
PUZ-M - OUTDOOR UNITS		PUZ-M100YKA2 <sup>③</sup>	PUZ-M125YKA2 <sup>③</sup>	PUZ-M140YKA2 <sup>③</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	51 / 54	54 / 56	55 / 57
SOUND POWER LEVEL (dBA)	Cooling	70	72	73
WEIGHT (kg)		78	85	85
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three	Three
SYSTEM POWER	Heating/Cooling (nominal)	3.01 / 2.71	3.63 / 4.01	4.39 / 4.96
INPUT (kW)	Heating/Cooling (UK)	2.71 / 2.50	3.27 / 3.33	3.59 / 4.12
STARTING CURRENT (A)		3.5	4.9	4.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	4.7 / 4.2 [11.5]	5.6 / 6.3 [11.5]	6.9 / 7.8 [11.5]
FUSE RATING (BS88) - HRC (A)		16	16	16
MAINS CABLE No. Cores		5	5	5
MAX PIPE LENGTH (m)		55	65	65
MAX HEIGHT DIFFERENCE (m)		30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	3.10 / 2.09	3.60 / 2.43	3.60 / 2.43
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	4.10 / 2.77	5.00 / 3.38	5.00 / 3.38

<sup>③</sup> Three Phase

## Accessories

### Indoor Units

#### PLP-6EA

Grille for PLA-M100-140EA2

#### PLP-6EAE

3D i-see sensor grille for PLA-M100-140EA2

#### PLP-6EAJ

Self elevating grille for PLA-M100-140EA2

#### PAC-SE1ME-E

Corner panel with i-see sensor for PLA-M100-140EA2

#### PAR-SE9FA-E

Corner panel with signal receiver for PLA-M100-140EA2

#### PAC-SJ37SP-E

Shutter plate for PLA-M100-140EA2

#### PAC-SJ41TM-E

Multi-function casement for PLA-M100-140EA2

#### PLP-U160ELR-E

3D Total Airflow casement for PLA-M100-140EA2

#### PAC-SK36HK-E

Insulation kit (14°C cooling) for PLA-M100-140EA2

#### PAC-SJ39HR-E

Power supply kit for PLA-M100-140EA2

#### PAR-SL101A-E

Wireless remote controller for PLA-M100-140EA2

#### PAC-SH59KF-E

High efficiency filter for PLA-M100-140EA2

#### PAC-SK53KF-E

V Blocking air purifying filter for PLA-M100-140EA2

#### PAC-SK51FT-E

Plasma Quad Connect air purifying device for PLA-M100-140EA2

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-M100-140YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-5871F-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

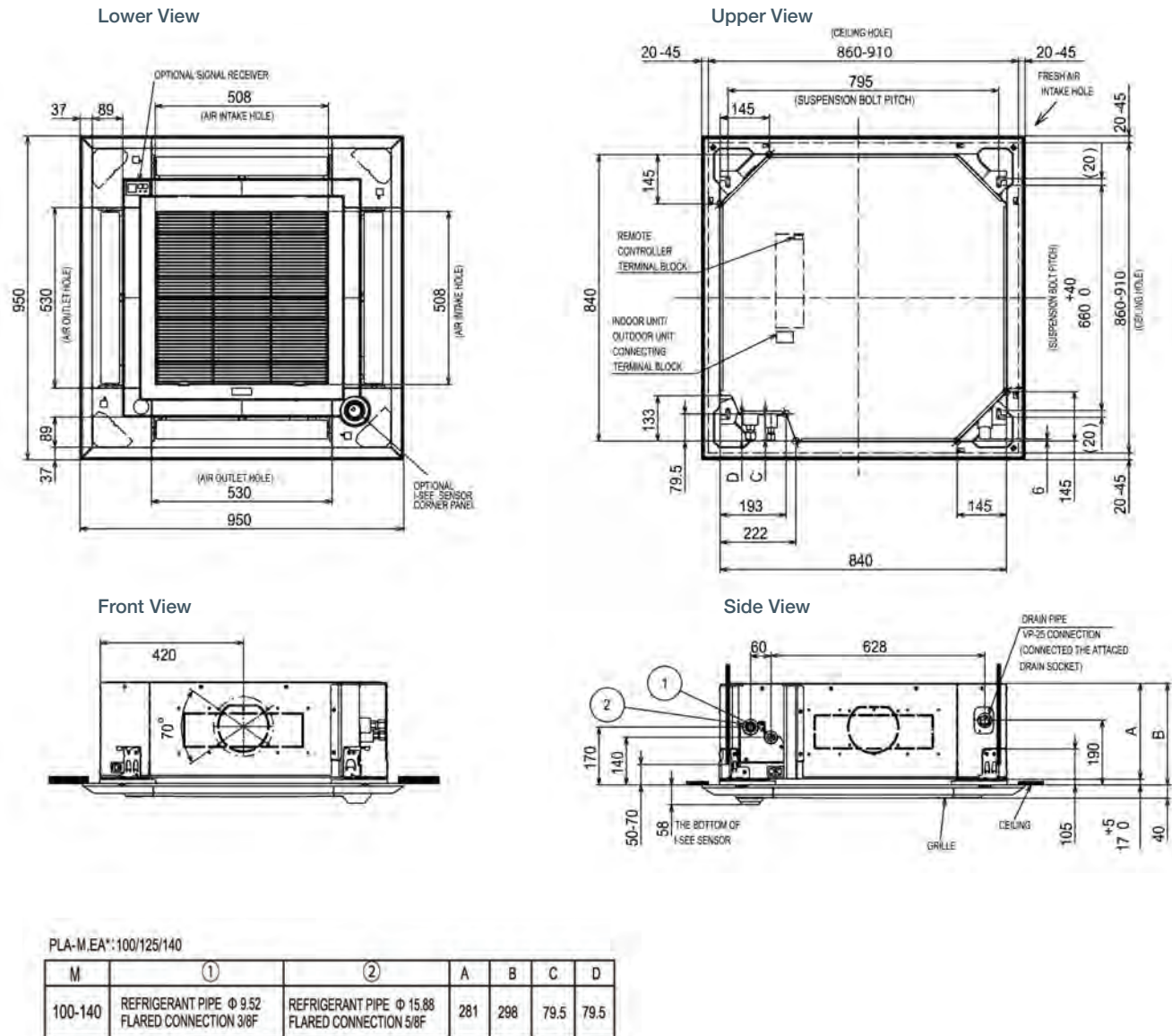
#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

Note: Please see page 1.3.60 for the full range of accessories.

## Product Dimensions

PLA-M100/125/140EA2



# PLA-SM R32 4-Way Blow Ceiling Cassette System

## Inverter Heat Pump



The **PLA-SM Inverter** cassette range offers customers all the features and benefits of inverter technology, whilst being very cost effective. Available as a single combination only, this range offers advanced control options, extremely flexible installation and a sophisticated, streamlined design.

### Key Features & Benefits

- Increased comfort levels through advanced airflow
- New PAR-41MAA controller allows effective energy consumption monitoring
- Optional filter-lowering operation, down to 4m (PLP-6EAJ)
- Small footprint, single fan chassis across entire outdoor unit range
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PLA-SM INDOOR UNITS		PLA-SM71EA	PLA-SM100EA	PLA-SM100EA	PLA-SM125EA	PLA-SM125EA	PLA-SM140EA	PLA-SM140EA
CAPACITY (kW)	Heating (nominal)	8.0 (2.2-8.1)	11.2 (2.8-12.5)	11.2 (2.8-12.5)	13.5 (4.1-15.0)	13.5 (4.1-15.0)	15.0 (4.2-15.8)	15.0 (4.2-15.8)
	Cooling (nominal)	7.1 (2.2-8.1)	9.5 (4.0-10.6)	9.5 (4.0-10.6)	12.1 (5.8-13.0)	12.1 (5.8-13.0)	13.4 (5.8-14.1)	13.4 (5.8-14.1)
	Heating (UK)	6.80 (1.87-6.89)	9.63 (2.41-10.75)	9.63 (2.41-10.75)	11.61 (3.53-12.90)	11.61 (3.53-12.90)	12.90 (3.61-13.59)	12.90 (3.61-13.59)
	Cooling (UK)	6.53 (2.03-7.45)	8.55 (3.60-11.25)	8.55 (3.60-11.25)	10.89 (5.22-11.70)	10.89 (5.22-11.70)	11.61 (5.22-12.69)	11.61 (5.22-12.69)
SHF (nominal)		0.75	0.77	0.77	0.73	0.73	0.70	0.70
COP / EER (nominal)		3.50 / 3.60	3.61 / 3.40	3.61 / 3.40	3.61 / 2.90	3.61 / 2.90	3.30 / 2.61	3.30 / 2.61
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		3.90 / 6.00	4.50 / 6.00	4.50 / 6.00	3.9 (154.1%) / 5.5 (225.2%)	3.9 (154.1%) / 5.5 (225.2%)	3.9 (153.3%) / 5.5 (224.9%)	3.9 (153.3%) / 5.5 (224.9%)
ErP ENERGY EFFICIENCY CLASS Heating/Cooling		A / A+	A+ / A+	A+ / A+	A / A	A / A	A / A	A / A
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi	233-283-317-350	317-383-433-483	317-383-433-483	350-417-467-517	350-417-467-517	400-433-483-533	400-433-483-533
PIPE SIZE mm (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	28-30-32-34	31-34-37-40	31-34-37-40	33-37-41-44	33-37-41-44	36-39-42-44	36-39-42-44
SOUND POWER LEVEL (dBA)		56	61	61	65	65	65	65
DIMENSIONS (mm)	Width x Depth x Height (Grille)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)
WEIGHT (kg)	Unit / Panel	21 (5)	24 (5)	24 (5)	26 (5)	26 (5)	26 (5)	26 (5)
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4	4	4	4	4
GRILLE REFERENCE		PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E

SUZ-SM / PUZ-SM OUTDOOR UNITS		SUZ-SM71VA	PUZ-SM100VKA2	PUZ-SM100YKA2	PUZ-SM125VKA2	PUZ-SM125YKA2	PUZ-SM140VKA2	PUZ-SM140YKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	51 / 49	54 / 51	54 / 51	56 / 54	56 / 54	57 / 55	57 / 55
SOUND POWER LEVEL (dBA)	Cooling	66	70	70	72	72	73	73
WEIGHT (kg)		55	76	78	84	85	84	85
DIMENSIONS (mm)	Width x Depth x Height	840 x 330 x 880	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	Single	Three	Single	Three	Single	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	2.28 / 1.97	3.10 / 2.79	3.10 / 2.79	3.73 / 4.17	3.73 / 4.17	4.54 / 5.13	4.54 / 5.13
	Heating/Cooling (UK)	1.94 / 1.70	2.64 / 2.40	2.64 / 2.40	3.17 / 3.59	3.17 / 3.59	3.87 / 4.14	3.87 / 4.14
STARTING CURRENT (A)		10.0	13.4	4.8	17.4	6.3	22.3	8.1
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	9.7 / 8.3 [14.8]	13.4 / 12.1 [20.0]	4.8 / 4.3 [11.5]	15.6 / 17.4 [26.5]	5.6 / 6.3 [11.5]	19.0 / 22.3 [30.0]	6.9 / 8.1 [11.5]
FUSE RATING (BS88) - HRC (A)		20	32	16	32	16	40	16
MAINS CABLE No. Cores		3	3	5	3	5	3	5
MAX PIPE LENGTH (m)		30	30	30	40	40	40	40
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	1.45 / 0.98 (7m)	3.10 / 2.09 (30m)	3.10 / 2.09 (30m)	3.60 / 2.43 (30m)	3.60 / 2.43 (30m)	3.60 / 2.43 (30m)	3.60 / 2.43 (30m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.37 / 1.80	N/A	3.50 / 2.36	4.00 / 2.70	4.00 / 2.70	4.00 / 2.70	4.00 / 2.70

Note: The PLP-6EAE 3D i-See sensor grille or PAC-SE1ME-E corner panel will NOT operate with this model.

## Accessories

### Indoor Units

#### PLP-6EA

Grille for PLA-SM71-140EA

#### PLP-6EAJ

Self elevating grille for PLA-SM71-140EA

#### PAR-SE9FA-E

Corner panel with signal receiver for PLA-SM71-140EA

#### PAC-SJ37SP-E

Shutter plate for PLA-SM71-140EA

#### PAC-SJ41TM-E

Multi-function casement for PLA-SM71-140EA

#### PAC-SJ39HR-E

Power supply kit for PLA-SM71-140EA

#### PAR-SL101A-E

Wireless remote controller for PLA-SM71-140EA

#### PAC-SH59KF-E

High efficiency filter for PLA-SM71-140EA

#### PAC-SK53KF-E

V Blocking air purifying filter for PLA-SM71-140EA

#### PAC-SK51FT-E

Plasma Quad Connect air purifying device for PLA-SM71-140EA

### Outdoor Units

#### MAC-886SG

Air outlet guide for SUZ-SM71VA

#### PAC-SH96SG

Air outlet guide for PUZ-SM100-140VKA2/YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

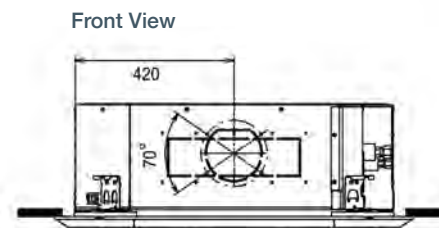
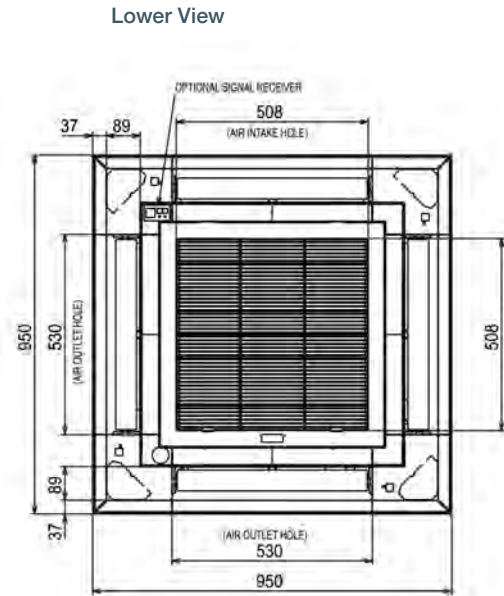
Retail control and input / output interface

#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

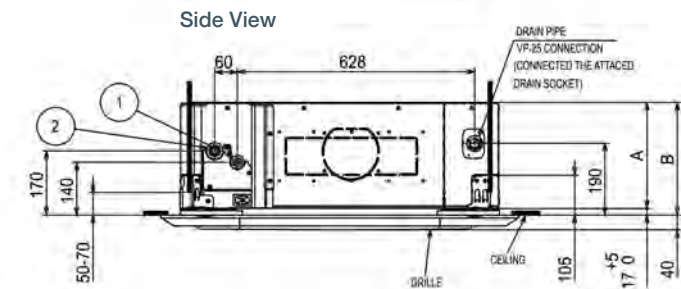
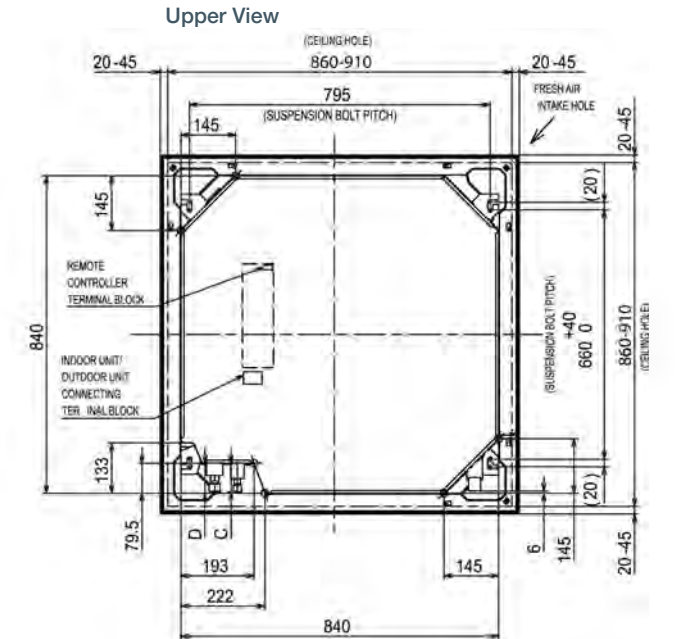
## Product Dimensions

PLA-SM71/100/125/140EA



PLA-SM71/100/125/140

SM	①	②	A	B	C	D
71	FLARED CONNECTION 3/8" REFRIGERANT PIPE Ø 9.52	REFRIGERANT PIPE Ø 15.88 FLARED CONNECTION 5/8"	241	258	79.5	79.5
100-140			281	298		



Note: Please see page 1.3.60 for the full range of accessories.

# SLZ-M R32

## 600x600 4-Way Blow Ceiling Cassette System

### Standard Inverter Heat Pump (Single Phase)

The **SLZ-M Standard Inverter** ceiling cassette unit provides a smart air conditioning solution for tight ceiling spaces. Combining a stylish square design with energy-saving technologies, it is designed to fit snugly into ceilings, making the unit ideal in both small commercial spaces, offices and retail applications.

#### Key Features & Benefits

- Height of only 245mm to allow installation in narrow ceiling spaces
- Increased comfort levels through advanced airflow
- New PAR-41MAA controller allows effective energy consumption monitoring
- Small footprint, single fan chassis across entire outdoor unit range
- Optional 3D i-see sensor grille provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures (SLP-2FAE)
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould



SLZ-M - INDOOR UNITS		SLZ-M15FA2	SLZ-M25FA2	SLZ-M35FA2	SLZ-M50FA2	SLZ-M60FA2
CAPACITY (kW)	Heating (nominal)	1.7 (0.9-3.1)	3.2 (1.3-4.2)	4.0 (1.0-5.0)	5.0 (1.3-5.5)	6.4 (1.6-7.3)
	Cooling (nominal)	1.5 (0.9-2.4)	2.5 (1.4-3.2)	3.5 (0.7-3.9)	4.6 (1.0-5.2)	5.7 (1.5-6.3)
	Heating (UK)	-	2.72 (1.11-3.57)	3.40 (0.85-4.25)	4.25 (1.11-4.68)	5.44 (1.36-6.21)
	Cooling (UK)	-	2.30 (1.29-2.94)	3.22 (0.64-3.59)	4.42 (0.92-4.79)	5.25 (1.38-5.80)
SHF (nominal)		-	0.78	0.72	0.68	0.68
COP / EER (nominal)		-	3.61 / 3.80	3.71 / 3.20	3.20 / 3.40	3.00 / 3.40
SCOP / SEER (BS EN14825)		-	4.30 / 6.30	4.30 / 6.70	4.20 / 6.30	4.10 / 6.20
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	-	A+ / A++	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Lo-Mi-Hi	100-108-117	108-125-142	108-133-158	117-150-192	125-192-217
PIPE SIZE mm (in)	Gas	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	24-26-28	24-26-28	25-28-31	25-30-34	27-34-39
SOUND POWER LEVEL (dBA)		45	45	48	51	56
DIMENSIONS (mm)	Width x Depth x Height	570 (625) x 570 (625) x 245 (10)	570 (625) x 570 (625) x 245 (10)	570 (625) x 570 (625) x 245 (10)	570 (625) x 570 (625) x 245 (10)	570 (625) x 570 (625) x 245 (10)
WEIGHT (kg)	Unit / Grille	15 / 3	15 / 3	15 / 3	15 / 3	15 / 3
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4	4	4
GRILLE REFERENCE		SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA

Note: SLZ-M15FA only available with R32 MXZ Multi-Split outdoor units.

SUZ-M - OUTDOOR UNITS		N/A MULTI-SPLIT ONLY	SUZ-M25VAR2	SUZ-M35VAR2	SUZ-M50VAR2	SUZ-M60VAR2	
SOUND PRESSURE LEVEL (dBA)		Heating/Cooling	-	45 / 46	48 / 48	48 / 49	49 / 51
SOUND POWER LEVEL (dBA)		Cooling	-	59	64	65	65
WEIGHT (kg)			-	30	35	41	54
DIMENSIONS (mm)		Width x Depth x Height	-	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714	840 x 330 x 880
ELECTRICAL SUPPLY			-	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE			-	Single	Single	Single	Single
SYSTEM POWER		Heating/Cooling (nominal)	-	0.88 / 0.65	1.07 / 1.09	1.56 / 1.35	2.13 / 1.67
INPUT (kW)		Heating/Cooling (UK)	-	0.75 / 0.56	0.91 / 0.94	1.33 / 1.16	1.81 / 1.44
STARTING CURRENT (A)			-	3.1	5.0	5.7	7.6
SYSTEM RUNNING CURRENT (A)		Heating/Cooling [MAX]	-	3.7 / 3.0 [6.8]	5.0 / 4.1 [8.5]	8.0 / 7.1 [13.5]	9.3 / 8.4 [14.9]
FUSE RATING (BS88) - HRC (A)			-	10	10	20	20
MAINS CABLE No. Cores			-	3	3	3	3
MAX PIPE LENGTH (m)			-	20	20	30	30
MAX HEIGHT DIFFERENCE (m)			-	12	12	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)		R32 (GWP 675)	-	0.65 / 0.44	0.90 / 0.61	1.20 / 0.81	1.25 / 0.84
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)		R32 (GWP 675)	-	0.91 / 0.61	1.16 / 0.78	1.66 / 1.12	1.71 / 1.15



## Accessories

### Indoor Units

#### SLP-2FA

Grille for SLZ-M15-60FA2

#### SLP-2FAE

3D i-see sensor grille for SLZ-M15-60FA2

#### PAC-SK54KF-E

V Blocking air purifying filter for SLZ-M15-60FA2

### Outdoor Units

#### MAC-881SG

Air outlet guide for SUZ-M25-35VAR2

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

#### MAC-886SG

Air outlet guide for SUZ-M60VAR2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

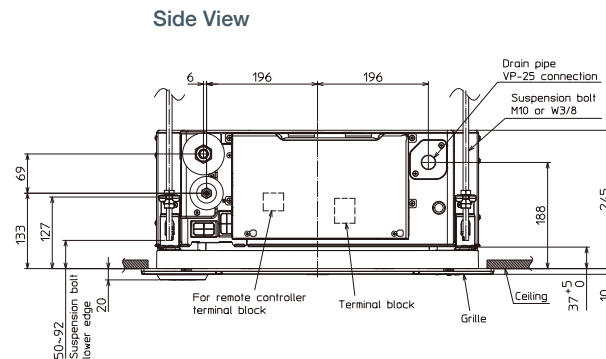
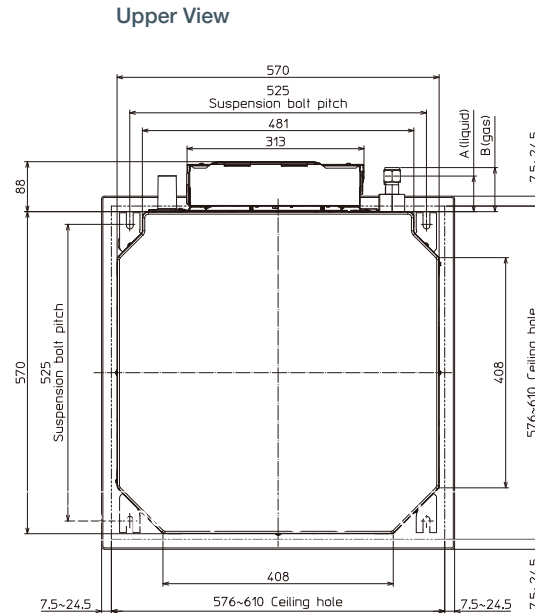
#### MELCORETAIL MINI

Retail control and input / output interface

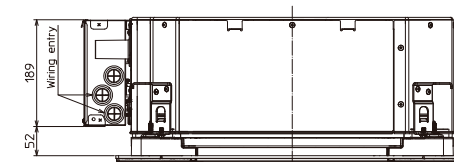
Note: Please see page 1.3.60 for the full range of accessories.

## Product Dimensions

SLZ-M15/25/35/50/60FA2



### Front View



# PKA-M R32 Wall Mounted System

## Power Inverter Heat Pump

The **PKA-M Power Inverter** range is a wall mounted system that blends a host of outstanding features with a sleek design. Offering high seasonal efficiency, advanced control options, extended pipe runs and energy monitoring (via PAR-41MAA controller) as standard, this range is a flexible choice for small commercial and office applications, as well as restaurants and comms rooms.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100), increasing application capability
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA or PAR-SL101A-E controller)
- New 'backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)
- Full heating capacity down to -3°C
- Internal pipe connection for ease of installation
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PKA-M - INDOOR UNITS		PKA-M35LA2	PKA-M50LA2	PKA-M60KA2	PKA-M71KA2	PKA-M100KA2	PKA-M100KA2
CAPACITY (kW)	Heating (nominal)	4.1 (1.6-5.2)	5.0 (2.5-7.3)	7.0 (2.8-8.2)	8.0 (3.5-10.2)	11.2 (4.5-14.0)	11.2 (4.5-14.0)
	Cooling (nominal)	3.6 (1.6-4.5)	4.6 (2.3-5.6)	6.1 (2.7-6.7)	7.1 (3.3-8.1)	9.5 (4.9-11.4)	9.5 (4.9-11.4)
	Heating (UK)	3.5 (1.35-4.4)	4.25 (2.15-6.2)	5.95 (2.4-6.95)	6.8 (3.0-8.65)	9.5 (3.85-11.9)	9.5 (3.85-11.9)
	Cooling (UK)	3.3 (1.45-4.15)	4.23 (2.1-5.15)	5.5 (2.5-6.15)	6.55 (3.05-7.45)	9.2 (4.5-10.5)	9.2 (4.5-10.5)
SHF (nominal)		0.74	0.66	0.86	0.78	0.73	0.73
COP / EER (nominal)		3.94 / 4.20	3.72 / 3.71	4.04 / 3.91	3.78 / 3.81	3.61 / 3.95	3.61 / 3.95
SCOP / SEER (BS EN14825)		4.0 / 6.5	4.3 / 6.6	4.2 / 6.8	4.3 / 6.8	4.4 / 6.5	4.4 / 6.4
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi	125-137-153-182	125-137-153-182	300-333-367	300-333-367	333-383-433	333-383-433
PIPE SIZE MM (in)	Gas	12.7 (1/2")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	34-37-40-43	34-37-40-43	39-42-45	39-42-45	41-45-49	41-45-49
SOUND POWER LEVEL (dBA)		60	60	64	64	65	65
DIMENSIONS (mm)	Width x Depth x Height	898 x 237 x 299	898 x 237 x 299	1170 x 295 x 365	1170 x 295 x 365	1170 x 295 x 365	1170 x 295 x 365
WEIGHT (kg)		12.6	12.6	21	21	21	21
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6
INTERCONNECTING CABLE NO. CORES		4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA

PUZ-ZM - OUTDOOR UNITS		PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100VKA2	PUZ-ZM100VKA2 <sup>3</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	46 / 44	46 / 44	49 / 47	49 / 47	51 / 49	51 / 49
SOUND POWER LEVEL (dBA)	Cooling	65	65	67	67	69	69
WEIGHT (kg)		46	46	70	70	116	123
DIMENSIONS (mm)	Width x Depth x Height	809 x 300 x 630	809 x 300 x 630	950 x 330 + 25 x 943	950 x 330 + 25 x 943	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	Single	Single	Single	Single	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	1.040 / 0.869	1.347 / 1.239	1.732 / 1.560	2.116 / 1.863	3.102 / 2.405	3.102 / 2.405
	Heating/Cooling (UK)	0.81 / 0.84	1.12 / 1.12	1.25 / 1.65	1.54 / 1.92	2.47 / 2.06	2.47 / 2.06
STARTING CURRENT (A)		4.3	4.3	5.3	5.3	10.7	2.6
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	4.97 / 4.31 [13.4]	5.98 / 5.57 [13.4]	7.41 / 6.65 [19.4]	9.10 / 7.96 [19.4]	13.46 / 10.45 [27.1]	4.49 / 5.45 [8.6]
FUSE RATING (BS88) - HRC (A)		16	16	25	25	32	16
MAINS CABLE NO. CORES		3	3	3	3	3	5
MAX PIPE LENGTH (m)		50	50	55	55	100	100
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.00 / 1.35 (30m)	2.00 / 1.35 (30m)	2.80 / 1.89 (30m)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	0.30 / 0.20	0.30 / 0.20	0.80 / 0.54	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62

<sup>3</sup> Three Phase





## Accessories

### Indoor Units

#### PAR-FL32MA

Wireless remote controller for PKA-M35-100LA2/KA2

#### PAR-SL101A-E

Wireless remote controller for PKA-M35-100LA2/KA2

#### MAC-100FT-E

Plasma Quad Connect air purifying device

### Outdoor Units

#### PAC-SJ07SG

Air outlet guide for PUZ-ZM35-50VKA2

#### PAC-SG59SG

Air outlet guide for PUZ-ZM60-71VHA2

#### PAC-SH96SG

Air outlet guide for PUZ-ZM100VKA2/YKA2

#### PAC-SJ71FM-E

30Pa outdoor fan motor for PUZ-ZM100VKA2/YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

#### PAC-SK15MA-E

M-NET adaptor for size 35 and 50

#### PAC-SJ95MA

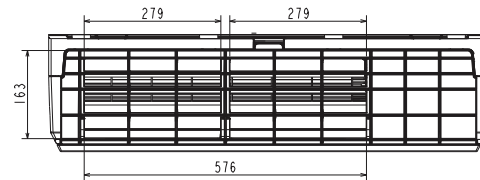
M-NET adaptor for size 60 to 100

Note: Please see page 1.3.60 for the full range of accessories.

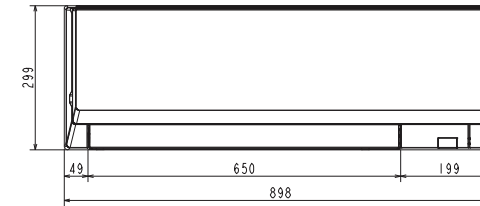
## Product Dimensions

PKA-M35/50LA2

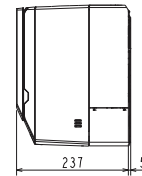
Upper View



Front View



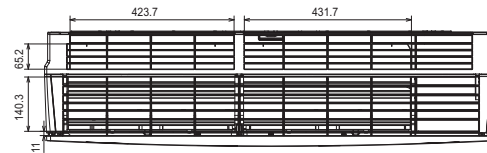
Side View



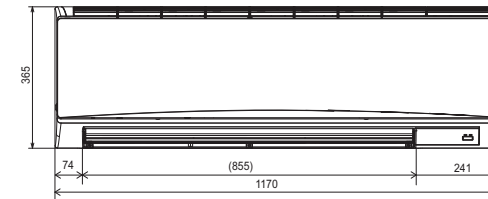
## Product Dimensions

PKA-M60/71/100KA2

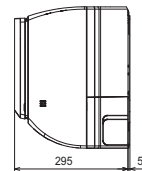
Upper View



Front View



Side View



# PKA-M R32 Wall Mounted System

## Standard Inverter Heat Pump



The cost effective **PKA-M Standard Inverter** range is a wall mounted system that blends a host of outstanding features with a sleek design. Offering advanced control options, extended pipe runs and energy monitoring (via PAR-41MAA controller) as standard, this range is a flexible choice for small commercial and office applications, as well as restaurants and comms rooms.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA or PAR-SL101A-E controller)
- New 'backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)
- Internal pipe connection for ease of installation
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PKA-M - INDOOR UNITS		PKA-M100KA2	PKA-M100KA2
CAPACITY (kW)	Heating (nominal)	11.2 (2.8-12.5)	11.2 (2.8-12.5)
	Cooling (nominal)	9.5 (4.0-10.6)	9.5 (4.0-10.6)
	Heating (UK)	9.63 (2.41-10.75)	9.63 (2.41 - 10.75)
	Cooling (UK)	8.65 (3.64-9.65)	8.65 (3.64 - 9.65)
SHF (nominal)		0.73	0.73
COP / EER (nominal)		3.41 / 3.23	3.41 / 3.23
SCOP / SEER (BS EN14825)		4.00 / 5.80	4.00 / 5.80
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A+	A+ / A+
AIRFLOW (l/s)	Lo-Mi-Hi	333-383-433	333-383-433
PIPE SIZE mm (in)	Gas	15.88 (5/8")	15.88 (5/8")
	Liquid	9.52 (3/8")	9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	41-45-49	41-45-49
SOUND POWER LEVEL (dBA)		65	65
DIMENSIONS (mm)	Width x Depth x Height	1170 x 295 x 365	1170 x 295 x 365
WEIGHT (kg)		21	21
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6
INTERCONNECTING CABLE No. Cores		4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA

PUZ-M - OUTDOOR UNITS		PUZ-M100VKA2	PUZ-M100YKA2 <sup>3</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	51 / 54	51 / 54
	Cooling	70	70
SOUND POWER LEVEL (dBA)		76	78
WEIGHT (kg)		76	78
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	3.28 / 2.94	3.28 / 2.94
	Heating/Cooling (UK)	2.95 / 2.44	2.95 / 2.44
STARTING CURRENT (A)		7.1	3.5
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	14.2 / 12.7 [20]	5.1 / 4.6 [11.5]
FUSE RATING (BS88) - HRC (A)		32	16
MAINS CABLE No. Cores		3	5
MAX PIPE LENGTH (m)		55	55
MAX HEIGHT DIFFERENCE (m)		30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	3.10 / 2.09	3.10 / 2.09
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	4.10 / 2.77	4.10 / 2.77

<sup>3</sup> Three Phase

## Accessories

### Indoor Units

#### PAR-FL32MA

Wireless remote controller for PKA-M100KA2

#### PAR-SL101A-E

Wireless remote controller for PKA-M100KA2

#### MAC-100FT-E

Plasma Quad Connect air purifying device

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-M100VKA2/YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

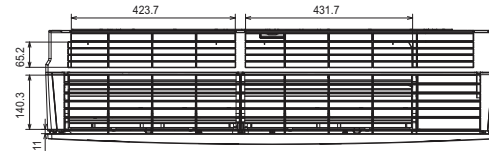
#### PAC-SJ95MA

M-NET adaptor for size 100

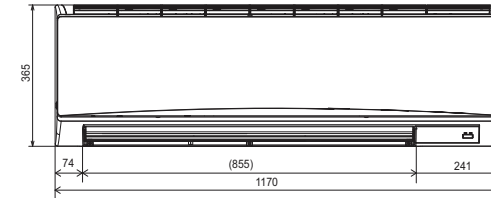
## Product Dimensions

PKA-M100KA2

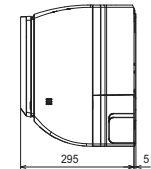
Upper View



Front View



Side View



Note: Please see page 1.3.60 for the full range of accessories.

# PEAD-M R32 Ceiling Concealed Ducted System

## Power Inverter Heat Pump (Single Phase)

The **PEAD-M Power Inverter** range is a ceiling concealed ducted system that blends a host of outstanding features with an unobtrusive design (only 250mm height) for easy installation and maintenance. Offering high seasonal efficiency, advanced control options and extended pipe runs, the units also come with a wide range of external static pressure settings, making this range an extremely flexible solution for applications such as light commercial, schools and warehousing.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100-140), increasing application capability
- New PAR-41MAA controller allows effective energy monitoring
- Improved efficiency through new fan motor
- Full heating capacity down to -3°C
- Drain pump included as standard
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PEAD-M - INDOOR UNITS		PEAD-M35JA2	PEAD-M50JA2	PEAD-M60JA2	PEAD-M71JA2	PEAD-M100JA2	PEAD-M125JA2	PEAD-M140JA2
CAPACITY (kW)	Heating (nominal)	4.1 (1.6-5.2)	6.0 (2.5-7.3)	7.0 (2.8-8.2)	8.0 (3.5-10.2)	11.2 (4.5-14.0)	14.0 (5.0-16.0)	16.0 (5.7-18.0)
	Cooling (nominal)	3.6 (1.6-4.5)	5.0 (2.3-5.6)	6.1 (2.7-6.7)	7.1 (3.3-8.1)	9.5 (4.9-11.4)	12.5 (5.5-14.0)	13.4 (6.2-15.3)
	Heating (UK)	3.5 (1.35-4.4)	5.1 (2.15-6.2)	5.95 (2.4-6.95)	6.8 (3.0-8.65)	9.5 (3.85-11.9)	11.9 (4.25-13.6)	13.6 (4.85-15.3)
	Cooling (UK)	3.3 (1.45-4.15)	4.6 (2.1-5.15)	5.5 (2.5-6.15)	6.55 (3.05-7.45)	9.2 (4.5-10.5)	11.5 (5.05-12.9)	12.9 (5.7-14.1)
SHF (nominal)		0.85	0.84	0.83	0.80	0.82	0.78	0.77
COP / EER (nominal)		4.50 / 4.30	4.40 / 4.20	4.40 / 4.10	4.20 / 4.00	4.40 / 4.20	3.72 / 3.75	3.90 / 3.62
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.1 (161.6%) / 6.3 (278.9%)	4.4 (174.1%) / 6.4 (274.1%)	4.2 (165.8%) / 6.2 (264.9%)	4.3 (170.1%) / 6.3 (265.6%)	4.4 (173.9%) / 6.6 (277.4%)	4.1 (163.2%) / 6.2 (256.3%)	4.1 (162.5%) / 6.2 (255.5%)
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling	A / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Lo-Mi-Hi	167-200-233	200-242-283	242-300-350	242-300-383	383-467-533	467-567-617	492-592-667
PIPE SIZE MM (in)	Gas	12.7 (1/2")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
EXTERNAL STATIC PRESSURE (Pa)		35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	24-29-32	27-33-35	26-32-35	26-32-37	31-36-39	35-39-41	34-38-41
SOUND POWER LEVEL (dBA)		54	58	56	58	62	66	66
DIMENSIONS (mm)	Width x Depth x Height	900 x 732 x 250	900 x 732 x 250	1100 x 732 x 250	1100 x 732 x 250	1400 x 732 x 250	1400 x 732 x 250	1600 x 732 x 250
WEIGHT (kg)		25	26.5	29.5	29.5	37	38	42
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6
INTERCONNECTING CABLE NO. CORES		4	4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA

PUZ-ZM - OUTDOOR UNITS		PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100VKA2	PUZ-ZM125VKA2	PUZ-ZM140VKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	46 / 44	46 / 44	49 / 47	49 / 47	51 / 49	52 / 50	52 / 50
SOUND POWER LEVEL (dBA)	Cooling	65	65	67	67	69	70	70
WEIGHT (kg)		46	46	70	70	116	116	118
DIMENSIONS (mm)	Width x Depth x Height	809 x 300 x 630	809 x 300 x 630	950 x 330 + 25 x 943	950 x 330 + 25 x 943	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	0.911 / 0.837	1.363 / 1.190	1.590 / 1.487	1.904 / 1.775	2.545 / 2.261	3.763 / 3.333	4.102 / 3.701
	Heating/Cooling (UK)	0.76 / 0.76	1.15 / 1.05	1.30 / 1.37	1.70 / 1.50	2.03 / 1.94	3.34 / 2.83	3.65 / 3.15
STARTING CURRENT (A)		4.3	4.3	5.3	5.3	10.7	13.2	13.2
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	3.28 / 3.30 [14.2]	5.01 / 4.57 [14.4]	5.65 / 5.96 [20.9]	7.37 / 6.54 [20.9]	8.84 / 8.44 [22.3]	14.52 / 12.28 [28.8]	15.85 / 13.68 [32.6]
FUSE RATING (BS88) - HRC (A)		16	25	25	25	32	32	40
MAINS CABLE NO. CORES		3	3	3	3	3	3	3
MAX PIPE LENGTH (m)		50	50	55	55	100	100	100
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.00 / 1.35 (30m)	2.00 / 1.35 (30m)	2.80 / 1.89 (30m)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	0.30 / 0.20	0.30 / 0.20	0.80 / 0.54	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62



## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect air purifying device

#### PAC-HA31PAR

Plasma Quad Connect metal fitment

### Outdoor Units

#### PAC-SJ07SG

Air outlet guide for PUZ-ZM35-50VKA2

#### PAC-SG59SG

Air outlet guide for PUZ-ZM60-71VHA2

#### PAC-SH96SG

Air outlet guide for PUZ-ZM100-140VKA2

#### PAC-SJ71FM-E

30Pa outdoor fan motor for PUZ-ZM100-140VKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

#### PAC-SK15MA-E

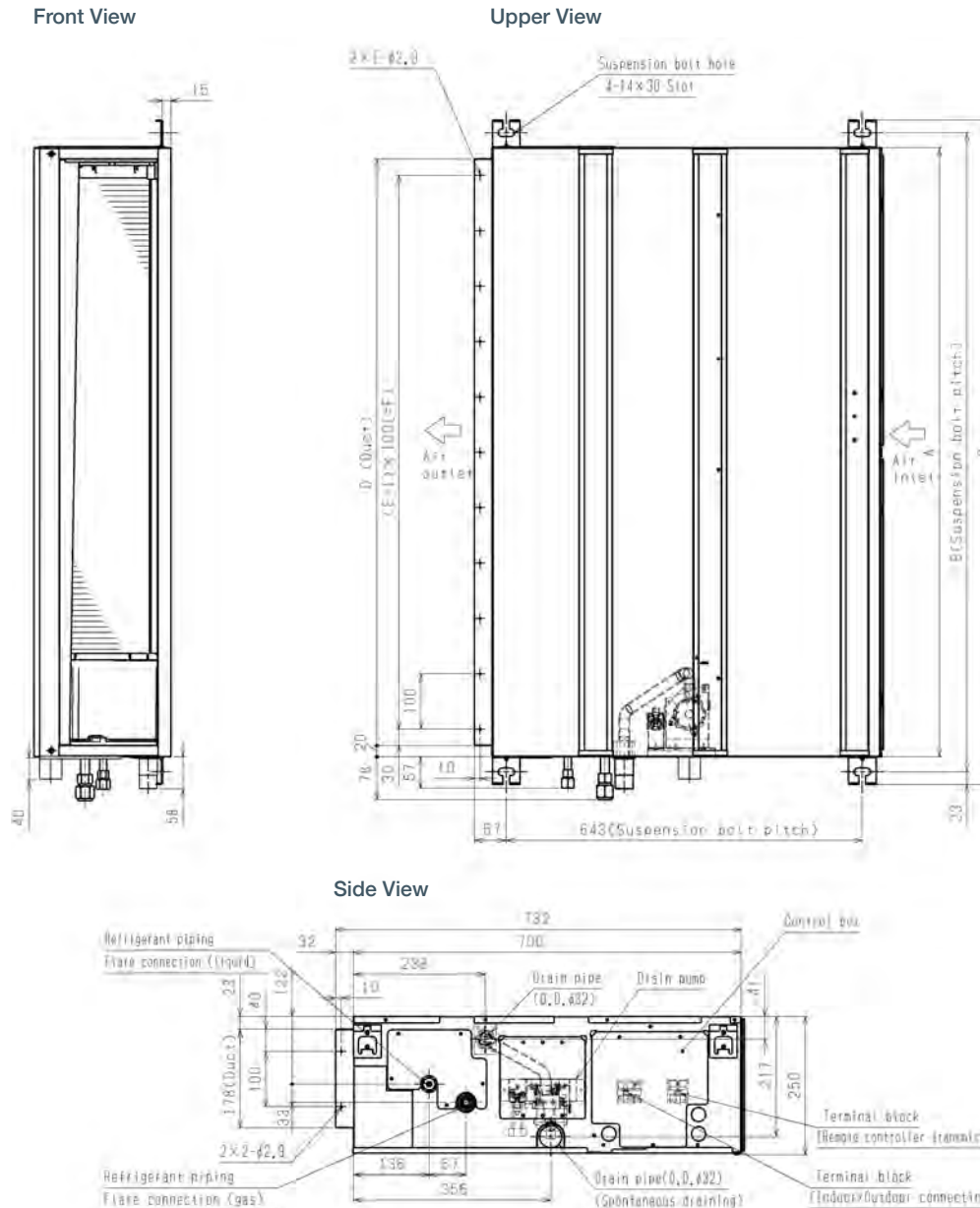
M-NET adaptor for size 35 and 50

#### PAC-SJ95MA

M-NET adaptor for size 60 to 140

## Product Dimensions

PEAD-M35/50/60/71/100/125/140JA2



Model	A	B	C	D	E	F
PEAD-M35,50JA2	900	954	1000	860	9	800
PEAD-M60,71JA2	1100	1154	1200	1060	11	1000
PEAD-M100,125JA2	1400	1454	1500	1360	14	1300
PEAD-M140JA2	1600	1654	1700	1560	16	1500

Note: Please see page 1.3.60 for the full range of accessories.

# PEAD-M R32 Ceiling Concealed Ducted System

## Power Inverter Heat Pump (Three Phase)



The **PEAD-M Power Inverter** range is a ceiling concealed ducted system that blends a host of outstanding features with an unobtrusive design (only 250mm height) for easy installation and maintenance. Offering high seasonal efficiency, advanced control options and extended pipe runs, the units also come with a wide range of external static pressure settings, making this range an extremely flexible solution for applications such as light commercial, schools and warehousing.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run, increasing application capability
- New PAR-41MAA controller allows effective energy monitoring
- Improved efficiency through new fan motor
- Full heating capacity down to -3°C
- Drain pump included as standard
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PEAD-M - INDOOR UNITS		PEAD-M100JA2	PEAD-M125JA2	PEAD-M140JA2
CAPACITY (kW)	Heating (nominal)	11.2 (4.5-14.0)	14.0 (5.0-16.0)	16.0 (5.7-18.0)
	Cooling (nominal)	9.5 (4.9-11.4)	12.5 (5.5-14.0)	13.4 (6.2-15.3)
	Heating (UK)	9.5 (3.85-11.9)	11.9 (4.25-13.6)	13.6 (4.85-15.3)
	Cooling (UK)	9.2 (4.5-10.5)	11.5 (5.05-12.9)	12.9 (5.7-14.1)
SHF (nominal)		0.82	0.78	0.77
COP / EER (nominal)		4.40 / 4.20	3.72 / 3.75	3.90 / 3.62
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.4 (173.8%) / 6.5 (275%)	4.1 (163.1%) / 6.1 (254.8%)	4.1 (162.5%) / 6.1 (254%)
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Lo-Mi-Hi	383-467-533	467-567-617	492-592-667
PIPE SIZE MM (in)	Gas	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
EXTERNAL STATIC PRESSURE (Pa)		35-50-70-100-150	35-50-70-100-150	35-50-70-100-150
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	31-36-39	35-39-41	34-38-41
SOUND POWER LEVEL (dBA)		62	66	66
DIMENSIONS (mm)	Width x Depth x Height	1400 x 732 x 250	1400 x 732 x 250	1600 x 732 x 250
WEIGHT (kg)		37	38	42
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6
INTERCONNECTING CABLE NO. CORES		4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA
PUZ-ZM - OUTDOOR UNITS		PUZ-ZM100YKA2 <sup>③</sup>	PUZ-ZM125YKA2 <sup>③</sup>	PUZ-ZM140YKA2 <sup>③</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	51 / 49	52 / 50	52 / 50
	Cooling	69	70	70
SOUND POWER LEVEL (dBA)		69	70	70
WEIGHT (kg)		123	125	131
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338
ELECTRICAL SUPPLY		380-415v,50Hz	380-415v,50Hz	380-415v,50Hz
PHASE		Three	Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	2.545 / 2.261	3.763 / 3.333	4.102 / 3.701
	Heating/Cooling (UK)	2.03 / 1.94	3.34 / 2.83	3.65 / 3.15
STARTING CURRENT (A)		2.6	3.3	3.3
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	5.08 / 4.85 [10.3]	8.35 / 7.06 [11.3]	9.12 / 7.86 [14.4]
FUSE RATING (BS88) - HRC (A)		16	16	16
MAINS CABLE NO. CORES		5	5	5
MAX PIPE LENGTH (m)		100	100	100
MAX HEIGHT DIFFERENCE (m)		30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) - 40m	3.60 / 2.43	3.60 / 2.43	3.60 / 2.43
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62

③ Three Phase



## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect air purifying device

#### PAC-HA31PAR

Plasma Quad Connect metal fitment

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-ZM100-140YKA2

#### PAC-SJ71FM-E

30Pa outdoor fan motor for PUZ-ZM100-140YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

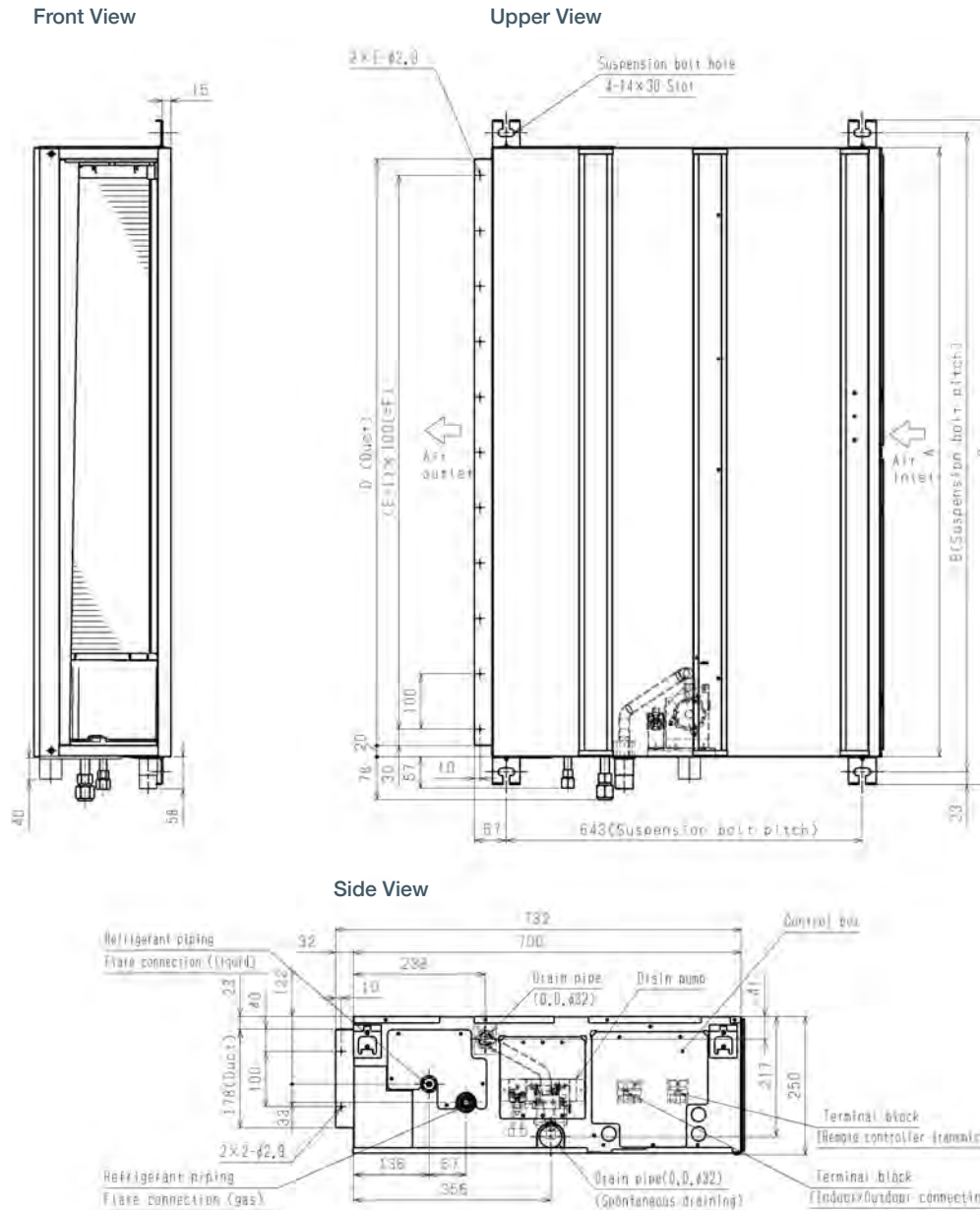
Retail control and input / output interface

#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

## Product Dimensions

PEAD-M100/125/140JA2



Model	A	B	C	D	E	F
PEAD-M100,125JA2	1400	1454	1500	1360	14	1300
PEAD-M140JA2	1600	1654	1700	1560	16	1500

Note: Please see page 1.3.60 for the full range of accessories.

# PEAD-M R32 Ceiling Concealed Ducted System

## Standard Inverter Heat Pump (Single Phase)

The cost effective **PEAD-M Standard Inverter** range is a ceiling concealed ducted system that blends a host of outstanding features with an unobtrusive design (only 250mm height) for easy installation and maintenance. Offering advanced control options and extended pipe runs, the units also come with a wide range of external static pressure settings, making this range an extremely flexible solution for applications such as light commercial, schools and warehousing.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features (size 100-140)
- New PAR-41MAA controller allows effective energy monitoring
- Improved efficiency through new fan motor
- Drain pump included as standard
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PEAD-M - INDOOR UNITS		PEAD-M35JA2	PEAD-M50JA2	PEAD-M60JA2	PEAD-M71JA2	PEAD-M100JA2	PEAD-M125JA2	PEAD-M140JA2
CAPACITY (kW)	Heating (nominal)	4.1 (1.1-5.0)	6.0 (1.5-7.2)	7.0 (1.6-8.0)	8.0 (2.0-10.2)	11.2 (2.8-12.5)	13.5 (4.1-15.0)	15.0 (4.2-15.8)
	Cooling (nominal)	3.6 (0.8-3.9)	5.0 (1.7-5.6)	6.1 (1.6-6.3)	7.1 (2.2-8.1)	9.5 (4.0-10.6)	12.1 (6.0-13.0)	13.4 (6.1-14.1)
	Heating (UK)	3.49 (0.94-4.25)	5.10 (1.28-6.12)	5.96 (1.36-6.8)	6.80 (1.70-8.67)	9.63 (2.41-10.75)	11.61 (3.53-12.90)	12.90 (3.61-13.59)
	Cooling (UK)	3.31 (0.74-3.59)	4.60 (1.56-5.15)	5.16 (1.47-5.80)	6.53 (2.02-7.45)	8.65 (3.64-9.65)	11.01 (5.46-11.83)	12.19 (5.55-12.83)
SHF (nominal)		0.85	0.84	0.83	0.80	0.82	0.78	0.77
COP / EER (nominal)		4.00 / 3.90	4.10 / 3.70	3.80 / 3.60	3.80 / 3.50	3.80 / 3.30	3.61 / 3.01	3.61 / 2.81
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.10(161.8%)/6.30(260.9%)	4.20(166.9%)/6.30(256.9%)	4.10(162.4%)/6.10(250.5%)	4.10(161.6%)/6.20(252.7%)	4.10(161.4%)/6.10(257.3%)	3.80(152.1%)/5.30(218.5%)	3.80(151.9%)/5.20(213.3%)
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++	A / A	A / A
	Lo-Mi-Hi	167-200-233	200-242-283	242-300-350	242-300-383	383-467-533	467-567-617	492-592-667
AIRFLOW (l/s)								
PIPE SIZE mm (in)	Gas	9.52 (3/8")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
EXTERNAL STATIC PRESSURE (Pa)		35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	24-29-32	27-33-35	26-32-35	26-32-37	31-36-39	35-39-41	34-38-41
SOUND POWER LEVEL (dBA)		54	58	56	58	62	66	66
DIMENSIONS (mm)	Width x Depth x Height	900 x 732 x 250	900 x 732 x 250	1100 x 732 x 250	1100 x 732 x 250	1400 x 732 x 250	1400 x 732 x 250	1600 x 732 x 250
WEIGHT (kg)		25	26.5	29.5	29.5	37	38	42
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA

SUZ-M / PUZ-M - OUTDOOR UNITS		SUZ-M35VAR2	SUZ-M50VAR2	SUZ-M60VAR2	SUZ-M71VAR1	PUZ-M100VKA2	PUZ-M125VKA2	PUZ-M140VKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	48 / 48	48 / 49	49 / 51	49 / 51	51 / 54	54 / 56	55 / 57
SOUND POWER LEVEL (dBA)	Cooling	59	64	65	66	70	72	73
WEIGHT (kg)		35	41	54	56	76	84	84
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 714	840 x 330 x 880	840 x 330 x 880	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	1.025 / 0.923	1.463 / 1.351	1.842 / 1.694	2.105 / 2.028	2.947 / 2.878	3.739 / 4.019	4.155 / 4.768
	Heating/Cooling (UK)	0.85 / 0.84	1.24 / 1.19	1.50 / 1.56	1.87 / 1.72	2.35 / 2.47	3.32 / 3.41	3.69 / 4.05
STARTING CURRENT (A)		5.0	5.7	7.6	10.0	7.1	2.9	2.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	3.69 / 3.64 [9.7]	5.38 / 5.18 [14.9]	6.54 / 6.78 [16.7]	8.15 / 7.47 [16.7]	10.23 / 10.75 [22.3]	14.43 / 14.81 [27.8]	16.06 / 17.62 [31.4]
FUSE RATING (BS88) - HRC (A)		16	20	20	20	32	32	40
MAINS CABLE No. Cores		3	3	3	3	3	3	3
MAX PIPE LENGTH (m)		20	30	30	30	55	65	65
MAX HEIGHT DIFFERENCE (m)		12	30	30	30	30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	0.90 / 0.61 (7m)	1.20 / 0.81 (7m)	1.25 / 0.84 (7m)	1.45 / 0.98 (7m)	3.10 / 2.09 (30m)	3.60 / 2.43 (30m)	3.60 / 2.43 (30m)
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	1.16 / 0.78	1.66 / 1.12	1.71 / 1.15	2.37 / 1.80	4.10 / 2.77	5.00 / 3.38	5.00 / 3.38

Note: No duty/standby operation on SUZ-M35/50/60/71VAR2/1.



## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect air purifying device

#### PAC-HA31PAR

Plasma Quad Connect metal fitment

### Outdoor Units

#### MAC-881SG

Air outlet guide for SUZ-M35VAR2

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

#### MAC-886SG

Air outlet guide for SUZ-M60VAR2 / SUZ-M71VAR1

#### PAC-SH96SG

Air outlet guide for PUZ-M100-140VKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

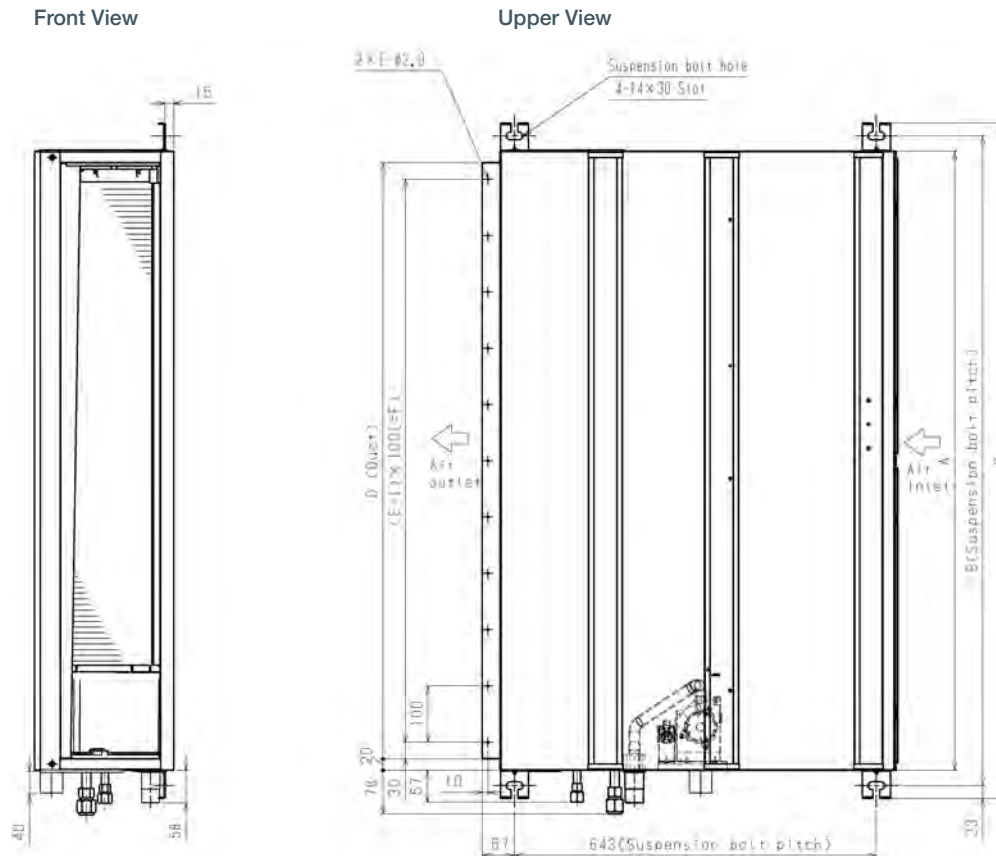
Retail control and input / output interface

#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

## Product Dimensions

PEAD-M35/50/60/71/100/125/140JA2



Model	A	B	C	D	E	F
PEAD-M35,50JA2	900	954	1000	860	9	800
PEAD-M60,71JA2	1100	1154	1200	1060	11	1000
PEAD-M100,125JA2	1400	1454	1500	1360	14	1300
PEAD-M140JA2	1600	1654	1700	1560	16	1500

Note: Please see page 1.3.60 for the full range of accessories.

# PEAD-M R32 Ceiling Concealed Ducted System

## Standard Inverter Heat Pump (Three Phase)



The cost effective **PEAD-M Standard Inverter** range is a ceiling concealed ducted system that blends a host of outstanding features with an unobtrusive design (only 250mm height) for easy installation and maintenance. Offering advanced control options and extended pipe runs, the units also come with a wide range of external static pressure settings, making this range an extremely flexible solution for applications such as light commercial, schools and warehousing.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- New PAR-41MAA controller allows effective energy monitoring
- Improved efficiency through new fan motor
- Drain pump included as standard
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PEAD-M - INDOOR UNITS		PEAD-M100JA2	PEAD-M125JA2	PEAD-M140JA2
CAPACITY (kW)	Heating (nominal)	11.2 (2.8-12.5)	13.5 (4.1-15.0)	15.0 (4.2-15.8)
	Cooling (nominal)	9.5 (4.0-10.6)	12.1 (6.0-13.0)	13.4 (6.1-14.1)
	Heating (UK)	9.63 (2.41-10.75)	11.61 (3.53-12.90)	12.90 (3.61-13.59)
	Cooling (UK)	8.65 (3.64-9.65)	11.01 (5.46-11.83)	12.19 (5.55-12.83)
SHF (nominal)		0.82	0.78	0.77
COP / EER (nominal)		3.80 / 3.30	3.61 / 3.01	3.61 / 2.81
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.10 (161.4%) / 6.10 (257.3%)	3.80 (152.1%) / 5.30 (218.5%)	3.80 (151.9%) / 5.20 (213.3%)
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A / A	A / A
AIRFLOW (l/s)	Lo-Mi-Hi	383-467-533	467-567-617	492-592-667
PIPE SIZE mm (in)	Gas	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
EXTERNAL STATIC PRESSURE (Pa)		35-50-70-100-150	35-50-70-100-150	35-50-70-100-150
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	31-36-39	35-39-41	34-38-41
SOUND POWER LEVEL (dBA)		62	66	66
DIMENSIONS (mm)	Width x Depth x Height	1400 x 732 x 250	1400 x 732 x 250	1600 x 732 x 250
WEIGHT (kg)		37	38	42
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA

PUZ-M - OUTDOOR UNITS		PUZ-M100YKA2 <sup>③</sup>	PUZ-M125YKA2 <sup>③</sup>	PUZ-M140YKA2 <sup>③</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	51 / 54	54 / 56	55 / 57
SOUND POWER LEVEL (dBA)	Cooling	70	72	73
WEIGHT (kg)		78	85	85
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	2.947 / 2.878	3.739 / 4.019	4.155 / 4.768
	Heating/Cooling (UK)	2.35 / 2.47	3.32 / 3.41	3.69 / 4.05
STARTING CURRENT (A)		3.5	4.9	4.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	5.88 / 6.18 [13.8]	8.30 / 8.52 [12.8]	9.23 / 10.13 [12.9]
FUSE RATING (BS88) - HRC (A)		16	16	16
MAINS CABLE No. Cores		5	5	5
MAX PIPE LENGTH (m)		55	65	65
MAX HEIGHT DIFFERENCE (m)		30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675) - 30m	3.10 / 2.09	3.60 / 2.43	3.60 / 2.43
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	4.10 / 2.77	5.00 / 3.38	5.00 / 3.38

<sup>③</sup> Three Phase

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect air purifying device

#### PAC-HA31PAR

Plasma Quad Connect metal fitment

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-M100-140YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

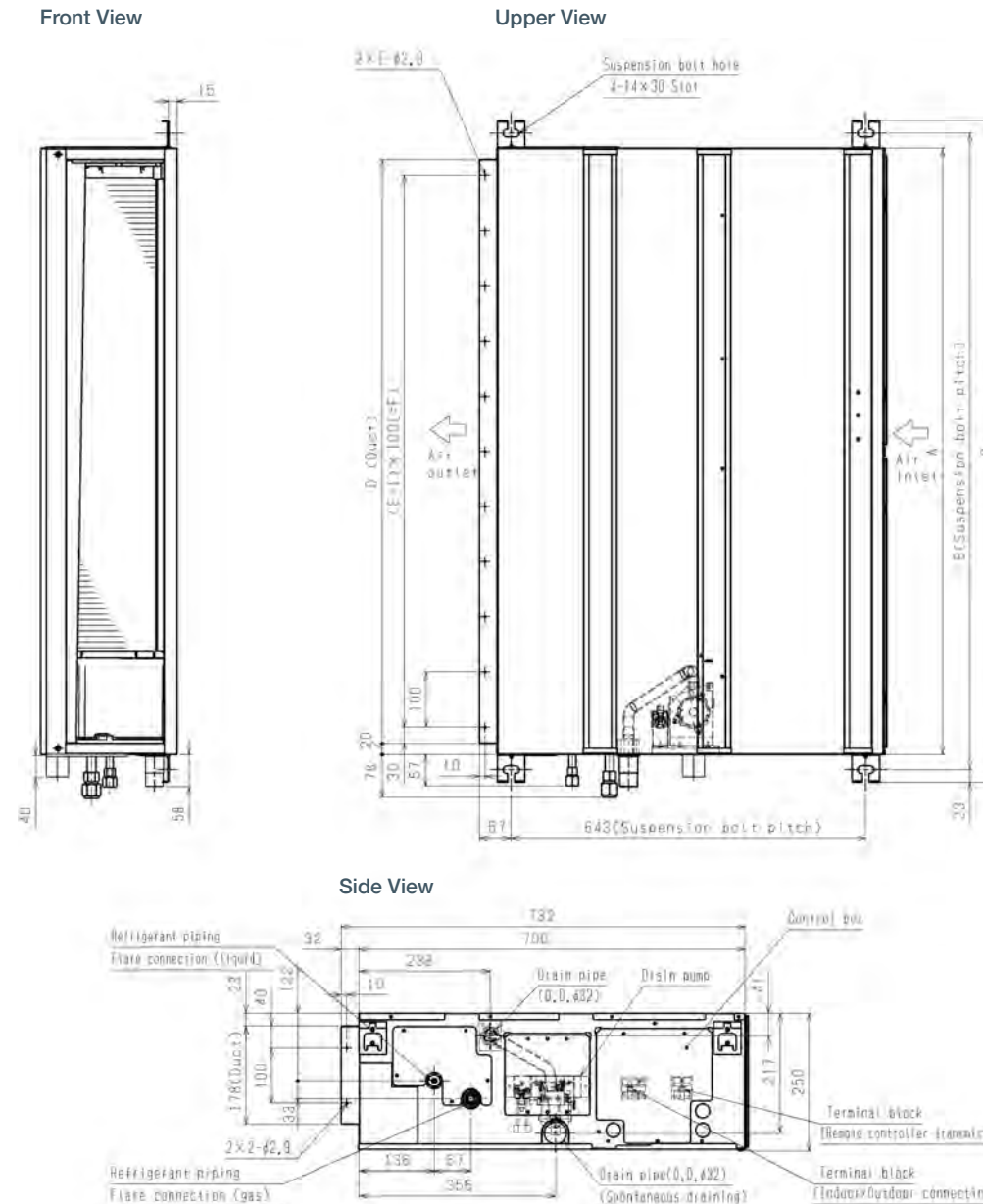
Retail control and input / output interface

#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

## Product Dimensions

PEAD-M100/125/140JA2



Model	A	B	C	D	E	F
PEAD-M100,125JA2	1400	1454	1500	1360	14	1300
PEAD-M140JA2	1600	1654	1700	1560	16	1500

Note: Please see page 1.3.60 for the full range of accessories.

# PEA-M R32 Large Capacity Ceiling Concealed Ducted System

Power Inverter Heat Pump  
(Three Phase)



The **PEA-M Power Inverter** large capacity ducted system offers the ultimate in flexibility for larger scale heating and cooling applications. Our latest version works with even greater lengths of ductwork through a 200Pa fan setting, making it ideal for warehouse, atria and large retail applications.

## Key Features & Benefits

- 100m pipe run, increasing application capability
- Full heating capacity down to -3°C
- Increased comfort levels through advanced airflow and smart defrost features
- New PAR-41MAA controller allows effective energy consumption monitoring
- New 'Backup and Rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)
- Ultimate ductwork flexibility through 5 static pressure settings up to 200Pa

# R32

PEA-M - INDOOR UNITS		PEA-M200LA	PEA-M250LA
CAPACITY (kW)	Heating (nominal)	22.4 (7.1-25.0)	27.0 (7.3-31.0)
	Cooling (nominal)	19.0 (9.2-22.4)	22.0 (9.9-27.0)
	Heating (UK)	16.8 (5.3-18.8)	20.3 (5.5-23.3)
	Cooling (UK)	16.5 (6.0-19.5)	19.1 (6.6-23.5)
SHF (nominal)		0.80	0.79
COP / EER (nominal)		3.50 / 3.30	3.40 / 3.05
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		3.61 (141.5%) / 5.87 (231.9%)	3.57 (139.7%) / 5.41 (213.3%)
AIRFLOW (l/s)	Lo-Mi-Hi	700-850-1000	750-917-1083
PIPE SIZE mm (in)	Gas	28.58 (1 1/8")	28.58 (1 1/8")
	Liquid	9.52 (3/8")	12.7 (1/2")
EXTERNAL STATIC PRESSURE (Pa)		60 / 75 / 100 / 150 / 200	60 / 75 / 100 / 150 / 200
SOUND PRESSURE LEVEL (dBA) (60Pa)	Lo-Mi-Hi	35-40-43	38-43-47
SOUND POWER LEVEL (dBA) (60Pa)	Lo-Mi-Hi	63-64-64	67-67-68
DIMENSIONS (mm)	Width x Depth x Height	1370 x 1120 x 470	1370 x 1120 x 470
WEIGHT (kg)		87	87
ELECTRICAL SUPPLY		220-240v 50Hz	220-240v 50Hz
PHASE		Single	Single
POWER INPUT (kW)	Nominal / UK	0.35	0.53
RUNNING CURRENT (A) [MAX]		3.1	3.4
FUSE RATING (BS88) - HRC (A)		6	6
MAINS CABLE No. Cores		3	3
INTERCONNECTING CABLE No. Cores		3	3
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA

PUZ-ZM - OUTDOOR UNITS		PUZ-ZM200YKA2 <sup>③</sup>	PUZ-ZM250YKA2 <sup>③</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	62 / 59	62 / 59
WEIGHT (kg)		137	138
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330+40 x 1338	1050 x 330+40 x 1338
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	6.40 / 5.76	7.94 / 7.21
	Heating/Cooling (UK)	5.18 / 4.89	6.43 / 6.13
STARTING CURRENT (A)		5.0	5.0
RUNNING CURRENT (A)	Heating/Cooling [MAX]	9.57 / 8.58 [22.5]	13.3 / 11.6 [22.5]
FUSE RATING (BS88) - HRC (A)		25	25
MAINS CABLE No. Cores		5	5
MAX PIPE LENGTH (m)		100	100
MAX HEIGHT DIFFERENCE (m)		30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675) - 30m		6.30 / 4.25	6.80 / 4.59
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		2.90 / 1.96	2.40 / 1.62

<sup>③</sup> Three Phase

## Accessories

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

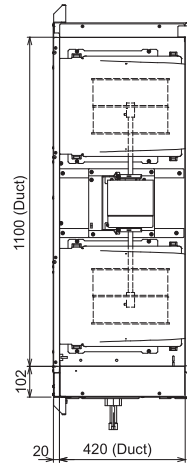
#### PAC-SJ95MA

M-NET adaptor for size 200 to 250

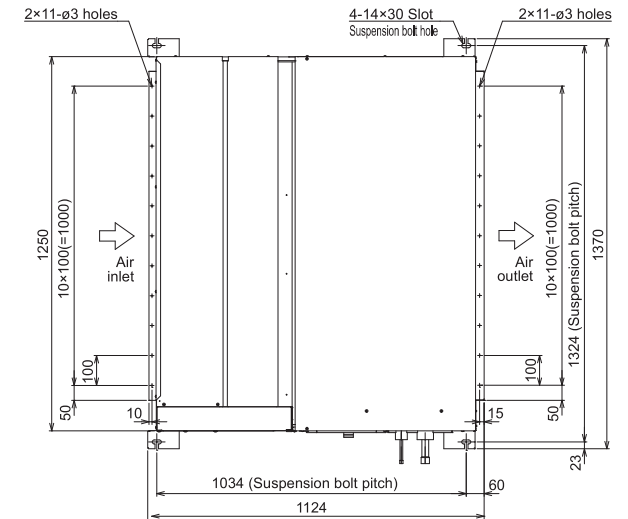
## Product Dimensions

PEA-M200/250LA

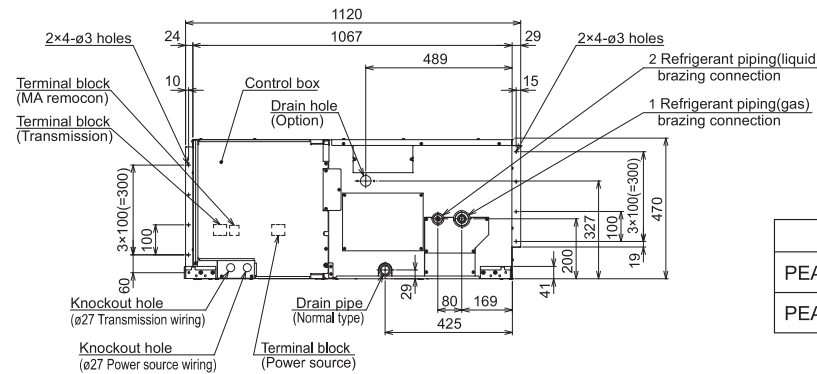
Front View



Upper View



Side View



Model	① Gas pipe	② Liquid pipe	③ Drain hose
PEA-M200LA	ø25.4	ø9.52	Drain hose 32mm <flexible joint>
PEA-M250LA		ø12.7	<accessory>

Note: Please see page 1.3.60 for the full range of accessories.

# PEA-M R32

## Large Capacity Ceiling Concealed Ducted System

Standard Inverter Heat Pump  
(Three Phase)



The cost effective **PEA-M Standard Inverter** large capacity ducted system offers the ultimate in flexibility for larger scale heating and cooling applications. Our latest version works with even greater lengths of ductwork through a 200Pa fan setting, making it ideal for warehouse, atria and large retail applications.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- New PAR-41MAA controller allows effective energy consumption monitoring
- New 'Backup and Rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)
- Ultimate ductwork flexibility through 5 static pressure settings up to 200Pa



PEA-M - INDOOR UNITS		PEA-M200LA	PEA-M250LA
CAPACITY (kW)	Heating (nominal)	22.4 (7.1-25.0)	27.0 (7.3-31.0)
	Cooling (nominal)	19.0 (9.2-22.4)	22.0 (9.9-27.0)
	Heating (UK)	16.8 (5.3-18.8)	20.3 (5.5-23.3)
	Cooling (UK)	16.5 (6.0-19.5)	19.1 (6.6-23.5)
	SHF (nominal)	0.80	0.79
COP / EER (nominal)	3.40 / 3.12	3.30 / 3.00	
SCOP (ηsh) / SEER (ηsc) (BS EN14825)	3.60 (141.1%) / 5.47 (215.9%)	3.55 (139.1%) / 5.38 (212.3%)	
AIRFLOW (l/s)	Lo-Mi-Hi	700-850-1000	750-917-1083
	PIPE SIZE mm (in)	Gas 28.58 (1 1/8")	28.58 (1 1/8")
	Liquid 9.52 (3/8")	12.7 (1/2")	
EXTERNAL STATIC PRESSURE (Pa)		60 / 75 / 100 / 150 / 200	60 / 75 / 100 / 150 / 200
SOUND PRESSURE LEVEL (dBA) (60Pa)	Lo-Mi-Hi	35-40-43	38-43-47
SOUND POWER LEVEL (dBA) (60Pa)	Lo-Mi-Hi	63-64-64	67-67-68
DIMENSIONS (mm)	Width x Depth x Height	1370 x 1120 x 470	1370 x 1120 x 470
WEIGHT (kg)		87	87
ELECTRICAL SUPPLY		220-240v 50Hz	220-240v 50Hz
PHASE		Single	Single
POWER INPUT (kW)		0.35	0.53
RUNNING CURRENT (A) [MAX]		3.1	3.4
FUSE RATING (BS88) - HRC (A)		6	6
MAINS CABLE No. Cores		3	3
INTERCONNECTING CABLE No. Cores		3	3
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA

PUZ-ZM - OUTDOOR UNITS		PUZ-M200YKA2 <sup>③</sup>	PUZ-M250YKA2 <sup>③</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	60 / 58	62 / 59
WEIGHT (kg)		129	138
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330+40 x 1338	1050 x 330+40 x 1338
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	6.59 / 6.09	8.18 / 7.33
	Heating/Cooling (UK)	5.34 / 5.18	6.63 / 6.23
STARTING CURRENT (A)		5.0	5.0
RUNNING CURRENT (A)	Heating/Cooling [MAX]	10.08 / 9.62 [22.5]	12.18 / 11.22 [22.5]
FUSE RATING (BS88) - HRC (A)		25	25
MAINS CABLE No. Cores		5	5
MAX PIPE LENGTH (m)		70	70
MAX HEIGHT DIFFERENCE (m)		30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675) - 30m		5.60 / 3.78	6.80 / 4.59
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		1.60 / 1.08	2.40 / 1.62

<sup>③</sup> Three Phase

## Accessories

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-M200-250YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

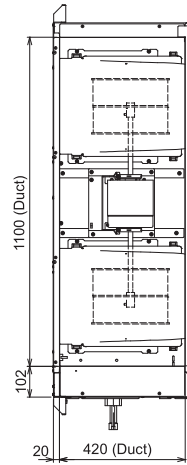
#### PAC-SJ95MA

M-NET adaptor for size 200 to 250

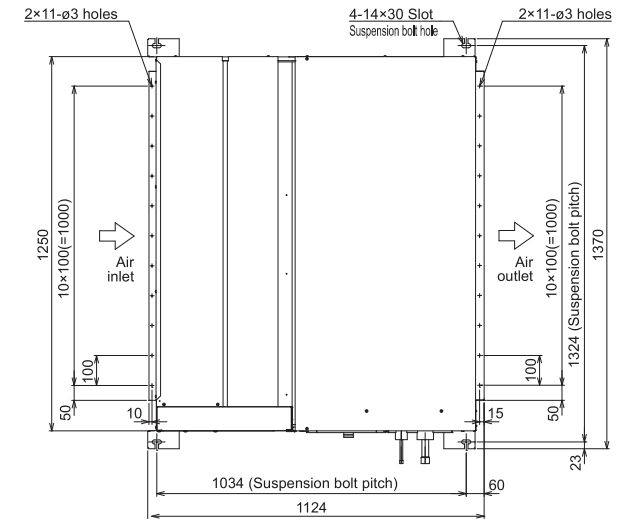
## Product Dimensions

PEA-M200/250LA

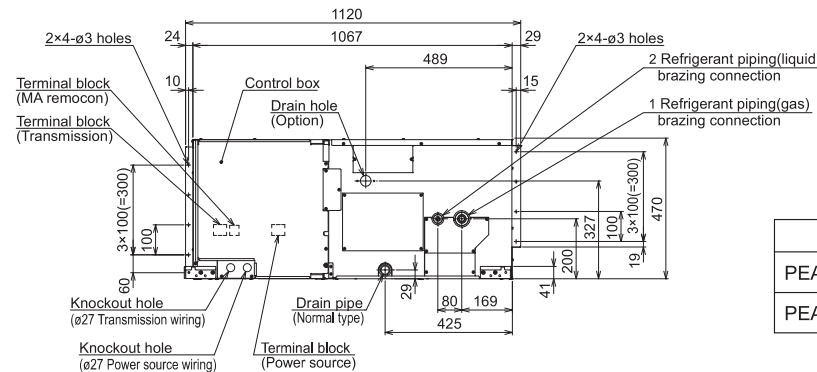
Front View



Upper View



Side View



Model	① Gas pipe	② Liquid pipe	③ Drain hose
PEA-M200LA	ø25.4	ø9.52	Drain hose 32mm
PEA-M250LA		ø12.7	<flexible joint> <accessory>

Note: Please see page 1.3.60 for the full range of accessories.

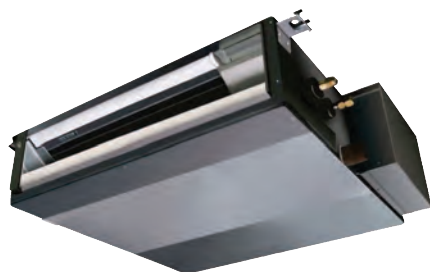
# SEZ-M R32 Ceiling Concealed Ducted System

## Standard Inverter Heat Pump (Single Phase)

The **SEZ-M Standard Inverter** ceiling concealed ducted system is designed for offices, restaurants and retail premises where low noise levels are required. Its low unit height and lightweight design help to make installation easier and more convenient.

### Key Features & Benefits

- Compact, low unit height of 200mm for unobtrusive installation
- Low static pressure level, resulting in noise reduction
- New PAR-41MAA controller allows effective energy consumption monitoring
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



SEZ-M - INDOOR UNITS		SEZ-M25DA2	SEZ-M35DA2	SEZ-M50DA2	SEZ-M60DA2	SEZ-M71DA2
CAPACITY (kW)	Heating (nominal)	2.9 (1.3-4.2)	4.2 (1.1-5.0)	6.0 (1.5-7.2)	7.4 (1.6-8.0)	8.0 (2.0-10.2)
	Cooling (nominal)	2.5 (1.4-3.2)	3.5 (0.7-3.9)	5.0 (1.1-5.6)	6.1 (1.6-6.3)	7.1 (2.2-8.1)
	Heating (UK)	2.47 (1.11-3.57)	3.57 (0.94-4.25)	5.10 (1.28-6.12)	6.29 (1.36-6.80)	6.80 (1.70-8.67)
	Cooling (UK)	2.30 (1.29-2.94)	3.22 (0.64-3.59)	4.60 (1.01-5.15)	5.61 (1.47-5.80)	6.53 (2.02-7.45)
SHF (nominal)		0.78	0.76	0.76	0.79	0.74
COP / EER (nominal)		3.61 / 3.50	3.90 / 3.50	3.71 / 3.23	3.61 / 3.30	3.50 / 3.30
SCOP / SEER (BS EN14825)		3.80 / 5.30	4.10 / 5.90	4.00 / 6.00	4.20 / 5.50	3.90 / 5.50
EP ENERGY EFFICIENCY CLASS	Heating/Cooling	A / A	A+ / A+	A+ / A+	A+ / A	A / A
AIRFLOW (l/s)	Lo-Mi-Hi	100-117-150	117-150-183	167-217-250	200-250-300	200-267-333
PIPE SIZE mm (in)	Gas	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")
EXTERNAL STATIC PRESSURE (Pa)		5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	22-25-29	23-28-33	29-33-36	29-33-37	29-34-39
SOUND POWER LEVEL (dBA)		50	53	57	58	60
DIMENSIONS (mm)	Width x Depth x Height	790 x 700 x 200	990 x 700 x 200	990 x 700 x 200	1190 x 700 x 200	1190 x 700 x 200
WEIGHT (kg)		18	21	23	27	27
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA

SUZ-M - OUTDOOR UNITS		SUZ-M25VAR2	SUZ-M35VAR2	SUZ-M50VAR2	SUZ-M60VAR2	SUZ-M71VAR1
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	45 / 46	48 / 48	48 / 49	49 / 51	49 / 51
SOUND POWER LEVEL (dBA)	Heating/Cooling	59	59	64	65	66
WEIGHT (kg)		30	35	41	54	55
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714	840 x 330 x 880	840 x 330 x 880
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single
SYSTEM POWER	Heating/Cooling (nominal)	0.80 / 0.71	1.07 / 1.00	1.61 / 1.54	2.04 / 1.84	2.28 / 2.15
INPUT (kW)	Heating/Cooling (UK)	0.68 / 0.61	0.91 / 0.86	1.37 / 1.32	1.73 / 1.58	1.94 / 1.85
STARTING CURRENT (A)		3.1	5.0	5.7	7.6	10.0
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	3.7 / 3.0 [6.8]	5.0 / 4.1 [8.5]	8.0 / 7.1 [13.5]	9.3 / 8.4 [14.8]	9.5 / 9.1 [14.8]
FUSE RATING (BS88) - HRC (A)		10	10	20	20	20
MAINS CABLE No. Cores		3	3	3	3	3
MAX PIPE LENGTH (m)		20	20	30	30	30
MAX HEIGHT DIFFERENCE (m)		12	12	30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	0.65 / 0.44	0.90 / 0.61	1.20 / 0.81	1.25 / 0.84	1.45 / 0.98
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	0.91 / 0.61	1.16 / 0.78	1.66 / 1.12	1.71 / 1.15	2.37 / 1.60



## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect air purifying device

#### PAC-HA31PAR

Plasma Quad Connect metal fitment

### Outdoor Units

#### MAC-881SG

Air outlet guide for SUZ-M25-35VAR2

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

#### MAC-886SG

Air outlet guide for SUZ-M60VAR2 / SUZ-M71VAR1

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

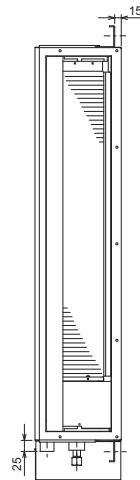
#### MELCORETAIL MINI

Retail control and input / output interface

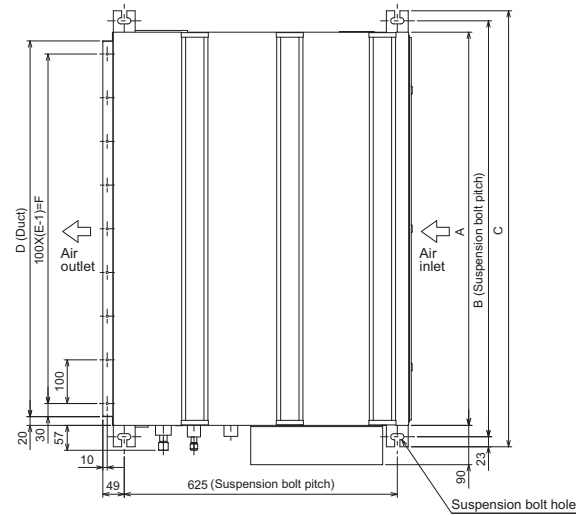
## Product Dimensions

SEZ-M25/35/50/60/71DA2

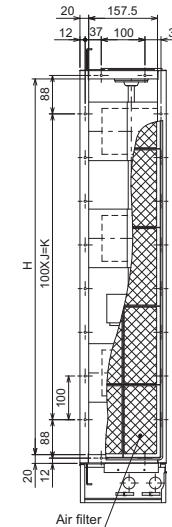
Front View



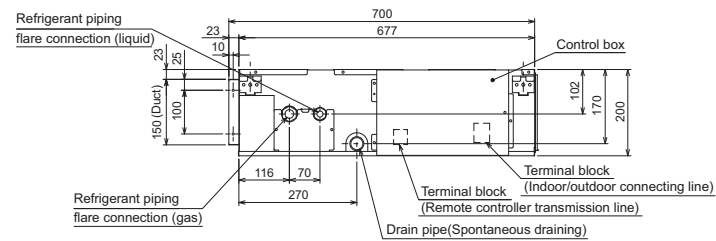
Upper View



Back View



Side View



Model	A	B	C	D	E	F	G	H	J	K	L
SEZ-M25DA2	700	752	798	660	7	600	800	660	5	500	16
SEZ-M35DA2											
SEZ-M50DA2	900	952	998	860	9	800	1000	860	7	700	20
SEZ-M60DA2											
SEZ-M71DA2	1100	1152	1198	1060	11	1000	1200	1060	9	900	24

Note: Please see page 1.3.60 for the full range of accessories.

# PCA-M R32 Ceiling Suspended System

## Power Inverter Heat Pump (Single Phase)



The **PCA-M Power Inverter** range is a ceiling suspended system that blends a host of outstanding features with a sophisticated streamlined design. Offering high seasonal efficiency, advanced control options and extended pipe runs, this range is an extremely flexible solution for commercial applications.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100-140), increasing application capability
- Energy monitoring & 14°C set point option as standard; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA controller)
- High / Low ceiling height modes
- Flush to wall installation for concealment of service connections
- Full heating capacity down to -3°C
- New 'backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)



PCA-M - INDOOR UNITS		PCA-M50KA2	PCA-M60KA2	PCA-M71KA2	PCA-M100KA2	PCA-M125KA2	PCA-M140KA2
CAPACITY (kW)	Heating (nominal)	5.5 (2.5-6.6)	7.0 (2.8-8.2)	8.0 (3.5-10.2)	11.2 (4.5-14.0)	14.0 (5.0-16.0)	16.0 (5.7-18.0)
	Cooling (nominal)	5.0 (2.3-5.6)	6.1 (2.7-6.7)	7.1 (3.3-8.1)	9.5 (4.9-11.4)	12.5 (5.5-14.0)	13.4 (6.2-15.0)
	Heating (UK)	4.7 (2.15-5.6)	5.95 (2.4-6.95)	6.8 (3.0-8.65)	9.5 (3.85-11.9)	11.9 (4.25-13.6)	13.6 (4.85-15.3)
	Cooling (UK)	4.6 (2.1-5.15)	5.5 (2.5-6.15)	6.55 (3.05-7.45)	9.2 (4.5-10.5)	11.5 (5.05-12.9)	12.9 (5.7-13.8)
SHF (nominal)		0.79	0.81	0.76	0.77	0.72	0.72
COP / EER (nominal)		4.04 / 4.00	4.01 / 4.01	3.71 / 3.88	3.71 / 4.10	3.54 / 3.25	3.61 / 3.40
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.2 / 6.7	4.1 / 6.5	4.2 / 6.7	4.3 / 6.4	4.3 (168.8%) / 6.2 (251.0%)	4.4 (173.5%) / 6.2 (248.9%)
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++	A+ / A++	-	-
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi	167-183-217-250	250-267-283-317	267-283-300-333	367-400-433-467	383-417-450-483	400-433-483-533
PIPE SIZE MM (in)	Gas/Liquid	12.7 (1/2") / 6.35 (1/4")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	32-34-37-40	33-35-37-40	35-37-39-41	37-39-41-43	39-41-43-45	41-43-45-48
SOUND POWER LEVEL (dBA)		60	60	62	63	65	68
DIMENSIONS (mm)	Width x Depth x Height	960 x 680 x 230	1280 x 680 x 230	1280 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230
WEIGHT (kg)		26	32	32	37	38	40
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6
INTERCONNECTING CABLE	No. Cores	4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B

PUZ-ZM - OUTDOOR UNITS		PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100VKA2	PUZ-ZM125VKA2	PUZ-ZM140VKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	46 / 44	49 / 47	49 / 47	51 / 49	52 / 50	52 / 50
SOUND POWER LEVEL (dBA)	Cooling	65	67	67	69	70	70
WEIGHT (kg)		46	70	70	116	116	118
DIMENSIONS (mm)	Width x Depth x Height	809 x 300 x 630	950 x 330 + 25 x 943	950 x 330 + 25 x 943	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	1.361 / 1.25	1.745 / 1.521	2.156 / 1.829	3.018 / 2.317	3.954 / 3.846	4.432 / 3.941
	Heating/Cooling (UK)	1.21 / 1.06	1.55 / 1.29	1.92 / 1.55	2.41 / 1.99	3.51 / 3.26	3.94 / 3.35
STARTING CURRENT (A)		4.3	5.3	5.3	10.7	13.2	13.2
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	5.95 / 5.37 [13.4]	7.43 / 6.48 [19.4]	9.23 / 7.81 [19.4]	12.97 / 9.97 [27.2]	16.87 / 16.46 [27.3]	18.76 / 16.66 [28.9]
FUSE RATING (BS88) - HRC (A)		16	25	25	32	32	40
MAINS CABLE NO. CORES		3	3	3	3	3	3
MAX PIPE LENGTH (m)		50	55	55	100	100	100
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.00 / 1.35 (30m)	2.80 / 1.89 (30m)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	0.30 / 0.20	0.80 / 0.54	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62

## Accessories

### Indoor Units

#### PAR-SL94B

Wireless remote controller and adaptor for PCA-M50-140KA2

### Outdoor Units

#### PAC-SJ07SG

Air outlet guide for PUZ-ZM50VKA2

#### PAC-SG59SG

Air outlet guide for PUZ-ZM60-71VHA2

#### PAC-SH96SG

Air outlet guide for PUZ-ZM100-140VKA2

#### PAC-SJ71FM-E

30Pa outdoor fan motor for PUZ-ZM100-140VKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

#### PAC-SK15MA-E

M-NET adaptor for size 50

#### PAC-SJ95MA

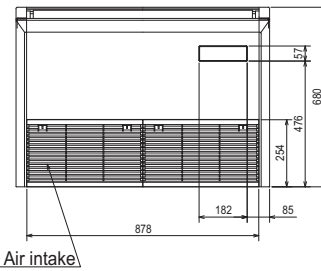
M-NET adaptor for size 60 to 140

Note: Please see page 1.3.60 for the full range of accessories.

## Product Dimensions

### PCA-M50KA2

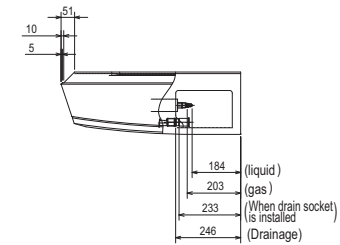
Lower View



Front View



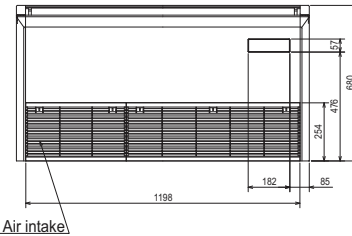
Side View



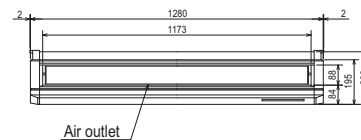
## Product Dimensions

### PCA-M60/71KA2

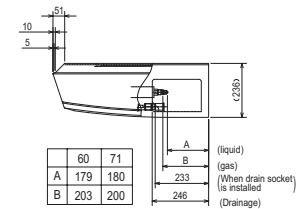
Lower View



Front View



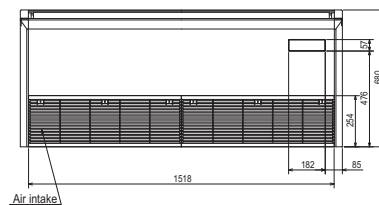
Side View



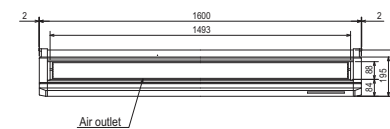
## Product Dimensions

### PCA-M100/125/140KA2

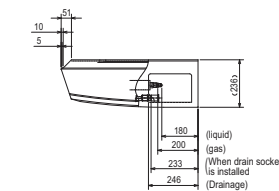
Lower View



Front View



Side View



# PCA-M R32 Ceiling Suspended System

## Power Inverter Heat Pump (Three Phase)



The **PCA-M Power Inverter** range is a ceiling suspended system that blends a host of outstanding features with a sophisticated streamlined design. Offering high seasonal efficiency, advanced control options and extended pipe runs, this range is an extremely flexible solution for commercial applications.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run, increasing application capability
- Energy monitoring & 14°C set point option as standard; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA controller)
- High / Low ceiling height modes
- Flush to wall installation for concealment of service connections
- Full heating capacity down to -3°C
- New 'backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)



PCA-M - INDOOR UNITS		PCA-M100KA2	PCA-M125KA2	PCA-M140KA2
CAPACITY (kW)	Heating (nominal)	11.2 (4.5-14.0)	14.0 (5.0-16.0)	16.0 (5.7-18.0)
	Cooling (nominal)	9.5 (4.9-11.4)	12.5 (5.5-14.0)	13.4 (6.2-15.0)
	Heating (UK)	9.5 (3.85-11.9)	11.9 (4.25-13.6)	13.6 (4.85-15.3)
	Cooling (UK)	9.2 (4.5-10.5)	11.5 (5.05-12.9)	12.9 (5.7-13.8)
SHF (nominal)		0.77	0.72	0.72
COP / EER (nominal)		3.71 / 4.10	3.54 / 3.25	3.61 / 3.40
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.3 / 6.3	4.3 (168.8%) / 6.1 (249.5%)	4.4 (173.5%) / 6.1 (247.6%)
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	-	-
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi	367-400-433-467	383-417-450-483	400-433-483-533
PIPE SIZE MM (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	37-39-41-43	39-41-43-45	41-43-45-48
SOUND POWER LEVEL (dBA)		63	65	68
DIMENSIONS (mm)	Width x Depth x Height	1600 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230
WEIGHT (kg)		37	38	40
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6
INTERCONNECTING CABLE	No. Cores	4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL94B	PAR-SL94B	PAR-SL94B

PUZ-ZM - OUTDOOR UNITS		PUZ-ZM100YKA2 <sup>③</sup>	PUZ-ZM125YKA2 <sup>③</sup>	PUZ-ZM140YKA2 <sup>③</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	51 / 49	52 / 50	52 / 50
SOUND POWER LEVEL (dBA)	Cooling	69	70	70
WEIGHT (kg)		123	125	131
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338
ELECTRICAL SUPPLY		380-415v,50Hz	380-415v,50Hz	380-415v,50Hz
PHASE		Three	Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	3.018 / 2.317	3.954 / 3.846	4.432 / 3.941
	Heating/Cooling (UK)	2.41 / 1.99	3.51 / 3.26	3.94 / 3.35
STARTING CURRENT (A)		2.6	3.3	3.3
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	4.34 / 3.31 [8.7]	5.69 / 5.54 [10.3]	6.42 / 5.71 [13.9]
FUSE RATING (BS88) - HRC (A)		16	16	16
MAINS CABLE NO. CORES		5	5	5
MAX PIPE LENGTH (m)		100	100	100
MAX HEIGHT DIFFERENCE (m)		30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) - 40m	3.60 / 2.43	3.60 / 2.43	3.60 / 2.43
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62

<sup>③</sup> Three Phase



## Accessories

### Indoor Units

#### PAR-SL94B

Wireless remote controller and adaptor for PCA-M100-140KA2

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-ZM100-140YKA2

#### PAC-SJ71FM-E

30Pa outdoor fan motor for PUZ-ZM100-140YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

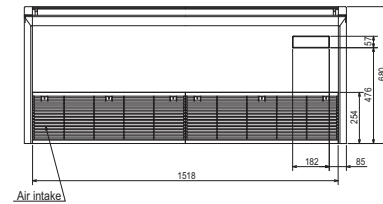
#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

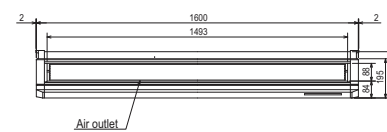
## Product Dimensions

PCA-M100/125/140KA2

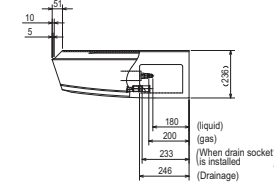
Lower View



Front View



Side View



Note: Please see page 1.3.60 for the full range of accessories.

# PCA-M R32 Ceiling Suspended System

## Standard Inverter Heat Pump (Single Phase)

The cost effective **PCA-M Standard Inverter** range is a ceiling suspended system that blends a host of outstanding features with a sophisticated streamlined design. Offering advanced control options and quiet operation, this range is an extremely flexible solution for commercial applications.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features (size 100-140)
- New PAR-41MAA controller allows effective energy consumption monitoring
- 14°C set point option; ideal for applications where a specialist ambient condition is required (size 100-140; requires PAR-41MAA controller)
- High / Low ceiling height modes
- Flush to wall installation for concealment of service connections
- New 'backup and rotate' feature to reduce load on individual units and prolong product life (size 100-140; requires PAR-41MAA controller)



PCA-M - INDOOR UNITS		PCA-M50KA2	PCA-M60KA2	PCA-M71KA2	PCA-M100KA2	PCA-M125KA2	PCA-M140KA2
CAPACITY (kW)	Heating (nominal)	6.0 (1.5-7.2)	7.0 (1.6-8.0)	8.0 (2.0-10.2)	11.2 (2.8-12.5)	13.5 (4.1-15.0)	15.0 (4.2-15.8)
	Cooling (nominal)	5.0 (1.5-5.6)	6.1 (1.6-6.3)	7.1 (2.2-8.1)	9.5 (4.0-10.6)	12.1 (5.7-13.0)	13.4 (5.7-14.1)
	Heating (UK)	5.10 (1.28-6.12)	5.95 (1.36-6.80)	6.80 (1.70-8.67)	9.63 (2.41-10.75)	11.61 (3.53-12.90)	12.90 (3.61-13.59)
	Cooling (UK)	4.60 (1.38-5.15)	5.61 (1.47-5.80)	6.53 (1.56-7.45)	8.65 (3.64-9.65)	11.01 (5.19-11.83)	12.19 (5.19-12.83)
SHF (nominal)		0.79	0.81	0.76	0.77	0.72	0.72
COP / EER (nominal)		3.71 / 3.30	4.00 / 3.70	3.61 / 3.60	3.41 / 3.23	3.41 / 3.01	3.50 / 2.50
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.10 / 6.00	4.10 / 6.40	4.10 / 6.50	4.10 / 6.00	4.1 (162.7%) / 5.2 (213%)	4.0 (158.7%) / 5.1 (208%)
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A+	A+ / A++	A+ / A++	A+ / A+	A+ / A	A+ / A
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi	167-183-217-250	250-267-283-317	267-283-300-333	367-400-433-467	383-417-450-483	400-433-483-533
PIPE SIZE mm (in)	Gas/Liquid	12.7 (1/2") / 6.35 (1/4")	15.88 (5/8") / 6.35 (1/4")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	32-34-37-40	33-35-37-40	35-37-39-41	37-39-41-43	39-41-43-45	41-43-45-48
SOUND POWER LEVEL (dBA)		60	60	62	63	65	68
DIMENSIONS (mm)	Width x Depth x Height	960 x 680 x 230	1280 x 680 x 230	1280 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230
WEIGHT (kg)		26	32	32	37	38	40
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B

SUZ-M / PUZ-M - OUTDOOR UNITS		SUZ-M50VAR2	SUZ-M60VAR2	SUZ-M71VAR1	PUZ-M100VKA2	PUZ-M125VKA2	PUZ-M140VKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	48 / 49	49 / 51	49 / 51	51 / 54	54 / 56	55 / 57
SOUND POWER LEVEL (dBA)	Cooling	64	65	66	70	72	73
WEIGHT (kg)		41	54	55	76	84	84
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 714	840 x 330 x 880	840 x 330 x 880	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	1.61 / 1.51	1.75 / 1.64	2.21 / 1.97	3.28 / 2.94	3.95 / 4.01	4.28 / 5.36
	Heating/Cooling (UK)	1.37 / 1.30	1.49 / 1.41	1.88 / 1.69	2.95 / 2.44	3.56 / 3.33	3.85 / 4.45
STARTING CURRENT (A)		5.7	7.6	10.0	7.1	2.9	2.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	8.0 / 7.1 [13.5]	9.3 / 8.4 [14.8]	9.5 / 9.1 [14.8]	14.2 / 12.6 [20.0]	17.0 / 17.3 [26.5]	18.4 / 23.2 [30.0]
FUSE RATING (BS88) - HRC (A)		20	20	20	32	32	40
MAINS CABLE No. Cores		3	3	3	3	3	3
MAX PIPE LENGTH (m)		30	30	30	55	65	65
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	1.20 / 0.81 (7m)	1.25 / 0.84 (7m)	1.45 / 0.98 (7m)	3.10 / 2.09 (30m)	3.60 / 2.43 (30m)	3.60 / 2.43 (30m)
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	1.66 / 1.12	1.71 / 1.15	2.37 / 1.80	4.10 / 2.77	5.00 / 3.38	5.00 / 3.38

Note: Duty/standby not available on SUZ-M50/60/71VAR2/1.

## Accessories

### Indoor Units

#### PAR-SL94B

Wireless remote controller and adaptor for PCA-M100-140KA2

### Outdoor Units

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

#### MAC-886SG

Air outlet guide for SUZ-M60VAR2 / SUZ-M71VAR1

#### PAC-SH96SG

Air outlet guide for PUZ-M100-140VKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

#### PAC-SJ95MA

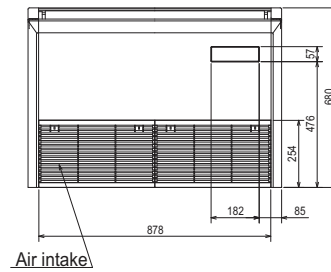
M-NET adaptor for size 100 to 140

Note: Please see page 1.3.60 for the full range of accessories.

## Product Dimensions

### PCA-M50KA2

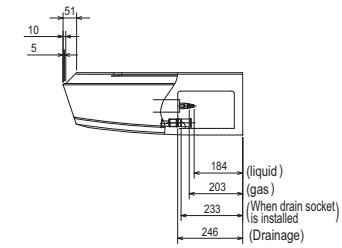
Lower View



Front View



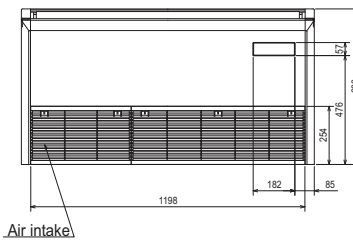
Side View



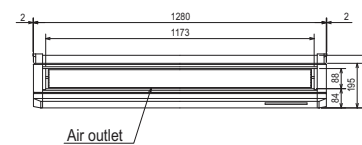
## Product Dimensions

### PCA-M60/71KA2

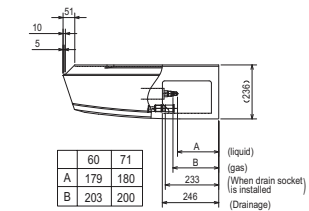
Lower View



Front View



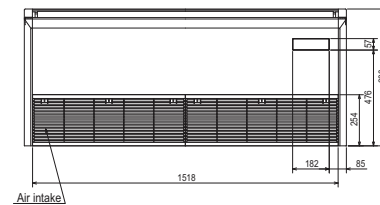
Side View



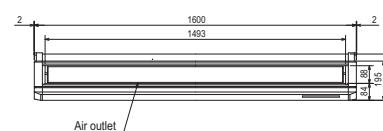
## Product Dimensions

### PCA-M100/125/140KA2

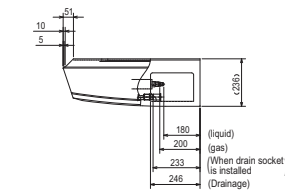
Lower View



Front View



Side View



# PCA-M R32 Ceiling Suspended System

## Standard Inverter Heat Pump (Three Phase)



The cost effective **PCA-M Standard Inverter** range is a ceiling suspended system that blends a host of outstanding features with a sophisticated streamlined design. Offering advanced control options and quiet operation, this range is an extremely flexible solution for commercial applications.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- New PAR-41MAA controller allows effective energy consumption monitoring
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA controller)
- High / Low ceiling height modes
- Flush to wall installation for concealment of service connections
- New 'backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)



PCA-M - INDOOR UNITS		PCA-M100KA2	PCA-M125KA2	PCA-M140KA2
CAPACITY (kW)	Heating (nominal)	11.2 (2.8-12.5)	13.5 (4.1-15.0)	15.0 (4.2-15.8)
	Cooling (nominal)	9.5 (4.0-10.6)	12.1 (5.7-13.0)	13.4 (5.7-14.1)
	Heating (UK)	9.63 (2.41-10.75)	11.61 (3.53-12.90)	12.90 (3.61-13.59)
	Cooling (UK)	8.65 (3.64-9.65)	11.01 (5.19-11.83)	12.19 (5.19-12.83)
SHF (nominal)		0.77	0.72	0.72
COP / EER (nominal)		3.41 / 3.23	3.41 / 3.01	3.50 / 2.50
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.10 / 6.00	4.1 (162.7%) / 5.2 (213%)	4.0 (158.7%) / 5.1 (208%)
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A+	A+ / A	A+ / A
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi	367-400-433-467	383-417-450-483	400-433-483-533
PIPE SIZE mm (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	37-39-41-43	39-41-43-45	41-43-45-48
SOUND POWER LEVEL (dBA)		63	65	68
DIMENSIONS (mm)	Width x Depth x Height	1600 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230
WEIGHT (kg)		37	38	40
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL94B	PAR-SL94B	PAR-SL94B

PUZ-M - OUTDOOR UNITS		PUZ-M100YKA2 <sup>③</sup>	PUZ-M125YKA2 <sup>③</sup>	PUZ-M140YKA2 <sup>③</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	51 / 54	54 / 56	55 / 57
SOUND POWER LEVEL (dBA)	Cooling	70	72	73
WEIGHT (kg)		76	84	84
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	3.28 / 2.94	3.95 / 4.01	4.28 / 5.36
	Heating/Cooling (UK)	2.95 / 2.44	3.56 / 3.33	3.85 / 4.45
STARTING CURRENT (A)		3.5	4.9	4.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	5.1 / 4.5 [11.5]	6.1 / 6.2 [11.5]	6.6 / 8.3 [11.5]
FUSE RATING (BS88) - HRC (A)		16	16	16
MAINS CABLE No. Cores		5	5	5
MAX PIPE LENGTH (m)		55	65	65
MAX HEIGHT DIFFERENCE (m)		30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	3.10 / 2.09	3.60 / 2.43	3.60 / 2.43
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	4.10 / 2.77	5.00 / 3.38	5.00 / 3.38

<sup>③</sup> Three Phase



## Accessories

### Indoor Units

#### PAR-SL94B

Wireless remote controller and adaptor for PCA-M100-140KA2

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-M100-140YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

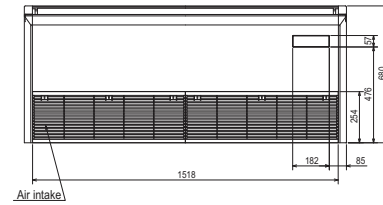
#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

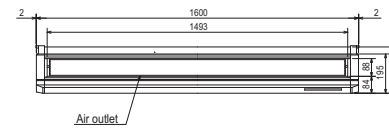
## Product Dimensions

PCA-M100/125/140KA2

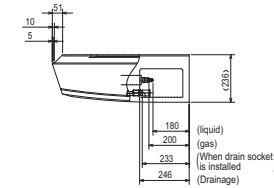
Lower View



Front View



Side View



Note: Please see page 1.3.60 for the full range of accessories.

# PCA-M-HA2 R32 Stainless Steel Ceiling Suspended System

## Power Inverter Heat Pump (Single Phase)



The **PCA-M-HA2 Power Inverter** is a ceiling suspended system that is ideal for use in commercial kitchen and cafeteria applications. The external casing is made of durable stainless steel that is resistant to oil and smoke, ensuring that the unit can be easily cleaned. Our Power Inverter Heat Pump offers customers high seasonal efficiency, advanced control options and quiet operation, whilst providing greater flexibility and ease of installation.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- Energy monitoring & 14°C set point option as standard; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA controller)
- 'Backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)
- Easy maintenance and cleaning - fan casing can be separated into different sections and pipe connector removed to allow access to drain pan
- High performance oil mist filter for kitchen applications

# R32

PCA-M-HA2 - INDOOR UNIT		PCA-M71HA2
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	7.6 (3.5-10.2) 7.1 (3.3-8.1) 6.8 (3.0-8.65) 6.55 (3.05-7.45)
SHF (nominal)		0.74
COP / EER (nominal)		3.50 / 3.51
SCOP / SEER		3.9 / 5.6
ENERGY EFFICIENCY CLASS	Heating/Cooling	A / A+
AIRFLOW (l/s)	Lo-Hi	267-300
PIPE SIZE mm (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Hi	37-39
SOUND POWER LEVEL (dBA)		57
DIMENSIONS (mm)	Width x Depth x Height	1136 x 650 x 280
WEIGHT (kg)		42
ELECTRICAL SUPPLY		Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6
INTERCONNECTING CABLE No. Cores		4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL94B
PUZ-ZM - OUTDOOR UNIT		PUZ-ZM71VHA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	49 / 47
SOUND POWER LEVEL (dBA)	Cooling	67
WEIGHT (kg)		70
DIMENSIONS (mm)	Width x Depth x Height	950 x 330 + 30 x 943
ELECTRICAL SUPPLY		220-240v, 50Hz
PHASE		Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) Heating/Cooling (UK)	1.82 / 1.65 1.69 / 1.39
STARTING CURRENT (A)		5.3
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	7.5 / 6.7 [19.4]
FUSE RATING (BS88) - HRC (A)		25
MAINS CABLE No. Cores		3
MAX PIPE LENGTH (m)		55
MAX HEIGHT DIFFERENCE (m)		30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)		2.80 / 1.89
R32 (GWP 675) - 30m		
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)		0.80 / 0.54
R32 (GWP 675)		

## Accessories

### Indoor Units

#### PAR-SL94B

Wireless remote controller and adaptor for PCA-M71HA2

#### PAC-SG38KF

Oil mist filter for PCA-M71HA2 (12 pack)

### Outdoor Units

#### PAC-SG59SG

Air outlet guide for PUZ-ZM71VKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

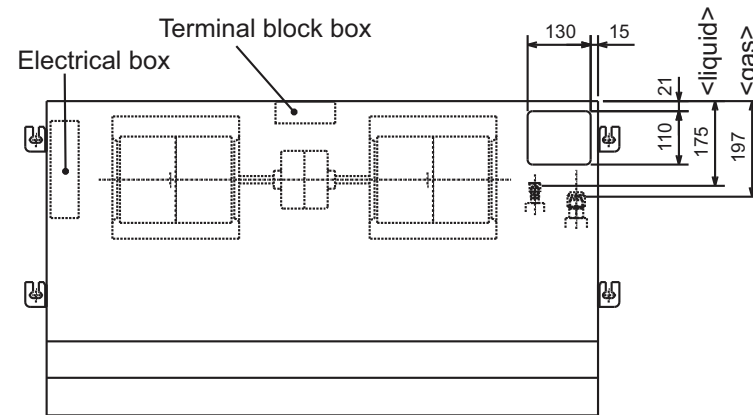
#### PAC-SJ95MA

M-NET adaptor for size 71

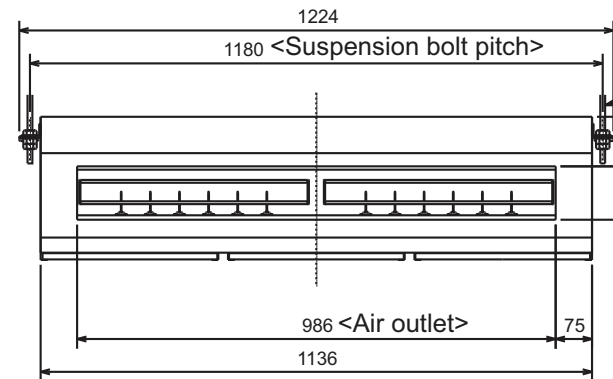
## Product Dimensions

PCA-M71HA2

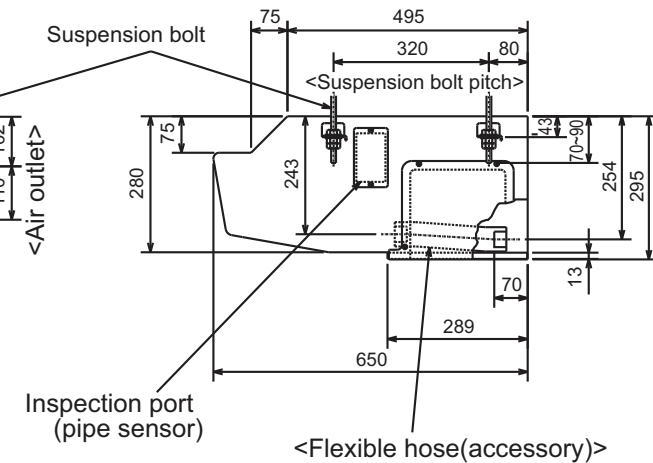
Upper View



Front View



Side View



Note: Please see page 1.3.60 for the full range of accessories.

# PSA-M R32 Floor Standing System

## Power Inverter Heat Pump

The **PSA-M Power Inverter** range is a floor standing system that blends a host of outstanding features with a sophisticated streamlined design. Offering high seasonal efficiency, advanced control options and quiet operation, this range allows installation where limited ceiling space is available.

### Key Features & Benefits

- Built in PAR-41MAA controller allows effective energy consumption monitoring
- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100-140), increasing application capability
- 14°C set point option; ideal for applications where a specialist ambient condition is required
- Quick and easy installation, saving on time and cost
- Compact body and minimal footprint - ideal for applications where space-saving is a requirement



PSA-M - INDOOR UNITS		PSA-M71KA	PSA-M100KA	PSA-M100KA	PSA-M125KA	PSA-M125KA	PSA-M140KA	PSA-M140KA
CAPACITY (kW)	Heating (nominal)	7.6 (3.5-10.2)	11.2 (4.5-14.0)	11.2 (4.5-14.0)	14.0 (5.0-16.0)	14.0 (5.0-16.0)	16.0 (5.7-18.0)	16.0 (5.7-18.0)
	Cooling (nominal)	7.1 (3.3-8.1)	9.5 (4.9-11.4)	9.5 (4.9-11.4)	12.5 (5.5-14.0)	12.5 (5.5-14.0)	13.4 (6.2-15.0)	13.4 (6.2-15.0)
	Heating (UK)	6.45 (3.0-8.65)	9.5 (3.85-11.9)	9.5 (3.85-11.9)	11.9 (4.25-13.6)	11.9 (4.25-13.6)	13.6 (4.84-15.3)	13.6 (4.84-15.3)
	Cooling (UK)	6.55 (3.05-7.45)	9.2 (4.5-10.5)	9.2 (4.5-10.5)	11.4 (5.05-12.9)	11.4 (5.05-12.9)	12.3 (5.7-13.8)	12.3 (5.7-13.8)
SHF (nominal)		0.79	0.73	0.73	0.72	0.72	0.71	0.71
COP / EER (nominal)		3.25 / 3.76	3.53 / 3.81	3.53 / 3.81	3.11 / 3.16	3.11 / 3.16	3.20 / 3.37	3.20 / 3.37
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.0 (157.8%) / 6.4 (266.2%)	4.1 (161.3%) / 5.7 (234.6%)	4.1 (161.3%) / 5.6 (232.9%)	3.9 (153.1%) / 5.2 (212.0%)	3.9 (153.0%) / 5.1 (210.9%)	4.0 (158.1%) / 6.1 (249.1%)	4.0 (158.1%) / 6.0 (247.8%)
ErP ENERGY EFFICIENCY CLASS Heating/Cooling		A+ / A++	A+ / A+	A+ / A+	A / A	A / A	A+ / A++	A+ / A+
AIRFLOW (l/s)	Lo-Mi-Hi	333-367-400	417-467-500	417-467-500	417-467-517	417-467-517	417-467-517	417-467-517
PIPE SIZE mm (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	40-42-44	45-49-51	45-49-51	45-49-51	45-49-51	45-49-51	45-49-51
SOUND POWER LEVEL (dBA)		60	65	65	66	66	66	66
DIMENSIONS (mm)	Width x Depth x Height	600 x 360 x 1900	600 x 360 x 1900	600 x 360 x 1900	600 x 360 x 1900	600 x 360 x 1900	600 x 360 x 1900	600 x 360 x 1900
WEIGHT (kg)	Unit / Panel	46	46	46	46	46	48	48
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA

PUZ-ZM - OUTDOOR UNITS		PUZ-ZM71VHA2	PUZ-ZM100VKA2	PUZ-ZM100YKA2 <sup>③</sup>	PUZ-ZM125VKA2	PUZ-ZM125YKA2 <sup>③</sup>	PUZ-ZM140VKA2	PUZ-ZM140YKA2 <sup>③</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	49 / 47	51 / 49	51 / 49	52 / 50	52 / 50	52 / 50	52 / 50
SOUND POWER LEVEL (dBA)	Cooling	67	69	69	70	70	70	70
WEIGHT (kg)		70	116	123	116	125	118	131
DIMENSIONS (mm)	Width x Depth x Height	950 x 330 + 25 x 943	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	Single	Three	Single	Three	Single	Three
SYSTEM POWER	Heating/Cooling (nominal)	2.338 / 1.888	3.172 / 2.493	3.172 / 2.493	4.501 / 3.955	4.501 / 3.955	5.000 / 3.976	5.000 / 3.976
INPUT (kW)	Heating/Cooling (UK)	2.08 / 1.60	2.53 / 2.14	2.53 / 2.14	4.00 / 3.35	4.00 / 3.35	4.44 / 3.38	4.44 / 3.38
STARTING CURRENT (A)		5.3	10.7	2.6	13.2	3.3	13.2	3.3
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	9.05 / 6.96 [19.4]	11.01 / 9.31 [20.7]	6.33 / 5.35 [8.7]	17.37 / 14.58 [27.2]	9.50 / 8.38 [9.7]	19.33 / 14.69 [30.7]	11.11 / 8.45 [12.5]
FUSE RATING (BS88) - HRC (A)		25	25	16	32	16	40	16
MAINS CABLE No. Cores		3	3	5	3	5	3	3
MAX PIPE LENGTH (m)		55	100	100	100	100	100	100
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		0.80 / 0.54	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62

<sup>③</sup> Three Phase Note: Includes built in PAR-41MAA wired remote controller.

## Accessories

### Outdoor Units

#### PAC-SG59SG

Air outlet guide for PUZ-ZM71VHA2

#### PAC-SH96SG

Air outlet guide for PUZ-ZM100-140VKA2/YKA2

#### PAC-SJ71FM-E

30Pa outdoor fan motor for PUZ-ZM100-140VKA2/YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

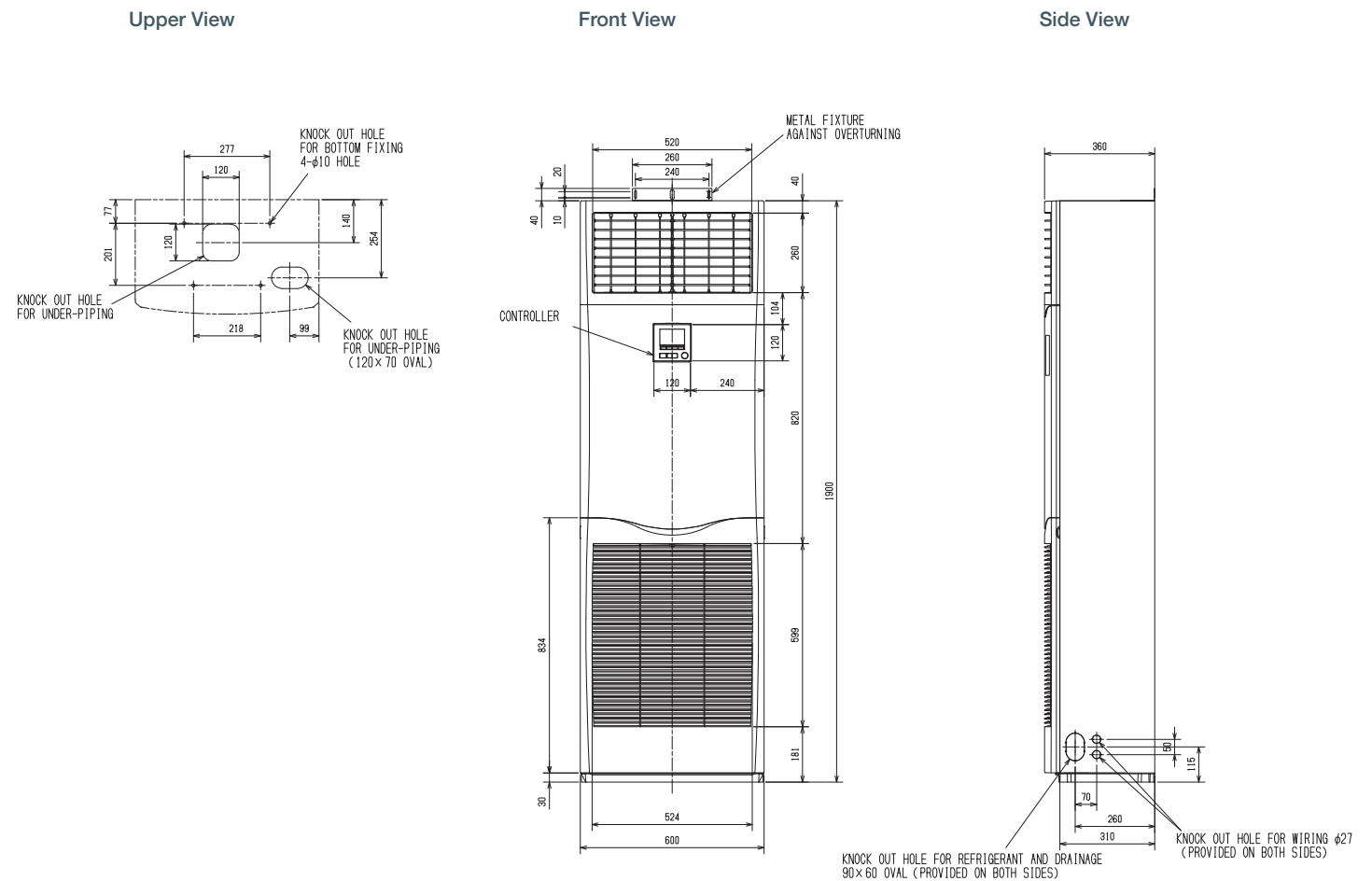
Retail control and input / output interface

#### PAC-SJ95MA

M-NET adaptor for size 71 to 140

## Product Dimensions

PSA-M71/100/125/140KA



Note: Please see page 1.3.60 for the full range of accessories.

# HP DX 2.0 R32 Air Curtain System

## Power Inverter Heat Pump



The **HP DX 2.0 Power Inverter** air curtain range is the latest innovation from the collaboration between Mitsubishi Electric and Thermoscreens. These innovative air curtains are available as exposed or recessed versions, giving exceptional flexibility for commercial overhead applications such as retail stores, office and hotel lobbies.

### Key Features & Benefits

- Helps our customers meet their corporate social responsibility targets by using lower GWP R32 refrigerant
- Lower run costs and carbon emissions achieved with connection to flagship Mr Slim Power Inverter high efficiency outdoor units
- Large / double door openings are supported through twin-split air curtain capability



HP DX 2.0 - RECESSED		HP1000R DX 2.0	HP1500R DX 2.0	HP1500R DX 2.0	HP2000R DX 2.0	HP2000R DX 2.0	HP2000R DX 2.0
CAPACITY (kW)	Heating (nominal)	8.3	13.2	13.2	15.7	15.7	21.0
	Cooling (nominal)	7.4	11.8	11.8	14.0	14.0	18.7
AIRFLOW MAX (l/s)		364	575	575	720	720	720
SOUND PRESSURE LEVEL AT 3m (dBA) Lo-Mi-Hi		47-54-57	45-52-56	45-52-56	47-54-57	47-54-57	47-54-57
WEIGHT (kg)		52	75	75	93	93	93
DIMENSIONS (mm) Width x Depth x Height		1250 (1303) x 485 (539) x 348	1750 (1803) x 485 (539) x 348	1750 (1803) x 485 (539) x 348	2340 (2393) x 485 (539) x 348	2340 (2393) x 485 (539) x 348	2340 (2393) x 485 (539) x 348
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A)		0.8	1.2	1.2	1.4	1.4	1.4
MAINS CABLE No. Cores		3	3	3	3	3	3
UNIFORMITY AT OUTLET (%)*1		90	92	92	90	90	90
MAX MOUNTING HEIGHT (m)		3.2	3.2	3.2	3.2	3.2	3.2

HP DX 2.0 - FREE STANDING		HP1000 DX 2.0	HP1500 DX 2.0	HP1500 DX 2.0	HP2000 DX 2.0	HP2000 DX 2.0	HP2000 DX 2.0
CAPACITY (kW)	Heating (nominal)	8.3	13.2	13.2	15.7	15.7	21.0
	Cooling (nominal)	7.4	11.8	11.8	14.0	14.0	18.7
AIRFLOW MAX (l/s)		364	575	575	720	720	720
SOUND PRESSURE LEVEL AT 3m (dBA) Lo-Mi-Hi		47-54-57	45-52-56	45-52-56	47-54-57	47-54-57	47-54-57
WEIGHT (kg)		46	67	67	84	84	84
DIMENSIONS (mm) Width x Depth x Height		1300 x 468 x 306	1825 x 468 x 306	1825 x 468 x 306	2350 x 468 x 306	2350 x 468 x 306	2350 x 468 x 306
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A)		0.8	1.2	1.2	1.4	1.4	1.4
MAINS CABLE No. Cores		3	3	3	3	3	3
UNIFORMITY AT OUTLET (%)*1		90	92	92	90	90	90
MAX MOUNTING HEIGHT (m)		3.2	3.2	3.2	3.2	3.2	3.2

HEAT PUMP OUTDOOR UNITS		PUZ-ZM71VHA2	PUZ-ZM125VKA2	PUZ-ZM125YKA2 <sup>③</sup>	PUZ-ZM140VKA2	PUZ-ZM140YKA2 <sup>③</sup>	PUZ-ZM200YKA2 <sup>③</sup>
SOUND PRESSURE LEVEL (dBA) Heating/Cooling		49 / 47	52 / 50	52 / 50	52 / 50	52 / 50	62 / 59
		67	70	70	70	70	77
WEIGHT (kg)		70	116	125	118	131	137
DIMENSIONS (mm) Width x Depth x Height		950 x 330 + 25 x 943	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338	1050 x 330 + 40 x 1338
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE		Single	Single	Three	Single	Three	Three
STARTING CURRENT (A)		5.3	13.2	3.3	13.2	3.3	5.0
FUSE RATING (BS88) - HRC (A)		7.79 / 7.06 [19.3]	15.77 / 14.53 [27.0]	5.32 / 4.89 [10.0]	18.41 / 15.88 [28.7]	6.23 / 5.37 [13.7]	9.57 / 8.58 [22.5]
SYSTEM RUNNING CURRENT (A)		25	32	16	40	16	25
INTERCONNECTING CABLE		2 Core	2 Core	2 Core	2 Core	2 Core	2 Core
MAX PIPE LENGTH (m)		85	85	85	85	85	85
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	6.3 / 4.25 (30m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		0.80 / 0.54	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.20 / 1.49

③ Three Phase Notes: \*1 Tested to ISO 27327.

## Accessories

### Outdoor Units

#### PAC-SG59SG

Air outlet guide for PUZ-ZM71VHA2

#### PAC-SH96SG

Air outlet guide for PUZ-ZM125-140VKA2/YKA2

#### PAC-SJ71FM-E

30Pa outdoor fan motor for PUZ-ZM100-140VKA2/YKA2

### System Control Units

#### PAC-SJ95MA

M-NET adaptor for size 71 to 200

#### PAR-41MAA

Standard wired remote controller

#### PAR-W21MAA

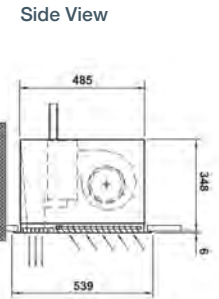
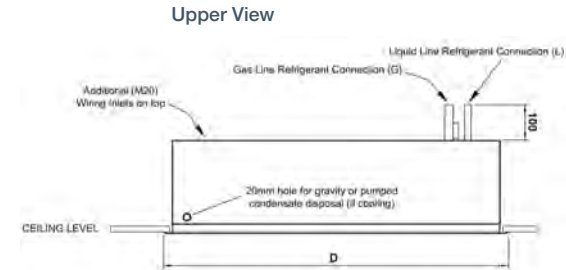
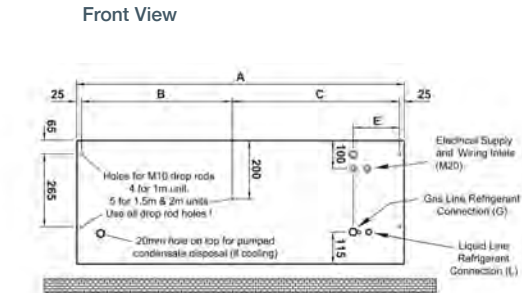
Wired remote controller

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

## Product Dimensions

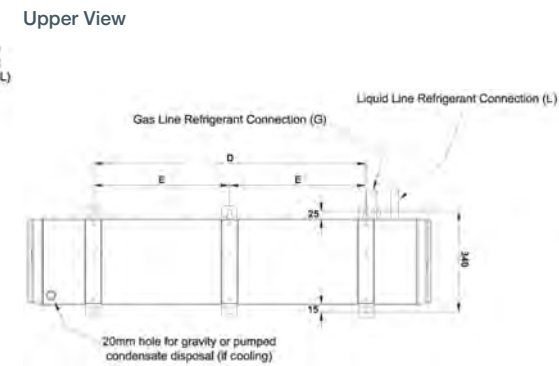
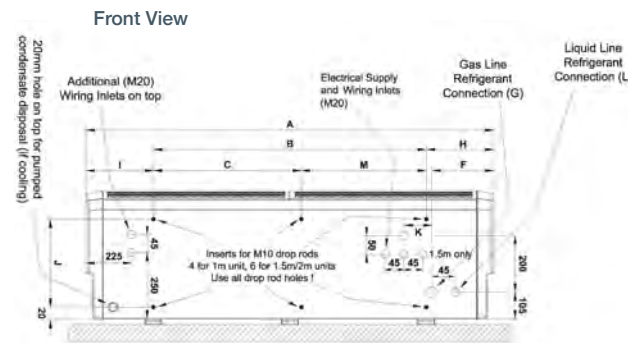
HP1000/1500/2000R DX 2.0



	HP1000R DX 2.0	HP1500R DX 2.0	HP2000R DX 2.0
A (mm)	1250	1750	2340
B (mm)	-	724	1129
C (mm)	-	976	1161
D (mm)	1303	1803	2393
E (mm)	170	166	189
G	3/8 in.	3/8 in.	7/8 in.
L	1/2 in.	1/2 in.	3/8 in.
Cut-Out in Ceiling	Length (mm)	1250	1750
	Width (mm)	485	485

## Product Dimensions

HP1000/1500/2000 DX 2.0



	HP1000 DX 2.0	HP1500 DX 2.0	HP2000 DX 2.0
A (mm)	1300	1825	2350
B (mm)	605	1225	1793
C (mm)	-	855	918
D (mm)	898	1398	1904
E (mm)	-	699	952
F (mm)	182	222	204
G	5/8 in.	5/8 in.	7/8 in.
H (mm)	442	333	299
I (mm)	253	267	258
J (mm)	359	359	334
K (mm)	80	45	80
L	3/4 in.	1/2 in.	3/8 in.
M (mm)	-	570	875

Note: Please see page 1.3.60 for the full range of accessories.

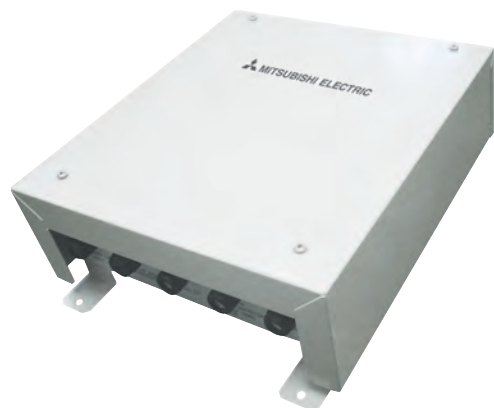
# PAC-IF013B-E R32 & R410A

## Air Handling Unit Controller

The Air Handling Unit Controller can interface Mitsubishi Electric Mr Slim outdoor units to third party air handling units. Up to six Mr Slim outdoor units can be used on a single air handling unit, providing a wide range of heating and cooling capacities.

### Key Features & Benefits

- Simpler installation with Mr Slim being a single source of heating and cooling
- BEMS external monitoring and control can be achieved through direct Modbus, digital switches or analogue input
- Intelligent Multiple Outdoor Unit Control (IMOUC) of up to six Mr Slim outdoor units when operated in external manual control, this can include two different capacities or a series of Mr Slim outdoor units
- Anti-cycling measures incorporated into the design to extend the life of the outdoor units
- Capacity control of up to 11 individual steps ensures high comfort levels
- SD card installed to record history and facilitate software upgrades
- Maximum airflow of up to 5 x standard Mr Slim specification
- Complete AHU systems incorporating this pre-installed controller are also available



PAC-IF013B-E			SIZE 35	SIZE 50	SIZE 60	SIZE 71	SIZE 100	SIZE 125	SIZE 140	SIZE 200	SIZE 250
CAPACITY (kW)	Heating (nominal)		4.1	6.0	7.0	8.0	11.2	14.0	16.0	22.4	27.0
	Cooling (nominal)		3.5	5.0	6.0	7.1	10.0	12.5	14.0	20.0	25.0
COMPATIBLE O.U	PUZ-ZM (R32)		PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100KA2/YKA2	PUZ-ZM125KA2/YKA2	PUZ-ZM140KA2/YKA2	PUZ-ZM200YKA2	PUZ-ZM250YKA2
	PUZ-M (R32)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	PUZ-M200YKA2	PUZ-M250YKA2
	PUHZ-ZRP (R410A)		PUHZ-ZRP35VKA2	PUHZ-ZRP50VKA2	PUHZ-ZRP60VHA2	PUHZ-ZRP71VHA2	PUHZ-ZRP100KA3/YKA3	PUHZ-ZRP125KA3/YKA3	PUHZ-ZRP140KA3/YKA3	PUHZ-ZRP200YKA3	PUHZ-ZRP250YKA3
	PUHZ-P (R410A)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	PUHZ-P200YKA3	PUHZ-P250YKA3
PIPE SIZE mm (in)	PUZ-ZMM (R32)	Gas	12.7 (1/2")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	28.58 (1 1/8")	28.58 (1 1/8")
		Liquid	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")
	PUHZ-ZRP/P (R410A)	Gas	12.7 (1/2")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	28.58 (1 1/8")	28.58 (1 1/8")
		Liquid	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")
HEAT EXCHANGER (cm³)	Max Volume	>30m	1.05	1.5	1.8	2.13	3.0	3.75	4.2	6.0	7.5
		20m	1.35	1.8	2.7	3.03	3.9	4.65	5.1	7.8	9.3
	Min Volume	10m	1.65	2.1	3.6	3.93	4.8	5.55	6.0	9.6	11.1
			0.35	0.5	0.6	0.71	1.0	1.25	1.4	2.0	2.5
DIMENSIONS (mm)	Width x Depth x Height	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278
WEIGHT (No Accessories) (kg)		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Notes: One air handling unit controller is required per outdoor unit. Cooling: Indoor 27°C DB/19°C WB, Outdoor 35°C DB/24°C WB. Heating: Indoor 20°C DB, Outdoor 7°C DB/6°C WB.

**Notes:**

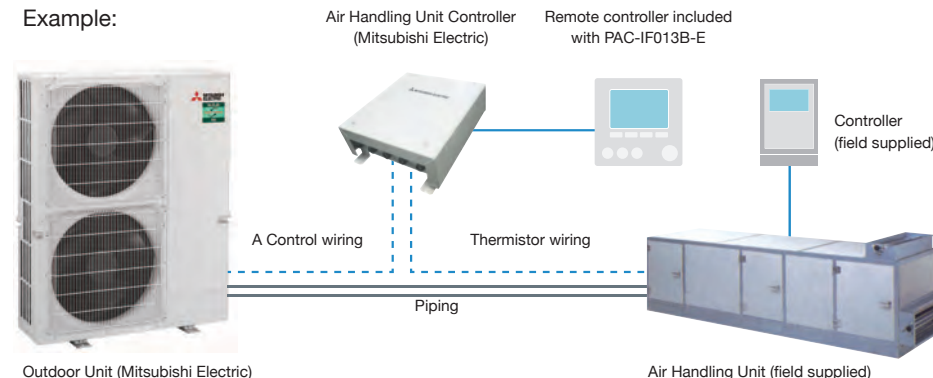
One air handling unit controller is required per heat exchanger.

If using more than one air handling unit controller on a single AHU, there are two options:

1. Connect 1 x PAC-IF013B-E unit per heat exchanger - these will operate as separate circuits with a controller on each which is included.
2. Connect 1 x PAC-IF013B-E for the first heat exchanger, then up to 5 additional slave PAC-SIF013B-E units. The included controller with the PAC-IF013B-E will additionally control the slave units

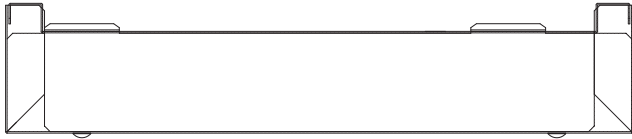
For further information of this feature please consult your local sales office.

**Example:**

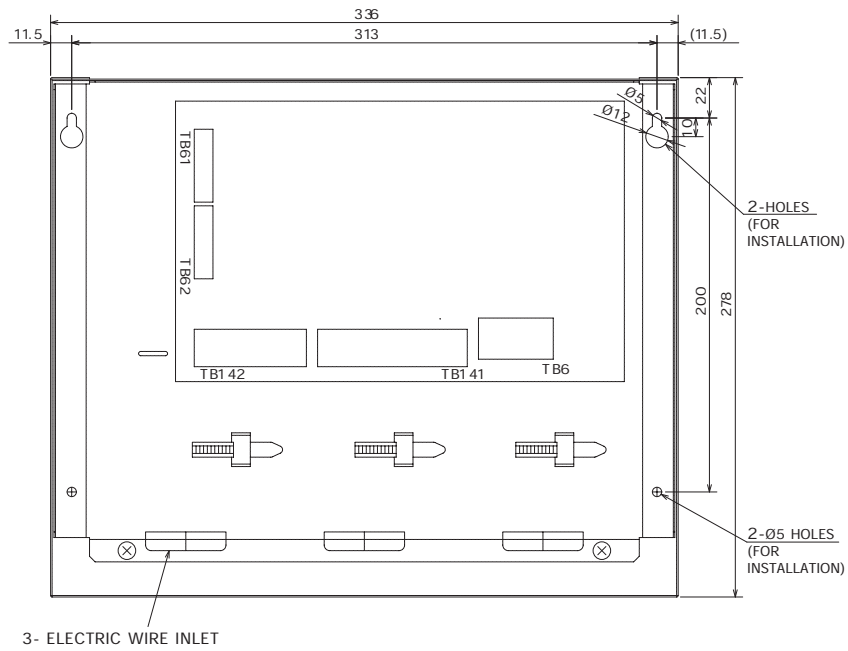




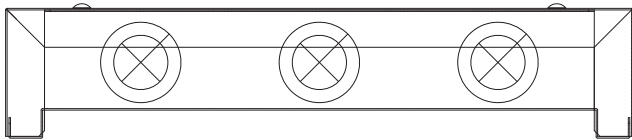
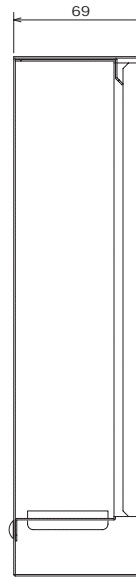
Upper View



Front View



Side View



# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

## Inverter Heat Pump Units



The Mr Slim Multi-Split system is an ideal option for open plan spaces in medium sized premises such as offices or shops, where two, three or four units are required. These can be Mr Slim ceiling cassettes (PLA-ZM/M & SLZ-M), ceiling suspended (PCA-M), ducted (PEAD-M & SEZ-M) or wall mounted (PKA-M) models and can be connected to a single outdoor unit using twin, triple or quadruple multi distributor pipes.

### Key Features & Benefits

- Twin, triple or quadruple indoor heat pump units can be operated in Multi-Split configuration from a single outdoor unit
- Heat pumps must operate in same heating or cooling mode
- Cooling capacity range 3.3 to 27kW
- Heating capacity range 3.5 to 31kW

PIPE RUN PARAMETERS			
OUTDOOR MODEL	REFRIGERANT	PIPE RUNS	MAX. PIPE RUN (M)
PUZ-ZM71VHA2	R32	A+B+C twin	55
PUZ-ZM100-140VKA2/YKA2	R32	A+B+C twin	100
PUZ-ZM200/250YKA2	R32	A+B+C twin	100
PUZ-M100VKA2/YKA2	R32	A+B+C twin	55
PUZ-M125-140VKA2/YKA2	R32	A+B+C twin	65
PUZ-M200/250YKA2	R32	A+B+C twin	70
PUZ-ZM140VKA2/YKA2	R32	A+B+C+D triple	100
PUZ-ZM200/250YKA2	R32	A+B+C+D triple	100
PUZ-M140VKA2/YKA2	R32	A+B+C+D triple	65
PUZ-M200/250YKA2	R32	A+B+C+D triple	70
PUZ-ZM200/250YKA2	R32	A+B+C+D+E quadruple	100
PUZ-M200/250YKA2	R32	A+B+C+D+E quadruple	70
PUZ-ZM71VHA2 / PUZ-ZM100-140VKA2/YKA2	R32	B - C or C - D or B - D	≤ 8
PUZ-ZM200/250YKA2	R32	B - C or B - D or B - E or C - D or C - E or D - E	≤ 8
PUZ-M100-140VKA2/YKA2	R32	B - C or C - D or B - D	≤ 8
PUZ-M200/250YKA2	R32	B - C or B - D or B - E or C - D or C - E or D - E	≤ 8

Notes: PSA-M indoor units cannot be used as part of an R32 Mr Slim Multi-Split system.

# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

Inverter Heat Pump Units



## The Mr Slim Multi-Split Indoor Unit Range

### Ceiling Cassette

■ PLA-ZM / PLA-M



■ SLZ-M



### Wall Mounted

■ PKA-M

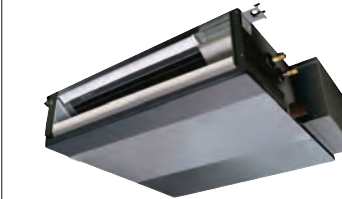


### Ceiling Concealed Ducted

■ PEAD-M



■ SEZ-M



### Ceiling Suspended

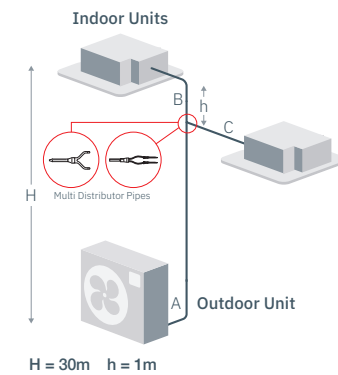
■ PCA-M



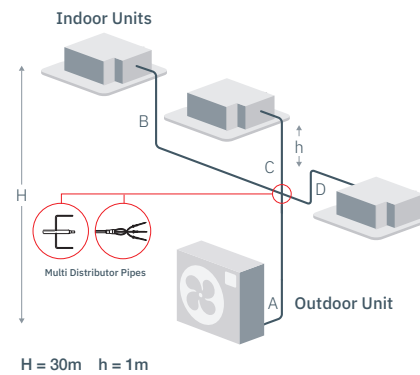
■ PCA-M-HA2



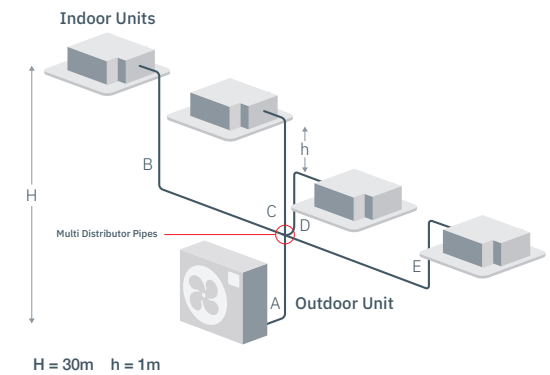
### TWIN



### TRIPLE



### QUADRUPLE



# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

## Inverter Heat Pump Units



R32 Mr Slim outdoor units can be configured in twin, triple and quadruple combinations giving added flexibility.

TWIN SYSTEMS	DESCRIPTION
(2) PLA-ZM35EA2 / (1) PUZ-ZM71VHA2	R32 Power Inverter Cassette, Twin System, Single Phase
(2) PLA-ZM50EA2 / (1) PUZ-ZM100VKA2	R32 Power Inverter Cassette, Twin System, Single Phase
(2) PLA-ZM60EA2 / (1) PUZ-ZM125VKA2	R32 Power Inverter Cassette, Twin System, Single Phase
(2) PLA-ZM71EA2 / (1) PUZ-ZM140VKA2	R32 Power Inverter Cassette, Twin System, Single Phase
(2) PLA-ZM50EA2 / (1) PUZ-ZM100YKA2	R32 Power Inverter Cassette, Twin System, Three Phase
(2) PLA-ZM60EA2 / (1) PUZ-ZM125YKA2	R32 Power Inverter Cassette, Twin System, Three Phase
(2) PLA-ZM71EA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Cassette, Twin System, Three Phase
(2) PLA-ZM100EA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Cassette, Twin System, Three Phase
(2) PLA-ZM125EA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Cassette, Twin System, Three Phase
(2) SLZ-M35FA2 / (1) PUZ-ZM71VHA2	R32 Power Inverter Cassette, Twin System, Single Phase
(2) SLZ-M50FA2 / (1) PUZ-ZM100VKA2	R32 Power Inverter Cassette, Twin System, Single Phase
(2) SLZ-M60FA2 / (1) PUZ-ZM125VKA2	R32 Power Inverter Cassette, Twin System, Single Phase
(2) SLZ-M50FA2 / (1) PUZ-ZM100YKA2	R32 Power Inverter Cassette, Twin System, Three Phase
(2) SLZ-M60FA2 / (1) PUZ-ZM125YKA2	R32 Power Inverter Cassette, Twin System, Three Phase
(2) PLA-M50EA2 / (1) PUZ-M100VKA2	R32 Standard Inverter Cassette, Twin System, Single Phase
(2) PLA-M60EA2 / (1) PUZ-M125VKA2	R32 Standard Inverter Cassette, Twin System, Single Phase
(2) PLA-M71EA2 / (1) PUZ-M140VKA2	R32 Standard Inverter Cassette, Twin System, Single Phase
(2) PLA-M50EA2 / (1) PUZ-M100YKA2	R32 Standard Inverter Cassette, Twin System, Three Phase
(2) PLA-M60EA2 / (1) PUZ-M125YKA2	R32 Standard Inverter Cassette, Twin System, Three Phase
(2) PLA-M71EA2 / (1) PUZ-M140YKA2	R32 Standard Inverter Cassette, Twin System, Three Phase
(2) PLA-M100EA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Cassette, Twin System, Three Phase
(2) PLA-M125EA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Cassette, Twin System, Three Phase
(2) PKA-M35LA2 / (1) PUZ-ZM71VKA2	R32 Power Inverter Wall Mounted, Twin System, Single Phase
(2) PKA-M50LA2 / (1) PUZ-ZM100VKA2	R32 Power Inverter Wall Mounted, Twin System, Single Phase
(2) PKA-M60KA2 / (1) PUZ-ZM125VKA2	R32 Power Inverter Wall Mounted, Twin System, Single Phase
(2) PKA-M71KA2 / (1) PUZ-ZM140VKA2	R32 Power Inverter Wall Mounted, Twin System, Single Phase
(2) PKA-M50LA2 / (1) PUZ-ZM100YKA2	R32 Power Inverter Wall Mounted, Twin System, Three Phase
(2) PKA-M60KA2 / (1) PUZ-ZM125YKA2	R32 Power Inverter Wall Mounted, Twin System, Three Phase
(2) PKA-M71KA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Wall Mounted, Twin System, Three Phase
(2) PKA-M100KA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Wall Mounted, Twin System, Three Phase
(2) PKA-M50LA2 / (1) PUZ-M100VKA2	R32 Standard Inverter Wall Mounted, Twin System, Single Phase
(2) PKA-M60KA2 / (1) PUZ-M125VKA2	R32 Standard Inverter Wall Mounted, Twin System, Single Phase
(2) PKA-M71KA2 / (1) PUZ-M140VKA2	R32 Standard Inverter Wall Mounted, Twin System, Single Phase
(2) PKA-M50LA2 / (1) PUZ-M100YKA2	R32 Standard Inverter Wall Mounted, Twin System, Three Phase
(2) PKA-M60KA2 / (1) PUZ-M125YKA2	R32 Standard Inverter Wall Mounted, Twin System, Three Phase
(2) PKA-M71KA2 / (1) PUZ-M140YKA2	R32 Standard Inverter Wall Mounted, Twin System, Three Phase
(2) PKA-M100KA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Wall Mounted, Twin System, Three Phase

# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

## Inverter Heat Pump Units



TWIN SYSTEMS	DESCRIPTION
(2) PEAD-M35JA2 / (1) PUZ-ZM71VHA2 (2) PEAD-M50JA2 / (1) PUZ-ZM100VKA2 (2) PEAD-M60JA2 / (1) PUZ-ZM125VKA2 (2) PEAD-M71JA2 / (1) PUZ-ZM140VKA2 (2) PEAD-M50JA2 / (1) PUZ-ZM100YKA2 (2) PEAD-M60JA2 / (1) PUZ-ZM125YKA2 (2) PEAD-M71JA2 / (1) PUZ-ZM140YKA2 (2) PEAD-M100JA2 / (1) PUZ-ZM200YKA2 (2) PEAD-M125JA2 / (1) PUZ-ZM250YKA2 (2) SEZ-M35DA2 / (1) PUZ-ZM71VHA2 (2) SEZ-M50DA2 / (1) PUZ-ZM100VKA2 (2) SEZ-M60DA2 / (1) PUZ-ZM125VKA2 (2) SEZ-M71DA2 / (1) PUZ-ZM140VKA2 (2) SEZ-M50DA2 / (1) PUZ-ZM100YKA2 (2) SEZ-M60DA2 / (1) PUZ-ZM125YKA2 (2) SEZ-M71DA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase
(2) PEAD-M50JA2 / (1) PUZ-M100VKA2 (2) PEAD-M60JA2 / (1) PUZ-M125VKA2 (2) PEAD-M71JA2 / (1) PUZ-M140VKA2 (2) PEAD-M50JA2 / (1) PUZ-M100YKA2 (2) PEAD-M60JA2 / (1) PUZ-M125YKA2 (2) PEAD-M71JA2 / (1) PUZ-M140YKA2 (2) PEAD-M100JA2 / (1) PUZ-M200YKA2 (2) PEAD-M125JA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Three Phase
(2) PCA-M50KA2 / (1) PUZ-ZM100VKA2 (2) PCA-M60KA2 / (1) PUZ-ZM125VKA2 (2) PCA-M71KA2 / (1) PUZ-ZM140VKA2 (2) PCA-M50KA2 / (1) PUZ-ZM100YKA2 (2) PCA-M60KA2 / (1) PUZ-ZM125YKA2 (2) PCA-M71KA2 / (1) PUZ-ZM140YKA2 (2) PCA-M100KA2 / (1) PUZ-ZM200YKA2 (2) PCA-M125KA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Ceiling Suspended, Twin System, Single Phase R32 Power Inverter Ceiling Suspended, Twin System, Single Phase R32 Power Inverter Ceiling Suspended, Twin System, Single Phase R32 Power Inverter Ceiling Suspended, Twin System, Three Phase R32 Power Inverter Ceiling Suspended, Twin System, Three Phase R32 Power Inverter Ceiling Suspended, Twin System, Three Phase R32 Power Inverter Ceiling Suspended, Twin System, Three Phase R32 Power Inverter Ceiling Suspended, Twin System, Three Phase
(2) PCA-M50KA2 / (1) PUZ-M100VKA2 (2) PCA-M60KA2 / (1) PUZ-M125VKA2 (2) PCA-M71KA2 / (1) PUZ-M140VKA2 (2) PCA-M50KA2 / (1) PUZ-M100YKA2 (2) PCA-M60KA2 / (1) PUZ-M125YKA2 (2) PCA-M71KA2 / (1) PUZ-M140YKA2 (2) PCA-M100KA2 / (1) PUZ-M200YKA2 (2) PCA-M125KA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Suspended, Twin System, Single Phase R32 Standard Inverter Ceiling Suspended, Twin System, Single Phase R32 Standard Inverter Ceiling Suspended, Twin System, Single Phase R32 Standard Inverter Ceiling Suspended, Twin System, Three Phase R32 Standard Inverter Ceiling Suspended, Twin System, Three Phase R32 Standard Inverter Ceiling Suspended, Twin System, Three Phase R32 Standard Inverter Ceiling Suspended, Twin System, Three Phase R32 Standard Inverter Ceiling Suspended, Twin System, Three Phase
(2) PCA-M71HA2 / (1) PUZ-ZM140VKA2 (2) PCA-M71HA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Stainless Steel Ceiling Suspended, Twin System, Single Phase R32 Power Inverter Stainless Steel Ceiling Suspended, Twin System, Three Phase

# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

## Inverter Heat Pump Units



TRIPLE SYSTEMS	DESCRIPTION
(3) PLA-ZM50EA2 / (1) PUZ-ZM140VKA2	R32 Power Inverter Cassette, Triple System, Single Phase
(3) PLA-ZM50EA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Cassette, Triple System, Three Phase
(3) PLA-ZM60EA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Cassette, Triple System, Three Phase
(3) PLA-ZM71EA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Cassette, Triple System, Three Phase
(3) SLZ-M35FA2 / (1) PUZ-ZM100VKA2	R32 Power Inverter Cassette, Triple System, Single Phase
(3) SLZ-M50FA2 / (1) PUZ-ZM125VKA2	R32 Power Inverter Cassette, Triple System, Single Phase
(3) SLZ-M50FA2 / (1) PUZ-ZM140VKA2	R32 Power Inverter Cassette, Triple System, Single Phase
(3) SLZ-M35FA2 / (1) PUZ-ZM100YKA2	R32 Power Inverter Cassette, Triple System, Three Phase
(3) SLZ-M50FA2 / (1) PUZ-ZM125YKA2	R32 Power Inverter Cassette, Triple System, Three Phase
(3) SLZ-M50FA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Cassette, Triple System, Three Phase
(3) PLA-M50EA2 / (1) PUZ-M140VKA2	R32 Standard Inverter Cassette, Triple System, Single Phase
(3) PLA-M50EA2 / (1) PUZ-M140YKA2	R32 Standard Inverter Cassette, Triple System, Three Phase
(3) PLA-M60EA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Cassette, Triple System, Three Phase
(3) PLA-M71EA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Cassette, Triple System, Three Phase
(3) PKA-M50LA2 / (1) PUZ-ZM140VKA2	R32 Power Inverter Wall Mounted, Triple System, Single Phase
(3) PKA-M50LA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Wall Mounted, Triple System, Three Phase
(3) PKA-M60KA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Wall Mounted, Triple System, Three Phase
(3) PKA-M71KA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Wall Mounted, Triple System, Three Phase
(3) PKA-M50LA2 / (1) PUZ-M140VKA2	R32 Standard Inverter Wall Mounted, Triple System, Single Phase
(3) PKA-M50LA2 / (1) PUZ-M140YKA2	R32 Standard Inverter Wall Mounted, Triple System, Three Phase
(3) PKA-M60KA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Wall Mounted, Triple System, Three Phase
(3) PKA-M71KA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Wall Mounted, Triple System, Three Phase
(3) PEAD-M50JA2 / (1) PUZ-ZM140VKA2	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Single Phase
(3) PEAD-M50JA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) PEAD-M60JA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) PEAD-M71JA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) SEZ-M35DA2 / (1) PUZ-ZM100VKA2	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Single Phase
(3) SEZ-M50DA2 / (1) PUZ-ZM125VKA2	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Single Phase
(3) SEZ-M50DA2 / (1) PUZ-ZM140VKA2	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Single Phase
(3) SEZ-M35DA2 / (1) PUZ-ZM100YKA2	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) SEZ-M50DA2 / (1) PUZ-ZM125YKA2	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) SEZ-M50DA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) PEAD-M50JA2 / (1) PUZ-M140VKA2	R32 Standard Inverter Ceiling Concealed Ducted, Triple System, Single Phase
(3) PEAD-M50JA2 / (1) PUZ-M140YKA2	R32 Standard Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) PEAD-M60JA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) PEAD-M71JA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) PCA-M50KA2 / (1) PUZ-ZM140VKA2	R32 Power Inverter Ceiling Suspended, Triple System, Single Phase
(3) PCA-M50KA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Ceiling Suspended, Triple System, Three Phase
(3) PCA-M60KA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Ceiling Suspended, Triple System, Three Phase
(3) PCA-M71KA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Ceiling Suspended, Triple System, Three Phase
(3) PCA-M50KA2 / (1) PUZ-M140VKA2	R32 Standard Inverter Ceiling Suspended, Triple System, Single Phase
(3) PCA-M50KA2 / (1) PUZ-M140YKA2	R32 Standard Inverter Ceiling Suspended, Triple System, Three Phase
(3) PCA-M60KA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Ceiling Suspended, Triple System, Three Phase
(3) PCA-M71KA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Suspended, Triple System, Three Phase
(3) PCA-M71HA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Stainless Steel Ceiling Suspended, Triple System, Three Phase
(3) PCA-M71HA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Stainless Steel Ceiling Suspended, Triple System, Three Phase

# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

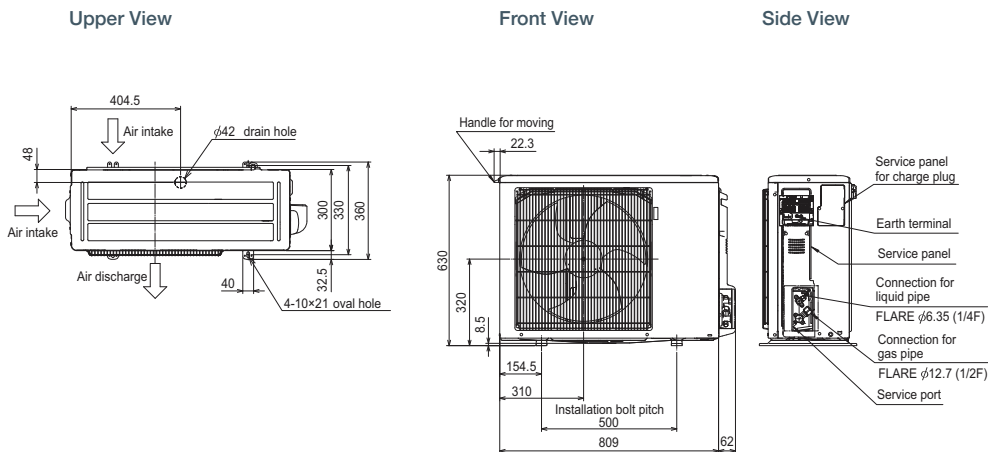
## Inverter Heat Pump Units



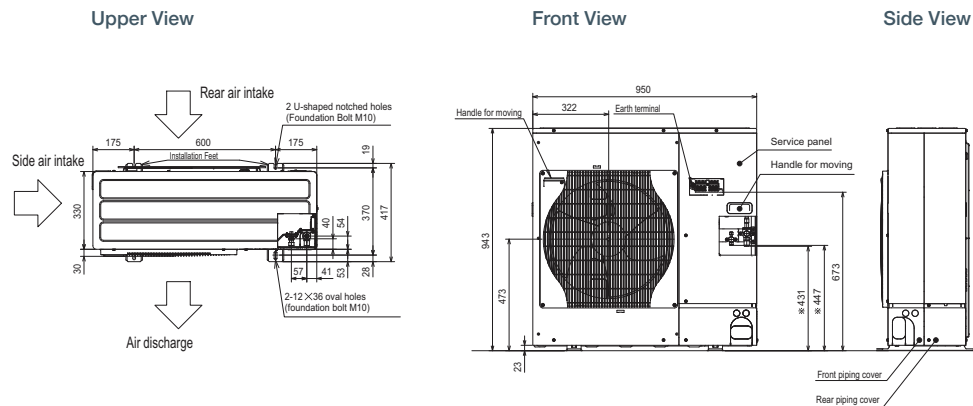
QUADRUPLE SYSTEMS	DESCRIPTION
(4) PLA-ZM50EA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Cassette, Quadruple System, Three phase
(4) PLA-ZM60EA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Cassette, Quadruple System, Three phase
(4) SLZ-M35FA2 / (1) PUZ-ZM125VKA2	R32 Power Inverter Cassette, Quadruple System, Single phase
(4) SLZ-M35FA2 / (1) PUZ-ZM140VKA2	R32 Power Inverter Cassette, Quadruple System, Single phase
(4) SLZ-M35FA2 / (1) PUZ-ZM125YKA2	R32 Power Inverter Cassette, Quadruple System, Three phase
(4) SLZ-M35FA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Cassette, Quadruple System, Three phase
(4) PLA-M50EA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Cassette, Quadruple System, Three phase
(4) PLA-M60EA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Cassette, Quadruple System, Three phase
(4) PKA-M50LA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Wall Mounted, Quadruple System, Three Phase
(4) PKA-M60KA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Wall Mounted, Quadruple System, Three Phase
(4) PKA-M50LA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Wall Mounted, Quadruple System, Three Phase
(4) PKA-M60KA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Wall Mounted, Quadruple System, Three Phase
(4) PEAD-M50JA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase
(4) PEAD-M60JA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase
(4) SEZ-M35DA2 / (1) PUZ-ZM125VKA2	R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Single Phase
(4) SEZ-M35DA2 / (1) PUZ-ZM140VKA2	R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Single Phase
(4) SEZ-M35DA2 / (1) PUZ-ZM125YKA2	R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase
(4) SEZ-M35DA2 / (1) PUZ-ZM140YKA2	R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase
(4) PEAD-M50JA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase
(4) PEAD-M60JA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase
(4) PCA-M50KA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Ceiling Suspended, Quadruple System, Three Phase
(4) PCA-M60KA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Ceiling Suspended, Quadruple System, Three Phase
(4) PCA-M50KA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Ceiling Suspended, Quadruple System, Three Phase
(4) PCA-M60KA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Suspended, Quadruple System, Three Phase
PIPE KITS	DESCRIPTION
MSDD-50TR2-E	R32 Multi distribution pipe twin units - 50:50 - sizes 71/100/125/140
MSDD-50WR2-E	R32 Multi distribution pipe twin units - 50:50 - sizes 200/250
MSDT-111R3-E	R32 Multi distribution pipe triple units - 33:33:33 - sizes 100/125/140/200/250
MSDF-1111R2-E	R32 Multi distribution pipe quadruple units - 25:25:25:25 - sizes 125/140/200/250

# Power Inverter Outdoor Units

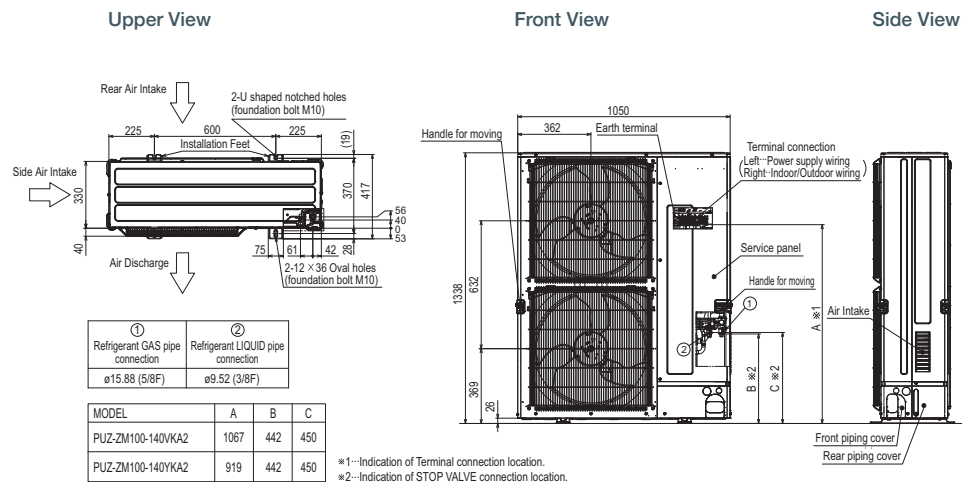
## Product Dimensions PUZ-ZM35/50VKA2



## Product Dimensions PUZ-ZM60/71VHA2



## Product Dimensions PUZ-ZM100/125/140VKA2, PUZ-ZM100/125/140YKA2

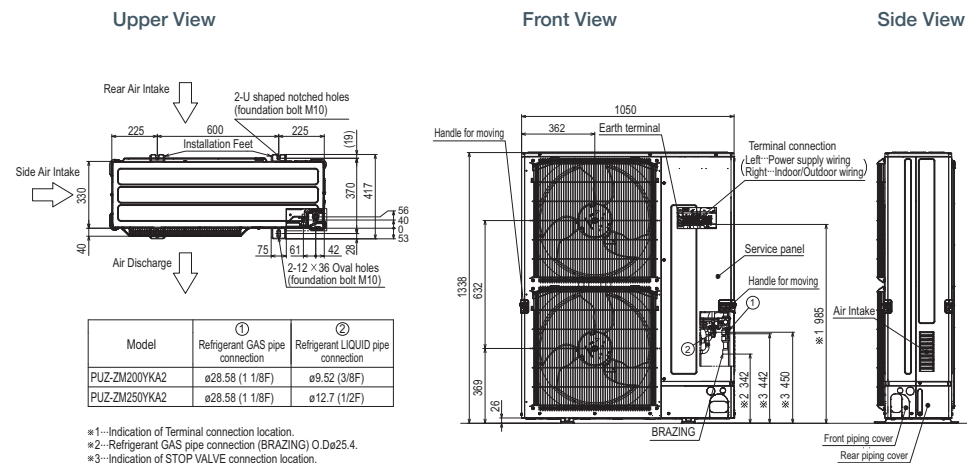


①	Refrigerant GAS pipe connection	②	Refrigerant LIQUID pipe connection
	$\phi 15.88$ (5/8F)		$\phi 9.52$ (3/8F)

MODEL	A	B	C
PUZ-ZM100-140VKA2	1067	442	450
PUZ-ZM100-140YKA2	919	442	450

\*1--Indication of Terminal connection location.  
\*2--Indication of STOP VALVE connection location.

## Product Dimensions PUZ-ZM200/250YKA2



Model	①	②
PUZ-ZM200YKA2	$\phi 28.58$ (1 1/8F)	$\phi 9.52$ (3/8F)
PUZ-ZM250YKA2	$\phi 28.58$ (1 1/8F)	$\phi 12.7$ (1/2F)

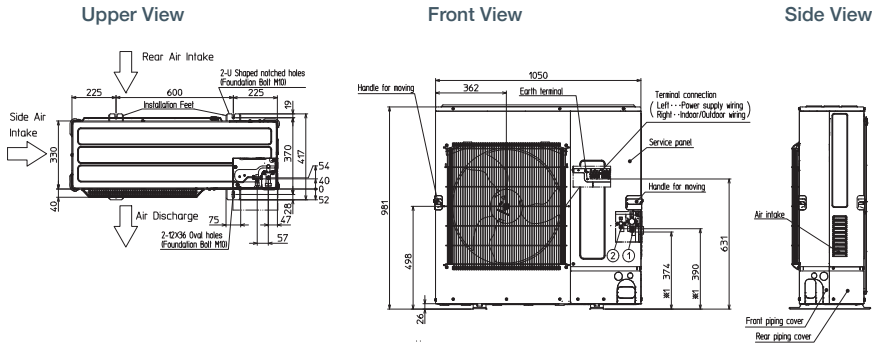
\*1--Indication of Terminal connection location.  
\*2--Refrigerant GAS pipe connection (BRAZING) O.D.  $\phi 25.4$ .  
\*3--Indication of STOP VALVE connection location.



# Standard Inverter / Inverter Outdoor Units

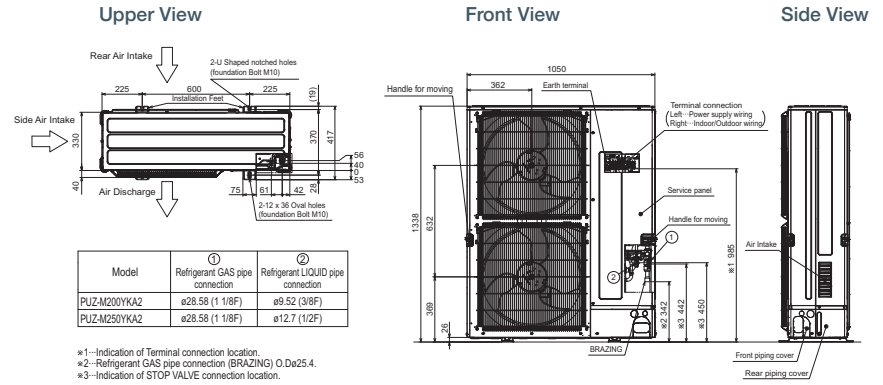
## Product Dimensions

PUZ-M100/125/140VKA2, PUZ-M100/125/140YKA2,  
PUZ-SM100/125/140VKA2, PUZ-SM100/125/140YKA2



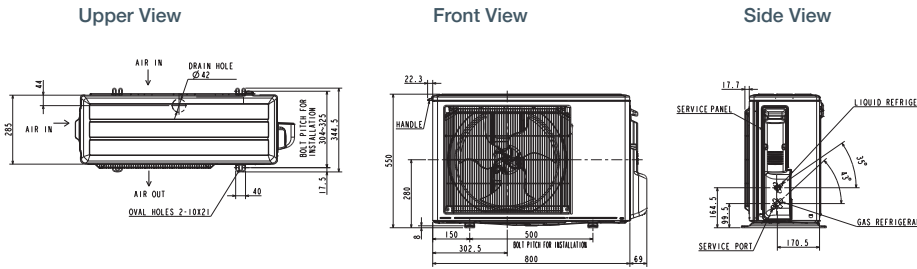
## Product Dimensions

PUZ-M200/250YKA2



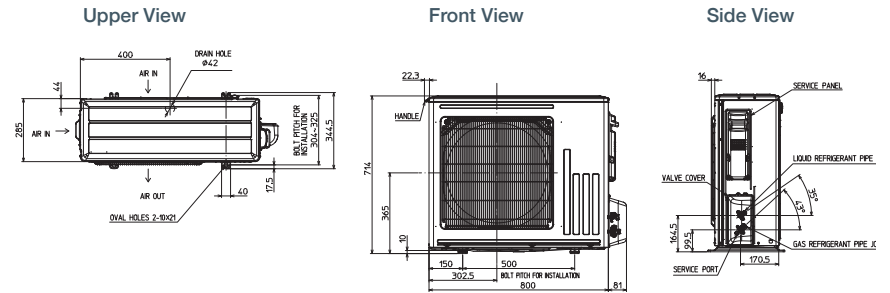
## Product Dimensions

SUZ-M25/35VAR2



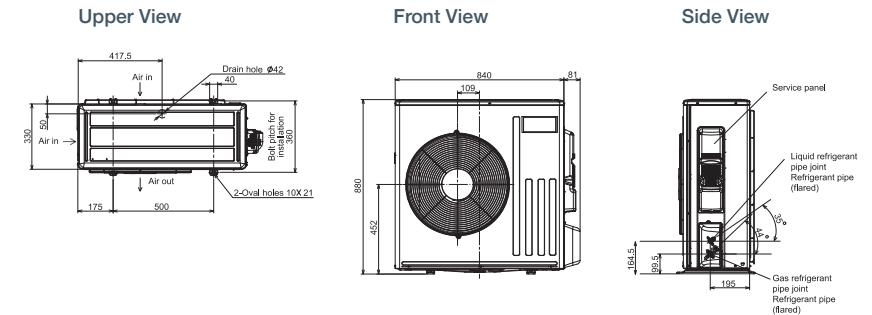
## Product Dimensions

SUZ-M50VAR2



## Product Dimensions

SUZ-M60VAR2, SUZ-M71VAR1, SUZ-SM71VA



# Mr Slim

## Accessories / Optional Extras

4-WAY BLOW CASSETTE UNITS	DESCRIPTION
SLP-2FA	Grille for SLZ-M
SLP-2FAE	3D i-see sensor grille for SLZ-M
PLP-6EA	Grille for PLA-ZM / PLA-M / PLA-SM
PLP-6EAE	3D i-see sensor grille for PLA-ZM / PLA-M
PLP-6EAJ	Self elevating grille for PLA-ZM / PLA-M / PLA-SM
PAC-SE1ME-E	Corner panel with 3D i-see sensor for PLA-ZM / PLA-M
PAR-SE9FA-E	Corner panel with signal receiver for PLA-ZM / PLA-M / PLA-SM
PAC-SJ37SP-E	Shutter plate for PLA-ZM / PLA-M / PLA-SM
PAC-SJ41TM-E	Multi-function casement for PLA-ZM / PLA-M / PLA-SM
PLP-U160ELR-E	3D Total Airflow casement for PLA-ZM35-140EA2 / PLA-M100-140EA2 (must be used with either PAR-41MAA or PAR-SL101A-E)
PAC-SK36HK-E	Insulation kit (14°C cooling) for PLA-ZM35-140EA2 / PLA-M100-140EA2
PAC-SH59KF-E	High efficiency filter for PLA-ZM / PLA-M / PLA-SM (must be used with PAC-SJ41TM-E)
PAR-SL101A-E	Wireless remote controller for PLA-ZM / PLA-M / PLA-SM
PAC-SK53KF-E	V Blocking air purifying filter for PLA-ZM / PLA-M / PLA-SM
PAC-SK54KF-E	V Blocking air purifying filter for SLZ-M
PAC-SK51FT-E	Plasma Quad Connect air purifying device (x1) with multi-function casement for PLA-ZM / PLA-M / PLA-SM

WALL MOUNTED UNITS	DESCRIPTION
PAR-FL32MA	Wireless remote controller
PAR-SL101A-E	Wireless remote controller
MAC-100FT-E	Plasma Quad Connect air purifying device for PKA-M

CEILING CONCEALED DUCTED UNITS	DESCRIPTION
MAC-100FT-E	Plasma Quad Connect air purifying device for PEAD-M / SEZ-M
PAC-HA31PAR	Plasma Quad Connect metal fitment for PEAD-M
PAC-HA11PAR	Plasma Quad Connect metal fitment for SEZ-M

CEILING SUSPENDED UNITS	DESCRIPTION
PAR-SL94B	Wireless remote controller and adaptor
PAC-SG38KF	Oil mist filter for PCA-M71HA2 (12 pack)

# Mr Slim Accessories / Optional Extras

OUTDOOR UNITS	DESCRIPTION
PAC-SJ08DS	Drain socket set for PUZ-ZM35-50
PAC-SG61DS	Drain socket set for PUZ-ZM60-250 / PUZ-(S)M100-250
PAC-SJ07SG	Air outlet guide for PUZ-ZM35-50
PAC-SG59SG	Air outlet guide for PUZ-ZM60-71
PAC-SH96SG	Air outlet guide for PUZ-ZM100-250 / PUZ-(S)M100-250
PAC-SJ06AG	Air protect guide (allows cooling at -15°C) for PUZ-ZM35-50
PAC-SH63AG	Air protect guide (allows cooling at -15°C) for PUZ-ZM60-71
PAC-SH95AG	Air protect guide (allows cooling at -15°C) for PUZ-ZM100-250 / PUZ-(S)M100-250
MAC-881SG	Air outlet guide for SUZ-M35
MAC-882SG	Air outlet guide for SUZ-M50
MAC-886SG	Air outlet guide for SUZ-M60-71 / SUZ-SM71
PAC-SJ71FM-E	30Pa outdoor fan motor for PUZ-ZM100-140

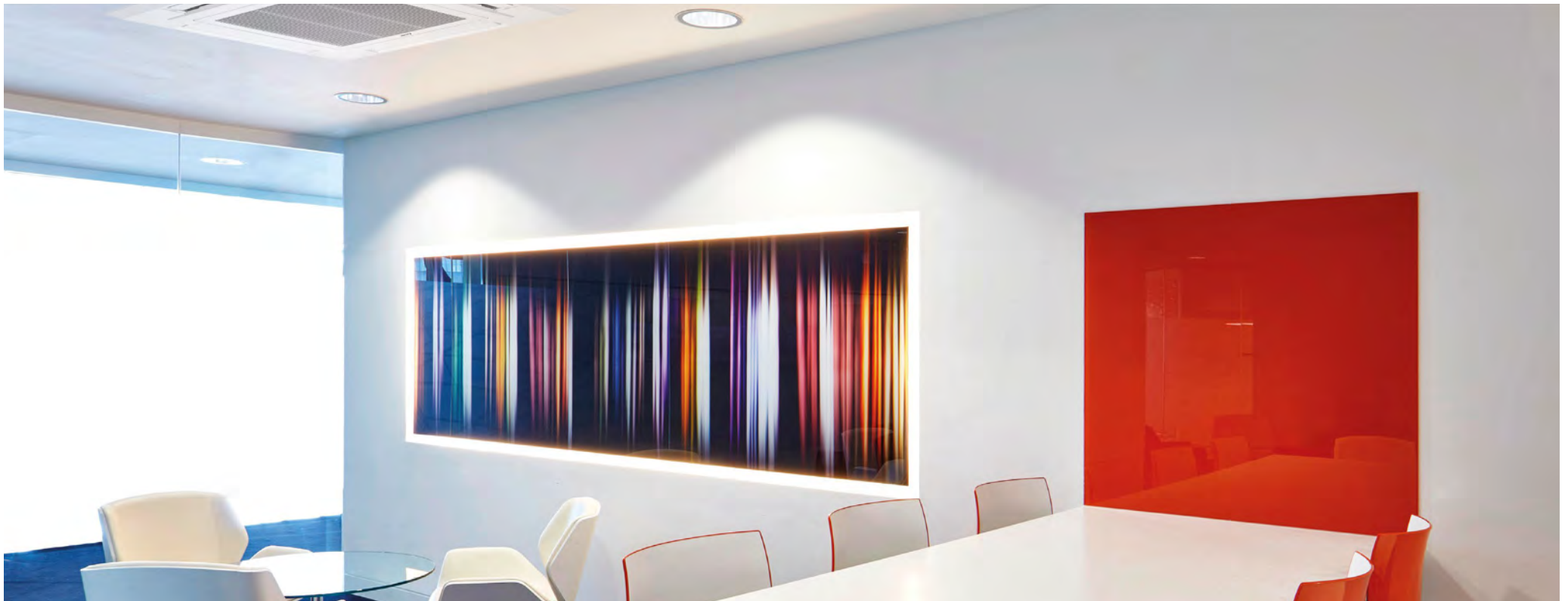
SYSTEM CONTROL UNITS	DESCRIPTION
PAC-SA89TA	Remote on/off adaptor (3 wire adaptor)
PAC-SA88HA	Run/fault adaptor (5 wire adaptor)
PAC-SF40RM	Run/fault interface
MAC-334IF-E	Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output. Now includes a heating interlock mode - when SUZ or MXZ
MAC-497IF-E	Interface for MA remote controller (PAR-41MAA), on/off input and run or fault output - when SUZ or MXZ
PAC-SE41TS-E	Remote sensor
MAC-587IF-E	Interface for connection to Wi-Fi MELCloud service
PAC-SK15MA-E	M-NET adaptor for PUZ-ZM35-50
PAC-SJ95MA	M-NET adaptor for PUZ-ZM60-250 / PUZ-(S)M100-250
PAR-CT01MAA-SB	Touch screen wired remote controller
PAR-CT01MAA-PB	Touch screen wired remote controller (Premium Finish)
PAR-41MAA	Standard wired remote controller
MELCOBEMS MINI	Modbus and BACnet MSTP CN105 adaptor
MELCORETAIL MINI	Retail control and input/output interface

POWER SUPPLY TERMINAL KITS	DESCRIPTION
PAC-SJ39HR	Power supply terminal kit for PLA-ZM and PLA-M
PAC-SK38HR	Power supply terminal kit for PKA-M35-50LA2
PAC-SG94HR	Power supply terminal kit for PKA-M60-100KA2
PAC-SG96HR	Power supply terminal kit for PCA-M / PSA-M
PAC-SG97HR	Power supply terminal kit for PEAD-M / PCA-M-HA2



# Multi-Splits

Split-System Air Conditioning





# Contents

<b>MXZ-F</b> R32 Inverter Heat Pump Multi-Split Units	<b>1.4.8</b>
<b>MXZ-HA</b> R32 Inverter Heat Pump Multi-Split Units	<b>1.4.10</b>
<b>PUMY-SP</b> R410A Inverter Heat Pump Multi-Split Units (Single Fan)	<b>1.4.12</b>
<b>PUMY-P</b> R410A Inverter Heat Pump Multi-Split Units (Twin Fan)	<b>1.4.14</b>
<b>Multi-Split Accessories / Optional Extras</b>	<b>1.4.16</b>

## The Flexible & Efficient **Multi-Split Range**

**R32**

Ideal for residential, retail and small commercial buildings that require air conditioning in more than one room, Mitsubishi Electric Multi-Split systems combine flexibility and performance while lowering CO<sub>2</sub> emissions and running costs.

Using both R32 and R410A refrigerant, and flexible enough to suit a number of applications, the range includes models that will run up to thirty indoor units per single outdoor unit, between 3.3 and 33.5kW.

With vastly reduced power consumption and inverter technology, alongside increased pipe lengths and advanced controls, the Multi-Split range is extremely efficient and versatile, helping to make system application easier. A variety of indoor units can be connected to a single outdoor unit, including cassettes, ducted, wall, floor or ceiling mounted units. The range is one of the most efficient in the industry with an energy efficiency class of up to A+++.

### Example of a **6-way MXZ R32 Multi-Split System** →





## The Flexible & Efficient Multi-Split Range

### Outdoor Units

R32

**MXZ-2F33VF3**

- 2 indoor units
- Nominal cooling capacity 3.3kW

**MXZ-2F42VF3**

- 2 indoor units
- Nominal cooling capacity 4.2kW

**MXZ-2F53VF3**

- 2 indoor units
- Nominal cooling capacity 5.3kW

R32

**MXZ-3F54VF3**

- 2-3 indoor units
- Nominal cooling capacity 5.4kW

**MXZ-3F68VF3**

- 2-3 indoor units
- Nominal cooling capacity 6.8kW

**MXZ-4F72VF3**

- 2-4 indoor units
- Nominal cooling capacity 7.2kW

R32

**MXZ-4F83VF**

- 2-4 indoor units
- Nominal cooling capacity 8.3kW

**MXZ-5F102VF**

- 2-5 indoor units
- Nominal cooling capacity 10.2kW

R32

**MXZ-6F122VF**

- 2-6 indoor units
- Nominal cooling capacity 12.2kW

R32

**MXZ-2HA40VF**

- 2 MSZ-HR indoor units
- Nominal cooling capacity 4.0kW

**MXZ-2HA50VF**

- 2 MSZ-HR indoor units
- Nominal cooling capacity 5.0kW

R32

**MXZ-3HA50VF**

- 2-3 MSZ-HR indoor units
- Nominal cooling capacity 5.0kW

**PUMY-SP112-140V/YKM**

- 2-10 indoor units
- Nominal cooling capacity 12.5 - 15.5kW

**PUMY-P112-140VKM5/YKM4 / PUMY-P200YKM2**

- 2-11 indoor units
- Nominal cooling capacity 12.5 - 22.4kW

**PUMY-P250-300YBM**

- 2-30 indoor units
- Nominal cooling capacity 28.0 - 33.5kW

## Multi-Splits | Split-System Air Conditioning

### The Flexible & Efficient Multi-Split Range

#### Indoor Units

##### Wall Mounted

MSZ-LN



MSZ-EF



MSZ-AP



MSZ-HR



##### Floor Mounted

MFZ-KT



##### Ceiling Cassette

SLZ-M

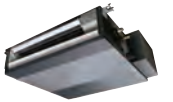


PLA-M



##### Ceiling Concealed Ducted

SEZ-M



PEAD-M



##### Ceiling Suspended

PCA-M



# Compatibility Table

Model	MXZ-2F33VF3	MXZ-2F42VF3	MXZ-2F53VF3	MXZ-3F54VF3	MXZ-3F68VF3	MXZ-4F72VF3	MXZ-4F83VF	MXZ-5F102VF	MXZ-6F122VF	MXZ-2HA40VF	MXZ-2HA50VF	MXZ-3HA50VF	PUMY-SP		PUMY-P		PUHY / PURY	
														Branch Box	LEV Kit	Branch Box	LEV Kit	LEV Kit
<b>Wall Mounted</b>																		
MSZ-LN18VG2	●	●	●	●	●	●	●	●	●									●
MSZ-LN25VG2	●	●	●	●	●	●	●	●	●					●	●	●	●	●
MSZ-LN35VG2		●	●	●	●	●	●	●	●					●	●	●	●	●
MSZ-LN50VG2			●	●	●	●	●	●	●					●	●	●	●	●
MSZ-EF18VGK	●	●	●	●	●	●	●	●	●					●	●	●	●	●
MSZ-EF22VGK	●	●	●	●	●	●	●	●	●					●	●	●	●	●
MSZ-EF25VGK	●		●	●	●	●	●	●	●					●	●	●	●	●
MSZ-EF35VGK		●	●	●	●	●	●	●	●					●	●	●	●	●
MSZ-EF50VGK			●	●	●	●	●	●	●					●	●	●	●	●
MSZ-AP15VGK	●	●	●	●	●	●	●	●	●					●	●			●
MSZ-AP20VGK	●	●	●	●	●	●	●	●	●					●	●			●
MSZ-AP25VGK	●	●	●	●	●	●	●	●	●					●	●	●	●	●
MSZ-AP35VGK		●	●	●	●	●	●	●	●					●	●	●	●	●
MSZ-AP42VGK			●	●	●	●	●	●	●					●	●	●	●	●
MSZ-AP50VGK			●	●	●	●	●	●	●					●	●	●	●	●
MSZ-AP60VGK					●	●	●	●	●									●
MSZ-AP71VGK							●	●	●									●
MSZ-HR25VF										●	●	●						
MSZ-HR35VF										●	●	●						
MSZ-HR50VF												●						
<b>Floor Mounted</b>																		
MFZ-KT25VG	●	●	●	●	●	●	●	●	●					●	●	●	●	
MFZ-KT35VG		●	●	●	●	●	●	●	●					●	●	●	●	
MFZ-KT50VG				●	●	●	●	●	●					●	●	●	●	
<b>Ceiling Cassette</b>																		
SLZ-M15FA2	●	●	●	●	●	●	●	●	●					●		●		
SLZ-M25FA2	●	●	●	●	●	●	●	●	●					●		●		
SLZ-M35FA2		●	●	●	●	●	●	●	●					●		●		
SLZ-M50FA2				●	●	●	●	●	●					●		●		
PLA-M35EA2														●		●		
PLA-M50EA2														●		●		
PLA-M60EA2														●		●		
PLA-M71EA2														●		●		
PLA-M100EA2														●		●		
<b>Ceiling Concealed Ducted</b>																		
SEZ-M25DA2	●	●	●	●	●	●	●	●	●					●		●		
SEZ-M35DA2		●	●	●	●	●	●	●	●					●		●		
SEZ-M50DA2				●	●	●	●	●	●					●		●		
SEZ-M60DA2					●	●	●	●	●					●		●		
SEZ-M71DA2							●	●	●					●		●		
PEAD-M50JA2				●	●	●								●		●		
PEAD-M60JA2														●		●		
PEAD-M71JA2														●		●		
PEAD-M100JA2														●		●		
<b>Ceiling Suspended</b>																		
PCA-M50KA2				●	●	●								●		●		
PCA-M60KA2					●	●								●		●		
PCA-M71KA2														●		●		
PCA-M100KA2														●		●		

Note: For MXZ Multi-Split capacity combination tables please refer to databook. PUMY-P250/300YBM are not compatible with SLZ-M, PLA-M, SEZ-M, PEAD-M & PCA-M.

# MXZ-F R32 Inverter Heat Pump

(3.3-12.2kW)

## Multi-Split Units

The **MXZ-F** Multi-Split system allows up to six M Series or Mr Slim wall mounted, cassette, ducted, floor mounted or ceiling suspended indoor units of different capacities to be operated from a single outdoor unit. This makes it an economic and efficient answer for multi-room applications, whilst also offering space saving benefits.

### Key Features & Benefits

- Up to six indoor units may be connected to a single outdoor unit
- Energy saving inverter controlled outdoor unit adjusts compressor performance to economically match the demand for heating and cooling
- Units may be added within the capacity of the system as requirements change
- Capacities of indoor units may be mixed to suit individual rooms



MXZ-F - OUTDOOR UNITS		MXZ-2F33VF3	MXZ-2F42VF3	MXZ-2F53VF3	MXZ-3F54VF3	MXZ-3F68VF3	MXZ-4F72VF3	MXZ-4F83VF	MXZ-5F102VF	MXZ-6F122VF	
NUMBER OF CONNECTABLE INDOOR UNITS		2	2	2	2-3	2-3	2-4	2-4	2-5	2-6	
CAPACITY (kW)	Heating (nominal)	4.0 (1.0-4.1)	4.5 (1.0-4.8)	6.4 (1.1-7.0)	7.0 (2.6-9.0)	8.6 (2.6-10.6)	8.6 (3.4-10.7)	9.3 (3.4-11.6)	10.5 (4.1-14.0)	14.0 (3.5-16.5)	
	Cooling (nominal)	3.3 (1.1-3.8)	4.2 (1.1-4.4)	5.3 (1.1-5.6)	5.4 (2.9-6.8)	6.8 (2.9-8.4)	7.2 (3.7-8.8)	8.3 (3.7-9.2)	10.2 (3.9-11.0)	12.2 (3.5-13.5)	
	Heating (UK)	3.32 (0.83-3.40)	3.74 (0.84-3.99)	5.38 (0.92 - 5.88)	5.81 (2.16-7.47)	7.14 (2.16-8.80)	7.14 (2.82-8.89)	7.8 (2.82-9.63)	8.7 (3.40-11.63)	11.6 (2.90-13.71)	
	Cooling (UK)	3.23 (1.07-3.72)	4.12 (1.08-4.32)	5.30 (1.10-5.60)	5.3 (2.85-6.67)	6.66 (2.84-8.23)	7.0 (3.59-8.56)	8.2 (3.67-9.12)	10.1 (3.86-10.90)	12.1 (3.47-13.39)	
COP / EER (nominal)*1		4.40 / 3.90	5.10 / 4.30	4.10 / 3.79	4.60 / 4.10	4.50 / 3.70	4.60 / 3.90	4.65 / 4.21	4.60 / 3.64	4.23 / 3.33	
SCOP (nsh) / SEER (nsc) (BS EN14825)		4.16 / 6.13	4.60 / 8.69	4.6 / 8.6	4.61 / 8.52	4.12 / 7.96	4.07 / 8.13	4.72(185.8%)/8.51(337.4%)	4.65(183%)/8.21(325.4%)	4.65(183.1%)/7.65(303%)	
ErP ENERGY EFFICIENCY CLASS Heating/Cooling		A+ / A++	A++ / A+++	A++ / A+++	A++ / A+++	A+ / A++	A+ / A++	A++ / A+++	A++ / A+++	A++ / A+++	
MAX AIRFLOW (m³/min)		33.7 / 32.9	33.3 / 27.7	34.7 / 32.7	43.0 / 42.1	43.0 / 42.1	43.0 / 42.1	71 / 55	74 / 62	77 / 63	
SOUND PRESSURE LEVEL (dBA) Heating/Cooling		50 / 49	50 / 44	51 / 46	50 / 46	53 / 48	54 / 48	51 / 49	56 / 52	57 / 55	
SOUND POWER LEVEL (dBA) Cooling		60	59	61	59	63	63	61	65	69	
DIMENSIONS (mm) Width x Depth x Height		800 x 285 x 550	800 x 285 x 550	800 x 285 x 550	840 x 330 x 710	840 x 330 x 710	840 x 330 x 710	950 x 330 x 796	950 x 330 x 796	950 x 330 x 1048	
WEIGHT (kg)		33	37	37	58	58	59	62	62	87	
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	
PHASE		Single	Single	Single	Single	Single	Single	Single	Single	Single	
POWER INPUT (kW)		Heating/Cooling (nominal)	0.909 / 0.846	0.88 / 0.98	1.56 / 1.40	1.52 / 1.32	1.91 / 1.84	1.87 / 1.85	2.00 / 1.97	2.28 / 2.80	3.31 / 3.66
		Heating/Cooling (UK)	0.82 / 0.68	0.90 / 0.78	1.40 / 1.20	1.38 / 1.06	1.73 / 1.47	1.69 / 1.48	1.80 / 1.57	2.09 / 2.66	3.04 / 3.44
STARTING CURRENT (A)		4.6	4.2	7.6	7.0	10.5	10.0	8.8	12.3	16.1	
RUNNING CURRENT (A) Heating/Cooling [MAX]		4.6 / 4.3 [10.0]	4.2 / 4.5 [12.2]	7.1 / 6.2 [10.2]	7.0 / 5.9 [18.0]	10.5 / 9.6 [18.0]	10.0 / 9.5 [18.0]	8.8 / 8.7 [21.4]	10.0 / 12.3 [21.4]	14.5 / 16.1 [29.8]	
INTERCONNECTING CABLE No. CORES		4 Core	4 Core	4 Core	4 Core	4 Core	4 Core	4 Core	4 Core	4 Core	
TOTAL PIPE LENGTH (m)		20	30	30	50	60	60	70	80	80	
MAX PIPE LENGTH PER INDOOR UNIT (m)		15	20	20	25	25	25	25	25	25	
MAX HEIGHT DIFFERENCE (m)		10	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15	15	15	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (l) - R32 (GWP 675)		1.00 / 0.68 (20m)	1.20 / 0.81 (30m)	1.0 / 0.68 (30m)	1.40 / 0.95 (50m)	1.40 / 0.95 (60m)	1.40 / 0.95 (60m)	2.4 / 1.62 (70m)	2.4 / 1.62 (80m)	2.4 / 1.62 (80m)	
FUSE RATING (BS88) - HRC (A)		16	16	16	25	25	25	25	25	32	

Notes: \*1 System COP / EER when connected to MSZ-LN / MSZ-AP x indoor unit connections.

Combined max running current of all indoors on system must not exceed 3A.

The SEZ-M25DA2 cannot be used when the total indoor capacity is equal to the outdoor capacity, i.e. when the capacity ratio is 1.

## Accessories

### Outdoor Units

#### MAC-881SG

Air outlet guide for MXZ-2F33VF3, MXZ-2F42VF3, MXZ-2F53VF3

#### MAC-856SG

Air outlet guide for MXZ-3F54VF3, MXZ-3F68VF3, MXZ-4F72VF3

#### PAC-SH96SG-E

Air outlet guide for MXZ-4F83VF, MXZ-5F102VF, MXZ-6F122VF

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium finish)

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### PAR-41MAA

Standard wired remote controller

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

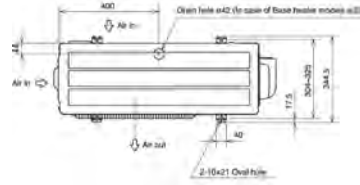
#### MELCORETAIL MINI

Retail control and input / output interface

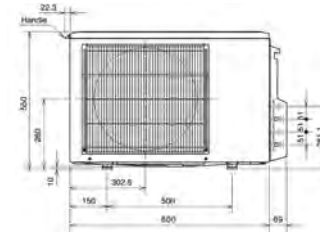
## Product Dimensions

MXZ-2F33VF3, MXZ-2F42VF3, MXZ-2F53VF3

Upper View



Front View



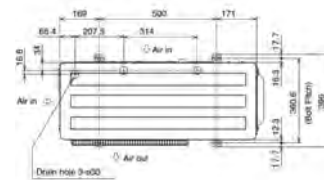
Side View



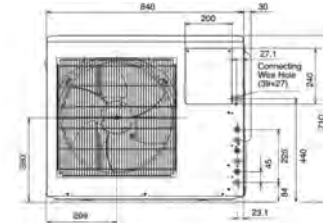
## Product Dimensions

MXZ-3F54VF3, MXZ-3F68VF3, MXZ-4F72VF3

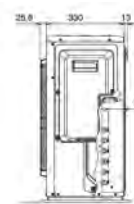
Upper View



Front View



Side View

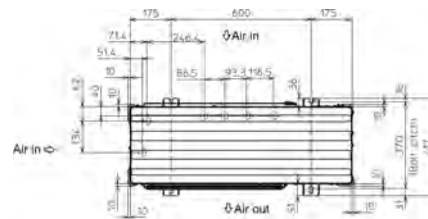


\*MXZ-4F72VF3 has 4 pipe connections

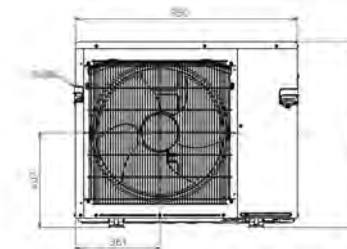
## Product Dimensions

MXZ-4F83VF, MXZ-5F102VF

Upper View



Front View



Side View

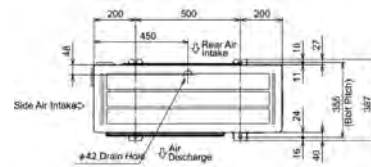


\*MXZ-4F83VF has 4 pipe connections

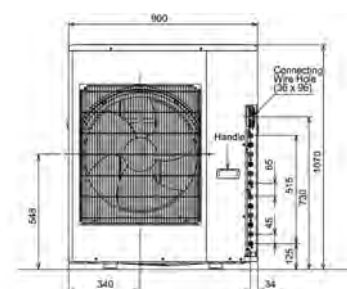
## Product Dimensions

MXZ-6F122VF

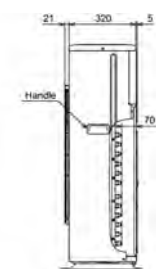
Upper View



Front View



Side View



# MXZ-HA R32 Inverter Heat Pump

(4-5kW)

## Multi-Split Units



The **MXZ-HA** range of multi-split outdoor units connect to our MSZ-HR classic wall mounted indoor units. Together they form exceptional value small multi-split systems, that can be used in a wide range of applications such as residential spaces, small offices and light commercial premises.

### Key Features & Benefits

- 2 or 3 MSZ-HR indoor units can be connected to a single outdoor unit
- Available in 4 or 5kW capacities, covering a wide range of applications
- With a total system pipe length of 30-50m, these units offer flexible installation options
- MSZ-HR connection only

# R32

MXZ-HA - OUTDOOR UNITS		MXZ-2HA40VF	MXZ-2HA50VF	MXZ-3HA50VF
NUMBER OF CONNECTABLE INDOOR UNITS		2	2	2 - 3
CAPACITY (kW)	Heating (nominal)	4.3 (1.0 - 4.7)	6.0 (1.0 - 6.4)	6.0 (2.6 - 7.5)
	Cooling (nominal)	4.0 (1.1 - 4.3)	5.0 (1.1 - 5.4)	5.0 (2.9 - 6.5)
	Heating (UK)	3.61 (0.84 - 3.95)	5.04 (0.84 - 5.38)	5.04 (2.18 - 6.30)
	Cooling (UK)	4.00 (1.10 - 4.30)	5.00 (1.10 - 5.40)	4.50 (2.61 - 5.85)
COP / EER (nominal)		4.73 / 3.81	3.90 / 3.29	4.62 / 3.97
SCOP (η <sub>sh</sub> ) / SEER (η <sub>sc</sub> ) (BS EN14825)		4.30 / 8.12	4.30 / 7.78	4.02 / 7.26
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++
MAX AIRFLOW (m <sup>3</sup> /min)	Heating/Cooling	33.5 / 28.4	34.7 / 32.7	29.1 / 31.0
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	50 / 44	51 / 47	50 / 46
SOUND POWER LEVEL (dBA)	Cooling	59	64	61
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 550	840 x 330 x 710
WEIGHT (kg)		37	37	57
ELECTRICAL SUPPLY		220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
PHASE		Single	Single	Single
POWER INPUT (kW)	Heating/Cooling (nominal)	0.91 / 1.05	1.54 / 1.52	1.30 / 1.26
	Heating/Cooling (UK)	0.82 / 0.90	1.39 / 1.31	1.17 / 1.08
STARTING CURRENT (A)		7.6	7.6	6.7
RUNNING CURRENT (A)		4.4 / 4.7 [12.2]	6.6 / 6.5 [12.2]	5.6 / 5.4 [18.0]
INTERCONNECTING CABLE No. CORES		4 Core	4 Core	4 Core
TOTAL PIPE LENGTH (m)		30	30	50
MAX PIPE LENGTH PER INDOOR UNIT (m)		20	20	25
MAX HEIGHT DIFFERENCE (m)		15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)		0.9 / 0.61	0.9 / 0.61	1.4 / 0.95
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)		0	0	0.2 / 0.14
FUSE RATING (BS88) - HRC (A)		16	16	20

Notes: MSZ-HR connection only.

## Accessories

### Outdoor Units

#### MAC-881SG

Air outlet guide for MXZ-2HA40VF, MXZ-2HA50VF

#### MAC-856SG

Air outlet guide for MXZ-3HA50VF

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium finish)

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### PAR-41MAA

Standard wired remote controller

#### MELCOBEMS MINI

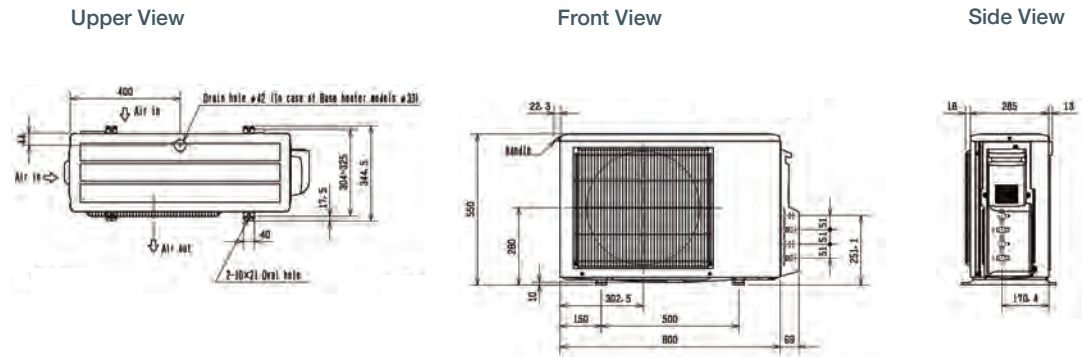
Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

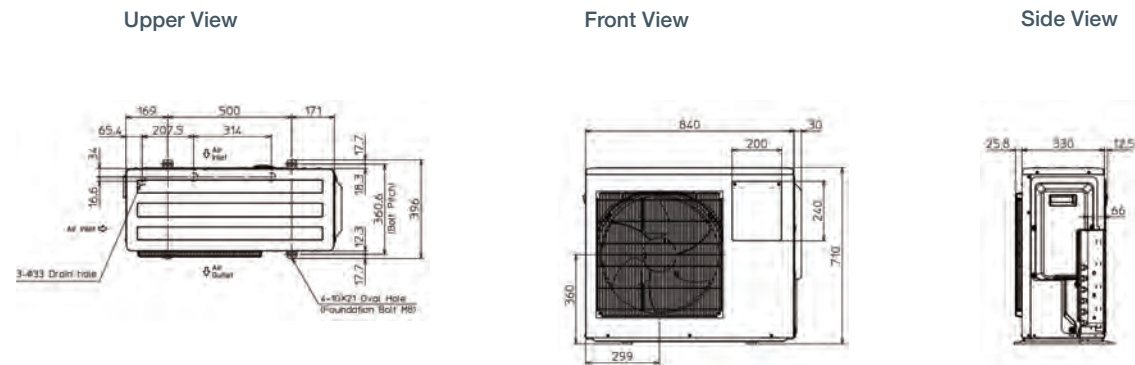
## Product Dimensions

MXZ-2HA40/50VF



## Product Dimensions

MXZ-3HA50VF



# PUMY-SP R410A Inverter Heat Pump

(12.5-15.5kW)

## Multi-Split Units

The **PUMY-SP** Inverter Heat Pump system allows up to 10 indoor units to be connected to one single fan outdoor unit. Compatibility with City Multi, Mr Slim and the stylish M Series indoor units makes this an extremely flexible, economic, and energy-efficient solution for multi-room applications. With a slimline design and operation modes relevant to built-up areas, these systems are ideal for high-end residential and smaller commercial applications in city centres, or areas with limited outdoor space.

### Key Features & Benefits

- Low height, small footprint, long pipe-runs and wall-hanging capability provides flexibility of install
- Compatible with M Series, Mr Slim and City Multi indoor units (M Series & Mr Slim units via branch box or LEV Kit)
- Choice of operation mode: 'silent mode' for noise sensitive areas or 'demand control' for maximum efficiency
- Unique fan capability provides 30 Pascals of static pressure as standard



PUMY-SP - OUTDOOR UNITS		PUMY-SP112VKM	PUMY-SP112YKM	PUMY-SP125VKM	PUMY-SP125YKM	PUMY-SP140VKM	PUMY-SP140YKM
NUMBER OF CONNECTABLE INDOOR UNITS	Branch box / Mixed*1	8 / 10	8 / 10	8 / 10	8 / 10	8 / 10	8 / 10
CAPACITY (kW)	Heating (nominal)	14.0	14.0	16.0	16.0	16.5	16.5
	Cooling (nominal)	12.5	12.5	14.0	14.0	15.5	15.5
	Heating (UK)	13.9	13.9	15.8	15.8	16.3	16.3
	Cooling (UK)	10.0	10.0	11.2	11.2	12.4	12.4
COP / EER (nominal)		4.42 / 4.03	4.42 / 4.03	4.10 / 3.65	4.10 / 3.65	4.10 / 3.30	4.10 / 3.30
SCOP / SEER*3		-	-	-	-	-	-
MAX AIRFLOW (m³/min)		77	77	83	83	83	83
SOUND PRESSURE LEVEL (dBA)		52	52	53	53	54	54
SOUND POWER LEVEL (dBA)	Cooling	72	72	73	73	74	74
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330+40 x 981	1050 x 330+40 x 981	1050 x 330+40 x 981	1050 x 330+40 x 981	1050 x 330+40 x 981	1050 x 330+40 x 981
WEIGHT (kg)		93	94	93	94	93	94
ELECTRICAL SUPPLY		220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	Three	Single	Three	Single	Three
POWER INPUT (kW)	Heating/Cooling (nominal)	3.17 / 3.10	3.17 / 3.10	3.90 / 3.84	3.90 / 3.84	4.02 / 4.70	4.02 / 4.70
	Heating/Cooling (UK)	4.18 / 1.61	4.18 / 1.61	5.15 / 2.00	5.15 / 2.00	5.31 / 2.44	5.31 / 2.44
STARTING CURRENT (A)		14	7	14	7	14	7
RUNNING CURRENT (A)	Heating/Cooling [MAX]	13.48 / 13.18 [30.5]	4.82 / 4.71 [13.0]	16.58 / 16.33 [30.5]	5.93 / 5.83 [13.0]	17.09 / 19.98 [30.5]	6.11 / 7.14 [13.0]
FUSE RATING (BS88) - HRC (A)		1 x 32	1 x 16	1 x 32	1 x 16	1 x 32	1 x 16
PIPE SIZE MM (in)	Gas	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
TOTAL PIPING LENGTH (M)	Branch box / Mixed*1	120	120	120	120	120	120
FURTHEST PIPING LENGTH (M)	(with no branch boxes)	80 (70)	80 (70)	80 (70)	80 (70)	80 (70)	80 (70)
BETWEEN BRANCH BOXES AND OUTDOOR UNIT - LENGTH (m)		55	55	55	55	55	55
BETWEEN BRANCH BOXES AND INDOOR UNIT - LENGTH (m)		25	25	25	25	25	25
BETWEEN INDOOR AND OUTDOOR UNIT - HEIGHT (m)		50m max <sup>2</sup>	50m max <sup>2</sup>	50m max <sup>2</sup>	50m max <sup>2</sup>	50m max <sup>2</sup>	50m max <sup>2</sup>
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT (m)		12	12	12	12	12	12
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (T)	R410A (GWP 2088)	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (T)	R410A (GWP 2088)	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79

**Notes:** \*1 Branch box - only using branch boxes (PAC-MK) on the system. Mixed - using a mix of branch boxes (PAC-MK) and City Multi indoor units on the same system. \*2 40m max if outdoor installed below. 30m if mixed system. \*3 SCOP / SEER available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 6 to EN14825 standard.

PAC-MK - BRANCH BOX		PAC-MK53BC	PAC-LV - LEV KIT INTERFACE	PAC-LV11M
NUMBER OF CONNECTABLE INDOOR UNITS		5		1
COMPATIBLE INDOOR UNITS		M Series, Mr Slim		M Series
WEIGHT (kg)		7.9		15 to 50
DIMENSIONS (mm)	Width x Depth x Height	450 x 280 x 170		3.5
POWER SUPPLY TO BRANCH BOX*1	From outdoor unit	3 core + earth		
	Separate supply	220-240v, 50Hz / Single Phase		
	Separate supply fuse rating (BS88) - HRC (A)	6		
POWER SUPPLY TO INDOOR UNITS	From branch box	3 core + earth		
NUMBER OF CONNECTABLE INDOOR UNITS				1
COMPATIBLE INDOOR UNITS				M Series
CAPACITY INDEX OF INDOOR UNITS				15 to 50
WEIGHT (kg)				3.5
DIMENSIONS (mm)	Width x Depth x Height			355 x 142 x 138
ELECTRICAL SUPPLY				220-240v, 50Hz / Single Phase
FUSE RATING (BS88) - HRC (A)				6

**Note:** The indoor unit connected to the PAC-LV11 cannot be grouped with other City Multi indoor units. Group control with other M Series indoor units + PAC-LV11 is possible via ME controller or system controller only. Group control is not possible via an MA controller, IT terminal or wireless remote controller. ME control functions energy management, charge apportioning, interlock and free contact are not available.

**Note:** \*1 Either option is available for power supply from outdoor unit OR from a separate supply.



## Accessories

### Outdoor Units

#### CMY-Y62-G-E

Branch pipe (2 branches) for PUMY

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium finish)

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### PAR-41MAA

Standard wired remote controller

#### MELCOBEMS MINI

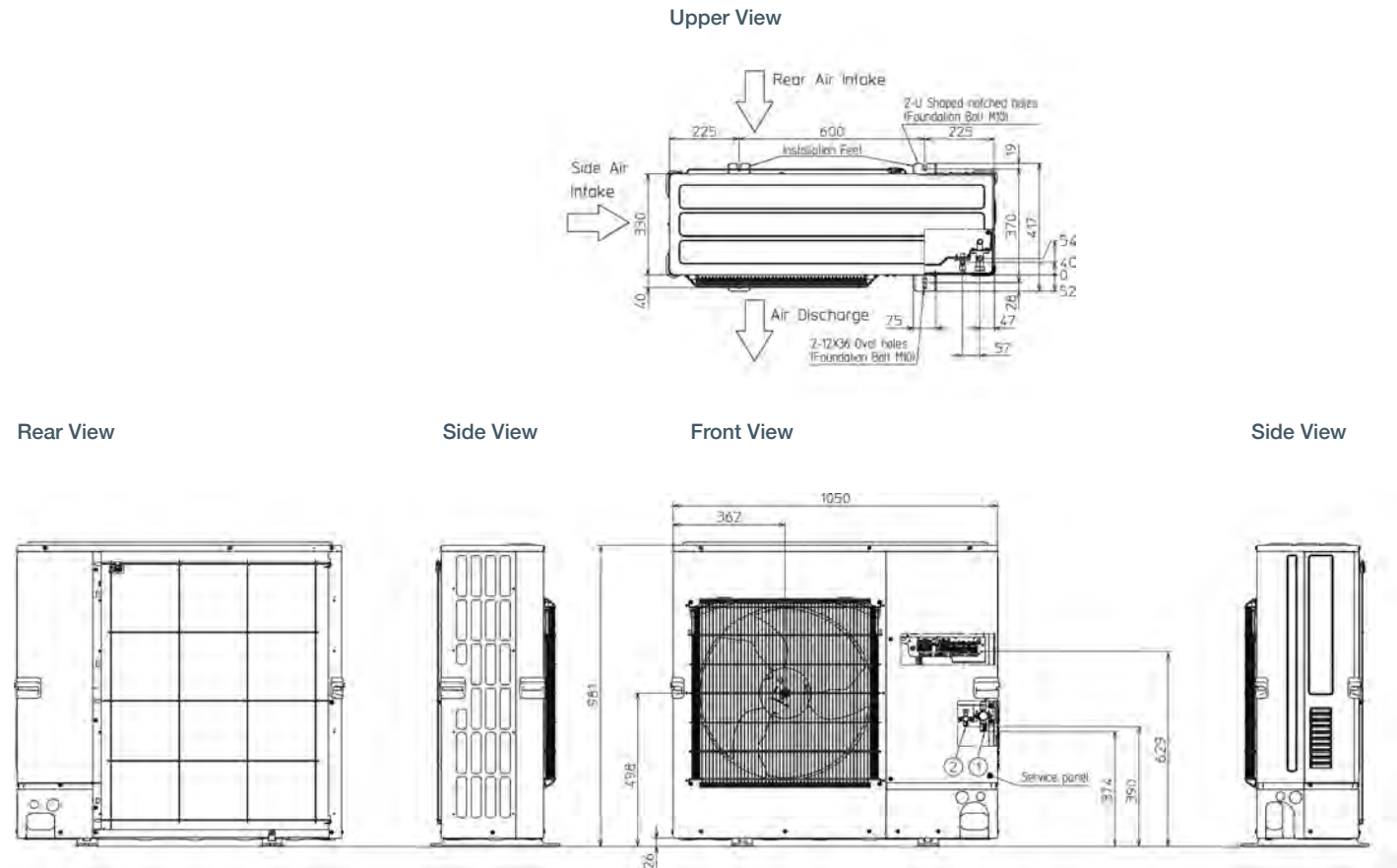
Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

## Product Dimensions

PUMY-SP112/125/140(V)(Y)KM



# PUMY-P R410A Inverter Heat Pump

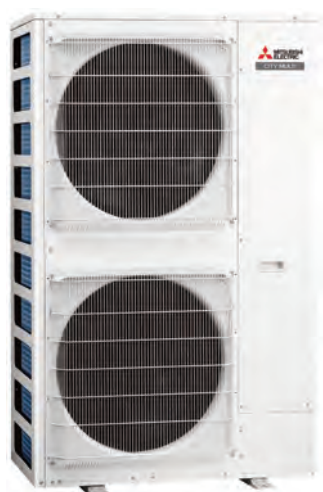
(12.5-33.5kW)

## Multi-Split Units

The **PUMY-P** Inverter Heat Pump system allows up to 30 indoor units to be connected to a single outdoor unit. Compatibility with City Multi, Mr Slim and the stylish M Series indoor units makes this an extremely flexible, economic, and energy-efficient solution for multi-room applications. With a slimline design and operation modes relevant to built-up areas, these systems are ideal for high-end residential and smaller commercial applications in city centres, or areas with limited outdoor space.

### Key Features & Benefits

- Small footprint, long pipe-runs and wall-hanging capability provides flexibility of install
- Compatible with M Series, Mr Slim and City Multi indoor units (M Series & Mr Slim units via branch box or LEV Kit)
- Choice of operation mode: 'silent mode' for noise sensitive areas or 'demand control' for maximum efficiency
- Unique fan capability provides 30 Pascals of static pressure as standard



PUMY-P OUTDOOR UNITS		PUMY-P112VKM5	PUMY-P112YKM4	PUMY-P125VKM5	PUMY-P125YKM4	PUMY-P140VKM5	PUMY-P140YKM4	PUMY-P200YKM2	PUMY-P250YBM	PUMY-P300YBM
NUMBER OF CONNECTABLE INDOOR UNITS	Branch box / Mixed*1	8 / 10	8 / 10	8 / 10	8 / 10	8 / 10	8 / 10	8 / 11	12 / 30	12 / 30
CAPACITY (kW)	Heating (nominal)	14.0	14.0	16.0	16.0	18.0	18.0	25.0	31.5	37.5
	Cooling (nominal)	12.5	12.5	14.0	14.0	15.5	15.5	22.4	28.0	33.5
	Heating (UK)	13.9	13.9	15.8	15.8	17.8	17.8	24.8	27.9	33.2
	Cooling (UK)	10.0	10.0	11.2	11.2	12.4	12.4	17.9	21.6	25.8
COP / EER (NOMINAL)		4.61 / 4.48	4.61 / 4.48	4.28 / 4.05	4.28 / 4.05	4.03 / 3.43	4.03 / 3.43	4.28 / 3.70	4.25 / 3.41	4.11 / 3.31
SCOP / SEER*4		-	-	-	-	-	-	-	-	-
MAX AIRFLOW (m <sup>3</sup> /min)		110	110	110	110	110	110	141	183	183
SOUND PRESSURE LEVEL (dBA)		49	49	50	50	51	51	56	55	57
SOUND POWER LEVEL (dBA)	Cooling	69	69	70	70	71	71	75	73	75
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330+40 x 1338	1050 x 330+40 x 1338	1050 x 330+40 x 1338	1050 x 330+40 x 1338	1050 x 330+40 x 1338	1050 x 330+40 x 1338	1050 x 330+40 x 1338	1050 x 460+45 x 1662	1050 x 460+45 x 1662
WEIGHT (kg)		122	125	122	125	122	125	141	196	196
ELECTRICAL SUPPLY		220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE		Single	Three	Single	Three	Single	Three	Three	Three	Three
	POWER INPUT (kW)	Heating/Cooling (nominal)	3.04 / 2.79	3.04 / 2.79	3.74 / 3.46	3.74 / 3.46	4.47 / 4.52	4.47 / 4.52	5.84 / 6.05	7.41 / 8.21
	Heating/Cooling (UK)	4.01 / 1.56	4.01 / 1.56	4.94 / 1.94	4.94 / 1.94	5.90 / 2.53	5.90 / 2.53	7.71 / 3.39	9.80 / 3.90	12.00 / 4.90
STARTING CURRENT (A)		14	7	14	7	14	7	7	7	7
RUNNING CURRENT (A)	Heating/Cooling [MAX]	13.42 / 12.32 [29.5]	5.16 / 4.74 [13.0]	16.51 / 15.27 [29.5]	6.00 / 5.55 [13.0]	19.73 / 19.95 [29.5]	6.79 / 6.87 [13.0]	8.74 / 9.05 [19.0]	11.51 / 12.68 [28.4]	14.01 / 15.54 [31.74]
FUSE RATING (BS88) - HRC (A)		1 x 32	1 x 16	1 x 32	1 x 16	1 x 32	1 x 16	1 x 20	1 x 32	1 x 32
PIPE SIZE MM (in)	Gas	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	19.05 (3/4")	22.4 (7/8")	25.4 (1")
	Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8") <sup>2</sup>	9.52 (3/8")	12.7 (1/2")
TOTAL PIPING LENGTH (m)	Branch box / Mixed*1	150 / 300 (240)	150 / 300 (240)	150 / 300 (240)	150 / 300 (240)	150 / 300 (240)	150 / 300 (240)	150 / 150 (150)	240 / 310 (310)	240 / 310 (310)
FURTHEST PIPING LENGTH (m)	(With no branch boxes)	80 (85)	80 (85)	80 (85)	80 (85)	80 (85)	80 (85)	80	80 / 85 <sup>5</sup>	80 / 85 <sup>5</sup>
BETWEEN BRANCH BOXES AND OUTDOOR UNIT - LENGTH (m)		55	55	55	55	55	55	55	95 / 80 <sup>6</sup>	95 / 80 <sup>6</sup>
BETWEEN BRANCH BOXES AND INDOOR UNIT - LENGTH (m)		25	25	25	25	25	25	25	25	25
BETWEEN INDOOR AND OUTDOOR UNIT - HEIGHT (m)		50m max <sup>3</sup>	50m max <sup>3</sup>	50m max <sup>3</sup>	50m max <sup>3</sup>	50m max <sup>3</sup>	50m max <sup>3</sup>	50m max <sup>3</sup>	50m max <sup>3</sup>	50m max <sup>3</sup>
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT (m)		12	12	12	12	12	12	12	12	12
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R410A (GWP 2088)		4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	7.3 / 15.2	9.3 / 19.4	9.3 / 19.4
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R410A (GWP 2088)		13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.5 / 28.2	22.4 / 46.8	22.4 / 46.8

**Notes:** \*1 Branch box - only using branch boxes (PAC-MK) on the system. **Mixed** - using a mix of branch boxes (PAC-MK) and City Multi indoor units on the same system. Figure in brackets - when using 2 or 3 branch boxes.  
<sup>2</sup> 12.7mm (1/2") if furthest length ≥ 60m. <sup>3</sup> 40m max if outdoor installed below. <sup>4</sup> SCOP / SEER available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 6 to EN14825 standard.  
<sup>5</sup> Using mixed method. <sup>6</sup> Using mixed method and one branch box.

PAC-MK - BRANCH BOX	PAC-MK53BC	
NUMBER OF CONNECTABLE INDOOR UNITS	5	
COMPATIBLE INDOOR UNITS	M Series, Mr Slim	
WEIGHT (kg)	7.9	
DIMENSIONS (mm)	Width x Depth x Height 450 x 280 x 170	
POWER SUPPLY TO BRANCH BOX*1	From outdoor unit	3 core + earth
	Separate supply	220-240v, 50Hz / Single Phase
Separate supply fuse rating (BS88) - HRC (A)		6
	POWER SUPPLY TO INDOOR UNITS	From branch box

**Note:** \*1 Either option is available for power supply from outdoor unit OR from a separate supply.

PAC-LV - LEV KIT INTERFACE	PAC-LV11M
NUMBER OF CONNECTABLE INDOOR UNITS	1
COMPATIBLE INDOOR UNITS	M Series
CAPACITY INDEX OF INDOOR UNITS	15 to 50
WEIGHT (kg)	3.5
DIMENSIONS (mm)	Width x Depth x Height 355 x 142 x 138
ELECTRICAL SUPPLY	220-240v, 50Hz / Single Phase
FUSE RATING (BS88) - HRC (A)	6

**Note:** The indoor unit connected to the PAC-LV11 cannot be grouped with other City Multi indoor units. Group control with other M Series indoor units + PAC-LV11 is possible via ME controller or system controller only. Group control is not possible via an MA controller, IT terminal or wireless remote controller. ME control functions energy management, charge apportioning, interlock and free contact are not available.

## Accessories

### Outdoor Units

#### CMY-Y62-G-E

Branch pipe (2 branches) for PUMY

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium finish)

#### MAC-334IF-E

Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### PAR-41MAA

Standard wired remote controller

#### MELCOBEMS MINI

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

## Product Dimensions

PUMY-P112/125/140VKM5/YKM4, PUMY-P200YKM2

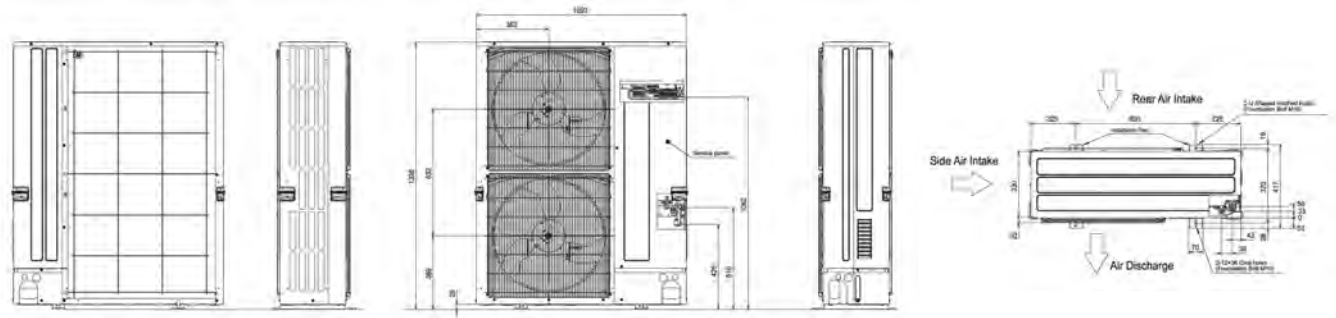
Rear View

Left Side View

Front View

Right Side View

Upper View



## Product Dimensions

PUMY-P250/300YBM

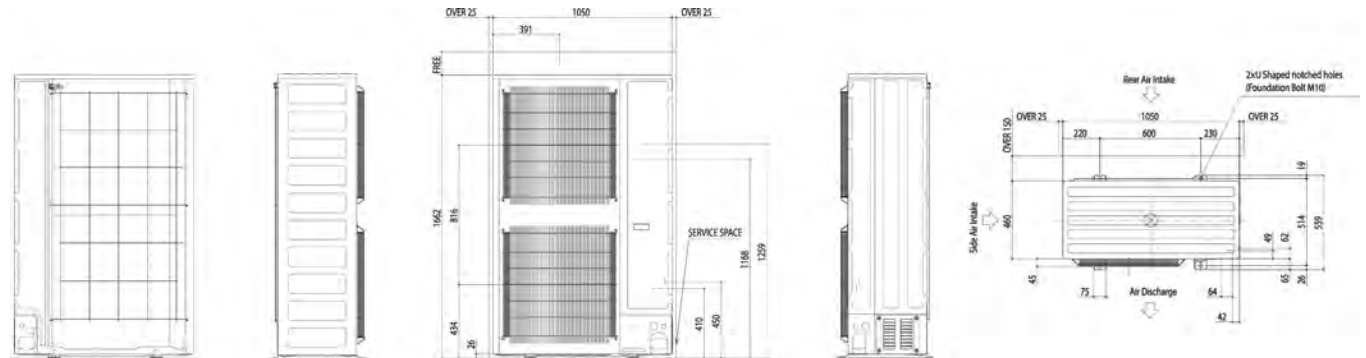
Rear View

Left Side View

Front View

Right Side View

Upper View



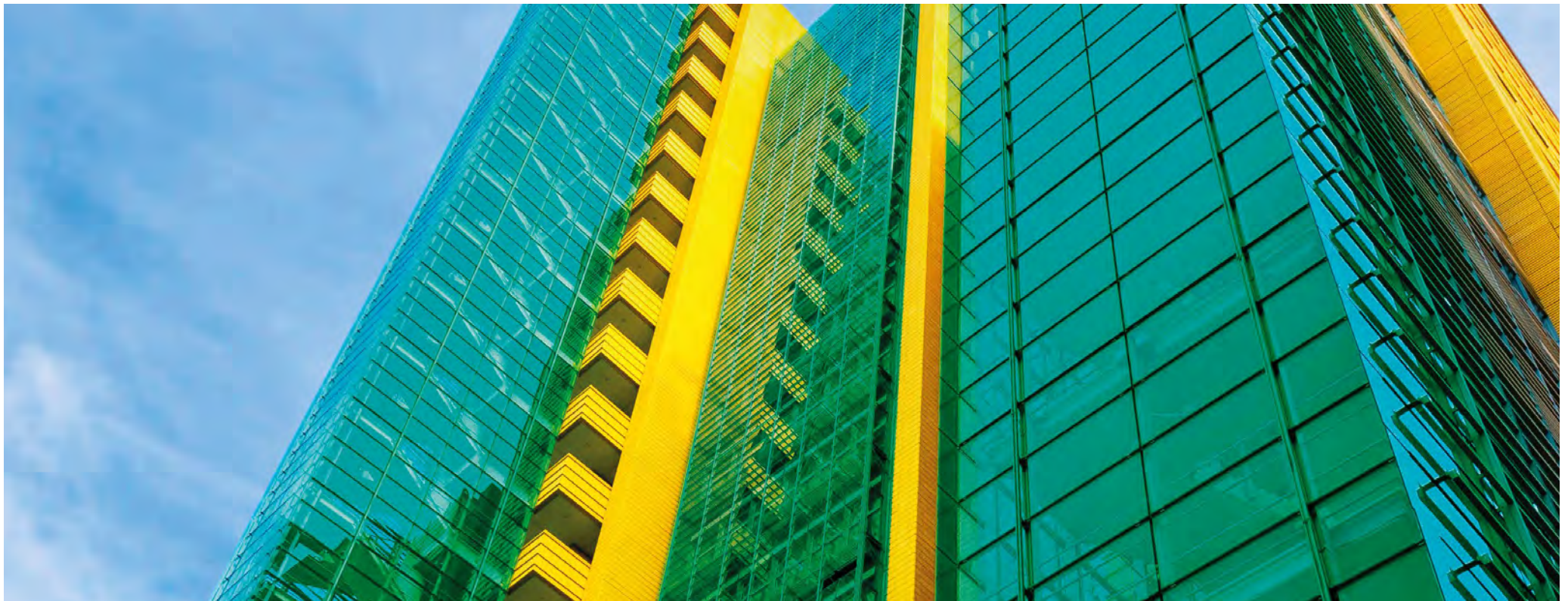
# Multi-Split Accessories / Optional Extras

OUTDOOR UNITS	DESCRIPTION
MAC-881SG	Air outlet guide for MXZ-2F33VF3, MXZ-2F42VF3, MXZ-2F53VF3, MXZ-2HA40VF, MXZ-2HA50VF
MAC-856SG	Air outlet guide for MXZ-3F54VF3, MXZ-3F68VF3, MXZ-4F72VF3, MXZ-3HA50VF
PAC-SH96SG-E	Air outlet guide for MXZ-4F83VF, MXZ-5F102VF, MXZ-6F122VF
CMY-Y62-G-E	Branch pipe (2 branches) for PUMY-(S)P

SYSTEM CONTROL UNITS	DESCRIPTION
PAR-41MAA	Standard wired remote controller
MAC-334IF-E	Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output. Now includes a heating interlock mode
MAC-497IF-E	Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run or fault output
MAC-587IF-E	Interface for connection to Wi-Fi MELCloud service
PAR-CT01MAA-SB	Touch screen wired remote controller
PAR-CT01MAA-PB	Touch screen wired remote controller (premium finish)
MELCOBEMS MINI	Modbus/BACnet MSTP CN105 adaptor
MELCORETAIL MINI	Retail control and input/output interface

# City Multi VRF

Energy Efficient VRF Systems





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WY Series Heat Pump (63-101kW)	1.5.52

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PEFY-M-VMA-A Ceiling Concealed Ducted	1.5.56
PEFY-P-VMHS-E High Static Pressure Ceiling Concealed Ducted	1.5.58
PLFY-M-VEM-E 4-Way Blow Ceiling Cassette	1.5.60
PLFY-P-VFM-E 600x600 4-Way Blow Ceiling Cassette	1.5.62
PFFY-P-VCM-E Floor Standing Concealed	1.5.64

PFFY-P-VLEM-E Floor Standing Exposed	1.5.66
PFFY-P-VKM-E Floor Standing Exposed	1.5.68
PKFY-P-VLM-E/VKM-E Wall Mounted	1.5.70
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# Our answer to large scale VRF - **City Multi Air Conditioning**

First developed over 30 years ago, City Multi is the market leader in VRF technology. Specifically designed to deliver comfort and control for today's building requirements, it addresses all the key market issues

VRF (Variable Refrigerant Flow) is a direct expansion type air conditioning system where one outdoor unit is connected with multiple indoor units, intelligently modulating the flow of refrigerant or water depending upon the capacity requirements of each zone within the building. Its ultimate purpose is to regulate the internal room air temperature and comfort levels in the most effective and efficient manner possible.

Today's commercial buildings are increasingly air tight and filled with heat-generating office equipment and lighting, which presents a challenge for anyone trying to maintain a stable and comfortable internal environment. Buildings account for around half of all UK greenhouse emissions, so legislation is demanding higher standards of air quality and increased energy efficiency in this sector.

## The ideal solution

City Multi has constantly evolved and is packed with innovation that makes it eminently suitable for almost any building.

Designed from day one to work effectively in real applications in the UK market, City Multi delivers the best possible performance, combined with total flexibility of design and operation.

Available in heat recovery and heat pump variants, with up to 50 indoor units connectable, **City Multi provides the ultimate solution in comfort and efficiency.**





## Lower GWP R32 VRF air conditioning systems from Mitsubishi Electric

With the launch of our YNW R32 VRF systems, Mitsubishi Electric were the first manufacturer to offer the UK market a complete range of lower Global Warming Potential (GWP) solutions.

Under the growing pressure of the F-Gas phase down regulations, the market is demanding viable and positive solutions which are future proof for businesses and last the full lifecycle of the product.

R32 is now the norm for split-type air conditioning systems, offering a lower GWP (675) than R410A (2088). At the same time, the use of VRF systems has grown intensively over the past decade due to the core benefits of flexibility, energy saving and automated control.

The unique Hybrid VRF system had been the only viable R32 solution available to the UK market. However, utilising the innovative City Multi YNW outdoor unit, we developed our new R32 VRF solution to offer complete design flexibility, high efficiency and low noise.

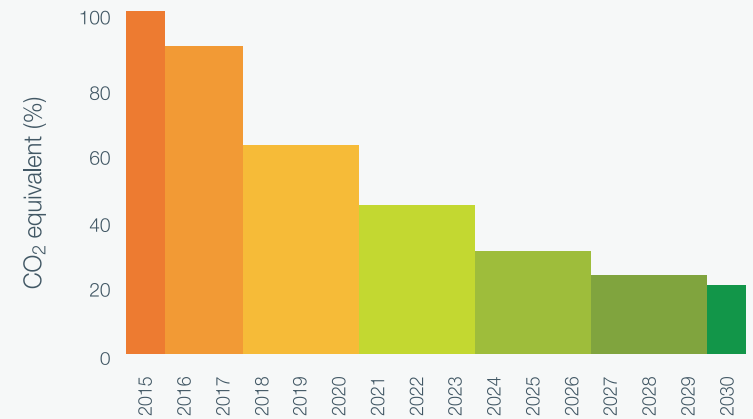
R32 makes up 50% of the existing R410A refrigerant already found in many current VRF systems; it is highly energy efficient and easy to recycle. A GWP of one third of R410A, plus reduced overall system refrigerant volumes, means a lower refrigerant total and lower global warming impact.

No matter which stage of the supply chain you or your customers occupy and whatever the core drivers, the solutions available from our complete range of VRF products can meet the tough demands of today's buildings. Whether CSR is high on the agenda, or lifecycle cost or capital cost, **there is a choice available from Mitsubishi Electric.**

R32



F-Gas - HFC phase down programme\*



Customers need a manufacturer that is ahead of the curve and developing products that meet both current and future legislation.

Options to reduce the CO<sub>2</sub> equivalent include:

- ↓ Decreasing kW on the market
- ↓ Reducing the amount of refrigerant
- ↓ Lowering the GWP of refrigerant









VRF now utilises lower GWP R32 refrigerant.

\* F-Gas 2015 phase down programme: [http://ec.europa.eu/clima/policies/f-gas/legislation/index\\_en.htm](http://ec.europa.eu/clima/policies/f-gas/legislation/index_en.htm)







**CITY MULTI** Energy Efficient VRF Systems

Outdoor / Condensing Unit Range





Air Cooled

Heat Recovery - R2 Series		P	112	125	140	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350		
		(kW)	12	14	16	22	28	34	40	45	50	56	63	69	73	80	85	90	96	101	108	113	118	124	130	136	140	146	150		
High Efficiency PURY-EM (YNW)	 					S	S	S																							
Standard Efficiency PURY-M (YNW)	 					S	S	S																							
High Efficiency PURY-EP (YNW)	 					S	S	S	L	L	L	XL	XL	S	L	L	L	L	L	L	L	XL	XL	XL	XL						
Standard Efficiency PURY-P (YNW)	 					S	S	S	L	L	L	XL	XL	S	L	L	L	L	L	L	L	XL	XL	XL	XL						

Air Cooled































Heat Pump - Y Series		P	112	125	140	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	
		(kW)	12	14	16	22	28	34	40	45	50	56	63	69	73	80	85	90	96	101	108	113	118	124	130	136	140	146	150	
PUHY-M (YNW)	 					S	S	S																						
PUHY-P (YNW)	 					S	S	S	L	L	L	XL	S	S	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Mini VRF PUMY-(S)P	 		●	●	●	●	●	●																						

Water Cooled

Heat Recovery - WR2 Series		P	112	125	140	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
		(kW)	12	14	16	22	28	34	40	45	50	56	63	69	73	80	85	90	96	101
PQRY-P (YLM)	 					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat Pump - WY Series		P	112	125	140	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
		(kW)	12	14	16	22	28	34	40	45	50	56	63	69	73	80	85	90	96	101
PQHY-P (YLM)	 					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

- S Small chassis  
R32 & R410A
- L Large chassis  
R410A
- XL Extra Large chassis  
R410A

Indoor Unit Range

Model	Range	P (kW)	10	15	20	25	32	40	50	63	80	100	125	140	200	250
			1.2	1.7	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0	22.4	28.0
Ceiling Concealed Ducted	PEFY-P-VMS1-E (Ultra Thin)	 		●	●	●	●	●	●	●						
	PEFY-M-VMA-A	  			●	●	●	●	●	●	●	●	●			
	PEFY-P-VMHS-E (High Static Pressure)	 										●	●	●	●	●
4-Way Blow Ceiling Cassette	PLFY-M-VEE-E	  					●	●	●	●	●	●	●			
	PLFY-P-VFM-E (600x600)	 		●	●	●	●	●	●							
Floor Standing	PFFY-P-VCM-E (Concealed)	 			●	●	●	●	●	●						
	PFFY-P-VLEM-E (Exposed)	 			●	●	●	●	●	●						
	PFFY-P-VKM-E (Exposed)	 			●	●	●	●								
Wall Mounted	PKFY-P-VLM-E	 	●	●	●	●	●									
	PKFY-P-VLM-E	 						●	●							
	PKFY-P-VKM-E	 								●						
Ceiling Suspended	PCFY-P-VKM-E	 						●	●		●	●				
VRF Sanitary Water Heater	PWFY-P-VM-E-BU	 										●				
Air Curtain	VRF HP DXE	 								●		●	●	●		

Note: All kW capacity ratings may change on connected system, please contact your local sales office for confirmation.

# R2 Series VRF High Efficiency (22.4-33.5kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

Delivering outstanding Seasonal Energy Efficiency, the award-winning City Multi R2 Series VRF High Efficiency system provides simultaneous heating and cooling, with the added benefit of heat recovery. By utilising lower GWP R32 refrigerant, the **PURY-EM** helps businesses achieve their Corporate Social Responsibility targets, as well as future-proof their buildings and equipment.

### Key Features & Benefits

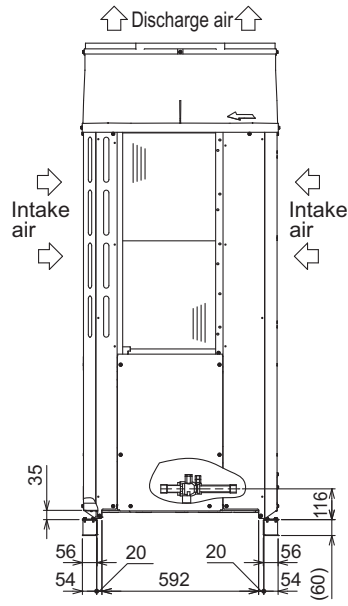
- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



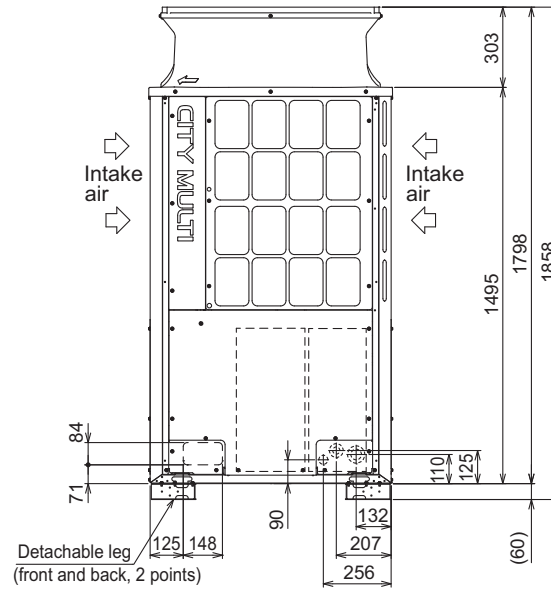
OUTDOOR UNITS		PURY-EM200YNW-A1	PURY-EM250YNW-A1	PURY-EM300YNW-A1
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5
	Cooling (nominal)	22.4	28.0	33.5
	High Performance Heating (UK)	25.0	31.5	35.6
	COP Priority Heating (UK)	22.8	28.7	34.1
	Cooling (UK)	20.1	25.1	30.0
POWER INPUT (kW)	Heating (nominal)	5.23	7.30	9.37
	Cooling (nominal)	4.43	6.68	7.82
	High Performance Heating (UK)	6.59	9.20	12.46
	COP Priority Heating (UK)	5.23	7.30	9.37
	Cooling (UK)	2.57	3.87	4.54
COP / EER (nominal)		4.78 / 5.05	4.31 / 4.19	4.00 / 4.28
MAX No. OF CONNECTABLE INDOOR UNITS		9 (8*1)	11 (10*1)	14 (12*1)
MAX CONNECTABLE CAPACITY		50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High	170	185	240
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")
	Liquid	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	59.0 / 59.0	61.0 / 60.5	67.0 / 61.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	78.0 / 76.0	80.0 / 78.5	86.5 / 80.0
WEIGHT (kg)		231	231	231
DIMENSIONS (mm)	Width	920	920	920
	Depth	740	740	740
	Height (1798mm without legs)	1858	1858	1858
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three	Three
STARTING CURRENT (A)		8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)		Heating / Cooling [MAX] 8.3 / 7.1 [16.1]	11.7 / 10.7 [21.8]	15.0 / 12.5 [23.9]
GUARANTEED OPERATING RANGE (°C)		Heating / Cooling -20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)		1 x 20	1 x 25	1 x 25
MAINS CABLE No. Cores		4	4	4
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		5.2 / 3.5	5.2 / 3.5	5.2 / 3.5
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		21.3 / 14.4	22.3 / 15.1	22.8 / 15.4

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.  
\*1 If a model PEFY-M 20 or 25 indoor unit is connected.

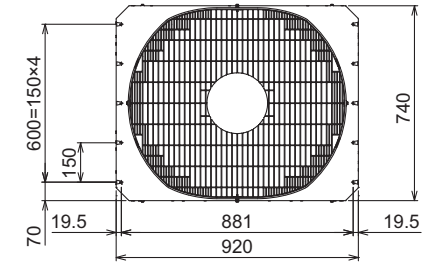
Side View



Front View



Upper View



# R2 Series VRF Standard Efficiency (22.4-33.5kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

The award-winning City Multi R2 Series VRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. By utilising lower GWP R32 refrigerant, the **PURY-M** helps businesses achieve their Corporate Social Responsibility targets, as well as future-proof their buildings and equipment.

### Key Features & Benefits

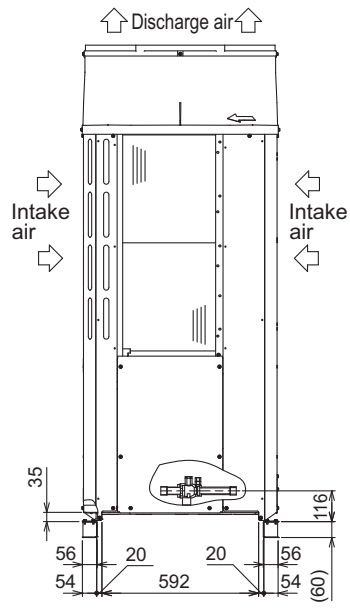
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



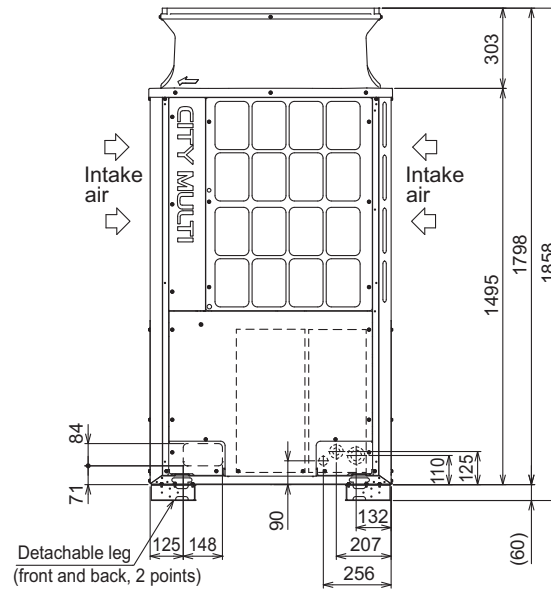
OUTDOOR UNITS		PURY-M200YNW-A1	PURY-M250YNW-A1	PURY-M300YNW-A1
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5
	Cooling (nominal)	22.4	28.0	33.5
	High Performance Heating (UK)	25.0	31.5	35.6
	COP Priority Heating (UK)	22.8	28.7	34.1
	Cooling (UK)	20.1	25.1	30.0
POWER INPUT (kW)	Heating (nominal)	5.27	7.32	9.35
	Cooling (nominal)	4.85	7.10	8.67
	High Performance Heating (UK)	6.64	9.22	12.44
	COP Priority Heating (UK)	5.27	7.32	9.35
	Cooling (UK)	2.81	4.12	5.03
COP / EER (nominal)		4.74 / 4.61	4.30 / 3.94	4.01 / 3.86
MAX No. OF CONNECTABLE INDOOR UNITS		9 (8*1)	11 (10*1)	14 (12*1)
MAX CONNECTABLE CAPACITY		50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m <sup>3</sup> /min)	High	170	185	240
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")
	Liquid	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
SOUND PRESSURE LEVEL (dBA) @ 1m Heating / Cooling		59.0 / 59.0	61.0 / 60.5	67.0 / 61.0
SOUND POWER LEVEL (dBA) @ 100% Capacity Heating / Cooling		78.0 / 76.0	80.0 / 78.5	86.5 / 80.0
WEIGHT (kg)		227	227	227
DIMENSIONS (mm)	Width	920	920	920
	Depth	740	740	740
	(1798mm without legs) Height	1858	1858	1858
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three	Three
STARTING CURRENT (A)		8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) Heating / Cooling [MAX]		8.4 / 7.7 [16.1]	11.7 / 11.3 [22.5]	14.9 / 13.9 [25.6]
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)		1 x 20	1 x 25	1 x 32
MAINS CABLE No. Cores		4	4	4
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		5.2 / 3.5	5.2 / 3.5	5.2 / 3.5
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		21.3 / 14.4	22.3 / 15.1	22.8 / 15.4

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.  
\*1 If a PEFY-M 20 or 25 indoor unit is connected.

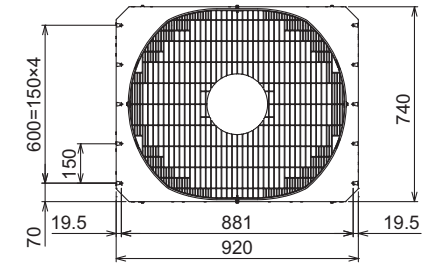
Side View



Front View



Upper View



# Y Series VRF (22.4-33.5kW)

## Heat Pump Outdoor Unit (Heating or Cooling)

The award-winning City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. By utilising lower GWP R32 refrigerant, the **PUHY-M** helps businesses achieve their Corporate Social Responsibility targets, as well as future-proof their buildings and equipment.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities

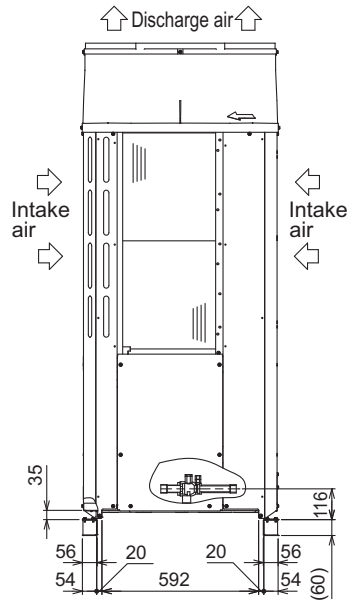


OUTDOOR UNITS		PUHY-M200YNW-A1	PUHY-M250YNW-A1	PUHY-M300YNW-A1
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5
	Cooling (nominal)	22.4	28.0	33.5
	High Performance Heating (UK)	25.0	31.5	35.6
	COP Priority Heating (UK)	22.8	28.7	34.1
	Cooling (UK)	20.0	25.1	30.0
POWER INPUT (kW)	Heating (nominal)	5.08	7.14	8.33
	Cooling (nominal)	4.72	6.96	8.54
	High Performance Heating (UK)	6.40	9.00	11.08
	COP Priority Heating (UK)	5.08	7.14	8.33
	Cooling (UK)	2.74	4.04	4.05
COP / EER (nominal)		4.92 / 4.74	4.41 / 4.02	4.50 / 3.92
MAX No. OF CONNECTABLE INDOOR UNITS		8	10	12
MAX CONNECTABLE CAPACITY		50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)	High	170	185	240
PIPE SIZE mm (in)	Gas	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")
	Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
SOUND PRESSURE LEVEL (dBA) @ 1m Heating / Cooling		59.0 / 58.0	61.0 / 60.0	64.5 / 61.0
SOUND POWER LEVEL (dBA) @ 100% Capacity Heating / Cooling		78.0 / 75.0	80.0 / 78.0	83.5 / 80.0
WEIGHT (kg)		222	222	223
DIMENSIONS (mm)	Width	920	920	920
	Depth	740	740	740
	(1798mm without legs) Height	1858	1858	1858
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three	Three
STARTING CURRENT (A)		8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) Heating / Cooling [MAX]		8.1 / 7.5 [16.1]	11.4 / 11.1 [21.8]	13.3 / 13.6 [25.6]
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)		1 x 20	1 x 25	1 x 32
MAINS CABLE No. Cores		4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		6.5 / 4.4	6.5 / 4.4	6.5 / 4.4
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		18.0 / 12.2	18.5 / 12.5	19.5 / 13.2

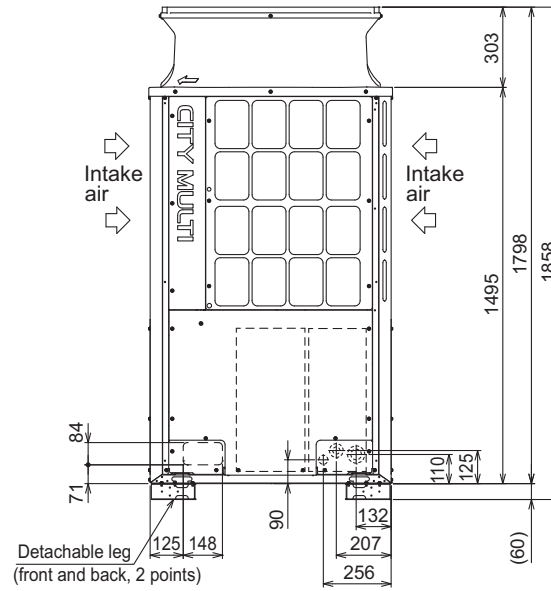
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.



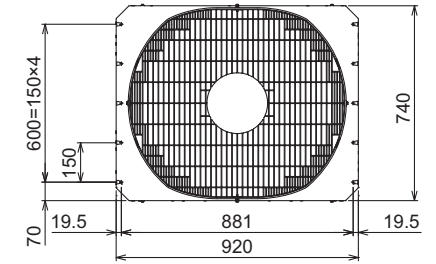
Side View



Front View



Upper View



# R2 Series VRF High Efficiency (22.4-45kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

Delivering outstanding Seasonal Energy Efficiency, the City Multi R2 Series VRF High Efficiency Heat Recovery system provides simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-EP** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



OUTDOOR UNITS		PURY-EP200YNW-A1	PURY-EP250YNW-A1	PURY-EP300YNW-A1	PURY-EP350YNW-A1	PURY-EP400YNW-A1	PURY-EP400YSNW-A1	
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5	45.0	50.0	50.0	
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	45.0	
	High Performance Heating (UK)	25.0	31.5	35.6	42.8	45.0	50.0	
	COP Priority Heating (UK)	22.8	28.7	34.1	41.0	43.0	45.5	
	Cooling (UK)	20.1	25.1	30.0	35.8	40.3	40.3	
POWER INPUT (kW)	Heating (nominal)	5.25	7.37	9.51	11.08	13.58	10.82	
	Cooling (nominal)	4.74	6.89	8.17	9.97	13.04	9.82	
	High Performance Heating (UK)	6.62	9.29	12.65	14.74	15.35	13.85	
	COP Priority Heating (UK)	5.25	7.37	9.51	11.08	13.17	10.82	
	Cooling (UK)	2.75	4.00	4.74	5.78	8.35	5.70	
COP / EER (nominal)		4.76 / 4.72	4.27 / 4.06	3.94 / 4.10	4.06 / 4.01	3.68 / 3.45	4.62 / 4.58	
MAX No. OF CONNECTABLE INDOOR UNITS		20	25	30	35	40	40	
MAX CONNECTABLE CAPACITY		50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	
AIRFLOW (m <sup>3</sup> /min)	High	170	185	240	250	315	170 / 170	
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	
	Liquid	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	
SOUND PRESSURE LEVEL (dBA) @ 1m		Heating / Cooling	59.0 / 59.0	61.0 / 60.5	67.0 / 61.0	64.0 / 62.5	69.0 / 65.0	62.0 / 62.0
SOUND POWER LEVEL (dBA) @ 100% Capacity		Heating / Cooling	78.0 / 76.0	80.0 / 78.0	86.0 / 80.0	83.0 / 81.0	88.0 / 83.0	81.0 / 79.0
SOUND POWER LEVEL (DBA) @ 90% Capacity		Heating / Cooling	74.5 / 71.0	76.0 / 73.5	78.5 / 74.5	81.0 / 76.0	81.0 / 77.0	77.5 / 74.0
SOUND POWER LEVEL (DBA) @ 75% Capacity		Heating / Cooling	71.5 / 66.5	74.5 / 69.5	74.5 / 70.5	77.0 / 73.0	75.0 / 73.0	74.5 / 69.5
WEIGHT (kg)		219	228	230	275	276	219 + 219	
DIMENSIONS (mm)		Width	920	920	920	1240	920 + 920	
(1798mm without legs)		Depth	740	740	740	740	740	
		Height	1858	1858	1858	1858	1858	
ELECTRICAL SUPPLY <sup>*1</sup>			380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	
PHASE <sup>*1</sup>			Three	Three	Three	Three	Three	
STARTING CURRENT (A) <sup>*1</sup>			8	8	8	8	8 / 8	
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>*1</sup>		Heating / Cooling [MAX]	8.4 / 7.6 [16.1]	11.8 / 11.0 [17.0]	15.2 / 13.1 [20.3]	17.7 / 15.9 [24.4]	21.7 / 20.9 [30.7]	17.3 / 15.7 [16.1 + 16.1]
GUARANTEED OPERATING RANGE (°C)		Heating / Cooling	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>*1</sup>			1 x 20	1 x 20	1 x 25	1 x 25	1 x 32	
MAINS CABLE No. Cores <sup>*1</sup>			4 + earth	4 + earth	4 + earth	4 + earth	4 + earth / 4 + earth	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)			5.2 / 10.9	5.2 / 10.9	5.2 / 10.9	8 / 16.7	8 / 16.7	10.4 / 21.7
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)			28.3 / 59.1	34.3 / 71.6	34.3 / 71.6	39 / 81.4	39 / 81.4	53.6 / 111.9

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

Product Dimensions

PURY-EP200/250/300YNW-A1

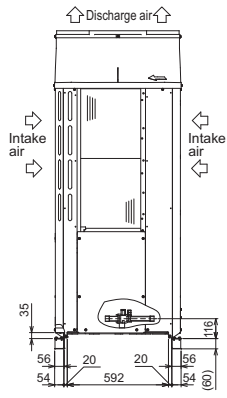
Product Dimensions

PURY-EP350/400YNW-A1

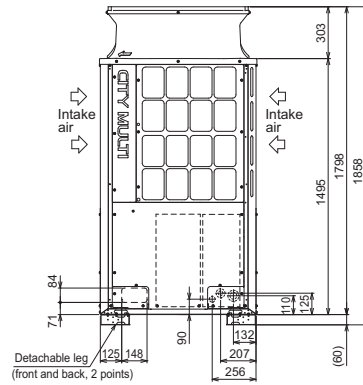
Product Dimensions

PURY-EP400YSNW-A1

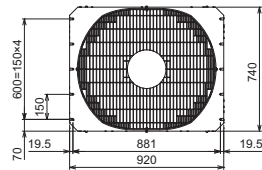
Side View



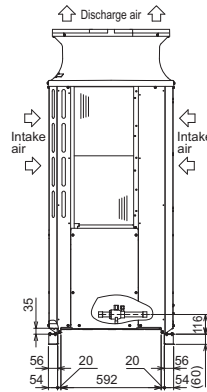
Front View



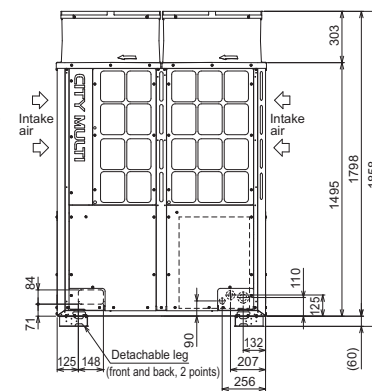
Upper View



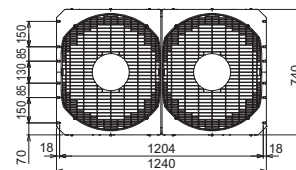
Side View



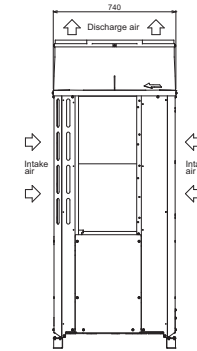
Front View



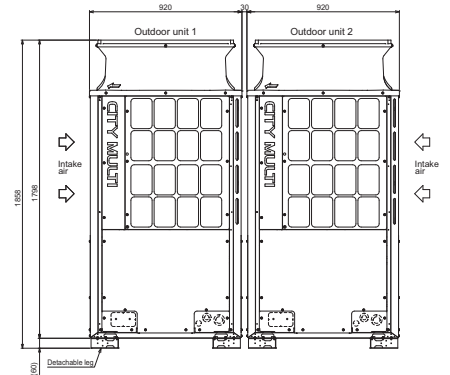
Upper View



Side View



Front View



# R2 Series VRF High Efficiency (50-63kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

Delivering outstanding Seasonal Energy Efficiency, the City Multi R2 Series VRF High Efficiency Heat Recovery system provides simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-EP** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



OUTDOOR UNITS		PURY-EP450YNW-A1	PURY-EP450YSNW-A1	PURY-EP500YNW-A1	PURY-EP500YSNW-A1	PURY-EP550YNW-A1	PURY-EP550YSNW-A1
CAPACITY (kW)	Heating (nominal)	56.0	56.0	63.0	63.0	69.0	69.0
	Cooling (nominal)	50.0	50.0	56.0	56.0	63.0	63.0
	High Performance Heating (UK)	50.4	56.0	56.7	63.0	62.1	65.6
	COP Priority Heating (UK)	48.2	51.0	54.2	57.3	59.3	62.8
	Cooling (UK)	44.8	44.8	50.1	50.1	56.4	56.4
POWER INPUT (kW)	Heating (nominal)	14.62	12.78	17.35	15.21	19.71	17.33
	Cooling (nominal)	13.85	11.73	18.12	14.21	22.00	15.90
	High Performance Heating (UK)	16.52	20.19	19.61	19.47	22.27	23.05
	COP Priority Heating (UK)	14.18	12.78	16.83	15.21	19.12	17.33
	Cooling (UK)	8.86	6.80	11.60	8.24	14.08	9.22
COP / EER (nominal)		3.83 / 3.61	4.38 / 4.26	3.63 / 3.09	4.14 / 3.94	3.50 / 2.86	3.98 / 3.96
MAX No. OF CONNECTABLE INDOOR UNITS		45	45	50	50	50	50
MAX CONNECTABLE CAPACITY		50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High	315	170 / 185	295	185 / 185	410	185 / 240
PIPE SIZE mm (in)	Gas	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")
	Liquid	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8") / 28.58 (1-1/8") <sup>1</sup>	22.2 (7/8") / 28.58 (1-1/8") <sup>1</sup>
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	70.0 / 65.5	63.5 / 63.0	64.5 / 63.5	64.0 / 63.5	70.0 / 66.0	68.0 / 64.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	89.0 / 83.0	83.0 / 81.0	84.0 / 82.0	83.0 / 81.0	89.0 / 83.0	87.5 / 83.0
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling	83.0 / 78.5	78.5 / 75.5	81.0 / 76.5	79.0 / 76.5	82.5 / 78.0	81.5 / 77.0
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling	76.5 / 74.0	76.5 / 71.5	77.5 / 73.5	75.5 / 72.5	78.5 / 74.5	77.5 / 73.0
WEIGHT (kg)		301	219 + 228	346	228 + 228	346	228 + 230
DIMENSIONS (mm)	Width	1240	920 + 920	1750	920 + 920	1750	920 + 920
	Depth	740	740	740	740	740	740
	(1798mm without legs)	Height	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>2</sup>		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>2</sup>		Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>2</sup>		8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>2</sup>		23.4 / 22.2 [34.6]	20.4 / 18.8 [16.1 + 17.0]	27.8 / 29.0 [40.3]	24.3 / 22.7 [17.0 + 17.0]	31.6 / 35.2 [44.3]	27.7 / 25.4 [17.0 + 20.3]
GUARANTEED OPERATING RANGE (°C)		Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>2</sup>		1 x 40	1 x 20 / 1 x 20	1 x 50	1 x 20 / 1 x 20	1 x 50	1 x 20 / 1 x 25
MAINS CABLE No. Cores <sup>2</sup>		4 + earth	4 + earth / 4 + earth	4 + earth	4 + earth / 4 + earth	4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		10.8 / 22.5	10.4 / 21.7	10.8 / 22.6	10.4 / 21.7	10.8 / 22.6	10.4 / 21.7
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		44.7 / 93.3	53.6 / 111.9	45.2 / 94.4	53.6 / 111.9	45.2 / 94.4	53.6 / 111.9

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

<sup>1</sup> If distance from OU to BC controller is greater than 65m. <sup>2</sup> A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

Product Dimensions

PURY-EP450YNW-A1

Product Dimensions

PURY-EP500/550YNW-A1

Product Dimensions

PURY-EP450/500/550YSNW-A1

Side View

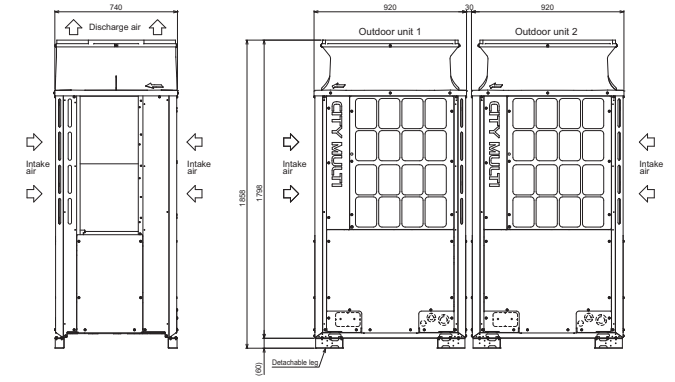
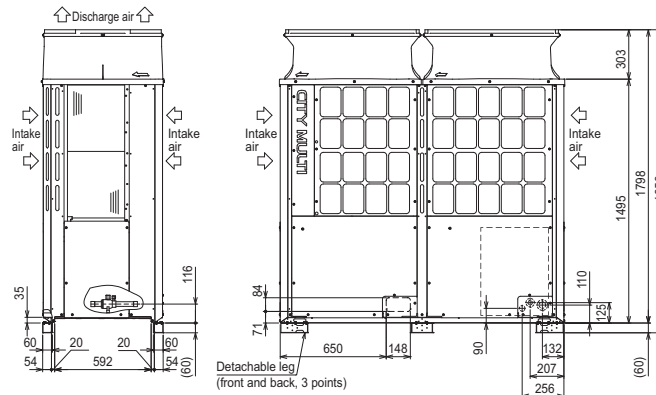
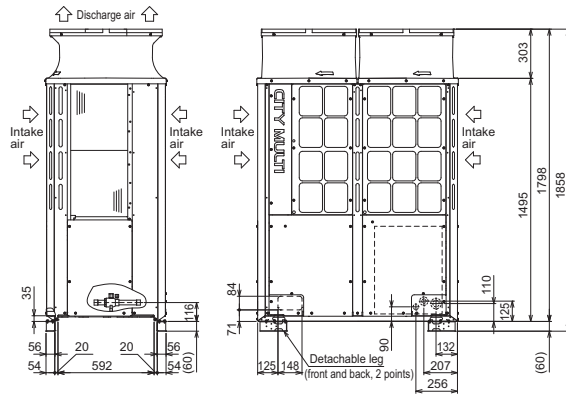
Front View

Side View

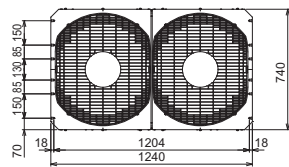
Front View

Side View

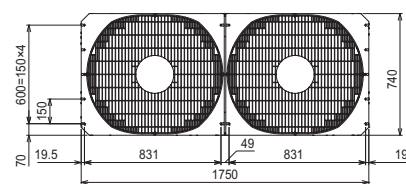
Front View



Upper View



Upper View



# R2 Series VRF High Efficiency (69-96kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

Delivering outstanding Seasonal Energy Efficiency, the City Multi R2 Series VRF High Efficiency Heat Recovery system provides simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-EP** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



OUTDOOR UNITS		PURY-EP600YSNW-A1	PURY-EP650YSNW-A1	PURY-EP700YSNW-A1	PURY-EP750YSNW-A1	PURY-EP800YSNW-A1	PURY-EP850YSNW-A1	
CAPACITY (kW)	Heating (nominal)	76.5	81.5	88.0	95.0	100.0	108.0	
	Cooling (nominal)	69.0	73.0	80.0	85.0	90.0	96.0	
	High Performance Heating (UK)	72.7	77.4	83.6	85.5	90.0	97.2	
	COP Priority Heating (UK)	69.6	74.2	80.1	81.7	86.0	92.9	
	Cooling (UK)	61.8	65.3	71.6	76.1	80.6	85.9	
POWER INPUT (kW)	Heating (nominal)	20.02	21.00	22.33	25.33	28.01	29.67	
	Cooling (nominal)	17.33	18.57	20.56	23.48	26.86	28.07	
	High Performance Heating (UK)	26.63	27.93	29.70	28.62	31.65	33.53	
	COP Priority Heating (UK)	20.02	21.00	22.33	24.57	27.17	28.78	
	Cooling (UK)	10.05	10.77	11.92	13.62	17.19	17.96	
COP / EER (nominal)		3.82 / 3.98	3.88 / 3.93	3.94 / 3.89	3.75 / 3.62	3.57 / 3.35	3.64 / 3.42	
MAX No. OF CONNECTABLE INDOOR UNITS		50	50	50	50	50	50	
MAX CONNECTABLE CAPACITY		50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	
AIRFLOW (m³/min)	High	240 / 240	240 / 250	250 / 250	250 / 315	315 / 315	315 / 315	
PIPE SIZE mm (in)	Gas	28.58 (1-1/8")	28.58 (1-1/8")	34.93 (1-3/8")	34.93 (1-3/8")	34.93 (1-3/8")	41.28 (1-5/8")	
	Liquid	22.2 (7/8")/28.58 (1-1/8") <sup>1</sup>	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	70.0 / 64.0	69.0 / 65.0	67.0 / 65.5	70.5 / 67.0	72.0 / 68.0	72.5 / 68.5	
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	89.0 / 83.0	88.0 / 84.0	86.0 / 84.0	90.0 / 86.0	91.0 / 86.0	92.0 / 86.0	
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling	81.5 / 77.5	83.0 / 78.5	84.0 / 79.0	83.5 / 79.5	83.0 / 80.0	85.0 / 81.0	
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling	77.5 / 73.5	79.0 / 75.0	80.0 / 76.0	79.5 / 76.0	78.0 / 76.0	79.0 / 76.5	
WEIGHT (kg)		230 + 230	230 + 275	275 + 275	275 + 275	276 + 276	276 + 301	
DIMENSIONS (mm)	Width	920 + 920	920 + 1240	1240 + 1240	1240 + 1240	1240 + 1240	1240 + 1240	
	Depth	740	740	740	740	740	740	
	Height	1858	1858	1858	1858	1858	1858	
(1798mm without legs)								
ELECTRICAL SUPPLY <sup>2</sup>		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	
PHASE <sup>2</sup>		Three	Three	Three	Three	Three	Three	
STARTING CURRENT (A) <sup>2</sup>		8	8	8	8	8	8	
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>2</sup>		Heating/Cooling [MAX]	32.1 / 27.7 [20.3 + 20.3]	33.6 / 29.7 [20.3 + 24.4]	35.8 / 32.9 [24.4 + 24.4]	40.6 / 37.6 [24.4 + 30.7]	44.9 / 43.0 [30.7 + 30.7]	47.5 / 45.0 [30.7 + 34.6]
GUARANTEED OPERATING RANGE (°C)		Heating / Cooling	-20~15.5 / -5~-52	-20~15.5 / -5~-52	-20~15.5 / -5~-52	-20~15.5 / -5~-52	-20~15.5 / -5~-52	
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>2</sup>			1 x 25 / 1 x 25	1 x 25 / 1 x 25	1 x 25 / 1 x 25	1 x 25 / 1 x 32	1 x 32 / 1 x 32	1 x 32 / 1 x 40
MAINS CABLE No. Cores <sup>2</sup>			4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)			10.4 / 21.7	13.2 / 27.6	16 / 33.4	16 / 33.4	16 / 33.4	18.8 / 39.3
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)			53.6 / 111.9	59.8 / 124.9	78 / 162.9	80.5 / 168.1	83 / 173.3	80.2 / 167.5

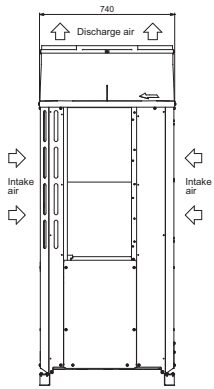
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

<sup>1</sup> If distance from OU to BC controller is greater than 65m. <sup>2</sup> A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

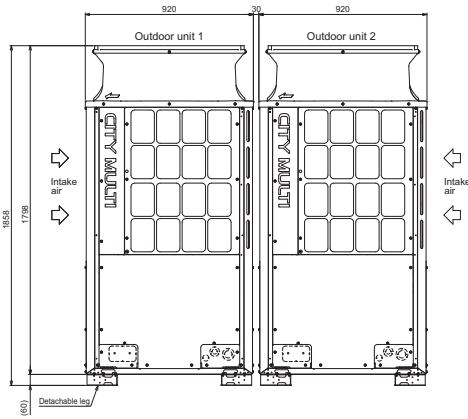
Product Dimensions

PURY-EP600YSNW-A1

Side View



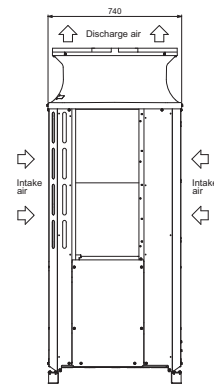
Front View



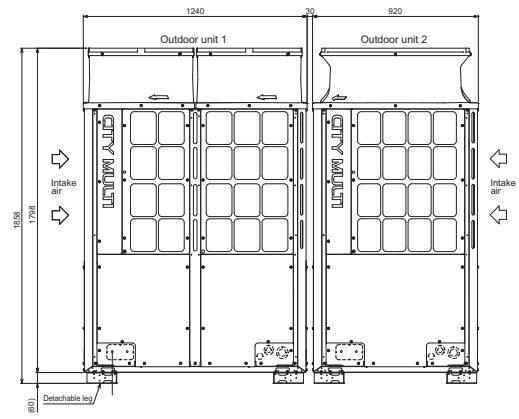
Product Dimensions

PURY-EP650YSNW-A1

Side View



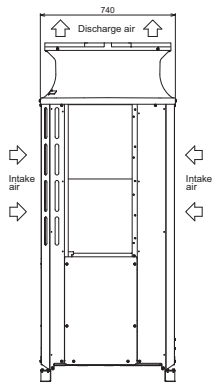
Front View



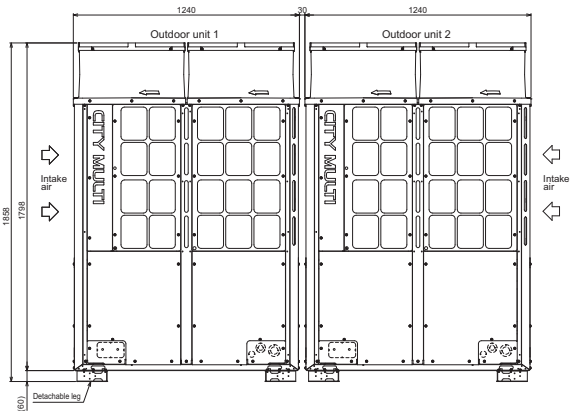
Product Dimensions

PURY-EP700/750/800/850YSNW-A1

Side View



Front View



# R2 Series VRF High Efficiency (101-124kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

Delivering outstanding Seasonal Energy Efficiency, the City Multi R2 Series VRF High Efficiency Heat Recovery system provides simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-EP** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



OUTDOOR UNITS		PURY-EP900YSNW-A1	PURY-EP950YSNW-A1	PURY-EP1000YSNW-A1	PURY-EP1050YSNW-A1	PURY-EP1100YSNW-A1
CAPACITY (kW)	Heating (nominal)	113.0	119.5	127.0	132.0	140.0
	Cooling (nominal)	101.0	108.0	113.0	118.0	124.0
	High Performance Heating (UK)	101.7	107.6	114.3	118.8	126.0
	COP Priority Heating (UK)	97.2	102.8	109.2	113.5	120.4
	Cooling (UK)	90.4	96.7	101.1	105.6	111.0
POWER INPUT (kW)	Heating (nominal)	30.37	33.01	36.07	38.15	41.17
	Cooling (nominal)	28.85	33.23	37.66	40.83	44.76
	High Performance Heating (UK)	34.32	37.30	40.76	43.11	46.52
	COP Priority Heating (UK)	29.46	32.02	34.99	37.01	39.93
	Cooling (UK)	18.46	21.27	24.10	26.13	28.65
COP / EER (nominal)		3.72 / 3.50	3.62 / 3.25	3.52 / 3.00	3.46 / 2.89	3.40 / 2.77
MAX No. OF CONNECTABLE INDOOR UNITS		50	50	50	50	50
MAX CONNECTABLE CAPACITY		50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High	315 / 315	315 / 295	295 / 295	295 / 410	410 / 410
PIPE SIZE mm (in)	Gas	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")
	Liquid	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	34.93 (1-3/8")	34.93 (1-3/8")
SOUND PRESSURE LEVEL (dBA) @ 1m Heating / Cooling		73.0 / 68.5	71.5 / 68.0	67.5 / 66.5	73.0 / 68.0	73.0 / 69.0
SOUND POWER LEVEL (dBA) @ 100% Capacity Heating / Cooling		92.0 / 86.0	91.0 / 86.0	87.0 / 85.0	91.0 / 86.0	92.0 / 86.0
SOUND POWER LEVEL (dBA) @ 90% Capacity Heating / Cooling		86.0 / 81.5	85.5 / 81.0	84.0 / 79.5	85.0 / 80.5	85.5 / 81.0
SOUND POWER LEVEL (dBA) @ 75% Capacity Heating / Cooling		79.5 / 77.0	80.0 / 77.0	80.5 / 76.5	81.0 / 77.0	81.5 / 77.5
WEIGHT (kg)		301 + 301	301 + 346	346 + 346	346 + 346	346 + 346
DIMENSIONS (mm)	Width	1240 + 1240	1240 + 1750	1750 + 1750	1750 + 1750	1750 + 1750
	Depth	740	740	740	740	740
	Height (1798mm without legs)	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>*1</sup>		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>*1</sup>		Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>*1</sup>		8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>*1</sup> Heating/Cooling [MAX]		48.7 / 46.2 [34.6 + 34.6]	52.9 / 53.2 [34.6 + 40.3]	57.8 / 60.3 [40.3 + 40.3]	61.1 / 65.4 [40.3 + 44.3]	66.0 / 71.7 [44.3 + 44.3]
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>*1</sup>		1 x 40 / 1 x 40	1 x 40 / 1 x 50	1 x 50 / 1 x 50	1 x 50 / 1 x 50	1 x 50 / 1 x 50
MAINS CABLE No. Cores <sup>*1</sup>		4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		21.6 / 45.1	21.6 / 45.1	21.6 / 45.1	21.6 / 45.1	21.6 / 45.1
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		77.4 / 161.6	77.4 / 161.6	77.4 / 161.6	77.4 / 161.6	77.4 / 161.6

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

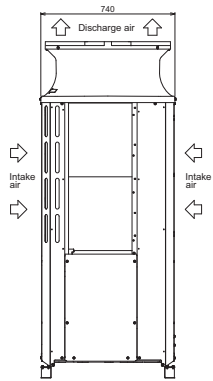
\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.



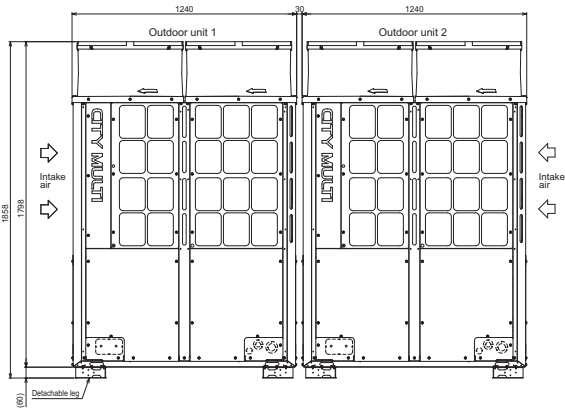
Product Dimensions

PURY-EP900YSNW-A1

Side View



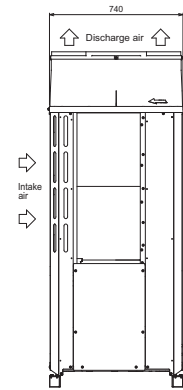
Front View



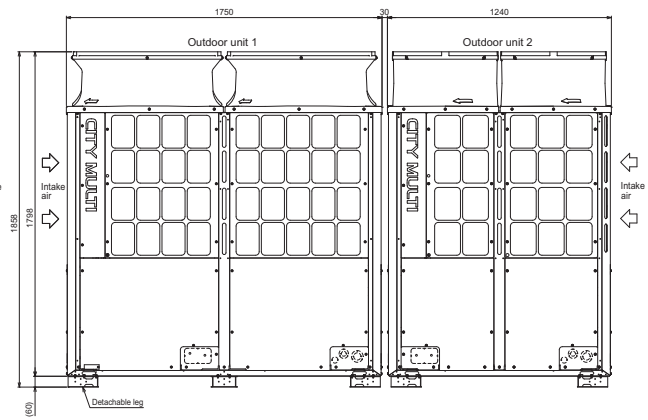
Product Dimensions

PURY-EP950YSNW-A1

Side View



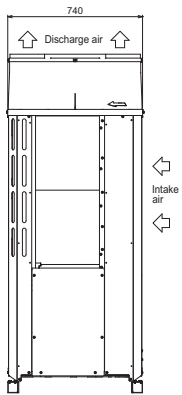
Front View



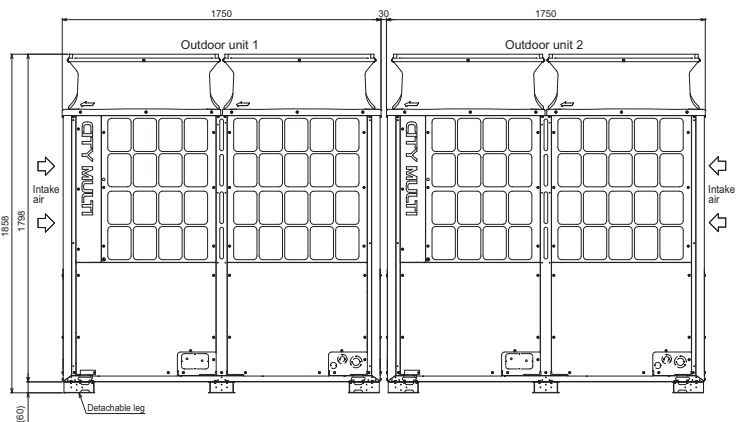
Product Dimensions

PURY-EP1000/1050/1100YSNW-A1

Side View



Front View



# R2 Series VRF Standard Efficiency (22.4-45kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

The City Multi R2 Series VRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-P** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



OUTDOOR UNITS		PURY-P200YNW-A1	PURY-P250YNW-A1	PURY-P300YNW-A1	PURY-P350YNW-A1	PURY-P400YNW-A1	PURY-P400YSNW-A1		
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5	45.0	50.0	50.0		
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	45.0		
	High Performance Heating (UK)	25.0	31.5	35.6	42.8	45.0	50.0		
	COP Priority Heating (UK)	22.8	28.7	34.1	41.0	43.0	45.5		
	Cooling (UK)	20.1	25.1	30.0	35.8	40.3	40.3		
POWER INPUT (kW)	Heating (nominal)	5.33	7.42	9.54	11.13	13.77	10.98		
	Cooling (nominal)	5.27	7.25	8.98	10.98	14.61	10.92		
	High Performance Heating (UK)	6.72	9.35	12.69	14.80	15.56	14.05		
	COP Priority Heating (UK)	5.33	7.42	9.54	11.13	13.36	10.98		
	Cooling (UK)	3.06	4.21	5.21	6.37	9.35	6.33		
COP / EER (nominal)		4.69 / 4.25	4.24 / 3.86	3.93 / 3.73	4.04 / 3.64	3.63 / 3.08	4.55 / 4.12		
MAX No. OF CONNECTABLE INDOOR UNITS		20	25	30	35	40	40		
MAX CONNECTABLE CAPACITY		50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity		
AIRFLOW (m³/min)	High	170	185	240	250	315	170 / 170		
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")		
	Liquid	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")		
SOUND PRESSURE LEVEL (dBA) @ 1m		Heating / Cooling		59.0 / 59.0	61.0 / 60.5	67.0 / 61.0	64.0 / 62.5	69.0 / 65.0	62.0 / 62.0
SOUND POWER LEVEL (dBA) @ 100% Capacity		Heating / Cooling		78.0 / 76.0	80.0 / 78.0	86.0 / 80.0	83.0 / 81.0	88.0 / 83.0	81.0 / 79.0
SOUND POWER LEVEL (dBA) @ 90% Capacity		Heating / Cooling		74.5 / 71.0	76.0 / 73.5	78.5 / 74.5	81.0 / 76.0	81.0 / 77.0	77.5 / 74.0
SOUND POWER LEVEL (dBA) @ 75% Capacity		Heating / Cooling		71.5 / 66.5	74.5 / 69.5	74.5 / 70.5	77.0 / 73.0	75.0 / 73.0	74.5 / 69.5
WEIGHT (kg)		214	223	225	269	269	214 + 214		
DIMENSIONS (mm)		Width		920	920	920	1240	1240	920 + 920
		Depth		740	740	740	740	740	740
(1798mm without legs)		Height		1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>*1</sup>		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz		
PHASE <sup>*1</sup>		Three	Three	Three	Three	Three	Three		
STARTING CURRENT (A) <sup>*1</sup>		8	8	8	8	8	8		
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>*1</sup>		Heating/Cooling [MAX]		8.5 / 8.4 [16.1]	11.8 / 11.6 [17.8]	15.2 / 14.4 [22.7]	17.8 / 17.6 [27.6]	22.0 / 23.4 [35.1]	17.6 / 17.5 [16.1 + 16.1]
GUARANTEED OPERATING RANGE (°C)		Heating / Cooling		-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>*1</sup>		1 x 20	1 x 20	1 x 25	1 x 32	1 x 40	1 x 20 / 1 x 20		
MAINS CABLE No. Cores <sup>*1</sup>		4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth / 4 + earth		
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		5.2 / 10.9	5.2 / 10.9	5.2 / 10.9	8 / 16.7	8 / 16.7	10.4 / 21.7		
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		31.8 / 66.4	37.8 / 78.9	37.8 / 78.9	41.3 / 86.2	47.3 / 98.8	60.6 / 126.5		

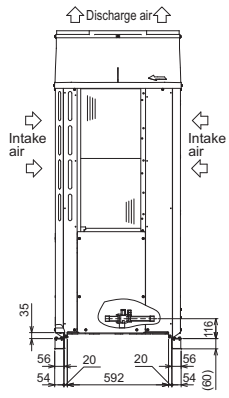
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

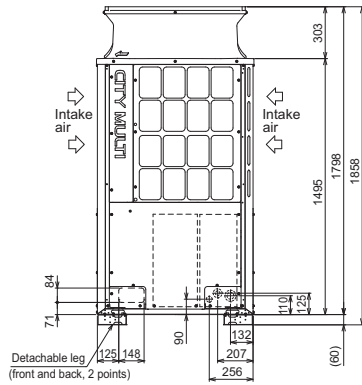
Product Dimensions

PURY-P200/250/300YNW-A1

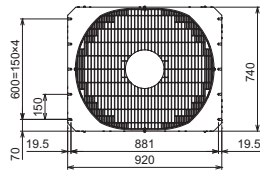
Side View



Front View



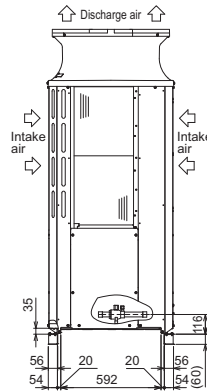
Upper View



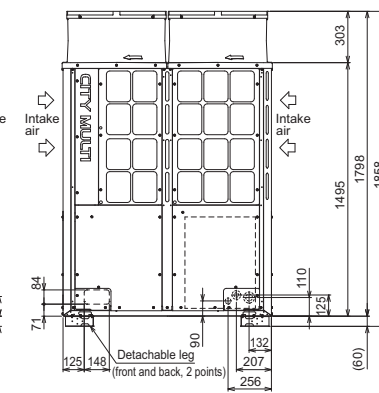
Product Dimensions

PURY-P350/400YNW-A1

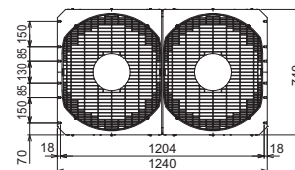
Side View



Front View



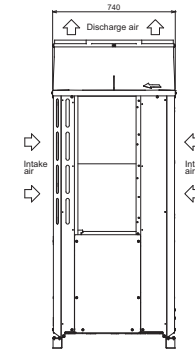
Upper View



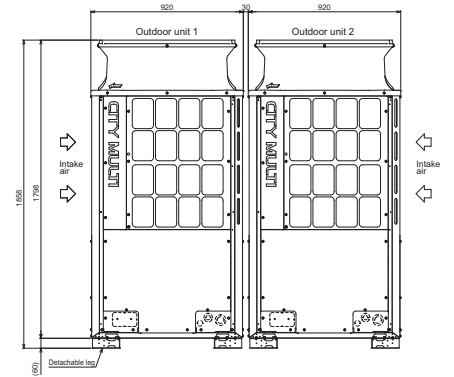
Product Dimensions

PURY-P400YSNW-A1

Side View



Front View



# R2 Series VRF Standard Efficiency (50-63kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

The City Multi R2 Series VRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-P** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



OUTDOOR UNITS		PURY-P450YNW-A1	PURY-P450YSNW-A1	PURY-P500YNW-A1	PURY-P500YSNW-A1	PURY-P550YNW-A1	PURY-P550YSNW-A1
CAPACITY (kW)	Heating (nominal)	56.0	56.0	63.0	63.0	69.0	69.0
	Cooling (nominal)	50.0	50.0	56.0	56.0	63.0	63.0
	High Performance Heating (UK)	50.4	56.0	56.7	63.0	62.1	65.6
	COP Priority Heating (UK)	48.2	51.0	54.2	57.3	59.3	62.8
	Cooling (UK)	44.8	44.8	50.1	50.1	56.4	56.4
POWER INPUT (kW)	Heating (nominal)	15.42	12.93	17.50	15.32	20.29	17.42
	Cooling (nominal)	14.83	12.72	18.54	14.97	22.18	17.11
	High Performance Heating (UK)	17.42	16.55	19.78	19.61	22.93	23.17
	COP Priority Heating (UK)	14.96	12.93	16.98	15.32	19.68	17.42
	Cooling (UK)	9.49	7.38	11.87	8.68	14.20	9.92
COP / EER (nominal)		3.63 / 3.37	4.33 / 3.93	3.60 / 3.02	4.11 / 3.74	3.40 / 2.84	3.96 / 3.68
MAX No. OF CONNECTABLE INDOOR UNITS		45	45	50	50	50	50
MAX CONNECTABLE CAPACITY		50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High	315	170 / 185	295	185 / 185	410	185 / 240
PIPE SIZE mm (in)	Gas	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")
	Liquid	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8") / 28.58 (1-1/8") <sup>1</sup>	22.2 (7/8") / 28.58 (1-1/8") <sup>1</sup>
SOUND PRESSURE LEVEL (dBA) @ 1m		Heating / Cooling		Heating / Cooling		Heating / Cooling	
		70.0 / 65.5	63.5 / 63.0	64.5 / 63.5	64.0 / 63.5	70.0 / 66.0	68.0 / 64.0
SOUND POWER LEVEL (dBA) @ 100% Capacity		Heating / Cooling		Heating / Cooling		Heating / Cooling	
		89.0 / 83.0	83.0 / 81.0	84.0 / 82.0	83.0 / 81.0	89.0 / 83.0	87.0 / 83.0
SOUND POWER LEVEL (dBA) @ 90% Capacity		Heating / Cooling		Heating / Cooling		Heating / Cooling	
		83.0 / 78.5	78.5 / 75.5	81.0 / 76.5	79.0 / 76.5	82.5 / 78.0	81.5 / 77.0
SOUND POWER LEVEL (dBA) @ 75% Capacity		Heating / Cooling		Heating / Cooling		Heating / Cooling	
		76.5 / 74.0	76.5 / 71.5	77.5 / 73.5	75.5 / 72.5	78.5 / 74.5	77.5 / 73.0
WEIGHT (kg)		289	214 + 214	335	223 + 223	335	223 + 225
DIMENSIONS (mm)		Width		Width		Width	
		1240	920 + 920	1750	920 + 920	1750	920 + 920
		Depth		Depth		Depth	
		740	740	740	740	740	740
(1798mm without legs)		Height		Height		Height	
		1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>2</sup>		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>2</sup>		Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>2</sup>		8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>2</sup>		Heating / Cooling [MAX]		Heating / Cooling [MAX]		Heating / Cooling [MAX]	
		24.7 / 23.7 [37.1]	20.7 / 20.3 [16.1 + 17.8]	28.0 / 29.7 [43.2]	24.5 / 24.0 [17.8 + 17.8]	32.5 / 35.5 [47.5]	27.9 / 27.4 [17.8 + 22.7]
GUARANTEED OPERATING RANGE (°C)		Heating / Cooling		Heating / Cooling		Heating / Cooling	
		-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>2</sup>		1 x 40	1 x 20 / 1 x 20	1 x 50	1 x 20 / 1 x 20	1 x 50	1 x 20 / 1 x 25
MAINS CABLE No. Cores <sup>2</sup>		4 + earth	4 + earth / 4 + earth	4 + earth	4 + earth / 4 + earth	4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		10.8 / 22.5	10.4 / 21.7	10.8 / 22.6	10.4 / 21.7	10.8 / 22.6	10.4 / 21.7
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		44.5 / 92.9	60.6 / 126.5	45.2 / 94.4	60.6 / 126.5	45.2 / 94.4	60.6 / 126.5

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

<sup>1</sup> If distance from OU to BC controller is greater than 65m. <sup>2</sup> A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

Product Dimensions

PURY-P450YNW-A1

Product Dimensions

PURY-P500/550YNW-A1

Product Dimensions

PURY-P450/500/550YSNW-A1

Side View

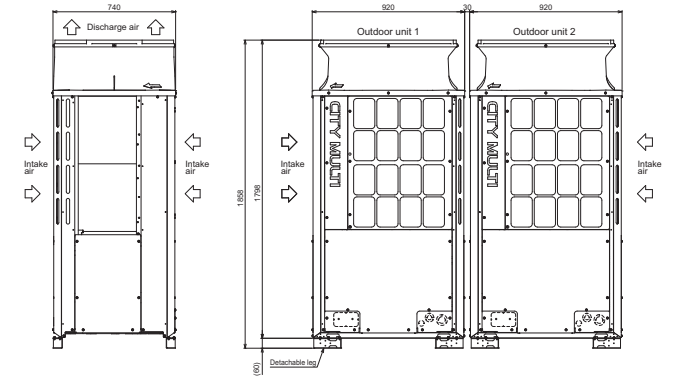
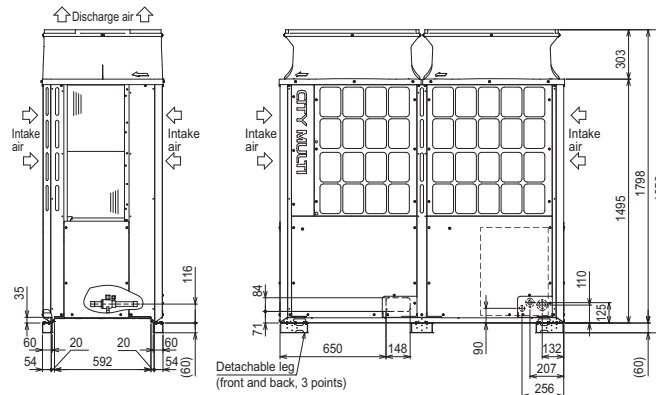
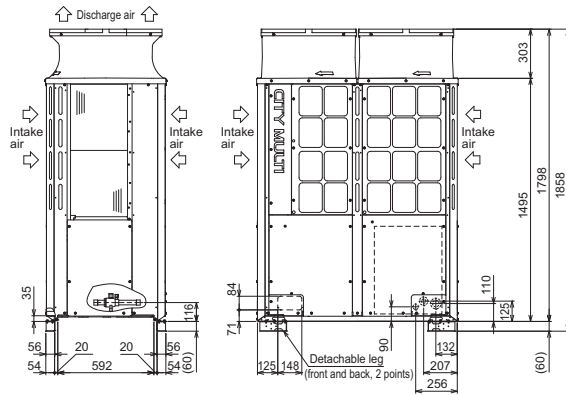
Front View

Side View

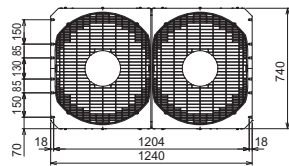
Front View

Side View

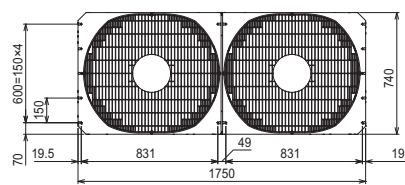
Front View



Upper View



Upper View



# R2 Series VRF Standard Efficiency (69-96kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

The City Multi R2 Series VRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-P** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



OUTDOOR UNITS		PURY-P600YSNW-A1	PURY-P650YSNW-A1	PURY-P700YSNW-A1	PURY-P750YSNW-A1	PURY-P800YSNW-A1	PURY-P850YSNW-A1
CAPACITY (kW)	Heating (nominal)	76.5	81.5	88.0	95.0	100.0	108.0
	Cooling (nominal)	69.0	73.0	80.0	85.0	90.0	96.0
	High Performance Heating (UK)	72.7	77.4	83.6	85.5	90.0	97.2
	COP Priority Heating (UK)	69.6	74.2	80.1	81.7	86.0	92.9
	Cooling (UK)	61.8	65.3	71.6	76.1	80.6	85.9
	POWER INPUT (kW)	Heating (nominal)	20.07	21.05	22.44	25.53	28.40
Cooling (nominal)		19.06	20.44	22.66	26.07	30.10	30.67
High Performance Heating (UK)		26.69	28.00	29.85	28.85	32.09	34.67
COP Priority Heating (UK)		20.07	21.05	22.44	24.76	27.55	29.76
Cooling (UK)		11.05	11.86	13.14	15.12	19.26	19.63
COP / EER (nominal)		3.81 / 3.62	3.87 / 3.57	3.92 / 3.53	3.72 / 3.26	3.52 / 2.99	3.52 / 3.13
MAX No. OF CONNECTABLE INDOOR UNITS		50	50	50	50	50	50
MAX CONNECTABLE CAPACITY		50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m <sup>3</sup> /min)	High	240 / 240	240 / 250	250 / 250	250 / 315	315 / 315	315 / 315
PIPE SIZE mm (in)	Gas	28.58 (1-1/8")	28.58 (1-1/8")	34.93 (1-3/8")	34.93 (1-3/8")	34.93 (1-3/8")	41.28 (1-5/8")
	Liquid	22.2 (7/8")/28.58 (1-1/8") <sup>1</sup>	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	70.0 / 64.0	69.0 / 65.0	67.0 / 65.5	70.5 / 67.0	72.0 / 68.0	72.5 / 68.5
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	89.0 / 83.0	88.5 / 84.0	86.0 / 84.0	90.0 / 86.0	91.0 / 86.0	92.0 / 86.0
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling	81.5 / 77.5	83.0 / 78.5	84.0 / 79.0	83.5 / 79.5	83.0 / 80.0	85.0 / 81.0
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling	77.5 / 73.5	79.0 / 75.0	80.0 / 76.0	79.5 / 76.0	78.0 / 76.0	79.0 / 76.5
WEIGHT (kg)		225 + 225	225 + 269	269 + 269	269 + 269	269 + 269	269 + 289
DIMENSIONS (mm)	Width	920 + 920	920 + 1240	1240 + 1240	1240 + 1240	1240 + 1240	1240 + 1240
	Depth	740	740	740	740	740	740
	Height	1858	1858	1858	1858	1858	1858
(1798mm without legs)							
ELECTRICAL SUPPLY <sup>2</sup>		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>2</sup>		Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>2</sup>		8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>2</sup>		32.1 / 30.5 [22.7 + 22.7]	33.7 / 32.7 [22.7 + 27.6]	35.9 / 36.3 [27.6 + 27.6]	40.9 / 41.8 [27.6 + 35.1]	45.5 / 48.2 [35.1 + 35.1]	49.2 / 49.1 [35.1 + 37.1]
GUARANTEED OPERATING RANGE (°C)		Heating / Cooling	Heating / Cooling	Heating / Cooling	Heating / Cooling	Heating / Cooling	Heating / Cooling
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>2</sup>		1 x 25 / 1 x 25	1 x 25 / 1 x 32	1 x 32 / 1 x 32	1 x 32 / 1 x 40	1 x 40 / 1 x 40	1 x 40 / 1 x 40
MAINS CABLE No. Cores <sup>2</sup>		4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		10.4 / 21.7	13.2 / 27.6	16 / 33.4	16 / 33.4	16 / 33.4	18.8 / 39.3
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		60.6 / 126.5	65.6 / 137.0	79.6 / 166.2	79.6 / 166.2	83 / 173.3	80.2 / 167.5

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard

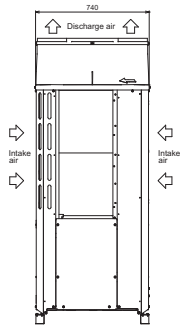
<sup>1</sup> If distance from OU to BC controller is greater than 65m. <sup>2</sup> A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.



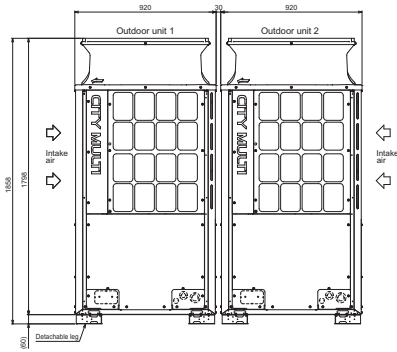
Product Dimensions

PURY-P600YSNW-A1

Side View



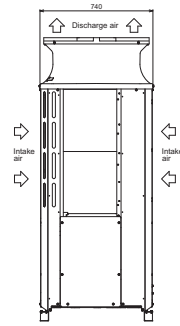
Front View



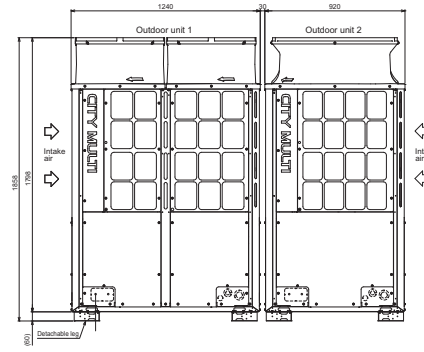
Product Dimensions

PURY-P650YSNW-A1

Side View



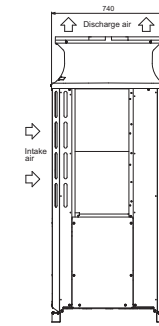
Front View



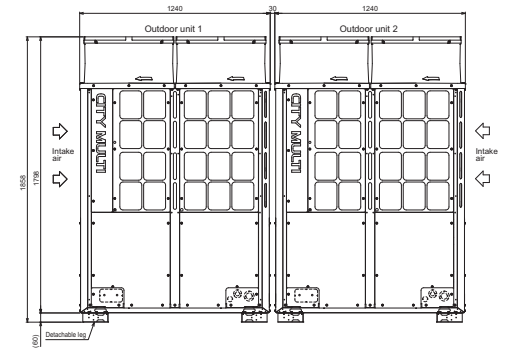
Product Dimensions

PURY-P700/750/800/850YSNW-A1

Side View



Front View



# R2 Series VRF Standard Efficiency (101-124kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

The City Multi R2 Series VRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-P** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



OUTDOOR UNITS		PURY-P900YSNW-A1	PURY-P950YSNW-A1	PURY-P1000YSNW-A1	PURY-P1050YSNW-A1	PURY-P1100YSNW-A1	
CAPACITY (kW)	Heating (nominal)	113.0	119.5	127.0	132.0	140.0	
	Cooling (nominal)	101.0	108.0	113.0	118.0	124.0	
	High Performance Heating (UK)	101.7	107.6	114.3	118.8	126.0	
	COP Priority Heating (UK)	97.2	102.8	109.2	113.5	120.4	
	Cooling (UK)	90.4	96.7	101.1	105.6	111.0	
POWER INPUT (kW)	Heating (nominal)	32.10	34.04	36.38	38.82	42.42	
	Cooling (nominal)	30.88	34.83	38.56	41.54	45.09	
	High Performance Heating (UK)	36.27	38.47	41.09	43.87	47.93	
	COP Priority Heating (UK)	31.14	33.02	35.27	37.66	41.15	
	Cooling (UK)	19.76	22.29	24.68	27.00	29.31	
COP / EER (nominal)		3.52 / 3.27	3.51 / 3.10	3.49 / 2.93	3.40 / 2.84	3.30 / 2.75	
MAX No. OF CONNECTABLE INDOOR UNITS		50	50	50	50	50	
MAX CONNECTABLE CAPACITY		50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	
AIRFLOW (m³/min)	High	315 / 315	315 / 295	295 / 295	295 / 410	410 / 410	
PIPE SIZE mm (in)	Gas	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")	
	Liquid	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	34.93 (1-3/8")	34.93 (1-3/8")	
SOUND PRESSURE LEVEL (dBA) @ 1m		Heating / Cooling	73.0 / 68.5	71.5 / 68.0	67.5 / 66.5	73.0 / 69.0	
SOUND POWER LEVEL (dBA) @ 100% Capacity		Heating / Cooling	92.0 / 86.0	91.0 / 86.0	87.0 / 85.0	91.0 / 86.0	
SOUND POWER LEVEL (dBA) @ 90% Capacity		Heating / Cooling	86.0 / 81.5	85.5 / 81.0	84.0 / 79.5	85.5 / 81.0	
SOUND POWER LEVEL (dBA) @ 75% Capacity		Heating / Cooling	79.5 / 77.0	80.0 / 77.0	80.5 / 76.5	81.0 / 77.5	
WEIGHT (kg)			289 + 289	289 + 335	335 + 335	335 + 335	
DIMENSIONS (mm)	Width	1240 + 1240	1240 + 1750	1750 + 1750	1750 + 1750	1750 + 1750	
	Depth	740	740	740	740	740	
	Height	1858	1858	1858	1858	1858	
(1798mm without legs)							
ELECTRICAL SUPPLY*1		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	
PHASE*1		Three	Three	Three	Three	Three	
STARTING CURRENT (A)*1		8	8	8	8	8	
NOMINAL SYSTEM RUNNING CURRENT (A)*1		Heating/Cooling [MAX]	51.4 / 49.5 [37.1 + 37.1]	54.5 / 55.8 [37.1 + 43.2]	58.3 / 61.8 [43.2 + 43.2]	62.2 / 66.6 [43.2 + 47.5]	68.0 / 72.3 [47.5 + 47.5]
GUARANTEED OPERATING RANGE (°C)		Heating / Cooling	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	
FUSE RATING (MCB sizes BS EN 60947-2) - (A)*1			1 x 40 / 1 x 40	1 x 40 / 1 x 50	1 x 50 / 1 x 50	1 x 50 / 1 x 50	
MAINS CABLE No. Cores*1			4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)			21.6 / 45.1	21.6 / 45.1	21.6 / 45.1	21.6 / 45.1	
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)			77.4 / 161.6	77.4 / 161.6	77.4 / 161.6	77.4 / 161.6	

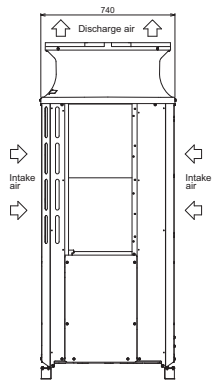
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.  
\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.



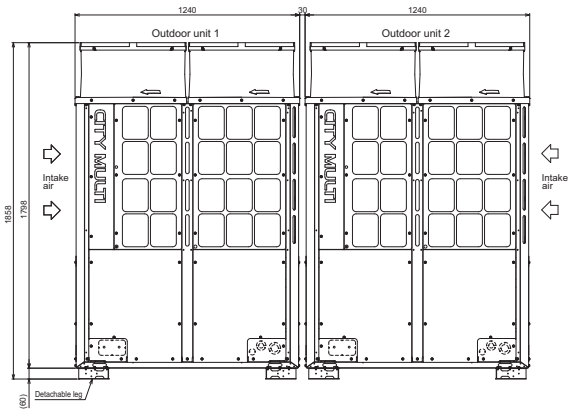
Product Dimensions

PURY-P900YSNW-A1

Side View



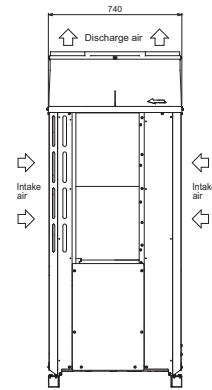
Front View



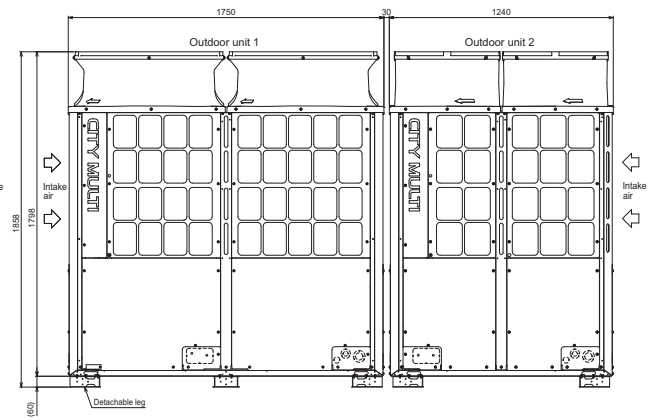
Product Dimensions

PURY-P950YSNW-A1

Side View



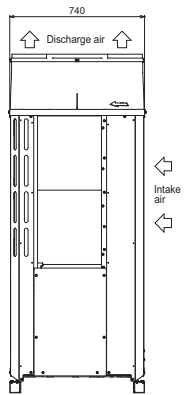
Front View



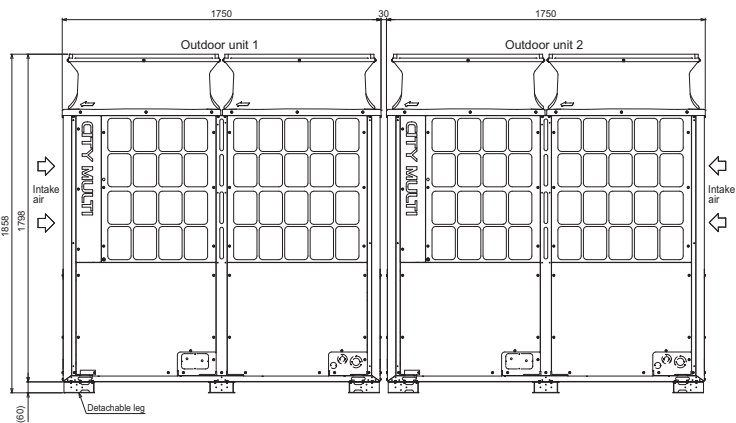
Product Dimensions

PURY-P-1000/1050/1100YSNW-A1

Side View

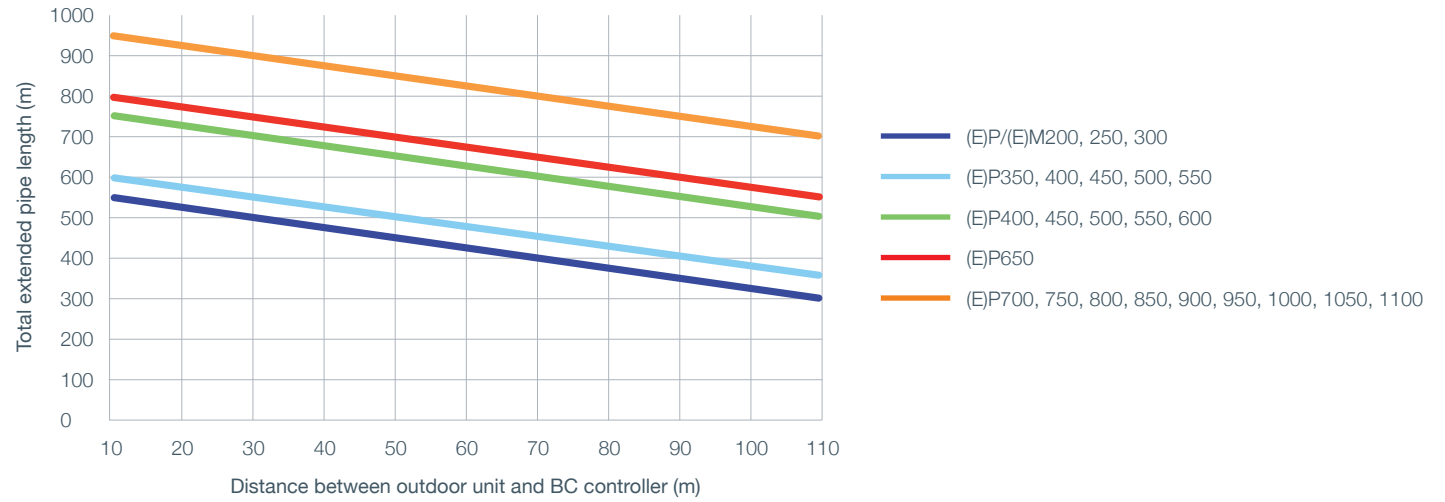


Front View

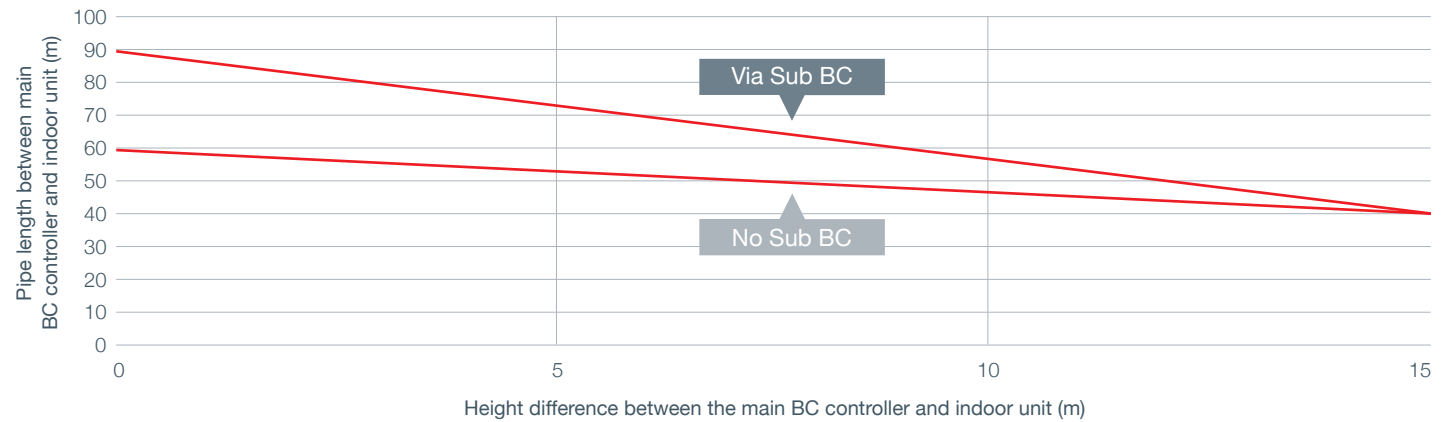


# R2 Series Piping Design (R32 & R410A)

**GRAPH 1: TOTAL PIPING LENGTH RESTRICTIONS**



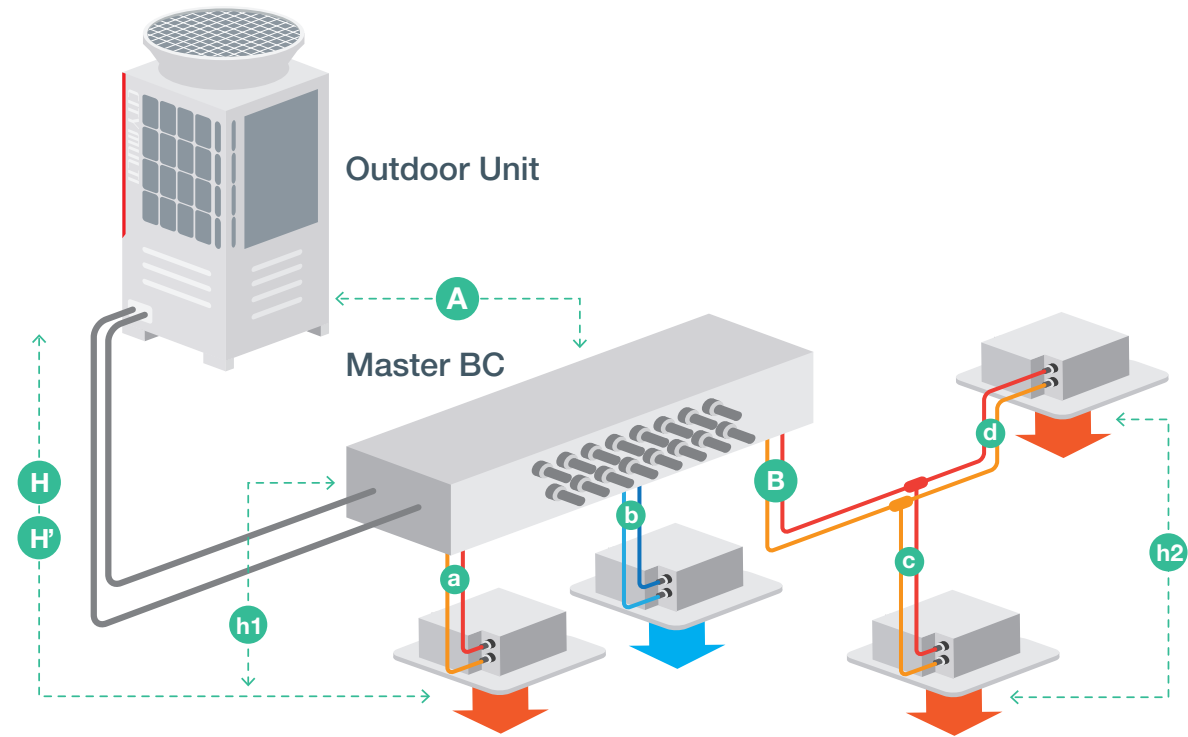
**GRAPH 2: PIPE LENGTH BETWEEN BC CONTROLLER & INDOOR UNIT**



**Note: For all other piping restrictions please refer to the City Multi Databook**

# R2 Series Piping Design (R32 & R410A)

## 1 BC CONTROLLER, NO SUB BC CONTROLLER



PIPE LENGTH	PIPE SECTION	MAX LENGTH
Total Piping Length	A+B+a+b+c+d	(See Graph 1)
Furthest Piping Length	A+B+d	165m
Length Between OU and BC	A	110m <sup>*1</sup>
Length Between Furthest IU and BC	B+d	60m <sup>*2</sup> (40m) <sup>*3</sup>
Height Between OU and IU (OU above IU)	H	90m <sup>*4</sup>
Height Between OU and IU (OU below IU)	H'	60m <sup>*2</sup>
Height Between IU and BC	h1	15m
Height Between IU and IU	h2	30m

Notes: \*1 Please refer to Graph 1. \*2 Height difference between BC controller and furthest indoor unit is zero. Please refer to graph 2. \*3 If P200 or P250 indoor unit connected on system. \*4 Please contact your sales office for guidance. For guidance on applying Sub BC controllers, please contact your sales office.

# Y Series VRF (22.4-45kW)

## Heat Pump Outdoor Unit (Heating or Cooling)

The **PUHY-P** City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. These modular heat pump systems provide complete design flexibility for applications such as open-plan offices, call centres and retail spaces.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities



OUTDOOR UNITS		PUHY-P200YNW-A1	PUHY-P250YNW-A1	PUHY-P300YNW-A1	PUHY-P350YNW-A1	PUHY-P400YNW-A1	PUHY-P400YSNW-A1
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5	45.0	50.0	50.0
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	45.0
	High Performance Heating (UK)	25.0	31.5	35.6	42.8	45.0	50.0
	COP Priority Heating (UK)	22.8	28.7	34.1	41.0	43.0	45.5
	Cooling (UK)	20.1	25.1	30.0	35.8	40.3	40.3
POWER INPUT (kW)	Heating (nominal)	5.10	7.20	8.46	10.39	12.37	10.52
	Cooling (nominal)	4.81	7.14	8.79	10.95	14.19	9.97
	High Performance Heating (UK)	6.43	9.07	11.25	13.82	13.98	13.47
	COP Priority Heating (UK)	5.10	7.20	8.46	10.39	12.00	10.52
	Cooling (UK)	2.79	4.14	5.10	6.35	9.08	5.78
COP / EER (nominal)	4.90 / 4.65	4.37 / 3.92	4.43 / 3.81	4.33 / 3.65	4.04 / 3.17	4.75 / 4.51	
MAX No. OF CONNECTABLE INDOOR UNITS		17	21	26	30	34	34
MAX CONNECTABLE CAPACITY		50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)	High	170	185	240	270	300	170 / 170
	Liquid	9.52 (3/8")	9.52 (3/8")*1	9.52 (3/8")*1	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")
PIPE SIZE mm (in)	Gas	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")
	Liquid	9.52 (3/8")	9.52 (3/8")*1	9.52 (3/8")*1	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling	59.0 / 58.0	61.0 / 60.0	64.5 / 61.0	64.0 / 62.0	67.0 / 65.0	62.0 / 61.0
SOUND POWER LEVEL (dBA)	Heating / Cooling	77.0 / 75.0	80.0 / 78.0	84.0 / 80.0	83.0 / 80.0	86.0 / 82.0	80.0 / 78.0
WEIGHT (kg)		213	213	226	277	277	213 + 213
DIMENSIONS (mm)	Width	920	920	920	1240	1240	920 + 920
	Depth	740	740	740	740	740	740
	(1650mm without legs) Height	1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY*2		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*2		Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)*2		8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*2	Heating / Cooling [MAX]	8.1 / 7.7 [16.1]	11.5 / 11.4 [17.8]	13.5 / 14.0 [22.7]	16.6 / 17.5 [26.4]	19.8 / 22.7 [31.9]	16.8 / 15.9 [16.1]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)*2		1 x 20	1 x 20	1 x 25	1 x 32	1 x 32	1 x 20 / 1 x 20
MAINS CABLE No. Cores*2		4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		6.5 / 13.6	6.5 / 13.6	6.5 / 13.6	9.8 / 20.5	9.8 / 20.5	13 / 27.1
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		15.9 / 33.2	22.9 / 47.8	23.4 / 48.9	24 / 50.1	24.4 / 51.0	32 / 66.8

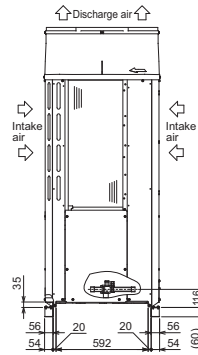
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

\*1 12.7mm(1/2") if P250 furthest length ≥ 90m, P300 furthest length ≥ 40m. \*2 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

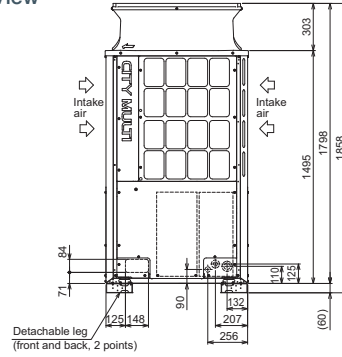
**Product Dimensions**

**PUHY-P200/250/300YNW-A1**

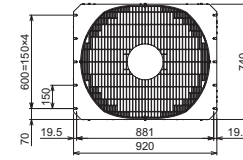
Side View



Front View



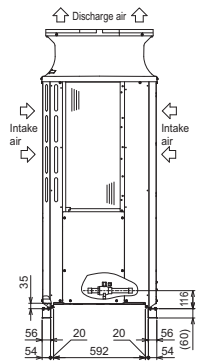
Upper View



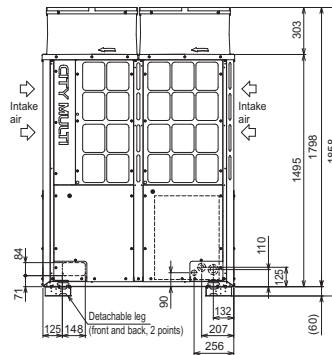
**Product Dimensions**

**PUHY-P350/400YNW-A1**

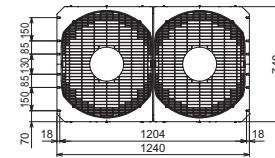
Side View



Front View



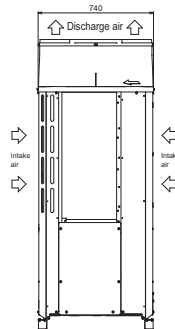
Upper View



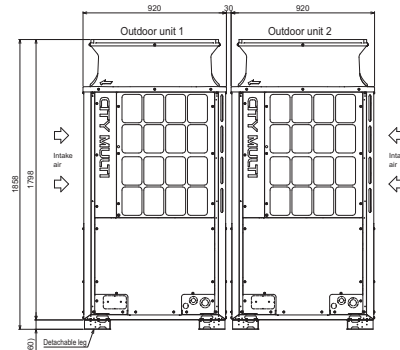
**Product Dimensions**

**PUHY-P400YSNW-A1**

Side View



Front View



# Y Series VRF (50-63kW)

## Heat Pump Outdoor Unit (Heating or Cooling)

The **PUHY-P** City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. These modular heat pump systems provide complete design flexibility for applications such as open-plan offices, call centres and retail spaces.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities



OUTDOOR UNITS		PUHY-P450YNW-A1	PUHY-P450YSNW-A1	PUHY-P500YNW-A1	PUHY-P500YSNW-A1	PUHY-P550YSNW-A1	
CAPACITY (kW)	Heating (nominal)	56.0	56.0	63.0	63.0	69.0	
	Cooling (nominal)	50.0	50.0	56.0	56.0	63.0	
	High Performance Heating (UK)	50.4	56.0	56.7	63.0	65.6	
	COP Priority Heating (UK)	48.2	51.0	54.2	57.3	62.8	
	Cooling (UK)	44.8	44.8	50.1	50.1	56.4	
POWER INPUT (kW)	Heating (nominal)	14.00	12.55	15.98	14.89	16.15	
	Cooling (nominal)	14.57	12.16	17.55	14.73	16.84	
	High Performance Heating (UK)	15.82	16.06	18.06	19.09	21.48	
	COP Priority Heating (UK)	13.58	12.55	15.50	14.89	16.15	
	Cooling (UK)	9.32	7.05	11.23	8.54	9.77	
COP / EER (nominal)	4.00 / 3.43	4.46 / 4.11	3.94 / 3.19	4.23 / 3.80	4.27 / 3.74		
MAX No. OF CONNECTABLE INDOOR UNITS		39	39	43	43	47	
MAX CONNECTABLE CAPACITY		50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	
AIRFLOW (m³/min)	High	305	170 / 185	365	185 / 185	185 / 240	
	Gas	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	
PIPE SIZE mm (in)	Liquid	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	
	Heating / Cooling	69.5 / 65.5	63.0 / 62.0	66.5 / 63.5	64.0 / 63.0	66.0 / 63.5	
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling	89.0 / 84.0	82.0 / 80.0	85.0 / 82.0	83.0 / 81.0	85.0 / 82.0	
SOUND POWER LEVEL (dBA)	Heating / Cooling	89.0 / 84.0	82.0 / 80.0	85.0 / 82.0	83.0 / 81.0	85.0 / 82.0	
WEIGHT (kg)		293	213 + 213	334	213 + 213	213 + 226	
DIMENSIONS (mm)	Width	1240	920 + 920	1750	920 + 920	920 + 920	
	Depth	740	740	740	740	740	
	Height	1858	1858	1858	1858	1858	
(1798mm without legs)							
ELECTRICAL SUPPLY*1		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	
PHASE*1		Three	Three	Three	Three	Three	
STARTING CURRENT (A)*1		8	8	8	8	8	
NOMINAL SYSTEM RUNNING CURRENT (A)*1		Heating/Cooling [MAX]	22.4 / 23.3 [37.1]	20.1 / 19.5 [16.1 + 17.8]	25.6 / 28.1 [43.7]	23.8 / 23.6 [17.8 + 17.8]	25.9 / 27.0 [17.8 + 22.7]
GUARANTEED OPERATING RANGE (°C)		Heating/Cooling	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	
FUZE RATING (MCB sizes BS EN 60947-2) - (A)*1			1 x 40	1 x 20 / 1 x 20	1 x 50	1 x 20 / 1 x 20	1 x 20 / 1 x 25
MAINS CABLE No. Cores*1			4 + earth	4 + earth / 4 + earth	4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)			10.8 / 22.6	13 / 27.1	10.8 / 22.6	13 / 27.1	13 / 27.1
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)			32.2 / 67.2	32 / 66.8	33.1 / 69.1	32.9 / 68.7	34.7 / 72.5

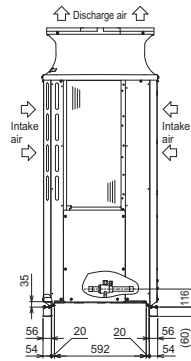
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

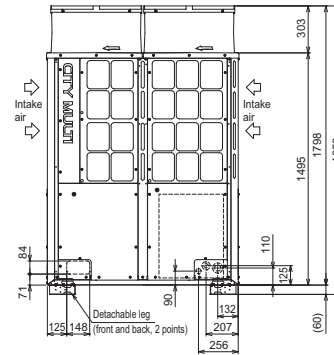
**Product Dimensions**

**PUHY-P450YNW-A1**

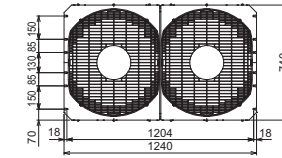
**Side View**



**Front View**



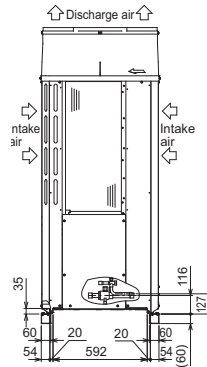
**Upper View**



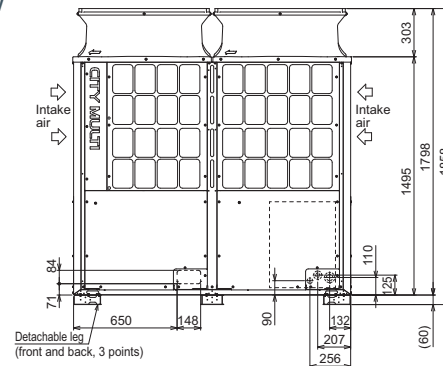
**Product Dimensions**

**PUHY-P500YNW-A1**

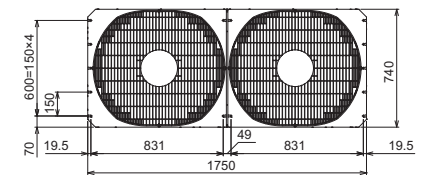
**Side View**



**Front View**



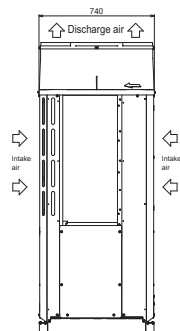
**Upper View**



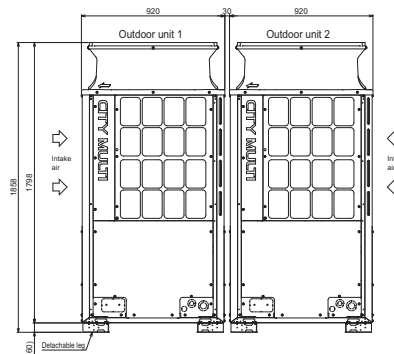
**Product Dimensions**

**PUHY-P450/500/550YSNW-A1**

**Side View**



**Front View**



# Y Series VRF (69-96kW)

## Heat Pump Outdoor Unit (Heating or Cooling)

The **PUHY-P** City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. These modular heat pump systems provide complete design flexibility for applications such as open-plan offices, call centres and retail spaces.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities



OUTDOOR UNITS		PUHY-P600YSNW-A1	PUHY-P650YSNW-A1	PUHY-P700YSNW-A1	PUHY-P750YSNW-A1	PUHY-P800YSNW-A1	PUHY-P850YSNW-A1
CAPACITY (kW)	Heating (nominal)	76.5	81.5	88.0	95.0	100.0	108.0
	Cooling (nominal)	69.0	73.0	80.0	85.0	90.0	96.0
	High Performance Heating (UK)	72.7	77.4	83.6	90.3	95.0	97.2
	COP Priority Heating (UK)	69.6	74.2	80.1	86.5	91.0	92.9
	Cooling (UK)	61.8	65.3	71.6	76.1	80.6	85.9
POWER INPUT (kW)	Heating (nominal)	17.83	20.17	20.95	23.45	24.87	27.76
	Cooling (nominal)	18.69	21.79	22.59	25.83	26.31	30.00
	High Performance Heating (UK)	23.71	26.83	27.86	31.19	33.08	31.37
	COP Priority Heating (UK)	17.83	20.17	20.95	23.45	24.87	26.93
	Cooling (UK)	10.84	12.64	13.10	14.98	15.26	19.20
COP / EER (nominal)	4.29 / 3.69	4.04 / 3.35	4.20 / 3.54	4.05 / 3.29	4.02 / 3.42	3.89 / 3.20	
MAX No. OF CONNECTABLE INDOOR UNITS		50	50	50	50	50	
MAX CONNECTABLE CAPACITY		50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)	High	240 / 240	185 / 300	270 / 270	270 / 300	270 / 305	300 / 305
	Gas	28.58 (1-1/8")	28.58 (1-1/8")	34.93 (1-3/8")	34.93 (1-3/8")	34.93 (1-3/8")	41.28 (1-5/8")
PIPE SIZE mm (in)	Liquid	15.88 (5/8")	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")
	Heating / Cooling	67.5 / 64.0	68.0 / 66.5	67.0 / 65.0	68.5 / 67.0	71.0 / 67.5	71.5 / 68.5
SOUND POWER LEVEL (dBA)	Heating / Cooling	87.0 / 83.0	87.0 / 83.0	86.0 / 83.0	88.0 / 84.0	90.0 / 85.0	91.0 / 86.0
WEIGHT (kg)		226 + 226	213 + 277	277 + 277	277 + 277	277 + 293	277 + 293
DIMENSIONS (mm)	Width	920 + 920	920 + 1240	1240 + 1240	1240 + 1240	1240 + 1240	1240 + 1240
	Depth	740	740	740	740	740	740
	Height	1858	1858	1858	1858	1858	1858
(1798mm without legs)							
ELECTRICAL SUPPLY*1		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1		Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)*1		8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*1	Heating / Cooling [MAX]	28.5 / 29.9 [22.7 + 22.7]	32.3 / 34.9 [17.8 + 31.9]	33.5 / 36.2 [26.4 + 26.4]	37.6 / 41.4 [26.4 + 31.9]	39.8 / 42.1 [26.4 + 37.1]	44.5 / 48.1 [31.9 + 37.1]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~15.5 / -5~-52	-20~15.5 / -5~-52	-20~15.5 / -5~-52	-20~15.5 / -5~-52	-20~15.5 / -5~-52	-20~15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)*1		1 x 25 / 1 x 25	1 x 20 / 1 x 32	1 x 32 / 1 x 32	1 x 32 / 1 x 32	1 x 32 / 1 x 40	1 x 32 / 1 x 40
MAINS CABLE No. Cores*1		4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		13 / 27.1	16.3 / 34.0	19.6 / 40.9	19.6 / 40.9	20.6 / 43.0	20.6 / 43.0
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		34.7 / 72.5	35.2 / 73.5	44.8 / 93.5	44.8 / 93.5	44.7 / 93.3	46.5 / 97.1

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

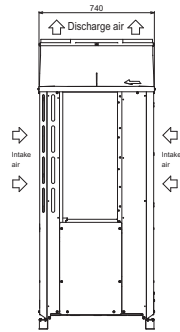




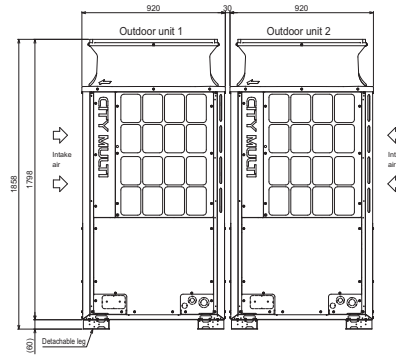
Product Dimensions

PUHY-P600YSNW-A1

Side View



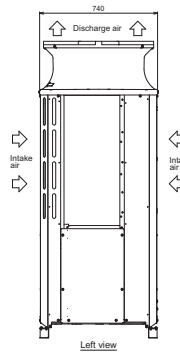
Front View



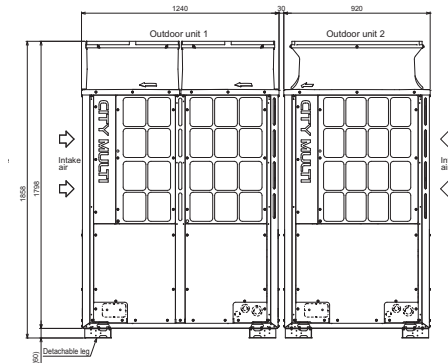
Product Dimensions

PUHY-P650YSNW-A1

Side View



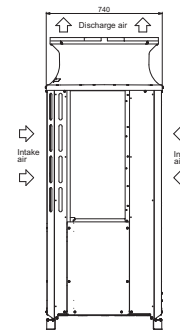
Front View



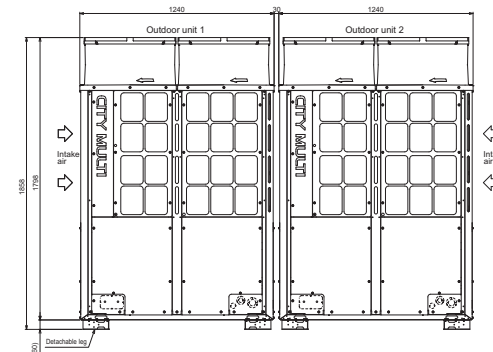
Product Dimensions

PUHY-P700/750/800/850YSNW-A1

Side View



Front View



# Y Series VRF (101-124kW)

## Heat Pump Outdoor Unit (Heating or Cooling)

The **PUHY-P** City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. These modular heat pump systems provide complete design flexibility for applications such as open-plan offices, call centres and retail spaces.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities



OUTDOOR UNITS		PUHY-P900YSNW-A1	PUHY-P950YSNW-A1	PUHY-P1000YSNW-A1	PUHY-P1050YSNW-A1	PUHY-P1100YSNW-A1
CAPACITY (kW)	Heating (nominal)	113.0	119.5	127.0	132.0	140.0
	Cooling (nominal)	101.0	108.0	113.0	118.0	124.0
	High Performance Heating (UK)	101.7	107.6	114.3	118.8	126.0
	COP Priority Heating (UK)	97.2	102.8	109.2	113.5	120.4
	Cooling (UK)	90.4	96.7	101.1	105.6	111.0
POWER INPUT (kW)	Heating (nominal)	29.12	28.38	31.05	33.08	34.22
	Cooling (nominal)	30.42	30.00	33.13	36.41	36.79
	High Performance Heating (UK)	32.91	32.07	35.09	37.38	38.67
	COP Priority Heating (UK)	28.25	27.53	30.12	32.09	33.19
	Cooling (UK)	19.47	19.20	21.20	23.30	23.55
COP / EER (nominal)	3.88 / 3.32	4.21 / 3.60	4.09 / 3.41	3.99 / 3.24	4.09 / 3.37	
MAX No. OF CONNECTABLE INDOOR UNITS		50	50	50	50	50
MAX CONNECTABLE CAPACITY		50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)	High	305 / 305	185 / 270 / 270	185 / 270 / 300	185 / 300 / 300	270 / 270 / 300
PIPE SIZE mm (in)	Gas	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")
	Liquid	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling	72.5 / 68.5	68.0 / 66.0	69.5 / 68.0	70.5 / 68.5	70.0 / 68.5
SOUND POWER LEVEL (dBA)	Heating / Cooling	92.0 / 87.0	87.0 / 84.0	88.0 / 85.0	90.0 / 86.0	89.0 / 86.0
WEIGHT (kg)		293 + 293	213 + 277 + 277	213 + 277 + 277	213 + 277 + 277	277 + 277 + 277
DIMENSIONS (mm)	Width	1240 + 1240	920 + 1240 + 1240	920 + 1240 + 1240	920 + 1240 + 1240	1240 + 1240 + 1240
	Depth	740	740	740	740	740
	Height (1798mm without legs)	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY*1		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1		Three	Three	Three	Three	Three
STARTING CURRENT (A)*1		8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*1	Heating / Cooling [MAX]	46.7 / 48.7 [37.1 + 37.1]	45.5 / 48.1 [17.8 + 26.4 + 26.4]	49.7 / 53.1 [17.8 + 26.4 + 31.9]	53.0 / 58.3 [17.8 + 31.9 + 31.9]	54.8 / 59.0 [26.4 + 26.4 + 31.9]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)*1		1 x 40 / 1 x 40	1 x 20 / 1 x 32 / 1 x 32	1 x 20 / 1 x 32 / 1 x 32	1 x 20 / 1 x 32 / 1 x 32	1 x 32 / 1 x 32 / 1 x 32
MAINS CABLE No. Cores*1		4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		21.6 / 45.1	26.1 / 54.5	26.1 / 54.5	26.1 / 54.5	29.4 / 61.4
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		46.4 / 96.9	45.9 / 95.8	45.9 / 95.8	45.9 / 95.8	45.6 / 95.2

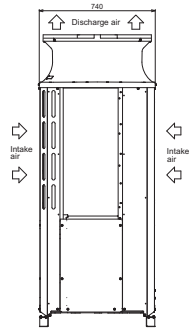
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

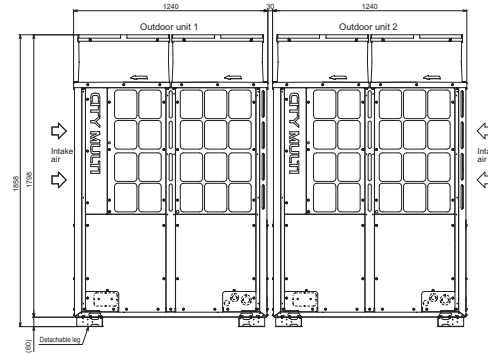
Product Dimensions

PUHY-P900YSNW-A1

Side View



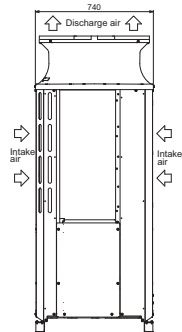
Front View



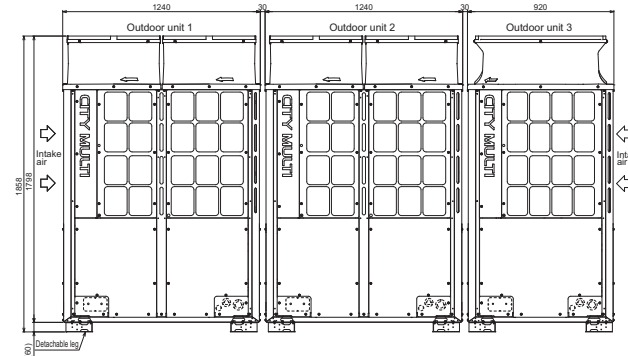
Product Dimensions

PUHY-P950/1000/1050YSNW-A1

Side View



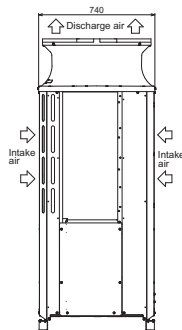
Front View



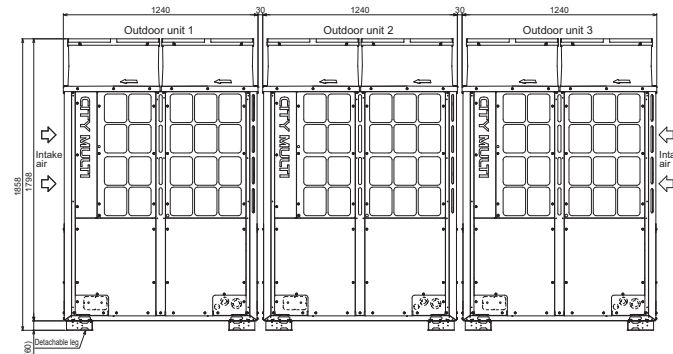
Product Dimensions

PUHY-P1100YSNW-A1

Side View



Front View



# Y Series VRF (130-150kW)

## Heat Pump Outdoor Unit (Heating or Cooling)

The **PUHY-P** City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. These modular heat pump systems provide complete design flexibility for applications such as open-plan offices, call centres and retail spaces.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities

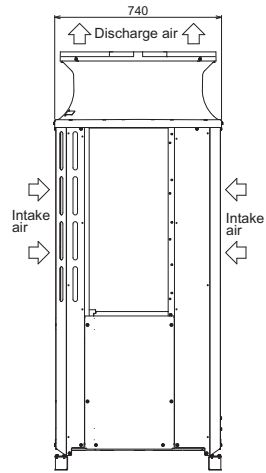


OUTDOOR UNITS		PUHY-P1150YSNW-A1	PUHY-P1200YSNW-A1	PUHY-P1250YSNW-A1	PUHY-P1300YSNW-A1	PUHY-P1350YSNW-A1
CAPACITY (kW)	Heating (nominal)	145.0	150.0	156.5	163.0	168.0
	Cooling (nominal)	130.0	136.0	140.0	146.0	150.0
	High Performance Heating (UK)	130.5	135.0	140.9	146.7	151.2
	COP Priority Heating (UK)	124.7	129.0	134.6	140.2	144.5
	Cooling (UK)	116.4	121.7	125.3	130.7	134.3
POWER INPUT (kW)	Heating (nominal)	36.25	38.36	40.12	41.90	43.29
	Cooling (nominal)	40.49	44.29	44.30	45.06	45.18
	High Performance Heating (UK)	40.96	43.35	45.34	47.35	48.92
	COP Priority Heating (UK)	35.16	37.21	38.92	40.64	41.99
	Cooling (UK)	25.91	28.35	28.35	28.84	28.92
COP / EER (nominal)	4.00 / 3.21	3.91 / 3.07	3.90 / 3.16	3.89 / 3.24	3.88 / 3.32	
MAX No. OF CONNECTABLE INDOOR UNITS		50	50	50	50	50
MAX CONNECTABLE CAPACITY		50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)	High	270 / 300 / 300	300 / 300 / 300	300 / 300 / 305	300 / 305 / 305	305 / 305 / 305
PIPE SIZE mm (in)	Gas	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")	41.28 (1-5/8")
	Liquid	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling	71.0 / 69.0	72.0 / 70.0	73.0 / 70.0	73.5 / 70.0	74.5 / 70.5
SOUND POWER LEVEL (dBA)	Heating / Cooling	90.0 / 86.0	91.0 / 87.0	92.0 / 88.0	93.0 / 88.0	94.0 / 89.0
WEIGHT (kg)		277 + 277 + 277	277 + 277 + 277	277 + 277 + 293	277 + 293 + 293	293 + 293 + 293
DIMENSIONS (mm)	Width	1240 + 1240 + 1240	1240 + 1240 + 1240	1240 + 1240 + 1240	1240 + 1240 + 1240	1240 + 1240 + 1240
	Depth	740	740	740	740	740
	Height	1858	1858	1858	1858	1858
(1798mm without legs)						
ELECTRICAL SUPPLY*1		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1		Three	Three	Three	Three	Three
STARTING CURRENT (A)*1		8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*1	Heating / Cooling [MAX]	58.1 / 64.9 [26.4 + 31.9 + 31.9]	61.5 / 71.0 [31.9 + 31.9 + 31.9]	64.3 / 71.0 [31.9 + 31.9 + 37.1]	67.1 / 72.2 [31.9 + 37.1 + 37.1]	69.4 / 72.4 [37.1 + 37.1 + 37.1]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)*1		1 x 32 / 1 x 32 / 1 x 32	1 x 32 / 1 x 32 / 1 x 32	1 x 32 / 1 x 32 / 1 x 40	1 x 32 / 1 x 40 / 1 x 40	1 x 40 / 1 x 40 / 1 x 40
MAINS CABLE No. Cores*1		4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		29.4 / 61.4	29.4 / 61.4	30.4 / 63.5	31.4 / 65.6	32.4 / 67.7
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		45.6 / 95.2	45.6 / 95.2	47.3 / 98.8	47.2 / 98.6	47.1 / 98.3

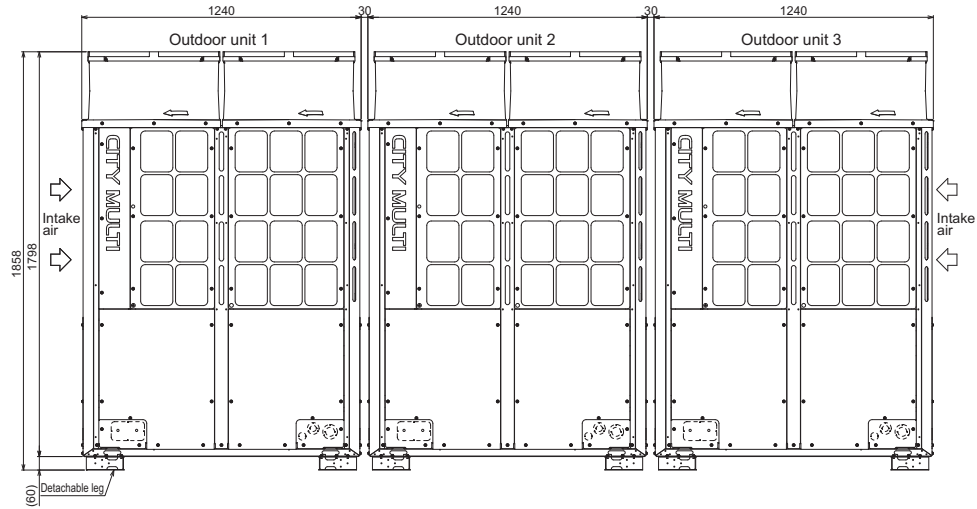
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

Side View



Front View



# Y Series Single Fan (12.5-15.5kW)

## Mini VRF Heat Pump Outdoor Unit

VRF technology and efficiency can now be delivered in both small and large capacities, offering a cost-effective solution to connect up to 12 indoor units to one small, powerful, mini VRF unit. Delivering VRF efficiency, quality and functionality, with the additional flexibility of being free-standing or wall-hung, the **PUMY-SP** single fan side-blow unit makes the most of even the smallest plant spaces, making it ideal for high specification residential and retail applications in city centres.

### Key Features & Benefits

- Small footprint, long pipe-runs and wall-hanging capability provides flexibility of install
- Broad compatibility across M Series, Mr Slim and City Multi indoor units, providing design choice (see page 1.4.7 for M Series/Mr Slim)
- Choice of operation mode: 'silent mode' for noise sensitive areas or 'demand control' for maximum efficiency
- Unique fan capability provides 30 Pascals of static pressure as standard, allowing extra sound attenuation or the ability to duct discharge air away from the unit
- Available in both single and three phase options

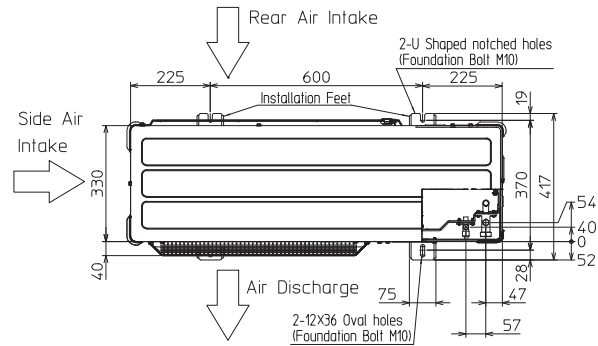


OUTDOOR UNITS		PUMY-SP112VKM	PUMY-SP112YKM <sup>③</sup>	PUMY-SP125VKM	PUMY-SP125YKM <sup>③</sup>	PUMY-SP140VKM	PUMY-SP140YKM <sup>③</sup>
CAPACITY (KW)	Heating (nominal)	14.0	14.0	16.0	16.0	16.5	16.5
	Cooling (nominal)	12.5	12.5	14.0	14.0	15.5	15.5
	Heating (UK)	13.9	13.9	15.8	15.8	16.3	16.3
	Cooling (UK)	10.0	10.0	11.2	11.2	12.4	12.4
POWER INPUT (KW)	Heating (nominal)	3.17	3.17	3.90	3.90	4.02	4.02
	Cooling (nominal)	3.10	3.10	3.84	3.84	4.70	4.70
	Heating (UK)	4.18	4.18	5.15	5.15	5.31	5.31
	Cooling (UK)	1.61	1.61	2.00	2.00	2.44	2.44
COP / EER (nominal)		4.42 / 4.03	4.42 / 4.03	4.10 / 3.65	4.10 / 3.65	4.10 / 3.30	4.10 / 3.30
MAX NO. OF CONNECTABLE INDOOR UNITS		9	9	10	10	12	12
MAX CONNECTABLE CAPACITY		50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity
AIRFLOW (m <sup>3</sup> /min)		77	77	83	83	83	83
PIPE SIZE MM (in)	Gas	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)		52	52	53	53	54	54
SOUND POWER LEVEL (dBA)		72	72	73	73	74	74
WEIGHT (kg)		93	94	93	94	93	94
DIMENSIONS (mm)	Width	1050	1050	1050	1050	1050	1050
	Depth	330+40	330+40	330+40	330+40	330+40	330+40
	Height	981	981	981	981	981	981
ELECTRICAL SUPPLY		220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	Three	Single	Three	Single	Three
STARTING CURRENT (A)		14	7	14	7	14	7
NOMINAL SYSTEM RUNNING CURRENT (A) Heating / Cooling [MAX]		13.48 / 13.18 [30.5]	4.82 / 4.71 [13.0]	16.58 / 16.33 [30.5]	5.93 / 5.83 [13.0]	17.09 / 19.98 [30.5]	6.11 / 7.14 [13.0]
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-20~-15 / -5~-52	-20~-15 / -5~-52	-20~-15 / -5~-52	-20~-15 / -5~-52	-20~-15 / -5~-52	-20~-15 / -5~-52
FUZE RATING (BS88) - HRC (A)		1 x 32	1 x 16	1 x 32	1 x 16	1 x 32	1 x 16
MAINS CABLE NO. CORES		3	4 + earth	3	4 + earth	3	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (T) R410A (GWP 2088)		3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (T) R410A (GWP 2088)		9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79

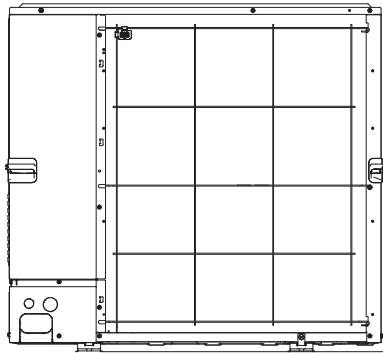
③ Three Phase available May 2018. Note: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

PIPING RESTRICTIONS	PUMY-SP112-140V(Y)KM
TOTAL PIPING LENGTH	120m max
FURTHEST PIPING LENGTH	70m max
FURTHEST PIPING LENGTH AFTER 1st BRANCH	50m max
BETWEEN INDOOR AND OUTDOOR UNITS - HEIGHT	50m max (30m max if outdoor installed below)
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT	15m max

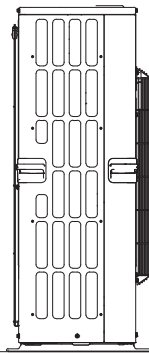
Upper View



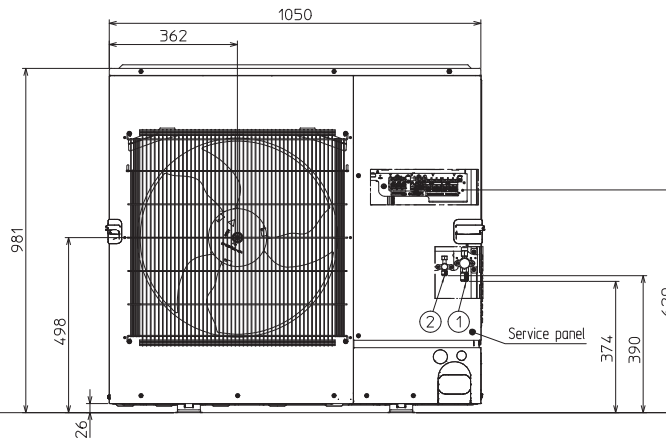
Rear View



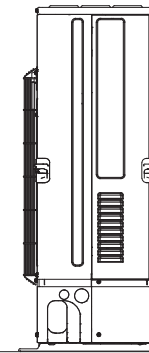
Left Side View



Front View



Right Side View



# Y Series Twin Fan (12.5-33.5kW)

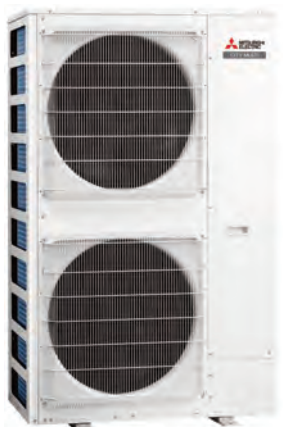
## Mini VRF Heat Pump Outdoor Unit

VRF technology and efficiency can now be delivered in both small and large capacities, offering a cost-effective solution to connect up to 30 indoor units to one small, powerful, mini VRF unit. Delivering VRF efficiency, quality and functionality, with the additional flexibility of being free-standing or wall-hung, the **PUMY-P** side-blow unit makes the most of even the smallest plant spaces, making it ideal for high specification residential and retail applications in city centres.

### Key Features & Benefits

- Small footprint, long pipe-runs and wall-hanging capability provides flexibility of install
- Broad compatibility across M Series, Mr Slim\* and City Multi indoor units, providing design choice (see page 1.4.7 for M Series/Mr Slim)
- Choice of operation mode: 'silent mode' for noise sensitive areas or 'demand control' for maximum efficiency
- Unique fan capability provides 30 Pascals of static pressure as standard, allowing extra sound attenuation or the ability to duct discharge air away from the unit
- Available in both single and three phase options

\*Mr Slim units available for use with PUMY-P112-200 units only.



OUTDOOR UNITS		PUMY-P112VKM5	PUMY-P112YKM4 <sup>③</sup>	PUMY-P125VKM5	PUMY-P125YKM4 <sup>③</sup>	PUMY-P140VKM5	PUMY-P140YKM4 <sup>③</sup>	PUMY-P200YKM2 <sup>③</sup>	PUMY-P250YBM <sup>③</sup>	PUMY-P300YBM <sup>③</sup>
CAPACITY (kW)	Heating (nominal)	14.0	14.0	16.0	16.0	18.0	18.0	25.0	31.5	37.5
	Cooling (nominal)	12.5	12.5	14.0	14.0	15.5	15.5	22.4	28.0	33.5
	Heating (UK)	13.9	13.9	15.8	15.8	17.8	17.8	24.8	27.9	33.2
	Cooling (UK)	10.0	10.0	11.2	11.2	12.4	12.4	17.9	21.6	25.8
POWER INPUT (kW)	Heating (nominal)	3.04	3.04	3.74	3.74	4.47	4.47	5.84	7.41	9.12
	Cooling (nominal)	2.79	2.79	3.46	3.46	4.52	4.52	6.05	8.21	10.12
	Heating (UK)	4.01	4.01	4.94	4.94	5.90	5.90	7.71	9.80	12.00
	Cooling (UK)	1.56	1.56	1.94	1.94	2.53	2.53	3.39	3.90	4.90
COP / EER (nominal)		4.61 / 4.48	4.61 / 4.48	4.28 / 4.05	4.28 / 4.05	4.03 / 3.43	4.03 / 3.43	4.28 / 3.70	4.25 / 3.41	4.11 / 3.31
MAX NO. OF CONNECTABLE INDOOR UNITS		9	9	10	10	12	12	12	30	30
MAX CONNECTABLE CAPACITY		50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity
AIRFLOW (m³/min)		110	110	110	110	110	110	139	183	183
PIPE SIZE MM (in)	Gas	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	19.05 (3/4")	22.4 (7/8")	25.4 (1")
	Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8") <sup>11</sup>	9.52 (3/8")	12.7 (1/2")
SOUND PRESSURE LEVEL (dBA)		49	49	50	50	51	51	56	55	57
SOUND POWER LEVEL (dBA)		69	69	70	70	71	71	75	73	75
WEIGHT (kg)		122	125	122	125	122	125	141	196	196
DIMENSIONS (mm)	Width	1050	1050	1050	1050	1050	1050	1050	1050	1050
	Depth	330+40	330+40	330+40	330+40	330+40	330+40	330+40	460+45	460+45
	Height	1338	1338	1338	1338	1338	1338	1338	1662	1662
ELECTRICAL SUPPLY		220-240V, 50Hz	380-415V, 50Hz	220-240V, 50Hz	380-415V, 50Hz	220-240V, 50Hz	380-415V, 50Hz	380-415V, 50Hz	380-415V, 50Hz	380-415V, 50Hz
PHASE		Single	Three	Single	Three	Single	Three	Three	Three	Three
STARTING CURRENT (A)		14	7	14	7	14	7	7	7	7
NOMINAL SYSTEM RUNNING CURRENT (A) Heating / Cooling [MAX]		13.42 / 12.32 [29.5]	5.16 / 4.74 [13.0]	16.51 / 15.27 [29.5]	6.00 / 5.55 [13.0]	19.73 / 19.95 [29.5]	6.79 / 6.87 [13.0]	8.74 / 9.05 [19.0]	11.51 / 12.68 [28.4]	14.01 / 15.54 [31.74]
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~52	-20~15 / -5~52
FUZE RATING (BS88) - HRC (A)		1 x 32	1 x 16	1 x 32	1 x 16	1 x 32	1 x 16	1 x 20	1 x 32	1 x 32
MAINS CABLE NO. CORES		3	4 + earth	3	4 + earth	3	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (T) R410A (GWP 2088)		4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	7.3 / 15.2	9.3 / 19.4	9.3 / 19.4
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (T) R410A (GWP 2088)		13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.5 / 28.2	22.4 / 46.8	22.4 / 46.8

③ Three Phase Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard. <sup>11</sup> 12.7mm (1/2") if furthest length ≥ 60m.

PIPING RESTRICTIONS	PUMY-P112-140VKM/YKM4	PUMY-P200YKM2	PUMY-P250-300YBM
TOTAL PIPING LENGTH	300m max	150m max	310m max
FURTHEST PIPING LENGTH	150m max	80m max	150m max
FURTHEST PIPING LENGTH AFTER 1st BRANCH	30m max	30m max	30m max
BETWEEN INDOOR AND OUTDOOR UNITS - HEIGHT	50m max (40m max if outdoor installed below)	50m max (40m max if outdoor installed below)	50m max (40m max if outdoor installed below)
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT	15m max	15m max	15m max



**Product Dimensions**

PUMY-P112/125/140/200VKM5/YKM(4)(2)

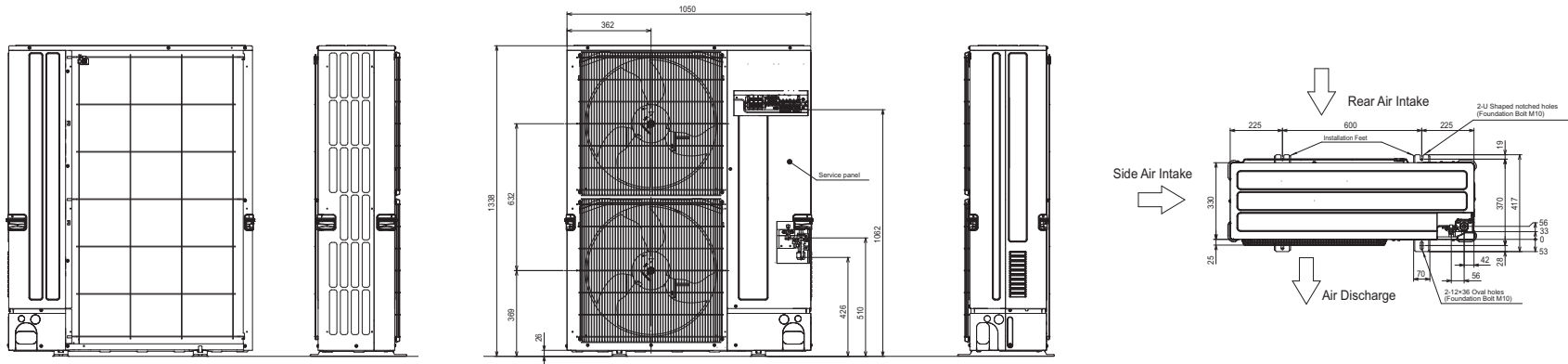
Rear View

Left Side View

Front View

Right Side View

Upper View



**Product Dimensions**

PUMY-P250/300YBM

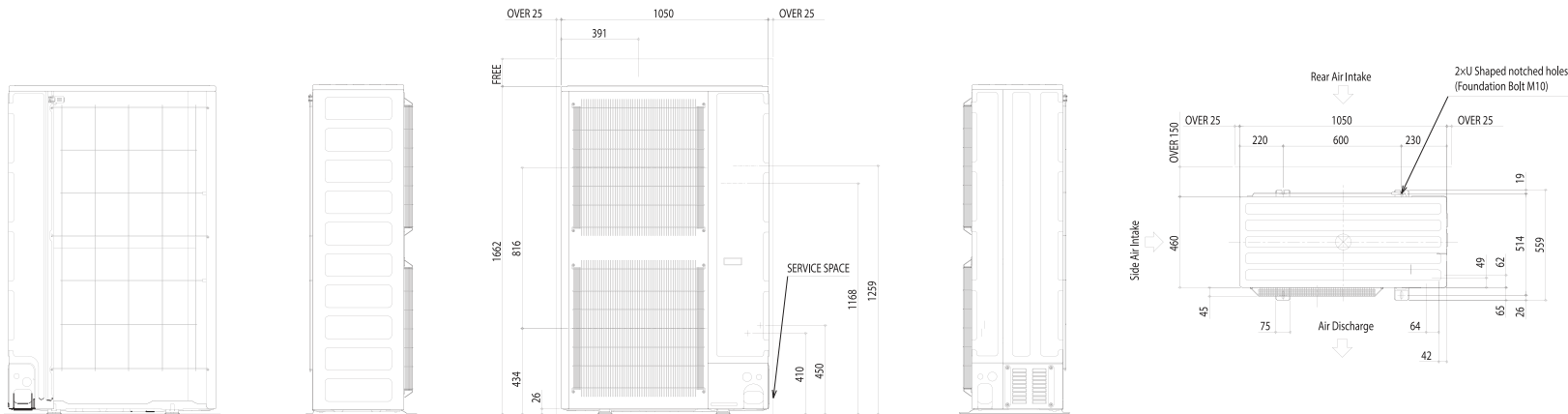
Rear View

Left Side View

Front View

Right Side View

Upper View



# WR2 Series (22.4-56kW)

## Simultaneous Heating and Cooling with Double Heat Recovery, Water Cooled Condensing Unit

The City Multi **WR2** Series Heat Recovery VRF system is ideal where a water loop is available and outdoor space is limited. These models utilise water, instead of air, as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WR2 systems provide the ultimate solution for a breadth of applications requiring simultaneous heating and cooling, including hotels, offices, leisure, retail and high end residential.

### Key Features & Benefits

- High efficiency modular systems, with ability to recover energy on the refrigerant circuit and between units on the water circuit, in either a closed or open loop building, or ground source application
- Able to utilise waste heat from commercial sources, such as server cooling, or renewable heat from landlord loops, rivers, lakes or geothermal sources
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation



CONDENSING UNITS		PQRY-P200YLM-A1	PQRY-P250YLM-A1	PQRY-P300YLM-A1	PQRY-P350YLM-A1	PQRY-P400YLM-A1	PQRY-P400YSLM-A1	PQRY-P450YLM-A1	PQRY-P450YSLM-A1	PQRY-P500YLM-A1	PQRY-P500YSLM-A1
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5	45.0	50.0	50.0	50.0	50.0	56.0	63.0
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	45.0	50.0	50.0	56.0	63.0
POWER INPUT (kW)	Heating (nominal)	3.97	5.08	6.25	7.53	8.37	7.94	9.79	6.24	11.43	10.16
	Cooling (nominal)	3.71	4.90	6.04	7.14	8.03	7.70	9.29	5.69	11.17	10.12
OPERATING WATER VOLUME (m³/h)		3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2	4.5 ~ 11.6	4.5 ~ 11.6	3.0+3.0~7.2+7.2	4.5 ~ 11.6	3.0+3.0~7.2+7.2	4.5 ~ 11.6	3.0+3.0~7.2+7.2
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
COP / EER (nominal)		6.29 / 6.03	6.20 / 5.71	6.25 / 5.54	5.97 / 5.60	5.97 / 5.60	6.29 / 5.84	5.72 / 5.38	6.24 / 5.69	5.51 / 5.01	6.20 / 5.53
MAX NO. OF CONNECTABLE INDOOR UNITS		20	25	30	35	40	40	45	45	50	50
MAX CONNECTABLE CAPACITY		50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")
	Liquid	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")
SOUND PRESSURE LEVEL (dBA)		46	48	54	52	52	49	54	50	54	51
SOUND POWER LEVEL (dBA)		60	62	68	66	66	63	70	64	70.5	65
WEIGHT (kg)		172	172	172	216	216	172 + 172	216	172 + 172	216	172 + 172
DIMENSIONS (mm)	Width	880	880	880	880	880	880 + 880	880	880 + 880	880	880 + 880
	Depth	550	550	550	550	550	550	550	550	550	550
	Height	1100	1100	1100	1450	1450	1100	1450	1100	1450	1100
ELECTRICAL SUPPLY*1		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1		Three	Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)		8	8	8	8	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*1 Heating / Cooling [MAX]		6.1 / 5.7 [16.1]	7.8 / 7.5 [16.1]	9.6 / 9.3 [18.6]	11.6 / 11.0 [23.1]	12.9 / 12.4 [27.6]	122/119[161+161]	15.1 / 14.3 [32.9]	138/135[161+161]	17.6 / 17.2 [39.2]	157/156[161+161]
FUZE RATING (BS88) - HRC (A)*1		1 x 20	1 x 20	1 x 20	1 x 25	1 x 32	1 x 20 / 1 x 20	1 x 40	1 x 20 / 1 x 20	1 x 40	1 x 20 / 1 x 20
MAINS CABLE No. Cores*1		4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		5.0 / 10.4	5.0 / 10.4	5.0 / 10.4	6.0 / 12.5	6.0 / 12.5	10.0 / 20.9	6.0 / 12.5	10.0 / 20.9	6.0 / 12.5	10.0 / 20.9
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		27.0 / 56.4	32.0 / 66.8	33.0 / 68.9	52.0 / 108.6	52.0 / 108.6	52.0 / 108.6	53.0 / 110.7	53.0 / 110.7	55.0 / 114.8	55.0 / 114.8

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard. \*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. These products are made to order, please consult your local sales office for delivery schedule. PQRY-P200/250/300 are stock items.

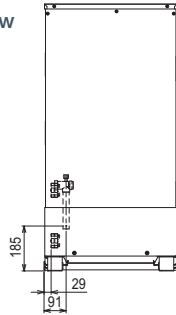
PIPING RESTRICTIONS	PQRY-P200-500Y(S)LM-A1
TOTAL PIPING LENGTH	550m max*3 (300m) for sizes 200-300 / 750m max*3 (500m) for sizes 350-500
FURTHEST PIPING LENGTH	165m max
BETWEEN CONDENSING UNIT AND BC CONTROLLER (MASTER) - LENGTH	110m max*4
BETWEEN INDOOR AND BC CONTROLLER (MASTER/SLAVE) - LENGTH	60m max*5 (40m)
BETWEEN INDOOR AND CONDENSING UNIT - HEIGHT	50m max (40m*1)
BETWEEN INDOOR AND INDOOR - HEIGHT	30m max (20m*2)
BETWEEN INDOOR AND BC CONTROLLER (MASTER/SLAVE) - HEIGHT	15m max (10m*2)
BETWEEN BC CONTROLLER (MASTER) AND BC CONTROLLER (SLAVE) - HEIGHT	15m max (10m*6)

Notes: \*1 When condensing unit is below indoor. \*2 In case of P200, P250 indoor unit. \*3 Distance between condensing unit and BC Controller is 10m or less. \*4 Total piping length is 300m or less (500m for sizes 350-500). \*5 Height difference between the Master BC Controller and furthest indoor unit is 0m and no size P200 or P250 indoor unit is used. \*6 When using multiple sub BC Controllers, the height between them should be considered.

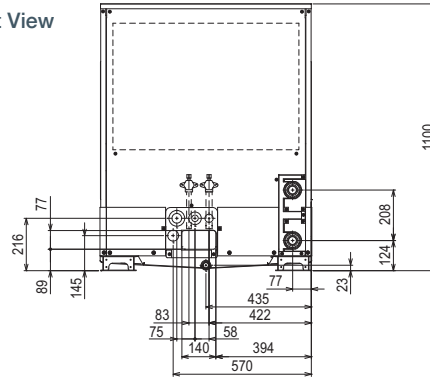
**Product Dimensions**

PQRY-P200/250/300YLM-A1

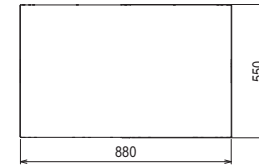
Side View



Front View



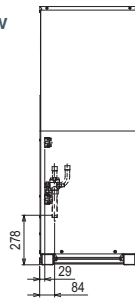
Upper View



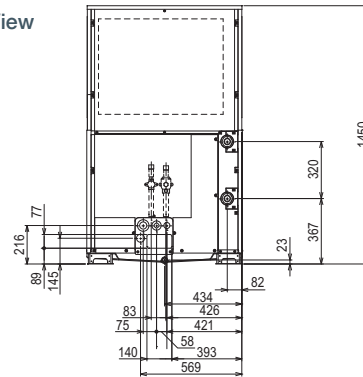
**Product Dimensions**

PQRY-P350/400/450/500YLM-A1

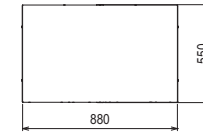
Side View



Front View



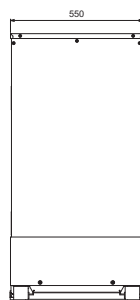
Upper View



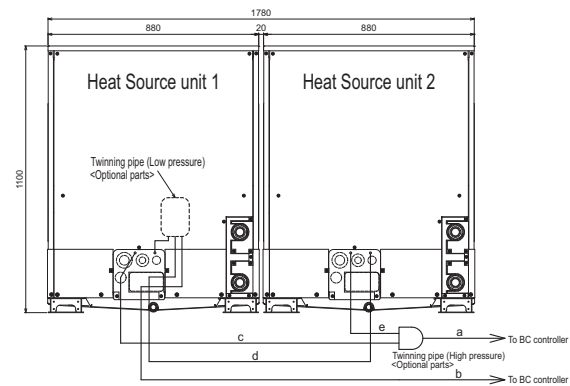
**Product Dimensions**

PQRY-P400/450/500YSLM-A1

Side View



Front View



# WR2 Series (63-101kW)

## Simultaneous Heating and Cooling with Double Heat Recovery, Water Cooled Condensing Unit

The City Multi **WR2** Series Heat Recovery VRF system is ideal where a water loop is available and outdoor space is limited. These models utilise water, instead of air, as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WR2 systems provide the ultimate solution for a breadth of applications requiring simultaneous heating and cooling, including hotels, offices, leisure, retail and high end residential.

### Key Features & Benefits

- High efficiency modular systems, with ability to recover energy on the refrigerant circuit and between units on the water circuit, in either a closed or open loop building, or ground source application
- Able to utilise waste heat from commercial sources, such as server cooling, or renewable heat from landlord loops, rivers, lakes or geothermal sources
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation



CONDENSING UNITS		PQRY-P550YLM-A1	PQRY-P550YSLM-A1	PQRY-P600YLM-A1	PQRY-P600YSLM-A1	PQRY-P700YSLM-A1	PQRY-P750YSLM-A1	PQRY-P800YSLM-A1	PQRY-P850YSLM-A1	PQRY-P900YSLM-A1
CAPACITY (kW)	Heating (nominal)	69.0	69.0	76.5	76.5	88.0	95.0	100.0	108.0	113.0
	Cooling (nominal)	63.0	63.0	69.0	69.0	80.0	85.0	90.0	96.0	101.0
POWER INPUT (kW)	Heating (nominal)	12.27	11.31	14.51	12.75	14.73	15.90	16.75	18.49	19.74
	Cooling (nominal)	12.54	11.55	14.49	12.84	14.73	15.64	16.57	18.03	19.38
OPERATING WATER VOLUME (m³/h)		6.0 ~ 14.4	3.0+3.0~7.2+7.2	6.0 ~ 14.4	3.0+3.0~7.2+7.2	4.5+4.5~11.6+11.6	4.5+4.5~11.6+11.6	4.5+4.5~11.6+11.6	4.5+4.5~11.6+11.6	4.5+4.5~11.6+11.6
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
COP / EER (nominal)		5.62 / 5.02	6.10 / 5.45	5.27 / 4.76	6.00 / 5.37	5.97 / 5.43	5.97 / 5.43	5.97 / 5.43	5.84 / 5.32	5.72 / 5.21
MAX NO. OF CONNECTABLE INDOOR UNITS		50	50	50	50	50	50	50	50	50
MAX CONNECTABLE CAPACITY		50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%
PIPE SIZE mm (in)	Gas	28.58 (1 1/8")	28.58 (1 1/8")	34.93 (1 3/8")	34.93 (1 3/8")	34.93 (1 3/8")	34.93 (1 3/8")	34.93 (1 3/8")	41.28 (1 5/8")	41.28 (1 5/8")
	Liquid	22.2 (7/8)**	22.2 (7/8)**	22.2 (7/8)**	22.2 (7/8)**	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")
SOUND PRESSURE LEVEL (dBA)		56.5	55	56.5	57	55	55	55	56	57
SOUND POWER LEVEL (dBA)		71.5	69	73	71	69	69	69	71.5	73
WEIGHT (kg)		246	172 + 172	246	172 + 172	216 + 216	216 + 216	216 + 216	216 + 216	216 + 216
DIMENSIONS (mm)	Width	880	880 + 880	880	880 + 880	880 + 880	880 + 880	880 + 880	880 + 880	880 + 880
	Depth	550	550	550	550	550	550	550	550	550
	Height	1450	1100	1450	1100	1450	1450	1450	1450	1450
ELECTRICAL SUPPLY*1		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1		Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)		8	8 / 8	8	8 / 8	8 / 8	8 / 8	8 / 8	8 / 8	8 / 8
NOMINAL SYSTEM RUNNING CURRENT (A)**1 Heating / Cooling [MAX]		18.9 / 19.3 [40.5]	17.4/17.8[18.6+16.1]	22.4 / 22.3 [40.5]	19.7/19.8[18.6+18.6]	22.7/22.7[23.1+23.1]	24.5/24.1[27.6+23.1]	25.8/25.6[27.6+27.6]	28.5/27.8[32.9+27.6]	30.5/29.9[32.9+32.9]
FUSE RATING (BS88) - HRC (A)*1		1 x 50	1 x 20 / 1 x 20	1 x 50	1 x 20 / 1 x 20	1 x 25 / 1 x 25	1 x 32 / 1 x 25	1 x 32 / 1 x 32	1 x 40 / 1 x 32	1 x 40 / 1 x 40
MAINS CABLE No. Cores*1		4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		11.7 / 24.4	10.0 / 20.9	11.7 / 24.4	10.0 / 20.9	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		57.0 / 119.0	61.5 / 128.4	58.0 / 121.1	64.5 / 134.7	72.0 / 150.3	74.0 / 154.5	74.0 / 154.5	76.0 / 158.7	76.0 / 158.7

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard. \*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. These products are made to order, please consult your local sales office for delivery schedule.

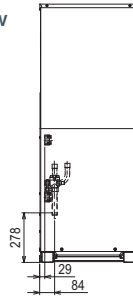
PIPING RESTRICTIONS	PQRY-P550-900Y(S)LM-A1
TOTAL PIPING LENGTH	750m max*2 (500m)
FURTHEST PIPING LENGTH	165m max
BETWEEN CONDENSING UNIT AND BC CONTROLLER (MASTER) - LENGTH	110m max*3
BETWEEN INDOOR AND BC CONTROLLER (MASTER/SLAVE) - LENGTH	60m max*4 (40m)
BETWEEN INDOOR AND CONDENSING UNIT - HEIGHT	50m max (40m*1)
BETWEEN INDOOR AND INDOOR - HEIGHT	30m max
BETWEEN INDOOR AND BC CONTROLLER (MASTER/SLAVE) - HEIGHT	15m max
BETWEEN BC CONTROLLER (MASTER) AND BC CONTROLLER (SLAVE) - HEIGHT	15m max (10m*5)

Notes: \*1 When condensing unit is below indoor. \*2 In case of P200, P250 indoor unit. \*3 Distance between condensing unit and BC Controller is 10m or less. \*4 Total piping length is 300m or less (500m for sizes 350-500). \*5 Height difference between the Master BC Controller and furthest indoor unit is 0m and no size P200 or P250 indoor unit is used. \*6 When using multiple sub BC Controllers, the height between them should be considered.

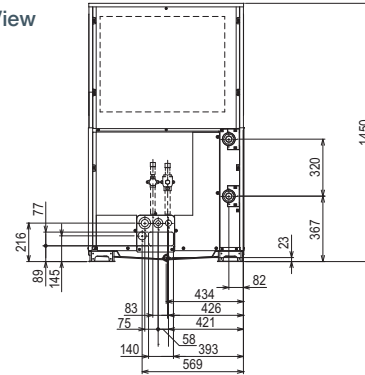
**Product Dimensions**

PQRY-P550/600YLM-A1

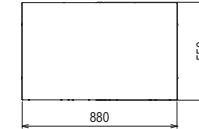
Side View



Front View



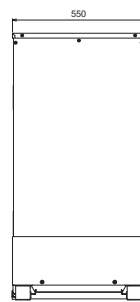
Upper View



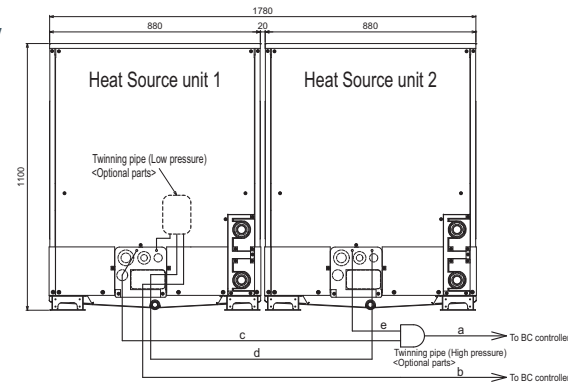
**Product Dimensions**

PQRY-P550/600YSLM-A1

Side View



Front View



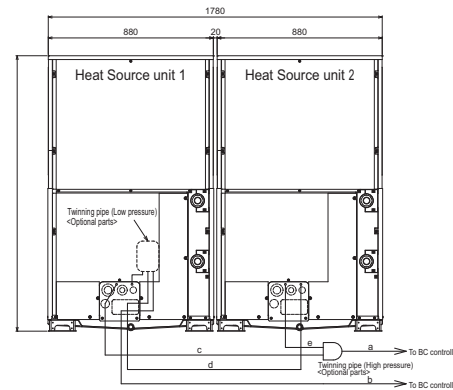
**Product Dimensions**

PQRY-P700/750/800/850/900YSLM-A1

Side View



Front View



# WY Series (22.4-56kW)

## Heat Pump, Water Cooled Condensing Unit



The City Multi **WY** Series Heat Pump VRF system is ideal where a water loop is available and outdoor space is limited. These models utilise water, instead of air, as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WY systems provide the ultimate solution for a breadth of applications requiring heating or cooling at a given time, such as open-plan spaces in offices, call centres and leisure facilities.

### Key Features & Benefits

- High efficiency modular systems, with ability to recover energy between units on the water circuit, in either a closed or open loop building, or ground source application
- Benefits from a wide indoor unit range and advanced control options
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation



CONDENSING UNITS		PQHY-P200YLM-A1	PQHY-P250YLM-A1	PQHY-P300YLM-A1	PQHY-P350YLM-A1	PQHY-P400YLM-A1	PQHY-P400YSLM-A1	PQHY-P450YLM-A1	PQHY-P450YSLM-A1	PQHY-P500YLM-A1	PQHY-P500YSLM-A1
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5	45.0	50.0	50.0	56.0	56.0	63.0	63.0
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	45.0	50.0	50.0	56.0	56.0
POWER INPUT (kW)	Heating (nominal)	3.97	5.08	6.25	7.53	8.37	7.94	9.79	6.24	11.43	10.16
	Cooling (nominal)	3.71	4.90	6.04	7.14	8.03	7.70	9.29	5.69	11.17	10.12
OPERATING WATER VOLUME (m³/h)		3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2	4.5 ~ 11.6	4.5 ~ 11.6	3.0+3.0~7.2+7.2	4.5 ~ 11.6	3.0+3.0~7.2+7.2	4.5 ~ 11.6	3.0+3.0~7.2+7.2
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
COP / EER (nominal)		6.29 / 6.03	6.20 / 5.71	6.25 / 5.54	5.97 / 5.60	5.97 / 5.60	6.29 / 5.84	5.72 / 5.38	6.24 / 5.69	5.51 / 5.01	6.20 / 5.53
MAX NO. OF CONNECTABLE INDOOR UNITS		17	21	26	30	34	36	39	39	43	43
MAX CONNECTABLE CAPACITY		50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")
	Liquid	9.52 (3/8")	9.52 (3/8")**	9.52 (3/8")**	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
SOUND PRESSURE LEVEL (dBA)		46	48	54	52	52	49	54	50	54	51
SOUND POWER LEVEL (dBA)		60	62	68	66	66	63	70	64	70.5	65
WEIGHT (kg)		174	174	174	217	217	174 + 174	217	174 + 174	217	174 + 174
DIMENSIONS (mm)	Width	880	880	880	880	880	880 + 880	880	880 + 880	880	880 + 880
	Depth	550	550	550	550	550	550	550	550	550	550
	Height	1100	1100	1100	1450	1450	1100	1450	1100	1450	1100
ELECTRICAL SUPPLY*2		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*2		Three	Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)		8	8	8	8	8	8 / 8	8	8 / 8	8	8 / 8
NOMINAL SYSTEM RUNNING CURRENT (A)*2 Heating / Cooling [MAX]		6.1 / 5.7 [16.1]	7.8 / 7.5 [16.1]	9.6 / 9.3 [18.6]	11.6 / 11.0 [23.1]	12.9 / 12.4 [27.6]	12.2 / 11.9 [16.1 + 16.1]	15.1 / 14.3 [32.9]	13.8 / 13.5 [16.1 + 16.1]	17.6 / 17.2 [39.2]	15.7 / 15.6 [16.1 + 16.1]
FUSE RATING (BS88) - HRC (A)*2		1 x 20	1 x 20	1 x 20	1 x 25	1 x 32	1 x 20 / 1 x 20	1 x 40	1 x 20 / 1 x 20	1 x 40	1 x 20 / 1 x 20
MAINS CABLE No. Cores*2		4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		5.0 / 10.4	5.0 / 10.4	5.0 / 10.4	6.0 / 12.5	6.0 / 12.5	10.0 / 20.9	6.0 / 12.5	10.0 / 20.9	6.0 / 12.5	10.0 / 20.9
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		21.0 / 43.8	28.0 / 58.5	29.5 / 61.6	41.5 / 86.7	50.0 / 104.4	50.0 / 104.4	51.5 / 107.5	51.5 / 107.5	53.5 / 111.7	53.5 / 111.7

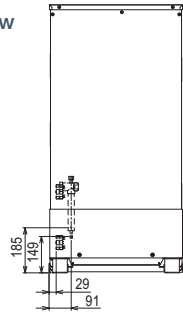
Notes: \*SSEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard. \*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. These products are made to order, please consult your local sales office for delivery schedule.

PIPING RESTRICTIONS	PQHY-P200-500Y(S)LM-A1
TOTAL PIPING LENGTH	300m max for sizes 200-300 / 500m for sizes 350-900
FURTHEST PIPING LENGTH	165m max
FURTHEST PIPING LENGTH AFTER 1ST BRANCH	40m max
BETWEEN INDOOR AND OUTDOOR UNITS - HEIGHT	50m max (40m max if outdoor installed below)
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT	15m max

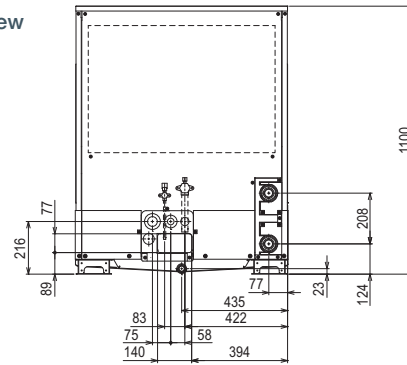
**Product Dimensions**

PQHY-P200/250/300YLM-A1

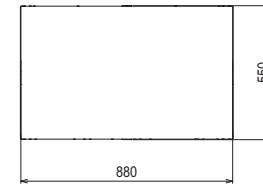
Side View



Front View



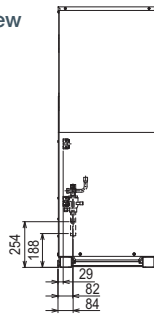
Upper View



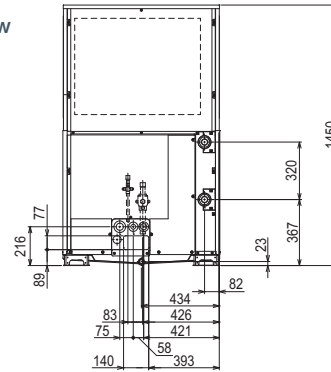
**Product Dimensions**

PQHY-P350/400/450/500YLM-A1

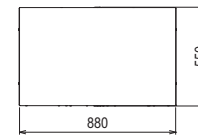
Side View



Front View



Upper View



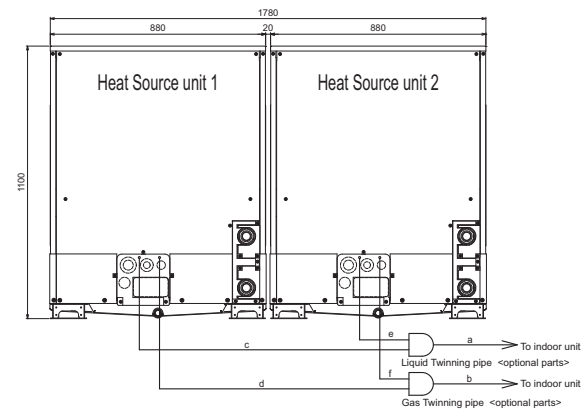
**Product Dimensions**

PQHY-P400/450/500YSLM-A1

Side View



Front View



# WY Series (63-101kW)

## Heat Pump, Water Cooled Condensing Unit



The City Multi **WY** Series Heat Pump VRF system is ideal where a water loop is available and outdoor space is limited. These models utilise water, instead of air, as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WY systems provide the ultimate solution for a breadth of applications requiring heating or cooling at a given time, such as open-plan spaces in offices, call centres and leisure facilities.

### Key Features & Benefits

- High efficiency modular systems, with ability to recover energy between units on the water circuit, in either a closed or open loop building, or ground source application
- Benefits from a wide indoor unit range and advanced control options
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation



CONDENSING UNITS		PQHY-P550YLM-A1	PQHY-P550YSLM-A1	PQHY-P600YLM-A1	PQHY-P600YSLM-A1	PQHY-P700YSLM-A1	PQHY-P750YSLM-A1	PQHY-P800YSLM-A1	PQHY-P850YSLM-A1	PQHY-P900YSLM-A1
CAPACITY (kW)	Heating (nominal)	69.0	69.0	76.5	76.5	88.0	95.0	100.0	108.0	113.0
	Cooling (nominal)	63.0	63.0	69.0	69.0	80.0	85.0	90.0	96.0	101.0
POWER INPUT (kW)	Heating (nominal)	12.27	11.31	14.51	12.75	14.73	15.90	16.75	18.49	19.74
	Cooling (nominal)	12.54	11.55	14.49	12.84	14.73	15.64	16.57	18.03	19.38
OPERATING WATER VOLUME (m <sup>3</sup> /h)		6.0 ~ 14.4	3.0 + 3.0 ~ 7.2 + 7.2	6.0 ~ 14.4	3.0 + 3.0 ~ 7.2 + 7.2	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
COP / EER (nominal)		5.62 / 5.02	6.10 / 5.45	5.27 / 4.76	6.00 / 5.37	5.97 / 5.43	5.97 / 5.43	5.97 / 5.43	5.84 / 5.32	5.72 / 5.21
MAX NO. OF CONNECTABLE INDOOR UNITS		47	47	50	50	50	50	50	50	50
MAX CONNECTABLE CAPACITY		50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%
PIPE SIZE mm (in)	Gas	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	34.93 (1 3/8")	34.93 (1 3/8")	34.93 (1 3/8")	41.28 (1 5/8")	41.28 (1 5/8")
	Liquid	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")
SOUND PRESSURE LEVEL (dBA)		56.5	55	56.5	57	55	55	55	56	57
SOUND POWER LEVEL (dBA)		71.5	69	73	71	69	69	69	71.5	73
WEIGHT (kg)		246	174 + 174	246	174 + 174	217 + 217	217 + 217	217 + 217	217 + 217	217 + 217
DIMENSIONS (mm)	Width	880	880 + 880	880	880 + 880	880 + 880	880 + 880	880 + 880	880 + 880	880 + 880
	Depth	550	550	550	550	550	550	550	550	550
	Height	1450	1100	1450	1100	1450	1450	1450	1450	1450
ELECTRICAL SUPPLY*1		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1		Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)		8	8 / 8	8	8 / 8	8 / 8	8 / 8	8 / 8	8 / 8	8 / 8
NOMINAL SYSTEM RUNNING CURRENT (A)*1 Heating / Cooling [MAX]		18.9 / 19.3 [40.5]	17.4 / 17.8 [18.6 + 16.1]	22.4 / 22.3 [40.5]	19.7 / 19.8 [18.6 + 18.6]	22.7 / 22.7 [23.1 + 23.1]	24.5 / 24.1 [27.6 + 23.1]	25.8 / 25.6 [27.6 + 27.6]	28.5 / 27.8 [32.9 + 27.6]	30.5 / 29.9 [32.9 + 32.9]
FUSE RATING (BS88) - HRC (A)*1		1 x 50	1 x 20 / 1 x 20	1 x 50	1 x 20 / 1 x 20	1 x 25 / 1 x 25	1 x 32 / 1 x 25	1 x 32 / 1 x 32	1 x 40 / 1 x 32	1 x 40 / 1 x 40
MAINS CABLE No. Cores*1		4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		11.7 / 24.4	10.0 / 20.9	11.7 / 24.4	10.0 / 20.9	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		55.5 / 115.9	54.5 / 113.8	57.0 / 119.0	55.5 / 115.9	65.5 / 136.8	67.5 / 140.9	67.5 / 140.9	70.0 / 146.2	70.0 / 146.2

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard. \*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. These products are made to order, please consult your local sales office for delivery schedule.

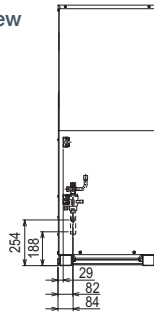
PIPING RESTRICTIONS	PQHY-P550-900Y(S)LM-A1
TOTAL PIPING LENGTH	500m max
FURTHEST PIPING LENGTH	165m max
FURTHEST PIPING LENGTH AFTER 1ST BRANCH	40m max
BETWEEN INDOOR AND OUTDOOR UNITS - HEIGHT	50m max (40m max if outdoor installed below)
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT	15m max



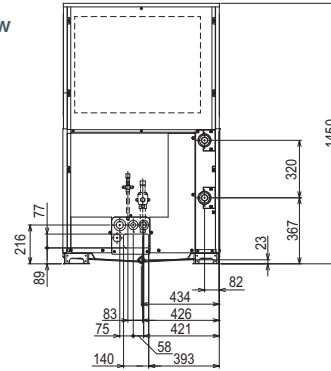
**Product Dimensions**

PQHY-P550/600YLM-A1

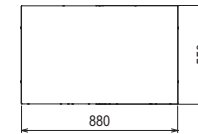
Side View



Front View



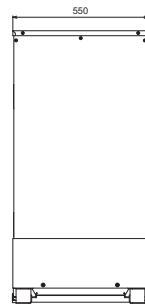
Upper View



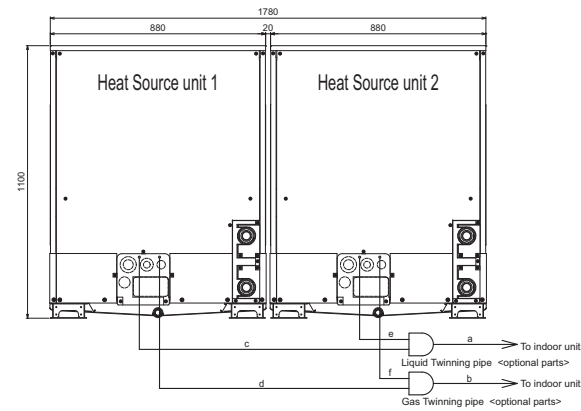
**Product Dimensions**

PQHY-P550/600YSLM-A1

Side View



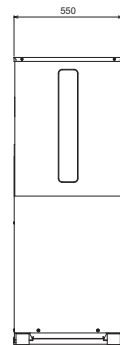
Front View



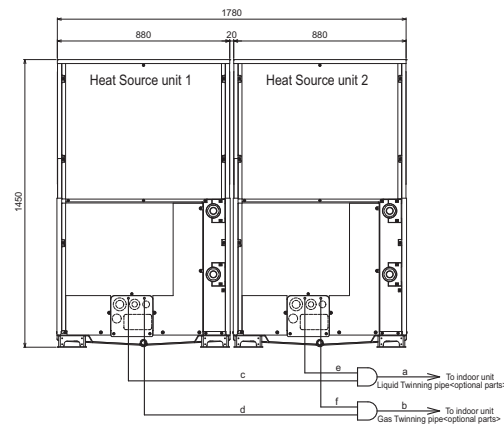
**Product Dimensions**

PQHY-P700/750/800/850/900YSLM-A1

Side View



Front View



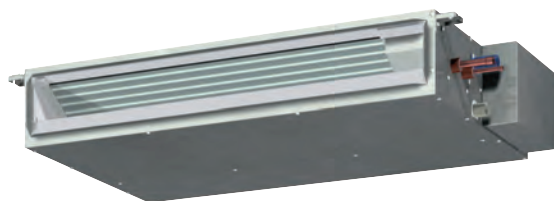
# PEFY-P-VMS1-E

## Ultra Thin Ceiling Concealed Ducted Indoor Unit

The **PEFY-P-VMS1-E** ceiling concealed ducted indoor unit has been designed with an ultra thin, slimline body, specifically for applications where ceiling void space is limited. With an extremely quiet operation, these units are ideal for applications such as hotel rooms.

### Key Features & Benefits

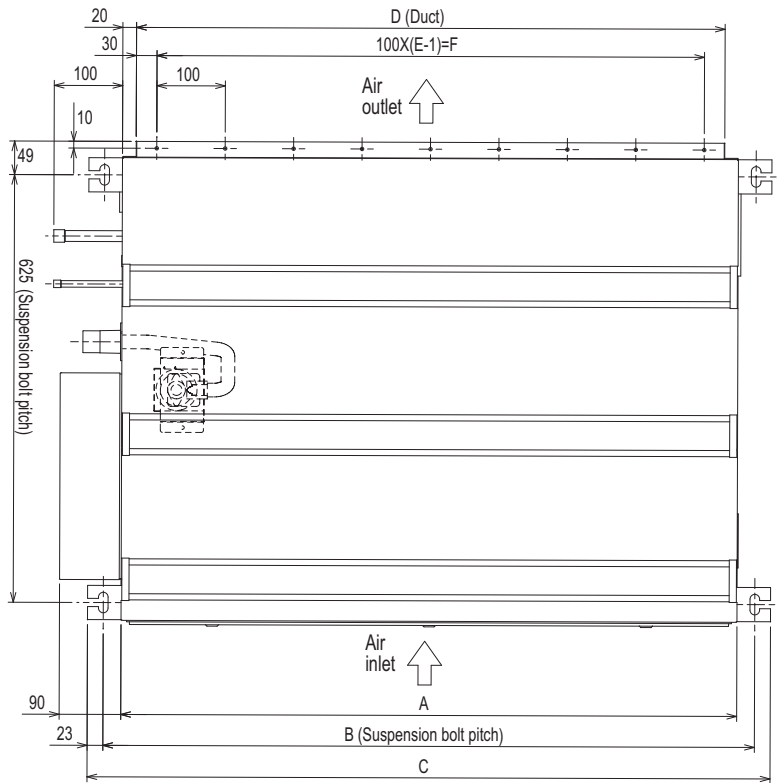
- Ultra thin body allowing installation in smaller spaces - height of only 200mm & width of only 790mm (size P15-32)
- Extremely quiet operation for minimal disturbance - as low as 22dBA (size P15-20)
- External static pressure of 5-50Pa, allowing flexibility of design and application
- Available in a 1.5kW size, ideal for hotel rooms
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



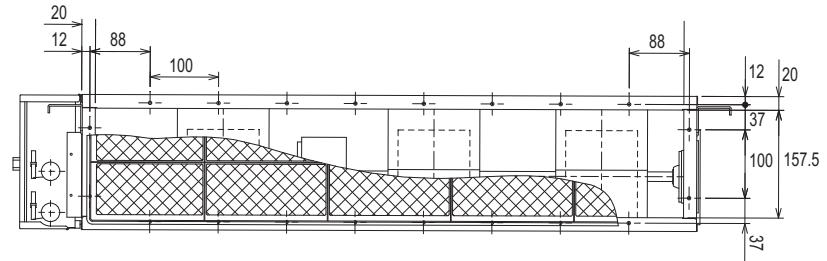
INDOOR UNITS		PEFY-P15VMS1-E	PEFY-P20VMS1-E	PEFY-P25VMS1-E	PEFY-P32VMS1-E	PEFY-P40VMS1-E	PEFY-P50VMS1-E	PEFY-P63VMS1-E
CAPACITY (kW)	Heating (nominal)	1.9	2.5	3.2	4.0	5.0	6.3	8.0
	Cooling (nominal)	1.7	2.2	2.8	3.6	4.5	5.6	7.1
	UK Heating	1.9	2.5	3.2	4.0	5.0	6.3	8.0
	UK Total Cooling - Hi (Sensible)	1.50 (1.40)	2.00 (1.70)	2.50 (2.10)	3.20 (2.50)	4.10 (3.00)	5.00 (3.70)	6.40 (4.70)
	UK Total Cooling - Mi	1.44	1.89	2.32	2.99	3.95	4.78	6.13
POWER INPUT (kW)	UK Total Cooling - Lo	1.34	1.76	2.07	2.63	3.70	4.51	5.77
	Heating (nominal)	0.03	0.03	0.04	0.05	0.05	0.07	0.07
AIRFLOW (l/s)	Cooling (nominal)	0.05	0.05	0.06	0.07	0.07	0.09	0.09
	Lo-Mi-Hi	83-100-117	91-108-133	91-117-150	100-133-167	133-158-183	158-183-217	200-233-275
EXTERNAL STATIC PRESSURE (Pa)		5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50
SOUND PRESSURE LEVEL (dBA)*1	Lo-Mi-Hi	22-24-28	22-25-29	24-26-30	24-27-32	28-30-33	30-32-35	30-33-36
WEIGHT (kg)		19	19	19	20	24	24	28
DIMENSIONS (mm)	Width	790	790	790	790	990	990	1190
	Depth	700	700	700	700	700	700	700
	Height	200	200	200	200	200	200	200
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.31 / 0.42	0.36 / 0.47	0.39 / 0.50	0.39 / 0.50	0.45 / 0.56	0.56 / 0.67	0.61 / 0.72
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3	3

Note: \*1 Additional sound data is available for this model. Separated inlet and breakout sound power level and discharge sound power level data is available on request.

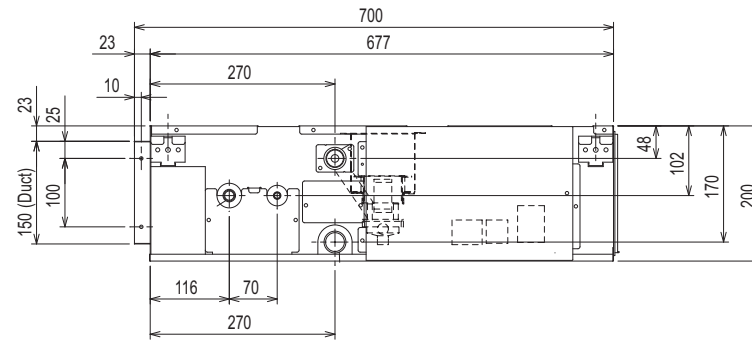
Upper View



Front View



Side View



Model	A	B	C	D	E	F
PEFY-P15-32VMS1-E	700	752	798	660	7	600
PEFY-P40-50VMS1-E	900	952	998	860	9	800
PEFY-P63VMS1-E	1100	1152	1198	1060	11	1000

# PEFY-M-VMA-A

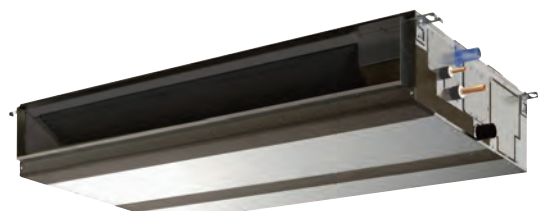
## Ceiling Concealed Ducted Indoor Unit

The **PEFY-M-VMA-A** low-height ducted indoor unit is concealed within the ceiling space, offering unobtrusive air conditioning. The flexibility of duct layout allows airflow patterns to be arranged to suit any application.

### Key Features & Benefits

- Low height of 250mm, allowing installation in smaller spaces
- Flexibility of design and application with a wide range of external static pressure settings across the entire range (35-150Pa)
- Low noise levels facilitated through use of a centrifugal fan
- Drain pump included as standard
- CN105 connector available - connect to MELCOBEMS MINI for simple BEMS interfacing
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust.

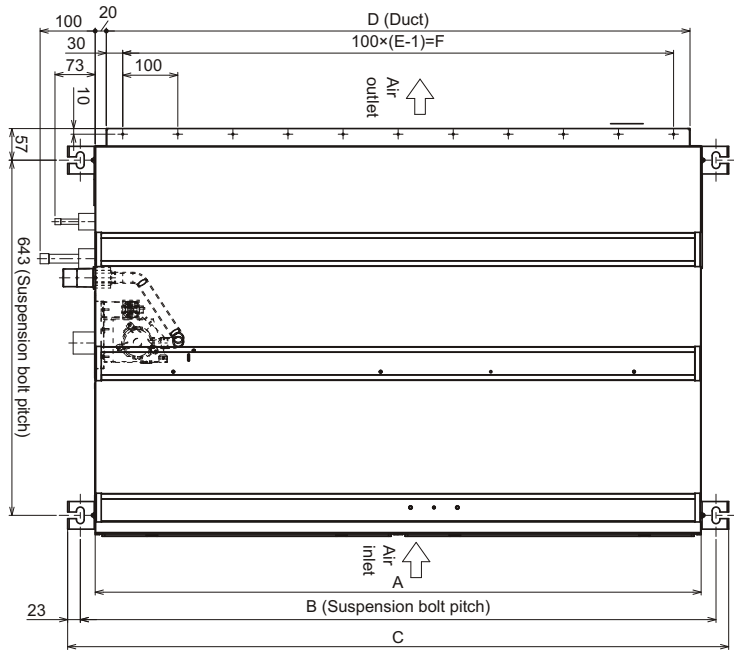
For more information, please refer to page 1.1.7



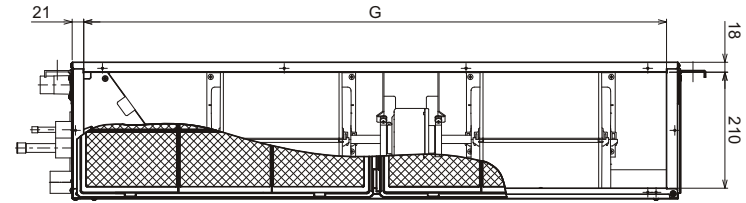
INDOOR UNITS		PEFY-M20VMA-A	PEFY-M25VMA-A	PEFY-M32VMA-A	PEFY-M40VMA-A	PEFY-M50VMA-A	PEFY-M63VMA-A	PEFY-M80VMA-A	PEFY-M100VMA-A	PEFY-M125VMA-A
CAPACITY (kW)	Heating (nominal)	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
	Cooling (nominal)	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
	UK Heating	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
	UK Total Cooling - Hi (Sensible)	2.00 (1.80)	2.50 (2.00)	3.20 (2.50)	4.10 (3.30)	5.00 (4.10)	6.40 (5.10)	8.10 (5.90)	10.10 (8.10)	12.60 (9.90)
	UK Total Cooling - Mi	1.94	2.42	3.07	3.94	4.80	6.11	7.78	9.67	12.07
POWER INPUT (kW)	UK Total Cooling - Lo	1.78	2.22	2.86	3.67	4.45	5.71	7.14	8.93	11.17
	Heating (nominal)	0.03	0.03	0.042	0.045	0.064	0.085	0.078	0.14	0.197
AIRFLOW (l/s)	Cooling (nominal)	0.032	0.032	0.044	0.047	0.066	0.087	0.08	0.142	0.199
	Lo-Mi-Hi	100-125-142	100-125-142	125-150-175	167-200-233	200-242-283	225-267-317	242-300-350	383-467-533	467-567-617
EXTERNAL STATIC PRESSURE (Pa)		35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	40-50-70-100-150	40-50-70-100-150	40-50-70-100-150
SOUND PRESSURE LEVEL (dBA)* Lo-Mi-Hi		21-25-27	21-25-27	23-27-30	23-28-31	24-31-34	27-31-35	25-31-34	30-35-38	34-38-40
WEIGHT (kg)		21	21	21	25	25	24	30	37	38
DIMENSIONS (mm)	Width	700	700	700	900	900	900	1100	1400	1400
	Depth	732	732	732	732	732	732	732	732	732
	Height	250	250	250	250	250	250	250	250	250
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.25 / 0.25	0.25 / 0.25	0.34 / 0.34	0.37 / 0.37	0.51 / 0.51	0.66 / 0.66	0.57 / 0.57	0.97 / 0.97	1.23 / 1.23
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3	3	3	3

Note: \*Measured in an anechoic chamber with a 1m inlet duct and 2m air outlet duct, 1.5m below unit

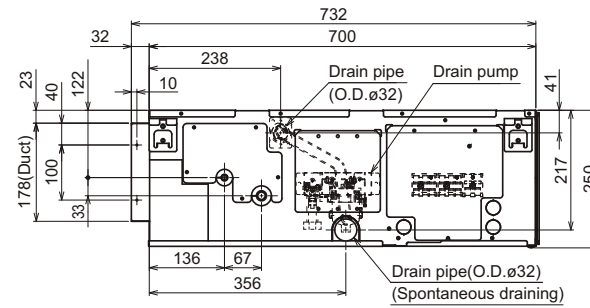
Upper View



Front View



Side View



Model	A	B	C	D	E	F	G
PEFY-M20,25,32VMA-A	700	754	800	660	7	600	658
PEFY-M40,50,63VMA-A	900	954	1000	860	9	800	858
PEFY-M80VMA-A	1100	1154	1200	1060	11	1000	1058
PEFY-M100,125VMA-A	1400	1454	1500	1360	14	1300	1358

# PEFY-P-VMHS-E

## High Static Pressure Ceiling Concealed Ducted Indoor Unit

With increased design flexibility as a result of increased external static pressure, the **PEFY-P-VMHS-E** ceiling concealed unit is an ideal choice for applications such as retail and warehouse spaces.

### Key Features & Benefits

- External static pressure of up to 250Pa for flexibility of design and application
- Greater versatility of duct extension, branching air outlet configuration
- Low noise levels facilitated through use of a centrifugal fan
- Duct can be connected to intake side
- Drain lift-pump (option) - 550 mm & 700mm of lift available allowing a variety of piping layouts



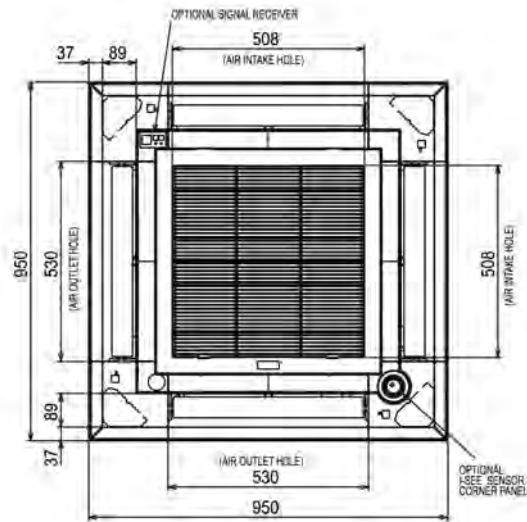
INDOOR UNITS		PEFY-P80VMHS-E	PEFY-P100VMHS-E	PEFY-P125VMHS-E	PEFY-P140VMHS-E	PEFY-P200VMHS-E	PEFY-P250VMHS-E
CAPACITY (kW)	Heating (nominal)	10.0	12.5	16.0	18.0	25.0	31.5
	Cooling (nominal)	9.0	11.2	14.0	16.0	22.4	28.0
	UK Heating	10.0	12.5	16.0	18.0	25.0	31.5
	UK Total Cooling - Hi (Sensible)	8.10 (6.10)	10.10 (8.30)	12.60 (9.50)	14.40 (10.80)	20.20 (15.60)	25.20 (19.30)
	UK Total Cooling - Mi	-	-	-	-	19.33	24.10
	UK Total Cooling - Lo	7.27	8.95	11.16	12.77	17.84	22.21
POWER INPUT (kW)	Heating (nominal)	0.09	0.16	0.16	0.19	0.63	0.82
	Cooling (nominal)	0.09	0.16	0.16	0.19	0.63	0.82
AIRFLOW (l/s)	Lo-Mi-Hi	300-358-417	442-533-633	442-533-633	467-567-667	833-1017-1200	967-1183-1400
EXTERNAL STATIC PRESSURE (Pa)		100-150-200	100-150-200	100-150-200	100-150-200	50-100-150-200-250	50-100-150-200-250
SOUND PRESSURE LEVEL (dBA) (150Pa) Lo-Mi-Hi		25-27-30	27-31-34	27-31-34	27-32-36	36-39-43	39-42-46
WEIGHT (kg)		45	51	51	53	97	100
DIMENSIONS (mm)	Width	1030	1195	1195	1195	1250	1250
	Depth	900	900	900	900	1120	1120
	Height	380	380	380	380	470	470
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.61 / 0.61	1.01 / 1.01	1.01 / 1.01	1.19 / 1.19	3.18 / 3.18	4.14 / 4.14
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3



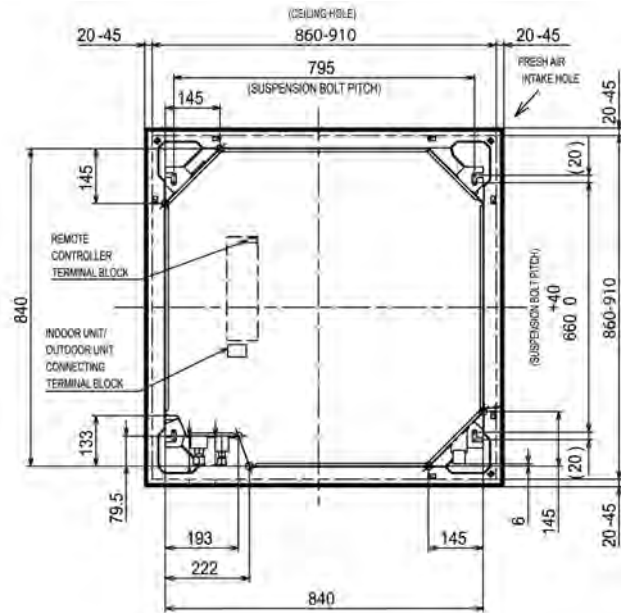




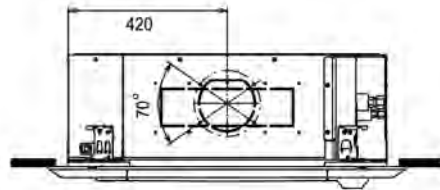
Lower View



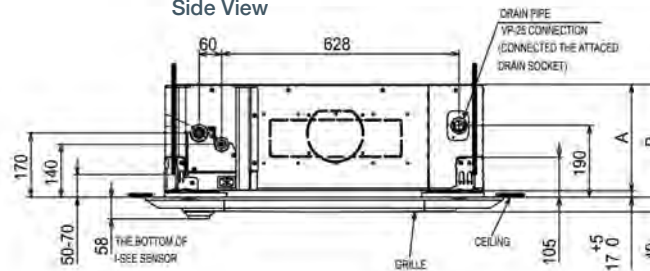
Upper View



Front View



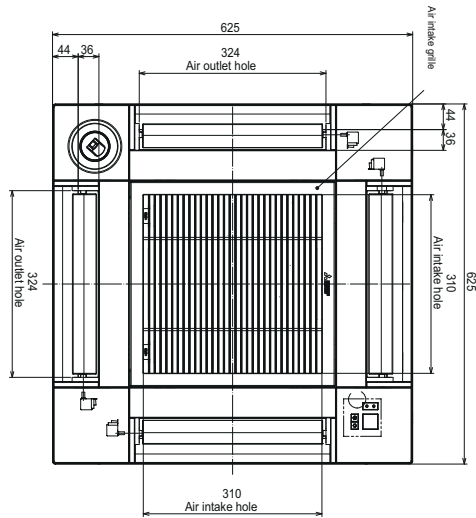
Side View



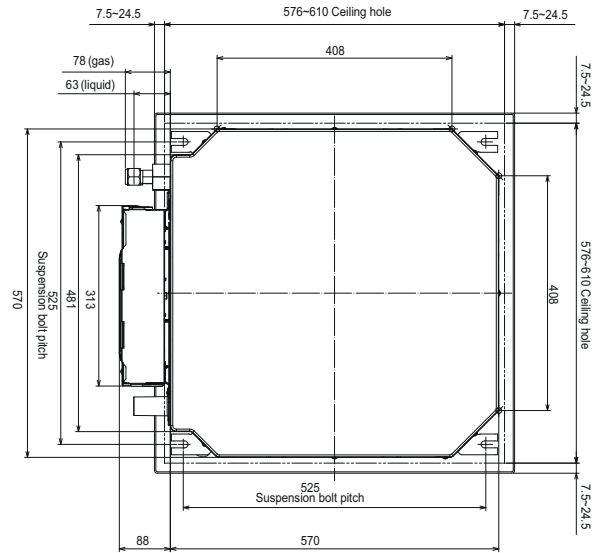
	A	B
32/40	241	248
50	281	288
63	281	288
80-125	281	288



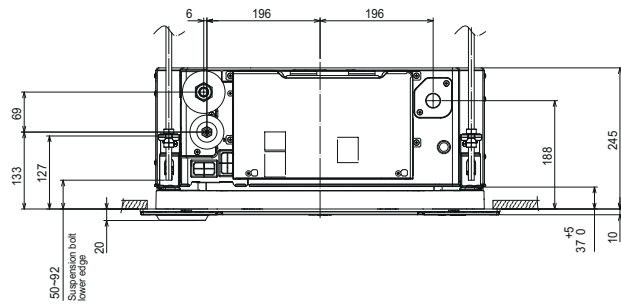
Upper View



Lower View



Side View



# PFFY-P-VCM-E

## Floor Standing Concealed Indoor Unit

The **PFFY-P-VCM-E** is a compact concealed unit that provides simple, effective air conditioning in perimeter zones. The unit is easy to install and, at only 200mm deep, offers an unobtrusive method of delivering a highly efficient air conditioning performance.

### Key Features & Benefits

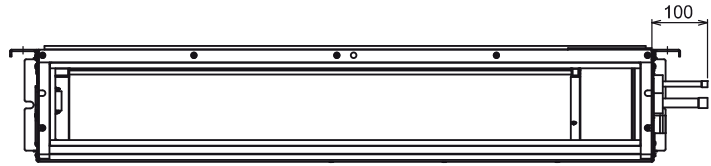
- Concealed unit for hidden installation
- Ideal for perimeter installations and refurbishments
- 0-10-40-60Pa static pressure settings available for flexibility of design and application



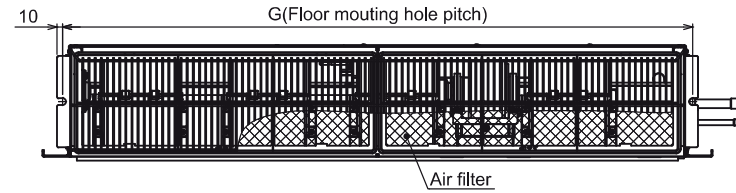
INDOOR UNITS		PFFY-P20VCM-E	PFFY-P25VCM-E	PFFY-P32VCM-E	PFFY-P40VCM-E	PFFY-P50VCM-E	PFFY-P63VCM-E
CAPACITY (kW)	Heating (nominal)	2.5	3.2	4.0	5.0	6.3	8.0
	Cooling (nominal)	2.2	2.8	3.6	4.5	5.6	7.1
	UK Heating	2.5	3.2	4.0	5.0	6.3	8.0
	UK Total Cooling - Hi (Sensible)	2.00 (1.60)	2.50 (1.90)	3.20 (2.40)	4.10 (3.00)	5.00 (3.80)	6.40 (4.70)
POWER INPUT (kW)	UK Total Cooling - Mi	1.92	2.40	3.05	3.95	4.81	6.11
	UK Total Cooling - Lo	1.77	2.21	2.87	3.70	4.48	5.71
	Heating (nominal)	0.022	0.026	0.031	0.038	0.052	0.058
AIRFLOW (l/s)	Cooling (nominal)	0.022	0.026	0.031	0.038	0.052	0.058
	Lo-Mi-Hi	83-100-117	92-108-133	92-117-142	133-158-183	167-192-225	200-233-275
EXTERNAL STATIC PRESSURE (Pa)		0-10-40-60	0-10-40-60	0-10-40-60	0-10-40-60	0-10-40-60	0-10-40-60
SOUND PRESSURE LEVEL*1 (dBA)	Lo-Mi-Hi	21-23-26	22-25-29	23-26-30	25-27-30	28-31-34	28-32-35
WEIGHT (kg)		18	18	18.5	22.5	22.5	25.5
DIMENSIONS (mm)	Width	700	700	700	900	900	1100
	Depth	200	200	200	200	200	200
	Height	690	690	690	690	690	690
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.25 / 0.25	0.30 / 0.30	0.34 / 0.34	0.38 / 0.38	0.50 / 0.50	0.49 / 0.49
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3

Note: \*1 Additional sound data is available for this model. Separated inlet and breakout sound power level and discharge sound power level data is available on request.

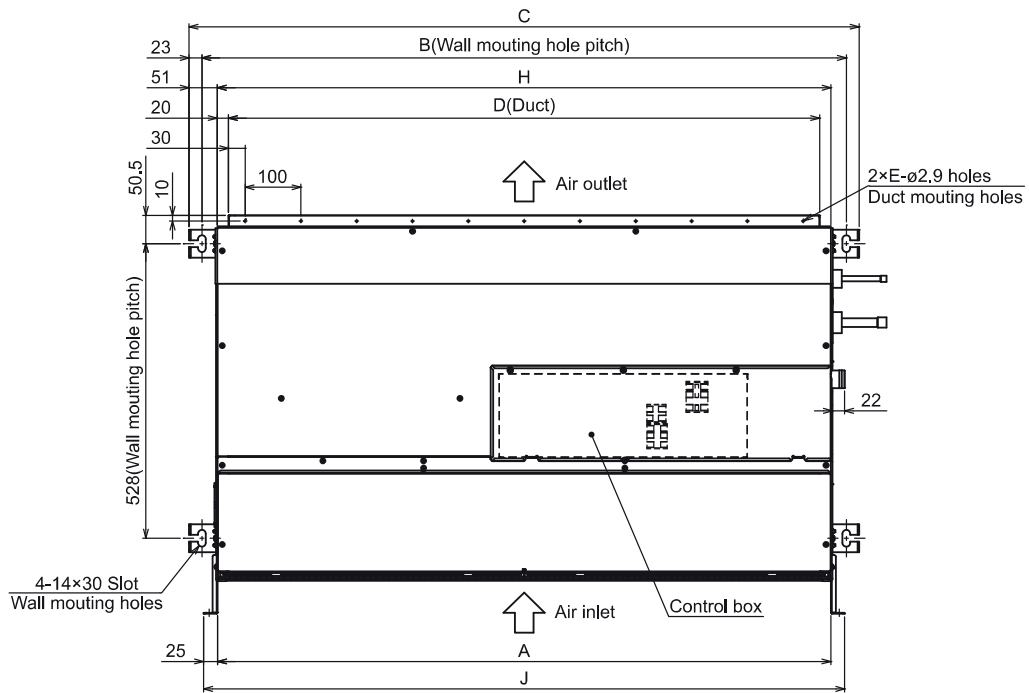
Upper View



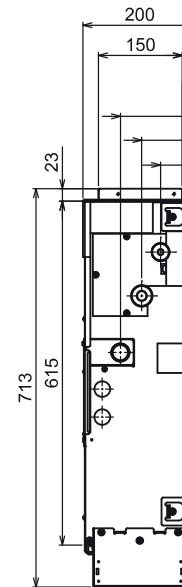
Lower View



Front View



Side View



Model	A	B	C	D	E	F	G	H	J
PFFY-P20-25-32VCM-E	700	756	802	660	7	600	730	700	750
PFFY-P40-50VCM-E	900	956	1002	860	9	800	930	900	950
PFFY-P63VCM-E	1100	1156	1202	1060	11	1000	1130	1100	1150

# PFFY-P-VLEM-E

## Floor Standing Exposed Indoor Unit

The **PFFY-P-VLEM-E** is a compact cased unit that provides simple, effective air conditioning in perimeter zones. Constructed in a robust, metal casement, and with a depth of only 220mm, it offers a flexible solution for applications such as offices, retail and hospitals.

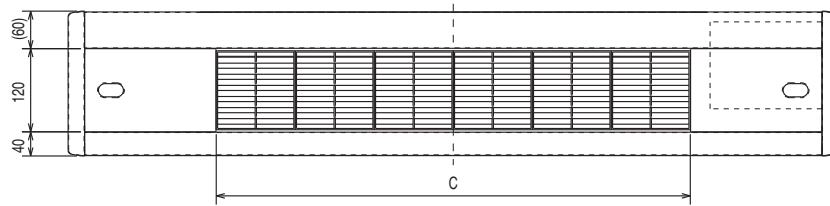
### Key Features & Benefits

- Perimeter air conditioning for retrofit applications where ceiling void not available
- Minimalist design with exposed casement
- Convenient built-in housing for the remote controller

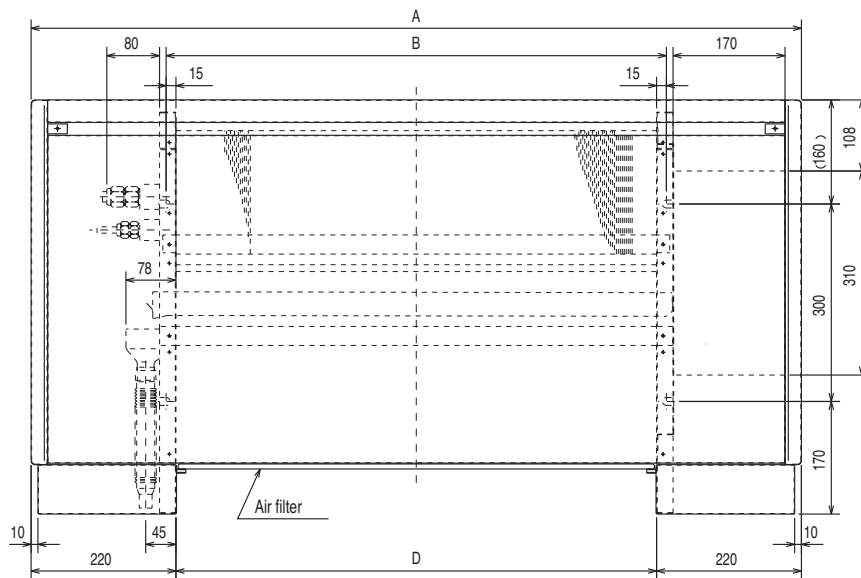


INDOOR UNITS		PFFY-P20VLEM-E	PFFY-P25VLEM-E	PFFY-P32VLEM-E	PFFY-P40VLEM-E	PFFY-P50VLEM-E	PFFY-P63VLEM-E
CAPACITY (kW)	Heating (nominal)	2.5	3.2	4.0	5.0	6.3	8.0
	Cooling (nominal)	2.2	2.8	3.6	4.5	5.6	7.1
	UK Heating	2.5	3.2	4.0	5.0	6.3	8.0
	UK Total Cooling - Hi (Sensible)	2.00 (1.60)	2.50 (1.90)	3.20 (2.40)	4.10 (3.00)	5.00 (3.80)	6.40 (4.70)
	UK Total Cooling - Lo	1.92	2.40	2.97	3.88	4.81	5.93
POWER INPUT (kW)	Heating (nominal)	0.04	0.04	0.06	0.065	0.085	0.10
	Cooling (nominal)	0.04	0.04	0.06	0.065	0.085	0.10
AIRFLOW (l/s)	Lo-Hi	92-108	92-108	117-150	150-183	200-233	200-258
SOUND PRESSURE LEVEL (dBA)	Lo-Hi	34-40	34-40	35-40	38-43	38-43	40-46
WEIGHT (kg)		23	23	25	26	30	32
DIMENSIONS (mm)	Width	1050	1050	1170	1170	1410	1410
	Depth	220	220	220	220	220	220
	Height	630	630	630	630	630	630
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.19 / 0.19	0.19 / 0.19	0.29 / 0.29	0.32 / 0.32	0.40 / 0.40	0.46 / 0.46
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3

Upper View



Front View



Model	A	B	C	D
PFFY-P20VLEM-E	1050	640	600	610
PFFY-P25VLEM-E	1050	640	600	610
PFFY-P32VLEM-E	1170	760	720	730
PFFY-P40VLEM-E	1170	760	720	730
PFFY-P50VLEM-E	1410	1000	960	970
PFFY-P63VLEM-E	1410	1000	960	970

# PFFY-P-VKM-E

## Floor Standing Exposed Indoor Unit

The **PFFY-P-VKM-E** is extremely versatile and designed for wall attached installation at floor level. The auto swing vane provides a more natural and comfortable airflow throughout the room and the lightweight, compact design makes installation easy.

### Key Features & Benefits

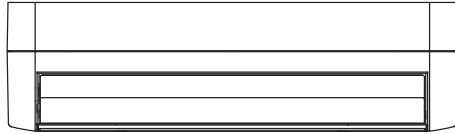
- White, slimline design for easy installation
- Upper and lower vanes for optimum, powerful and efficient air distribution



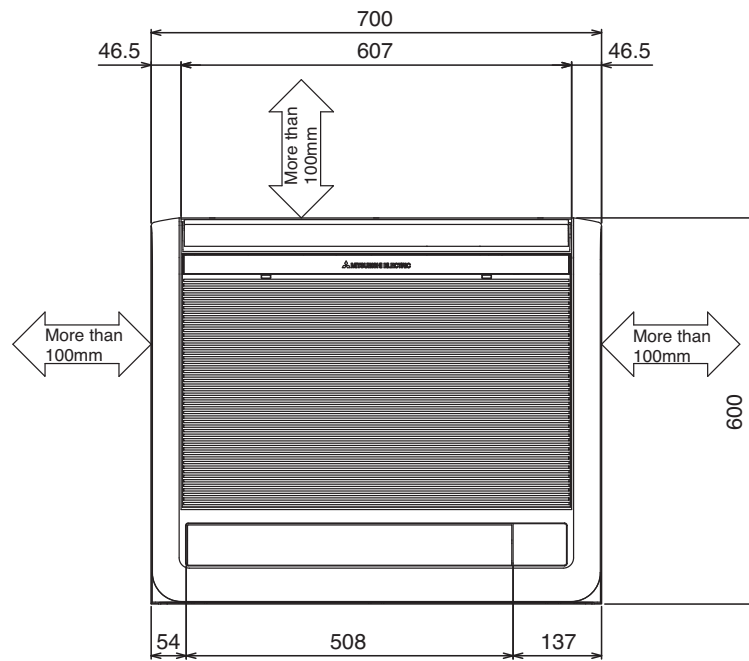
INDOOR UNITS		PFFY-P20VKM-E	PFFY-P25VKM-E	PFFY-P32VKM-E	PFFY-P40VKM-E
CAPACITY (kW)	Heating (nominal)	2.5	3.2	4.0	5.0
	Cooling (nominal)	2.2	2.8	3.6	4.5
	UK Heating	2.5	3.2	4.0	5.0
	UK Total Cooling - Hi (Sensible)	2.00 (1.60)	2.50 (1.90)	3.20 (2.30)	4.10 (2.90)
	UK Total Cooling - M12	1.94	2.42	3.10	3.98
	UK Total Cooling - M11	1.86	2.31	2.96	3.92
POWER INPUT (kW)	UK Total Cooling - Lo	1.75	2.17	2.78	3.74
	Heating (nominal)	0.025	0.025	0.025	0.028
	Cooling (nominal)	0.025	0.025	0.025	0.028
AIRFLOW (l/s)	Lo-M11-M12-Hi	98-113-127-145	102-117-133-152	102-117-133-152	133-150-158-178
SOUND PRESSURE LEVEL (dBA)	Lo-M11-M12-Hi	27-31-34-37	28-32-35-38	28-32-35-38	35-38-42-44
WEIGHT (kg)		15	15	15	15
DIMENSIONS (mm)	Width	700	700	700	700
	Depth	200	200	200	200
	Height	600	600	600	600
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.20 / 0.20	0.20 / 0.20	0.20 / 0.20	0.24 / 0.24
FUSE RATING (BS88) - HRC (A)		6	6	6	6
MAINS CABLE No. Cores		3	3	3	3



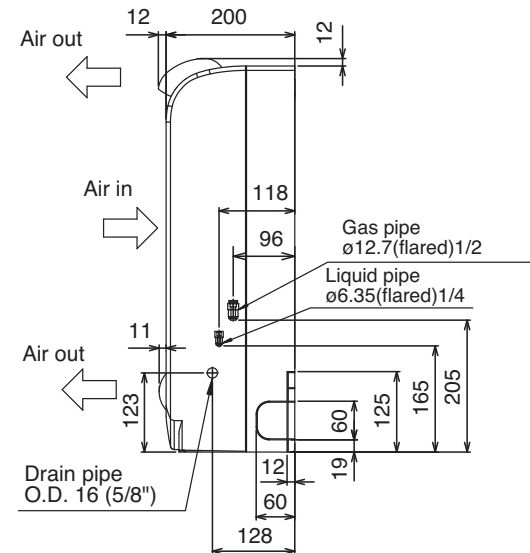
Upper View



Front View



Side View

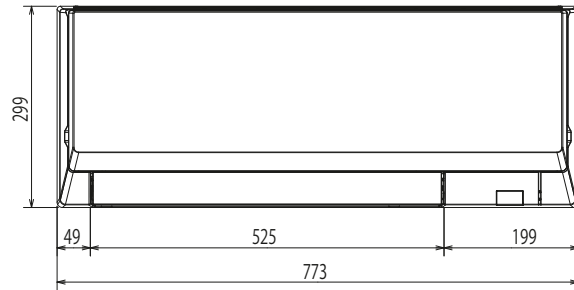




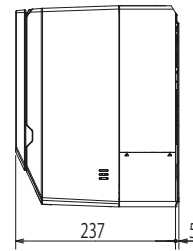
**Product Dimensions**

PKFY-P10/15/20/25/32VLM-E

Front View



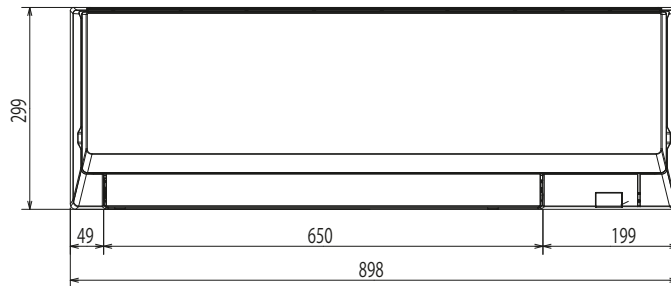
Side View



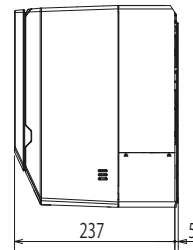
**Product Dimensions**

PKFY-P40/50VLM-E

Front View



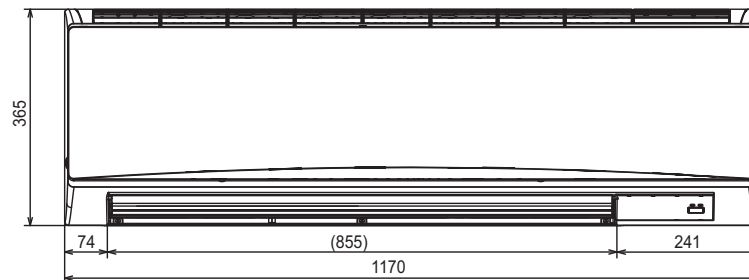
Side View



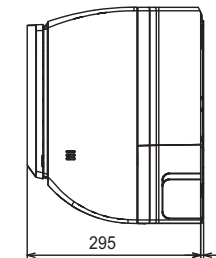
**Product Dimensions**

PKFY-P63VKM-E

Front View



Side View



# PCFY-P-VKM-E

## Ceiling Suspended Indoor Unit

Designed for ultra-quiet operation and easy maintenance, the **PCFY-P-VKM-E** provides comfortable air conditioning for a wide range of applications where floor or wall space cannot be used practically.

### Key Features & Benefits

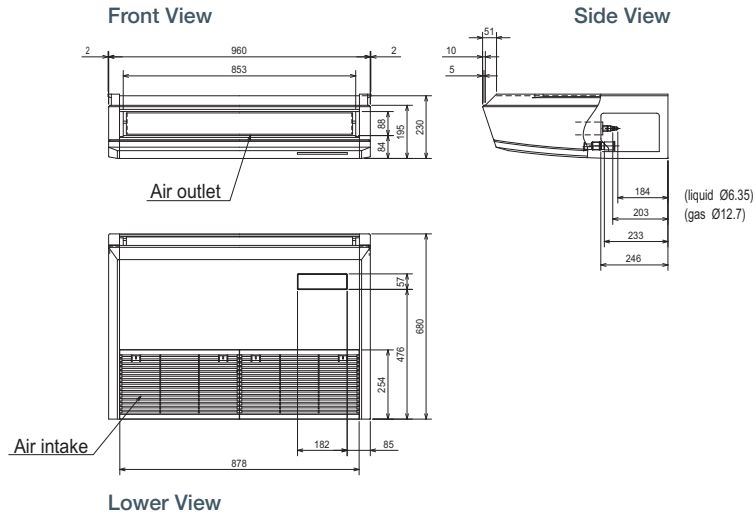
- Indoor unit designed for direct ceiling suspension
- Flush to wall installation for concealment of service connections
- Drain piping can be connected from left or right



INDOOR UNITS		PCFY-P40VKM-E	PCFY-P63VKM-E	PCFY-P100VKM-E	PCFY-P125VKM-E
CAPACITY (kW)	Heating (nominal)	5.0	8.0	12.5	16.0
	Cooling (nominal)	4.5	7.1	11.2	14.0
	UK Heating	5.0	8.0	12.5	16.0
	UK Total Cooling - Hi (Sensible)	4.10 (3.00)	6.40 (4.60)	10.10 (7.10)	12.60 (8.90)
	UK Total Cooling - Mi2	4.03	6.22	9.94	12.17
	UK Total Cooling - Mi1	3.92	6.09	9.70	11.66
POWER INPUT (kW)	UK Total Cooling - Lo	3.79	5.93	9.23	11.00
	Heating (nominal)	0.04	0.05	0.09	0.11
	Cooling (nominal)	0.04	0.05	0.09	0.11
AIRFLOW (l/s)	Lo-Mi1 - Mi2-Hi	167-183-200-217	233-250-267-300	350-400-433-467	350-400-450-517
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	29-32-34-36	31-33-35-37	36-38-41-43	36-39-42-44
WEIGHT (kg)		24	32	36	38
DIMENSIONS (mm)	Width	960	1280	1600	1600
	Depth	680	680	680	680
	Height	230	230	230	230
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.28 / 0.28	0.33 / 0.33	0.65 / 0.65	0.76 / 0.76
FUSE RATING (BS88) - HRC (A)		6	6	6	6
MAINS CABLE No. Cores		3	3	3	3

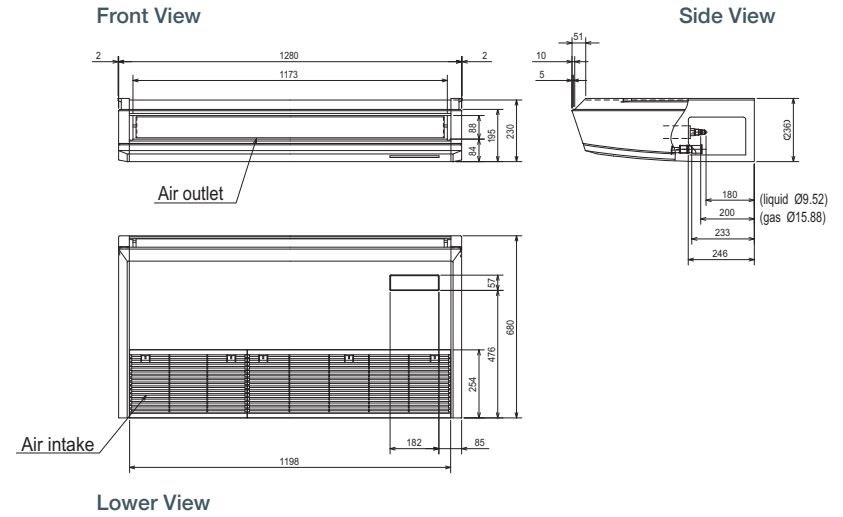
Product Dimensions

PCFY-P40VKM-E



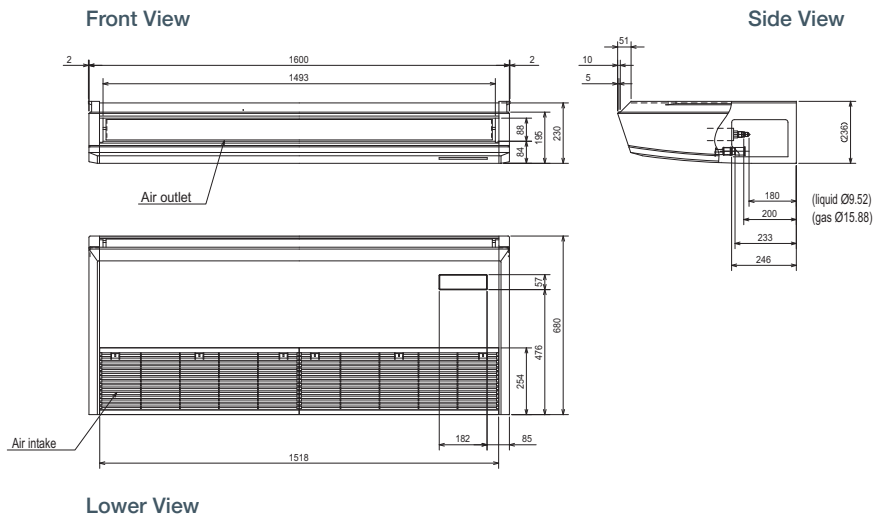
Product Dimensions

PCFY-P63VKM-E



Product Dimensions

PCFY-P100/125VKM-E



# PWFY-P-VM-E-BU

## VRF Sanitary Water Heater

Taking full advantage of heat recovery technology, the **PWFY-P** City Multi VRF Sanitary Water Heater is an ideal solution for providing an energy efficient hot water supply to commercial buildings. The simple addition of the booster unit to the existing VRF system makes this a very flexible solution for a variety of applications.

### Key Features & Benefits

- Energy efficient provision of hot water, achieving a flow temperature of up to 70°C
- Simple addition of the booster unit to the existing air conditioning system
- Eliminates the inconveniences of gas boiler installation, such as gas grid connection costs, meter installation and maintenance costs
- Uses the PAR-W21MAA controller



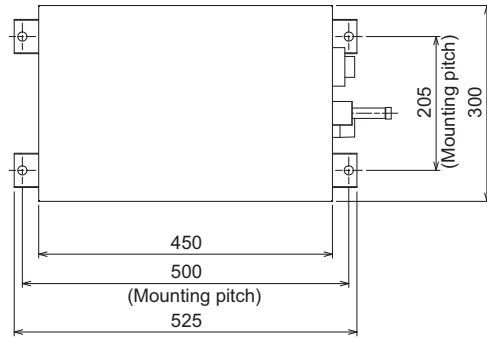
SANITARY WATER HEATER		PWFY-P100VM-E-BU	
CAPACITY (kW)	Hot water (nominal)*1	12.5	
	Hot water (UK)*2	8.0	
POWER INPUT (kW)		2.48	
COMPATIBLE OUTDOOR / CONDENSING UNITS		PURY / PQRY	
PIPE SIZE mm (in)	Gas	15.88 (5/8")	
	Liquid	9.52 (3/8")	
	Water Connection	PT 3/4 Screw	
	Water pipe size	28	
SOUND PRESSURE LEVEL (dBA)		44	
MAX WATER TEMPERATURE (°C)		70	
OPTIMUM WATER FLOW RATE (m³/h)		1.5	
WATER PRESSURE DROP AT OPTIMUM FLOW RATE (kPa)		22.5	
WEIGHT (kg)		60	
DIMENSIONS (mm)	Width	450	
	Depth	300	
	Height	785 (800)	
ELECTRICAL SUPPLY		220-240v, 50Hz	
PHASE		Single	
RUNNING CURRENT (A)		10.66	
FUSE RATING (BS88) - HRC (A)		25	
MAINS CABLE No. Cores		3	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R134a (GWP 1430)		1.1 / 1.6	

#### Notes:

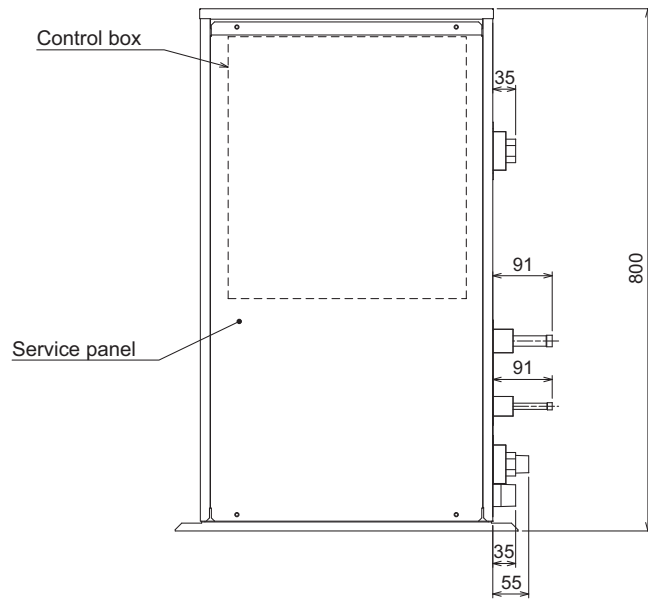
\*1 Nominal conditions: Outdoor 7/6°C, 65°C inlet water temperature, 1.5m³/h water flow rate, 7.5m refrigerant pipe. (Please note this is a spot condition and not capacity over tank heat up).

\*2 Typical capacity at -10°CWB outdoor temperature for tank heat up.

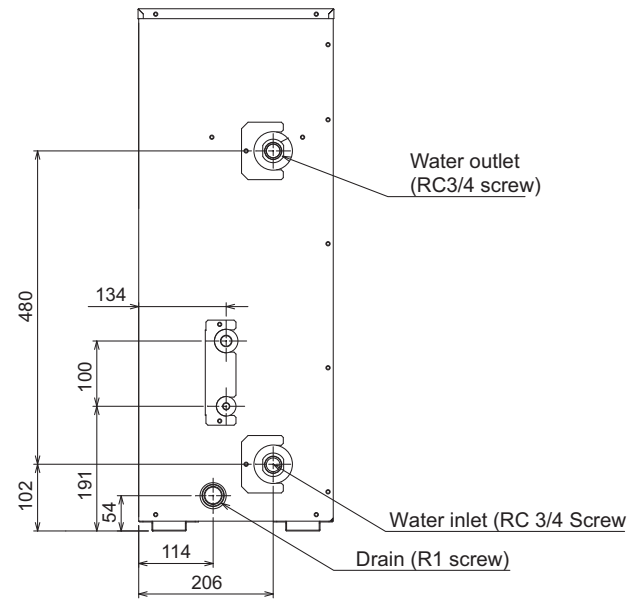
Upper View



Front View



Side View



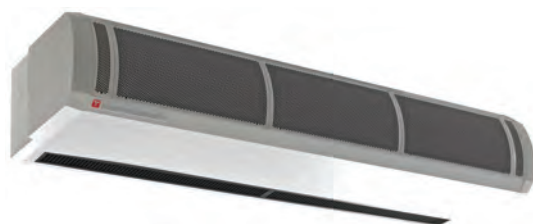
# VRF HP DXE

## Heat Pump Air Curtain

In collaboration with Thermoscreens®, Mitsubishi Electric have developed a range of heat pump air curtains that are able to be connected to our City Multi VRF systems, as opposed to the more traditional direct electric method associated with air curtains.

### Key Features & Benefits

- Reduced CO<sub>2</sub> emissions and run costs
- Allows open door policy in retail outlets whilst being energy efficient
- Clean indoor environment - protection from external dust, fumes etc.
- Heat recovery possible, optimising energy use



VRF HP DXE - RECESSED		VRF HP1000R DXE	VRF HP1500R DXE	VRF HP2000R DXE	VRF HP2000R DXE HO <sup>3,4</sup>
CAPACITY (kW)	Heating (nominal)	8.3	13.2	15.7	21.0
	Cooling (nominal)	7.4	11.8	14.0	16.8
AIRFLOW MAX (l/s)		364	575	720	720
SOUND PRESSURE LEVEL AT 3m (dBA) Lo-Mi-Hi		50-55-58	49-54-58	50-55-58	50-55-58
WEIGHT (kg)		52	75	93	93
DIMENSIONS (mm)	Width	1250	1750	2340	2340
	Depth	348	348	348	348
	Height	539	539	539	539
ELECTRICAL SUPPLY*1		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE*1		Single	Single	Single	Single
RUNNING CURRENT (A)*1		0.8	1.2	1.4	1.4
MAINS CABLE No. Cores*1		3	3	3	3
UNIFORMITY AT OUTLET (%) <sup>2</sup>		90	92	90	90
UNIT SIZE (Index)		P71	P125	P140	P200
MAX MOUNTING HEIGHT (m)		3.2	3.2	3.2	3.2
COMPATIBLE OUTDOOR UNITS		PUHY / PURY / PQHY / PQRY	PUHY / PURY / PQHY / PQRY	PUHY / PURY / PQHY / PQRY	PUHY / PURY / PQHY / PQRY

VRF HP DXE - FREE STANDING		VRF HP1000 DXE <sup>4</sup>	VRF HP1500 DXE <sup>4</sup>	VRF HP2000 DXE <sup>4</sup>	VRF HP2000 DXE HO <sup>3,4</sup>
CAPACITY (kW)	Heating (nominal)	8.3	13.2	15.7	21.0
	Cooling (nominal)	7.4	11.8	14.0	16.8
AIRFLOW MAX (l/s)		364	575	720	720
SOUND PRESSURE LEVEL AT 3m (dBA) Lo-Mi-Hi		50-55-58	49-54-58	50-55-58	50-55-58
WEIGHT (kg)		46	67	84	84
DIMENSIONS (mm)	Width	1300	1825	2350	2350
	Depth	468	468	468	468
	Height	306	306	306	306
ELECTRICAL SUPPLY*1		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE*1		Single	Single	Single	Single
RUNNING CURRENT (A)*1		0.8	1.2	1.4	1.4
MAINS CABLE No. Cores*1		3	3	3	3
UNIFORMITY AT OUTLET (%) <sup>2</sup>		90	92	90	90
UNIT SIZE (Index)		P71	P125	P140	P200
MAX MOUNTING HEIGHT (m)		3.2	3.2	3.2	3.2
COMPATIBLE OUTDOOR UNITS		PUHY / PURY / PQHY / PQRY	PUHY / PURY / PQHY / PQRY	PUHY / PURY / PQHY / PQRY	PUHY / PURY / PQHY / PQRY

Thermoscreens

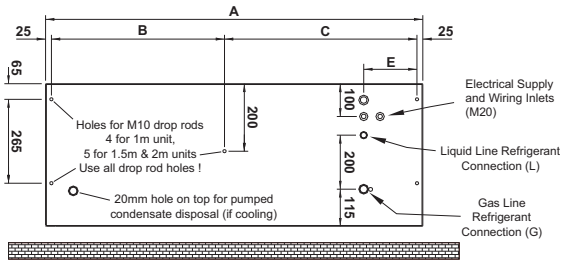
Notes: \*1 For indoor units with electric defrost heaters enabled, 3ph, 380-415V power supply (7.3A HP1000, 12.1A HP1500, 14.4A HP2000). \*2 Tested to ISO27327. \*3 Includes twin LEV kit for installation with the air curtain. \*4 This model is made to order.



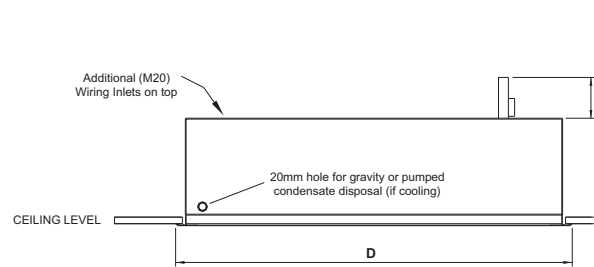
## Product Dimensions

### VRF HP1000/1500/2000R DXE (HO)

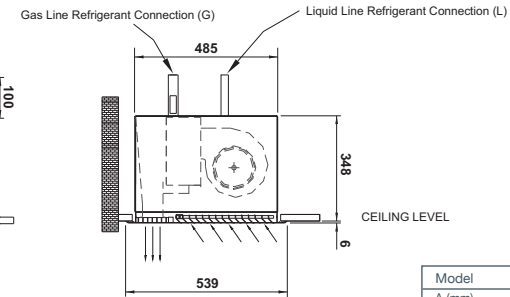
Front View



Upper View



Side View

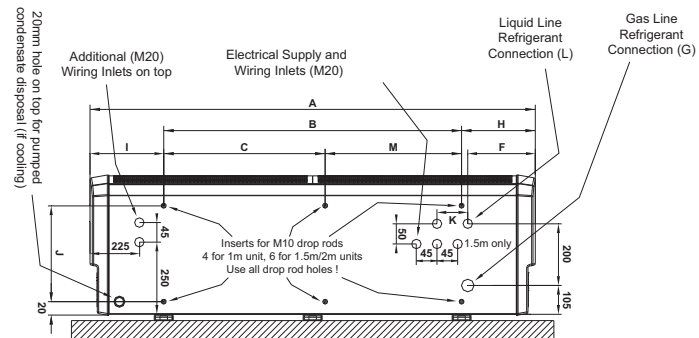


Model	VRF HP1000R DXE	VRF HP1500R DXE	VRF HP2000R DXE
A (mm)	1250	1750	2340
B (mm)	-	724	1129
C (mm)	-	976	1161
D (mm)	1303	1803	2393
E (mm)	170	166	189
G	½ in.	½ in.	½ in.
L	½ in.	½ in.	½ in.
Cut-Out in Ceiling	Length (mm)	1250	1750
	Width (mm)	485	485

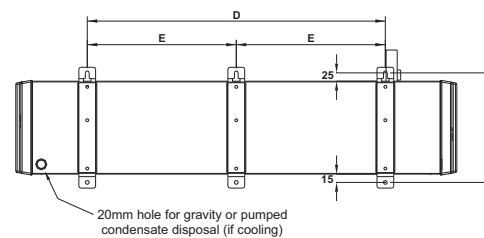
## Product Dimensions

### VRF HP1000/1500/2000 DXE (HO)

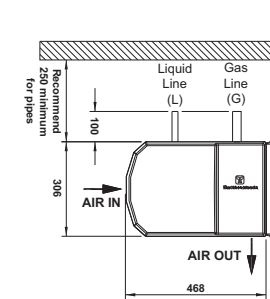
Front View



Upper View



Side View



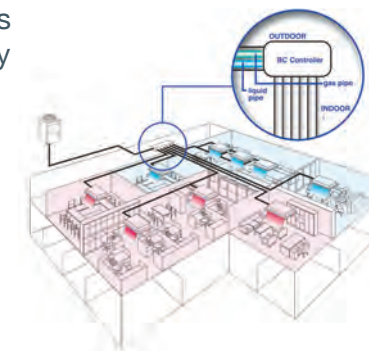
Model	VRF HP1000DXE	VRF HP1500DXE	VRF HP2000DXE
A (mm)	1300	1825	2350
B (mm)	605	1225	1793
C (mm)	-	655	918
D (mm)	898	1398	1904
E (mm)	-	699	952
F (mm)	182	222	204
G	½ in.	½ in.	½ in.
H (mm)	442	333	299
I (mm)	253	267	258
J (mm)	359	359	334
K (mm)	80	45	80
L	½ in.	½ in.	½ in.
M	-	570	875

# BC Controllers

At the heart of both the R2 and WR2 Series, the BC controller makes simultaneous heating and cooling possible. Improved system efficiency is achieved when energy is transferred intelligently around the building.

## Key Features & Benefits

- Allows unique 2-pipe heat recovery application
- Simultaneous heating and cooling
- Instructs the heat source unit/outdoor unit on the amount of refrigerant (liquid or gas) that is required to achieve the requested cooling or heating requirements
- Slim profile for more flexible installation
- Easy servicing and maintenance access through underside drain pan
- Brazed connections



BC CONTROLLERS	CMB-M104V-J1	CMB-M106V-J1
NUMBER OF CONNECTIONS	4	6
WEIGHT (KG)	26	29
DIMENSIONS (MM)		
Width	596	596
Depth	476	476
Height	250	250
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (kW)	0.076	0.11
RUNNING CURRENT (A)	0.34	0.48
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE NO. CORES	3	3

Note: CMB-M-V-J1 units are for use with PURY-EM200-300YNW-A1, PURY-M200-300YNW-A1, PURY-EP200-350YNW-A1, PURY-P200-350YNW-A1 & PQRY-P200-300YLM-A1 units only.

MAIN BC CONTROLLERS	CMB-M108V-JA1	CMB-M1012V-JA1	CMB-M1016V-JA1	CMB-P1016V-KA1
NUMBER OF CONNECTIONS	8	12	16	16
WEIGHT (kg)	48	60	68	69
DIMENSIONS (mm)				
Width	911	1135	1135	1135
Depth	622	622	622	622
Height	252	252	252	250
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single
POWER INPUT (kW)	0.144	0.211	0.279	0.279
RUNNING CURRENT (A)	0.63	0.92	1.22	1.22
FUSE RATING (BS88) – HRC (A)	6	6	6	6
MAINS CABLE No. Cores	3	3	3	3

Notes: CMB-M-V-JA1 units are for use with PURY-EM200-300YNW-A1, PURY-M200-300YNW-A1, PURY-EP200-900Y(S)NW-A1, PURY-P200-900Y(S)NW-A1 & PQRY-P200-900Y(S)LM-A1 units only.  
CMB-P1016V-KA1 unit is for use with PURY-P950-1100YSNW-A1 and PURY-EP950-1100YSNW-A1 units only.

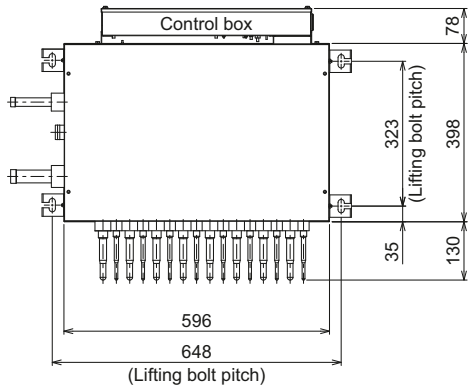
SUB BC CONTROLLERS	CMB-M104V-KB1	CMB-M108V-KB1
NUMBER OF CONNECTIONS	4	8
WEIGHT (KG)	23	31
DIMENSIONS (MM)		
Width	596	596
Depth	476	476
Height	250	250
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (kW)	0.088	0.135
RUNNING CURRENT (A)	0.30	0.59
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE NO. CORES	3	3

Notes: Maximum index of 350 allowable on each Sub BC controller. Up to 11 Sub BC controllers connectable to one system.

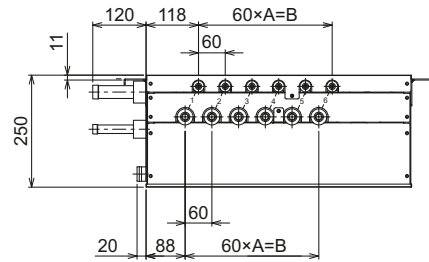
**Product Dimensions**

**CMB-M104/106V-J1**

**Upper View**



**Side View**

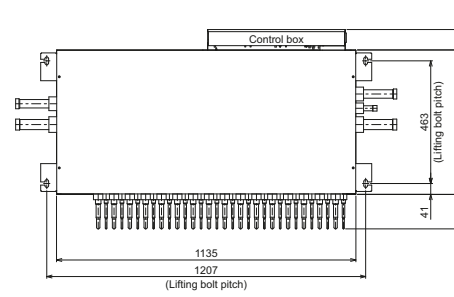


	A	B
CMB-M104V-J1	3	180
CMB-M106V-J1	5	300

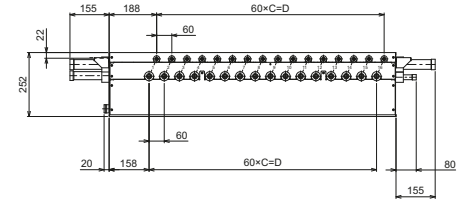
**Product Dimensions**

**CMB-M108/1012/1016V-JA1**

**Upper View**



**Side View**

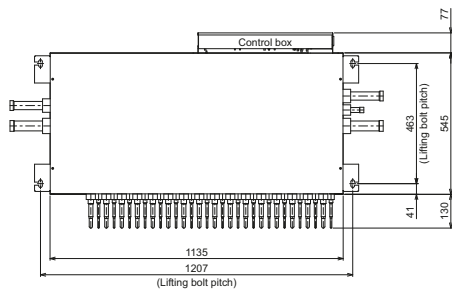


	A	B	C	D
CMB-M108V-JA1	911	983	7	420
CMB-M1012V-JA1	1135	1207	11	660
CMB-M1016V-JA1	1135	1207	15	900

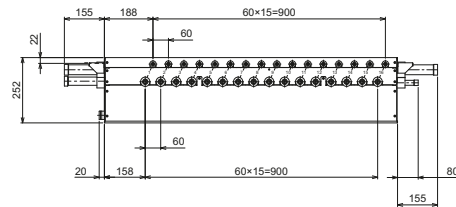
**Product Dimensions**

**CMB-P1016V-KA1**

**Upper View**



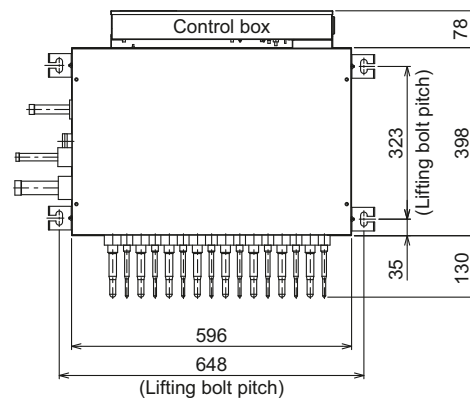
**Side View**



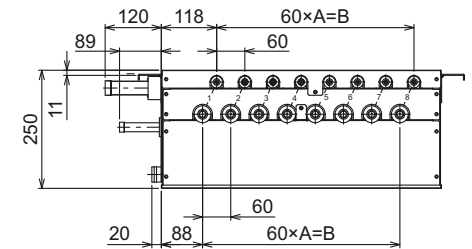
**Product Dimensions**

**CMB-M104/108V-KB1**

**Upper View**



**Side View**



	A	B
CMB-M104V-KB1	3	180
CMB-M108V-KB1	7	420

# BC Controllers With Port Isolation Valves

At the heart of both the R2 and WR2 Series, the BC controller makes simultaneous heating and cooling possible. Improved system efficiency is achieved when energy is transferred intelligently around the building.

## Key Features & Benefits

- Allows unique 2-pipe heat recovery application
- Heating and cooling at the same time on smaller systems
- Instructs the heat source unit/outdoor unit on the amount of refrigerant (liquid or gas) that is required to achieve the requested cooling or heating requirements
- Slim profile for more flexible installation
- Easy servicing and maintenance access through underside drain pan
- Brazed connections
- Isolation valves factory-fitted on each port



BC CONTROLLERS with Port Isolation Valves		KS8-CMB-P104V-J	KS8-CMB-P106V-J
NUMBER OF CONNECTIONS		4	6
WEIGHT (KG)		23 + 4.2	27 + 5.9
DIMENSIONS (MM)			
	Width	596	596
	Depth	495 + 280	495 + 280
	Height	246	246
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single
POWER INPUT (KW)		0.085	0.123
RUNNING CURRENT (A)		0.36	0.52
FUSE RATING (BS88) – HRC (A)		6	6
MAINS CABLE NO. CORES		3	3
BC BOX		CMB-P104V-J	CMB-P106V-J

Note: KS8-CMB-P-V-J units are for use with PURY-P200-350YNW-A1, PURY-EP200-350YNW-A1 & PORY-P200-300YLM-A1 units only.

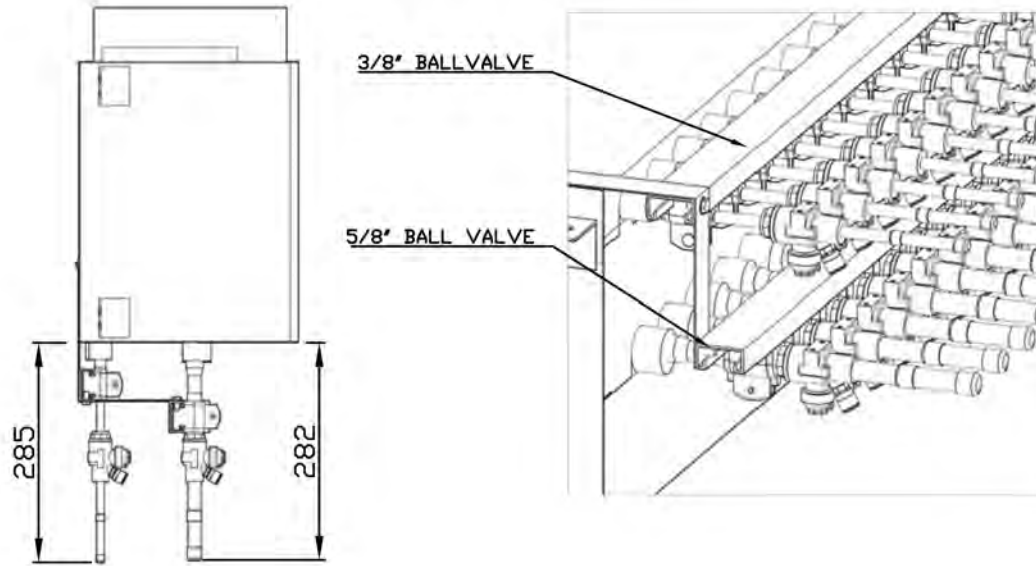
MAIN BC CONTROLLERS with Port Isolation Valves		KS8-CMB-P108V-JA	KS8-CMB-P1012V-JA	KS8-CMB-P1016V-JA	KS8-CMB-P1016V-KA
NUMBER OF CONNECTIONS		8	12	16	16
WEIGHT (KG)		45 + 7.9	55 + 12	63 + 14.5	65 + 14.5
DIMENSIONS (MM)					
	Width	911	1135	1135	1135
	Depth	639 + 280	639 + 280	639 + 280	639 + 280
	Height	246	246	246	246
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single
POWER INPUT (KW)		0.161	0.236	0.312	0.312
RUNNING CURRENT (A)		0.68	0.99	1.30	1.30
FUSE RATING (BS88) – HRC (A)		6	6	6	6
MAINS CABLE NO. CORES		3	3	3	3
BC BOX		CMB-P108V-JA	CMB-P1012V-JA	CMB-P1016V-JA	CMB-P1016V-KA

Notes: KS8-CMB-P-V-JA units are for use with PURY-P200-900Y(S)NW-A1, PURY-EP200-900Y(S)NW-A1 & PORY-P200-900Y(S)LM-A1 units only. KS8-CMB-P1016V-KA unit is for use with PURY-P950-1100YNW-A1 & PURY-EP950-1100YSNW-A1 units only.

SUB BC CONTROLLERS with Port Isolation Valves		KS8-CMB-P104V-KB	KS8-CMB-P108V-KB
NUMBER OF CONNECTIONS		4	8
WEIGHT (KG)		21 + 4.2	28 + 7.5
DIMENSIONS (MM)			
	Width	596	596
	Depth	495 + 280	495 + 280
	Height	246	246
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single
POWER INPUT (KW)		0.076	0.135
RUNNING CURRENT (A)		0.32	0.59
FUSE RATING (BS88) – HRC (A)		6	6
MAINS CABLE NO. CORES		3	3
BC BOX		CMB-P104V-KB	CMB-P108V-KB

Notes: Maximum index of 350 allowable on each Sub BC controller. Up to 11 Sub BC controllers connectable to one system.

Side View



# BC Controllers

## With Port Isolation Valves & Acoustic Jacket

At the heart of both the R2 and WR2 Series, the BC controller makes simultaneous heating and cooling possible. Improved system efficiency is achieved when energy is transferred intelligently around the building.

### Key Features & Benefits

- Allows unique 2-pipe heat recovery application
- Heating and cooling at the same time on smaller systems
- Instructs the heat source unit/outdoor unit on the amount of refrigerant (liquid or gas) that is required to achieve the requested cooling or heating requirements
- Slim profile for more flexible installation
- Easy servicing and maintenance access through underside drain pan
- Brazed connections
- Isolation valves factory-fitted on each port
- Up to 5dBA reduction in sound pressure level with acoustic jacket



BC CONTROLLERS		KS8-KS5-SBCAJ-A-CMB-P104V-J	KS8-KS5-SBCAJ-A-CMB-P106V-J
NUMBER OF CONNECTIONS		4	6
WEIGHT (KG)		38.5	44.2
DIMENSIONS (MM)			
Width		596	596
Depth		495 + 280	495 + 280
Height		246	246
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single
POWER INPUT (KW)		0.085	0.123
RUNNING CURRENT (A)		0.36	0.52
FUSE RATING (BS88) – HRC (A)		6	6
MAINS CABLE NO. CORES		3	3
BC BOX		CMB-P104V-J	CMB-P106V-J

Note: For use with PURY-P200-350YNW-A1, PURY-EP200-350YNW-A1 & PQRV-P200-300YLM-A1 units only. These products are made to order, please consult your local sales office for delivery schedule.

MAIN BC CONTROLLERS		KS8-KS5-MBCAJ-A-CMB-P108V-JA	KS8-KS5-LBCAJ-A-CMB-P1012V-JA	KS8-KS5-LBCAJ-A-CMB-P1016V-JA	KS8-KS5-LBCAJ-A-CMB-P1016V-KA
NUMBER OF CONNECTIONS		8	12	16	16
WEIGHT (KG)		66	93.1	104.5	106.5
DIMENSIONS (MM)					
Width		911	1135	1135	1135
Depth		639 + 280	639 + 280	639 + 280	639 + 280
Height		246	246	246	246
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single
POWER INPUT (KW)		0.161	0.236	0.312	0.312
RUNNING CURRENT (A)		0.68	0.99	1.30	1.30
FUSE RATING (BS88) – HRC (A)		6	6	6	6
MAINS CABLE NO. CORES		3	3	3	3
BC BOX		CMB-P108V-JA	CMB-P1012V-JA	CMB-P1016V-JA	CMB-P1016V-KA

Notes: V-JA units are for use with PURY-P200-900Y(S)INW-A1, PURY-EP200-900Y(S)INW-A1 & PQRV-P200-900Y(S)ILM-A1 units only. V-KA unit is for use with PURY-P950-1100YNW-A1 & PURY-EP950-1100YSNW-A1 units only. These products are made to order, please consult your local sales office for delivery schedule.

SUB BC CONTROLLERS		KS8-KS5-SBCAJ-A-CMB-P104V-KB	KS8-KS5-SBCAJ-A-CMB-P108V-KB
NUMBER OF CONNECTIONS		4	8
WEIGHT (KG)		38.5	50.2
DIMENSIONS (MM)			
Width		596	596
Depth		495 + 280	495 + 280
Height		246	246
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single
POWER INPUT (KW)		0.076	0.135
RUNNING CURRENT (A)		0.32	0.59
FUSE RATING (BS88) – HRC (A)		6	6
MAINS CABLE NO. CORES		3	3
BC BOX		CMB-P104V-KB	CMB-P108V-KB

Notes: Maximum index of 350 allowable on each Sub BC controller. Up to 11 Sub BC controllers connectable to one system. These products are made to order, please consult your local sales office for delivery schedule.

# BC Controllers With Acoustic Jacket

At the heart of both the R2 and WR2 Series, the BC controller makes simultaneous heating and cooling possible. Improved system efficiency is achieved when energy is transferred intelligently around the building.

## Key Features & Benefits

- Allows unique 2-pipe heat recovery application
- Heating and cooling at the same time on smaller systems
- Instructs the heat source unit/outdoor unit on the amount of refrigerant (liquid or gas) that is required to achieve the requested cooling or heating requirements
- Slim profile for more flexible installation
- Easy servicing and maintenance access through underside drain pan
- Brazed connections
- Isolation valves factory-fitted on each port
- Up to 5dBA reduction in sound pressure level with acoustic jacket



BC CONTROLLERS		KS5-CMB-P104V-J-AL	KS5-CMB-P108V-J-AL
NUMBER OF CONNECTIONS		4	6
WEIGHT (KG)		34.4	38.3
DIMENSIONS (MM)			
	Width	596	596
	Depth	495	495
	Height	246	246
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single
POWER INPUT (KW)		0.085	0.123
RUNNING CURRENT (A)		0.36	0.52
FUSE RATING (BS88) – HRC (A)		6	6
MAINS CABLE NO. CORES		3	3

Notes: For use with PURY-P200-350YNW-A1, PURY-EP200-350YNW-A1 & PORY-P200-300YLM-A1 units only. These products are made to order, please consult your local sales office for delivery schedule.

MAIN BC CONTROLLERS		KS5-CMB-P108V-JA-AL	KS5-CMB-P1012V-JA-AL	KS5-CMB-P1016V-JA-AL	KS5-CMB-P1016V-KA-AL
NUMBER OF CONNECTIONS		8	12	16	16
WEIGHT (KG)		58.1	82	90	92
DIMENSIONS (MM)					
	Width	911	1135	1135	1135
	Depth	639	639	639	639
	Height	246	246	246	246
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single
POWER INPUT (KW)		0.161	0.236	0.312	0.312
RUNNING CURRENT (A)		0.68	0.99	1.30	1.30
FUSE RATING (BS88) – HRC (A)		6	6	6	6
MAINS CABLE NO. CORES		3	3	3	3

Notes: V-JA-AL units are for use with PURY-P200-900Y(S)JNW-A1, PURY-EP200-900Y(S)JNW-A1 & PORY-P200-900Y(S)JLM-A1 units only. V-KA-AL unit is for use with PURY-P950-1100YNW-A1 & PURY-EP950-1100YSNW-A1 units only. These products are made to order, please consult your local sales office for delivery schedule.

SUB BC CONTROLLERS		KS5-CMB-P104V-KB-AL	KS5-CMB-P108V-KB-AL
NUMBER OF CONNECTIONS		4	8
WEIGHT (KG)		34.4	42.3
DIMENSIONS (MM)			
	Width	596	596
	Depth	495	495
	Height	246	246
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single
POWER INPUT (KW)		0.076	0.135
RUNNING CURRENT (A)		0.32	0.59
FUSE RATING (BS88) – HRC (A)		6	6
MAINS CABLE NO. CORES		3	3

Notes: Maximum index of 350 allowable on each Sub BC controller. Up to 11 Sub BC controllers connectable to one system. These products are made to order, please consult your local sales office for delivery schedule.

# Refrigerant Detection Systems

The refrigerant detection systems are designed to detect air conditioning leaks, with the option of providing pump down of City Multi VRF R2 systems.

These systems help safeguard against refrigerant levels exceeding permitted concentration levels and react effectively in the event of leaks.

## Key Features & Benefits

- Enables compliance with BS EN378 – Safety of Building Occupants, critical in hotel applications
- Can help achieve recognition within BREEAM Pollution Prevention Assessment, ideal for assisting in the design of modern, sustainable buildings
- Robust and tested leak detection with pump down option
- Flexible refrigerant gas detection systems - semiconductor or infrared, in standalone or cost effective aspirated panel options
- Pump down panel incorporating all elements required for safety and environmental protection along with ease of installation
- Actuated ball valves to isolate refrigerant on pump down
- Alarm system to alert occupants and staff of any leakages



KSGD-01S-B



KSGD-01W-B White



KS8-IR16CIF-A



KS8-SSFPA



KSIR-SP01

DESCRIPTION	MODEL REF.		
<b>Semiconductor Sensor</b>	Semiconductor Stand Alone Refrigerant Detector White	KSGD-01W-B	
	Semiconductor Stand Alone Refrigerant Detector Silver	KSGD-01S-B	
	Semiconductor Sensor Polished Brass Lacquered	KSGD-01PB-B	
	Semiconductor Sensor Forbes & Lomax Painted	KSGD-01FLP-B	
	Semiconductor Sensor Forbes & Lomax Antique	KSGD-01FLA-B	
	Semiconductor Sensor Forbes & Lomax Polished Nickel	KSGD-01FLPN-B	
	Semiconductor Sensor White Inc. 5 Wire	KSGD-01W-B-5W	
	Semiconductor Sensor Silver Inc. 5 Wire	KSGD-01S-B-5W	
	Transformer 12Vdc Power Supply	KSTR12	
	Transformer 24Vdc Power Supply	KSTR24	
	<b>Semiconductor Sensor Panel</b>	32 Channel System	KS8 RAD32-C
		64 Channel System	KS8 RAD64-B
<b>Room Alarm Indicator</b>	Room Alarm Indicator Satin Stainless Steel	KSRA-SS	
	Room Alarm Indicator White Steel	KSRA-WS	
	Room Alarm Indicator Polished Brass	KSRA-PB	
<b>Semiconductor Large System</b>	KS8-RMI Smart32 Input Card 32 Semiconductor Sensors	KS8-RMI SMART32	
	KS8-RMI Smart64 Input Card 64 Semiconductor Sensors	KS8-RMI SMART64	
	Semiconductor Sensor Remote Display 256 Sensors	KS8-RMD	
<b>Semiconductor Test Kit</b>	Semiconductor Leak Detector Test Kit	KSGD01-ATK	

DESCRIPTION	MODEL REF.	
<b>Infrared Stand Alone Sensor</b>	R410A Infrared Stand Alone Refrigerant Detector with Remote Sensor	KSIR-SP01 R410A
	R32 Infrared Stand Alone Refrigerant Detector with Remote Sensor	KSIR-SP01 R32
	Infrared Stand Alone Refrigerant Detector Remote Display	KS8-SP-RDU
<b>Infrared Faceplate</b>	Stainless Steel Room Faceplate with Alarm for Aspirated Panel	KS8-SSFPA
<b>Infrared Tubing Ancillaries</b>	100M Drum Sampling Tube for Aspirated Panel (Black)	KS8-BST100
	250M Drum Sampling Tube for Aspirated Panel (Black)	KS8-BST250
	Sampling Tube Straight Connector for Aspirated Panel	KS8-STSC
	Sampling Tube Two Way Manifold for Aspirated Panel	KS8-ST2M
	Inline Filter for Aspirated Panel	KS8-IF
	End Of Line Filter for Aspirated Panel (Calibration)	KS8-EF
	End Of Line Filter for Aspirated Panel (Calibration) C/W Bracket	KS8-EF C/W BRACKET
	<b>Infrared Aspirated Panel</b>	Infrared Aspirated 8 Channel Refrigerant Detector Panel
Infrared Aspirated 16 Channel Refrigerant Detector Panel	KS8-IR16CIF-A	
Infrared Aspirated 32 Channel Refrigerant Detector Panel	KS8-IR32CIF-A	
	8/16/32 Remote Display Unit	KS8-RDU

Semiconductor Refrigerant Leak Detection

Infrared Refrigerant Leak Detection

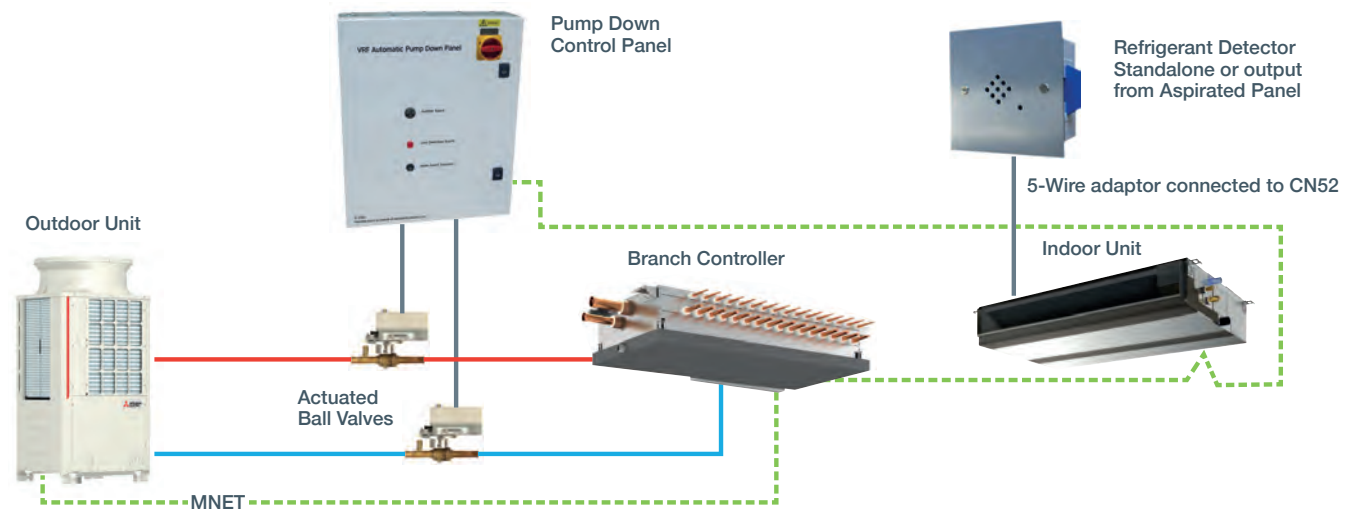




KS8-OC1

Pump Down Systems	DESCRIPTION		MODEL REF.	
	<b>City Multi Pump Down Control Panels</b>	City Multi R2 Automatic Pump Down Control Panel 1 Outdoor Unit		KS8-OC1
		City Multi R2 Automatic Pump Down Control Panel 2 Outdoor Units		KS8-OC2
		City Multi R2 Automatic Pump Down Control Panel 3 Outdoor Units		KS8-OC3
		City Multi R2 Automatic Pump Down Control Panel 4 Outdoor Units		KS8-OC4
		City Multi R2 Automatic Pump Down Control Panel 5 Outdoor Units		KS8-OC5
		City Multi R2 Automatic Pump Down Control Panel 6 Outdoor Units		KS8-OC6
		City Multi R2 Automatic Pump Down Control Panel 7 Outdoor Units		KS8-OC7
		City Multi R2 Automatic Pump Down Control Panel 8 Outdoor Units		KS8-OC8
<b>Actuated Ball Valves for Pump Down Operation</b>	5/8" Actuated Ball Valve		KS8-5/8 ABV	
	3/4" Actuated Ball Valve		KS8-3/4 ABV	
	7/8" Actuated Ball Valve		KS8-7/8 ABV	
	1 1/8" Actuated Ball Valve		KS8-1.1/8 ABV	
	1 3/8" Actuated Ball Valve		KS8-1.3/8 ABV	
	1 5/8" Actuated Ball Valve		KS8-1.5/8 ABV	

▼ Installation Example City Multi Pump Down System



It is recommended that system design is completed with your local Mitsubishi Electric Sales Office

Please Note: commissioning is required on pump down systems

# City Multi VRF Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>Outdoor Units</b>	
Twinning kit for PURY-EP/P400-650YSNW-A1	CMY-R100VBK4
Twinning kit for PURY-EP/P700-1100YSNW-A1	CMY-R200VBK4
Twinning kit for PUHY-P400-650YSNW-A1 / PQHY-P400-600YSLM-A1	CMY-Y100VBK3
Twinning kit for PUHY-P700-900YSNW-A1 / PQHY-P650-900YSLM-A1	CMY-Y200VBK2
Twinning kit for PUHY-P950-1350YSNW-A1	CMY-Y300VBK3
Twinning kit for PQRV-P400-600YSLM-A1	CMY-Q100CBK2
Twinning kit for PQRV-P700-900YSLM-A1	CMY-Q200CBK
Fin guard side surfaces S / L modules (2pc) (P200-P450)	PAC-FG01S-E
Fin guard side surfaces XL module (2 pc) (P500/P550)	PAC-FG02S-E
Fin guard rear surface S module (P200-P300)	PAC-FG01B-E
Fin guard rear surface L module (P350-P450)	PAC-FG02B-E
Fin guard rear surface XL module (P500/P550)	PAC-FG03B-E
Branch pipe (joint) for size 200 or below - total capacity of indoor units	CMY-Y102SS-G2
Branch pipe (joint) for size 201-400 - total capacity of indoor units	CMY-Y102LS-G2
Branch pipe (joint) for size 401-650 - total capacity of indoor units or first branch of P400-P650 / EP400-EP600	CMY-Y202S-G2
Branch pipe (joint) for size 651 or above - total capacity of indoor units or first branch of P700-P1250 / EP650-EP900	CMY-Y302S-G2
Branch pipe for 2 branches (PUMY)	CMY-Y62-G-E
Air outlet guide for PUMY-(S)P112-200	PAC-SH96SG-E
Air protect guide for PUMY-(S)P112-200	PAC-SH95AG-E
Drain socket set for PUMY-(S)P112-200	PAC-SG61DS-E
Air outlet guide for PUMY-P250/300	PAC-SK22SG-E
Air protect guide for PUMY-P250/300	PAC-SK21AG-E
Drain socket set for PUMY-P250/300	PAC-SK27DS-E
Differential pressure switch for PQRV-P200-300YLM-A1 / PQHY-P200-300YLM-A1	KS10-EP100S
<b>Ceiling Concealed Ducted Units</b>	
Long life filter for PEFY-P80VMHS-E	PAC-KE88LAF
Long life filter for PEFY-P100-140VMHS-E	PAC-KE89LAF
Long life filter for PEFY-P200-250VMHS-E	PAC-KE85LAF
Filter box for PEFY-P80VMHS-E (necessary when long life filter is used)	PAC-KE99TB
Filter box for PEFY-P100-140VMHS-E (necessary when long life filter is used)	PAC-KE140TB-F
Filter box for PEFY-P200-250VMHS-E (necessary when long life filter is used)	PAC-KE250TB-F
Plasma Quad Connect air purifying device for PEFY-P-VMS1-E / PEFY-M-VMA-A	MAC-100FT-E
Plasma Quad Connect metal fitment for PEFY-P-VMS1-E	PAC-HA11PAR
Plasma Quad Connect metal fitment for PEFY-M-VMA-A	PAC-HA31PAR

# City Multi VRF Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>4-Way Blow Cassette Units</b>	
Grille for PLFY-P-VFM-E	SLP-2FA
3D i-see sensor grille for PLFY-P-VFM-E	SLP-2FAE
Grille for PLFY-M-VEM-E	PLP-6EA
3D i-see sensor grille for PLFY-M-VEM-E	PLP-6EAE
Self elevating grille for PLFY-M-VEM-E	PLP-6EAJ
Corner panel with i-see sensor for PLFY-M-VEM-E	PAC-SE1ME-E
Corner panel with signal receiver for PLFY-M-VEM-E	PAR-SE9FA-E
Shutter plate for PLFY-M-VEM-E	PAC-SJ37SP-E
Multi-function casement for PLFY-M-VEM-E	PAC-SJ41TM-E
High efficiency filter for PLFY-M-VEM-E (must be used with PAC-SJ41TM-E)	PAC-SH59KF-E
V Blocking air purifying filter for PLFY-M-VEM-E	PAC-SK53KF-E
V Blocking air purifying filter for PLFY-P-VFM-E	PAC-SK54KF-E
Plasma Quad Connect air purifying device (x1) with multi-function casement for PLFY-M-VEM-E	PAC-SK51FT-E
<b>Wall Mounted Units</b>	
Plasma Quad Connect air purifying device for PKFY-P-VLM-E/VKM-E	MAC-100FT-E
<b>BC Controllers</b>	
Joint pipe	CMY-R160-J1
Joint and reducer for connection to Sub BC Controllers (P200-P650 OU)	CMY-R101S-G
Joint and reducer for connection to Sub BC Controllers (P700-P1100 OU)	CMY-R102S-G
<b>Indoor Units</b>	
Remote temperature sensor	PAC-SE41TS-E
Discreet remote temperature sensor	KS9-BS1-A
LEV kit interface	PAC-LV11M
<b>VRF Sanitary Water Heater</b>	
Controller	PAR-W21MAA-J





# City Multi Hybrid VRF

The Modern Alternative





# Contents

## R32 Heat Recovery Outdoor Units

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R2 Series Standard (22.4-56kW) 1.6.8

## R410A Water Cooled Condensing Units

WR2 Series Heat Recovery (22.4-56kW) 1.6.10

## Indoor Units

PEFY-WP-VMS1-E Ultra Thin Ceiling Concealed Ducted 1.6.12

PEFY-WP-VMA-E Ceiling Concealed Ducted 1.6.14

PLFY-WL-VEM-E 4-Way Blow Ceiling Cassette 1.6.16

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# Hybrid VRF (HVRF) - The Modern Alternative

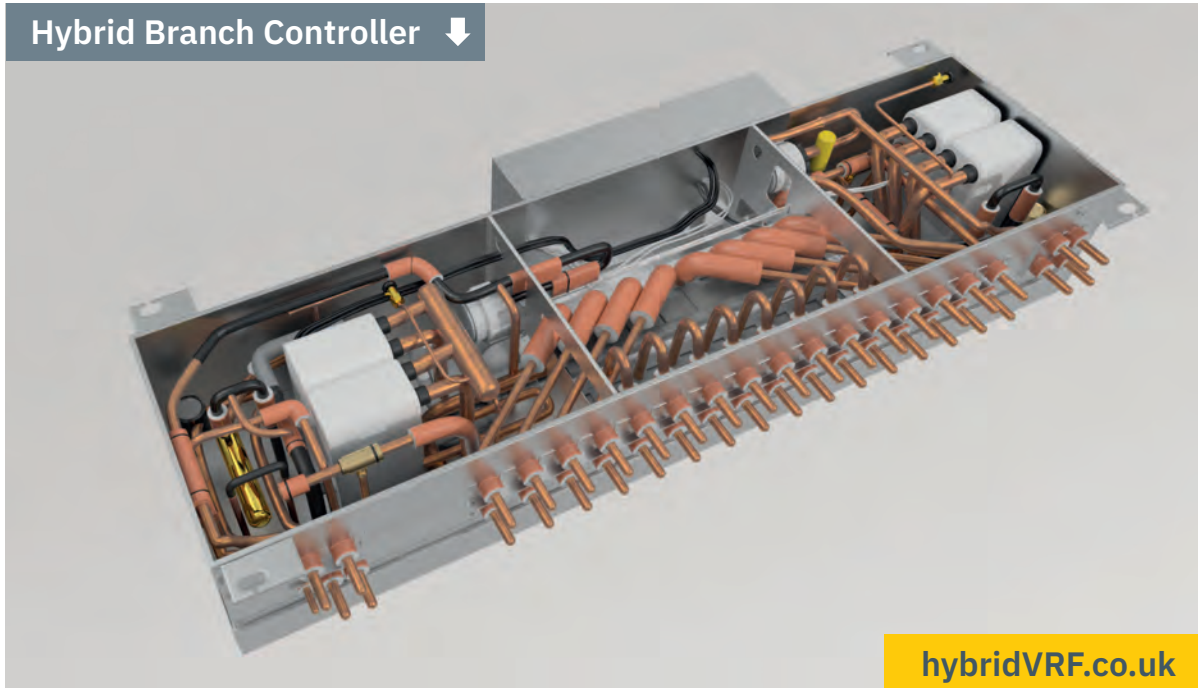
The award-winning City Multi Hybrid VRF is a totally unique 2-pipe heat recovery VRF system, whereby the outdoor unit is connected to a Hybrid Branch Controller (HBC) and water pipework is used between the HBC and indoor units.

You can install and design it as VRF whilst enjoying the features of a Chiller system, providing a complete and modern solution for office buildings, hotels, medical centres, schools, high rise buildings, shopping centres and other commercial premises. Built and assembled in the same factory as our VRF units, it therefore carries City Multi's distinctive DNA in terms of technology, efficiency and reliability.

Hybrid VRF is quick, easy & flexible to design and install using the same control and network as VRF systems. The decentralised system means phased installation is possible with the same high levels of seasonal efficiency expected with VRF.


With water pipework connecting the indoor units, Hybrid VRF provides comfortable and stable air temperature control with no refrigerant in occupied spaces, meaning simple compliance to BS EN378 and removing the need for leak detection.

Hybrid Branch Controller ↓



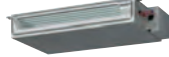







**Outdoor / Condensing Unit Range**

		P	200	250	300	350	400	450	500
		(kW)	22	28	34	40	45	50	56
Air Cooled	<b>Heat Recovery - R2 Series</b>								
	<b>High Efficiency PURY-EM (YNW)</b>  		S	S	S	L	L	L	XL
	<b>Standard Efficiency PURY-M (YNW)</b>  		S	S	S	L	L	L	XL
Water Cooled	<b>Heat Recovery - WR2 Series</b>	P	200	250	300	350	400	450	500
		(kW)	22	28	34	40	45	50	56
	<b>PQRY-P (YLM)</b>  		●	●	●	●	●	●	●

● S Small chassis    ● L Large chassis    ● XL Extra Large chassis

**Indoor Unit Range**

		P	10	15	20	25	32	40	50	63	80
		(kW)	1.2	1.7	2.2	2.8	3.6	4.5	5.6	7.1	9.0
Ceiling Concealed Ducted	<b>PEFY-WP-VMS1-E (Ultra Thin)</b> 		●	●	●	●	●	●	●		
	<b>PEFY-WP-VMA-E</b> 				●	●	●	●	●	●	●
4-Way Blow Ceiling Cassette	<b>PLFY-WL-VEM-E</b> 						●	●	●	●	●
	<b>PLFY-WL-VFM-E (600 x 600)</b> 			●	●	●	●	●			
Floor Standing	<b>PFFY-WP-VLRMM-E</b> 				●	●	●	●	●		
Wall Mounted	<b>PKFY-WL-VLM-E / VKM-E</b> 		●	●	●	●	●	●	●	●	

# R2 Series HVRF High Efficiency (22.4-56kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

Delivering outstanding Seasonal Energy Efficiency, the award-winning City Multi R2 Series HVRF High Efficiency system provides simultaneous heating and cooling, with the added benefit of heat recovery. By utilising lower GWP R32 refrigerant, the **PURY-EM** helps businesses achieve their Corporate Social Responsibility targets, as well as future-proof their buildings and equipment.

### Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Adjustable noise level options to suit application
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Decentralised system allows for phased installation - ideal for Cat A to Cat B fit-outs



OUTDOOR UNITS		PURY-EM200YNW-A1	PURY-EM250YNW-A1	PURY-EM300YNW-A1	PURY-EM300YNW-A1 X 2HBC	PURY-EM350YNW-A1	PURY-EM350YNW-A1 X 2HBC	PURY-EM400YNW-A1	PURY-EM450YNW-A1	PURY-EM500YNW-A1
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5	37.5	45.0	45.0	50.0	56.0	63.0
	Cooling (nominal)	22.4	28.0	33.5	33.5	40.0	40.0	45.0	50.0	56.0
	High Performance Heating (UK)	25.0	31.5	37.5	37.5	42.8	42.8	47.5	50.4	58.0
	COP Priority Heating (UK)	22.8	28.7	32.3	32.3	38.7	38.7	43.0	49.3	54.8
	Cooling (UK)	20.1	25.1	30.0	30.0	35.8	35.8	40.3	44.8	50.1
POWER INPUT (kW)	Heating (nominal)	6.23	8.84	10.46	9.93	13.10	12.16	13.88	15.77	17.45
	Cooling (nominal)	5.13	7.69	10.03	8.52	13.91	11.33	13.84	15.24	18.06
	High Performance Heating (UK)	7.54	10.70	14.33	13.60	17.95	16.66	16.10	18.29	20.24
	COP Priority Heating (UK)	6.23	8.84	10.46	9.93	13.10	12.16	13.46	15.30	16.93
	Cooling (UK)	2.98	4.46	5.82	4.94	8.07	6.57	8.87	9.77	11.58
COP / EER (nominal)	4.01 / 4.36	3.56 / 3.64	3.58 / 3.33	3.77 / 3.93	3.43 / 2.87	3.70 / 3.53	3.60 / 3.25	3.55 / 3.28	3.61 / 3.10	
MAX No. OF CONNECTABLE INDOOR UNITS		30	37	45	45	35	35	40	45	50
MAX CONNECTABLE CAPACITY		50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity
AIRFLOW (m³/min)	High	170	185	240	240	250	250	315	315	295
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")
	Liquid	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling	59.0 / 59.0	61.0 / 60.5	67.0 / 61.0	67.0 / 61.0	64.0 / 62.5	64.0 / 62.5	69.0 / 65.0	70.0 / 65.5	64.5 / 63.5
SOUND POWER LEVEL (dBA)	Heating / Cooling	78.0 / 76.0	80.0 / 78.5	86.5 / 80.0	86.5 / 80.0	83.0 / 81.0	83.0 / 81.0	88.0 / 83.0	89.0 / 83.0	84.0 / 82.0
WEIGHT (kg)		231	231	231	231	276	276	280	305	348
DIMENSIONS (mm)	Width	920	920	920	920	1240	1240	1240	1240	1750
	Depth	740	740	740	740	740	740	740	740	740
(1798mm without legs)	Height	1858	1858	1858	1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>1</sup>		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>1</sup>		Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>1</sup>		8	8	8	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>1</sup> Heating/Cooling [MAX]		9.9 / 8.2 [16.1]	14.1 / 12.3 [21.8]	16.7 / 16.0 [23.9]	15.9 / 13.6 [23.9]	21.0 / 22.3 [30.0]	19.5 / 18.1 [30.0]	22.2 / 22.1 [35.9]	25.2 / 24.4 [36.9]	27.9 / 28.9 [46.9]
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>1</sup>		1 x 20	1 x 25	1 x 25	1 x 25	1 x 32	1 x 32	1 x 40	1 x 40	1 x 50
MAINS CABLE No. Cores <sup>1</sup>		4	4	4	4	4	4	4	4	4
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		5.2 / 3.5	5.2 / 3.5	5.2 / 3.5	5.2 / 3.5	8 / 5.4	8 / 5.4	8 / 5.4	10.8 / 7.3	10.8 / 7.3
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		13.5 / 9.1	13.5 / 9.1	15.5 / 10.5	15.5 / 10.5	15.5 / 10.5	15.5 / 10.5	19.5 / 13.2	19.5 / 13.2	19.5 / 13.2

Notes: \*SEER/SCOP available separately in the 'City Multi HVRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

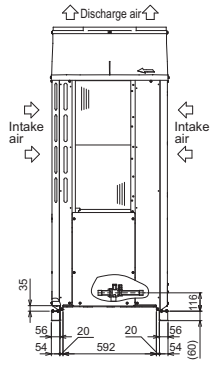
<sup>1</sup> A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. Specification subject to change.

R410A equivalent systems are also available - please contact your local sales office for further information.

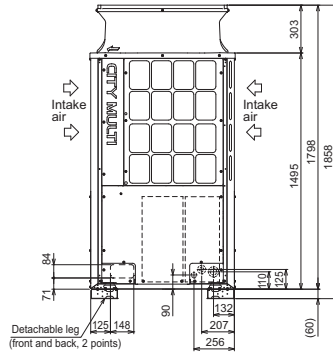
Product Dimensions

PURY-EM200/250/300YNW-A1

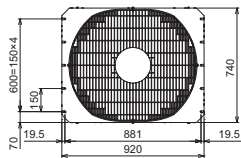
Side View



Front View



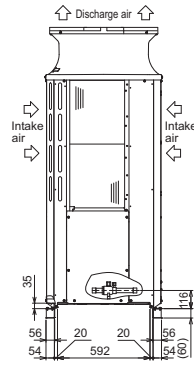
Upper View



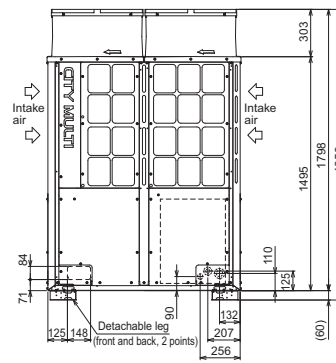
Product Dimensions

PURY-EM350/400/450YNW-A1

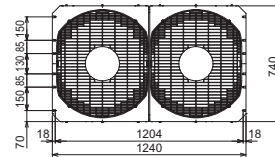
Side View



Front View



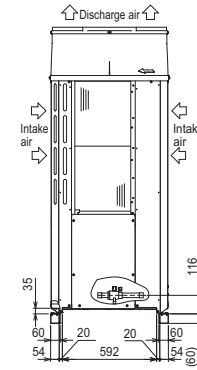
Upper View



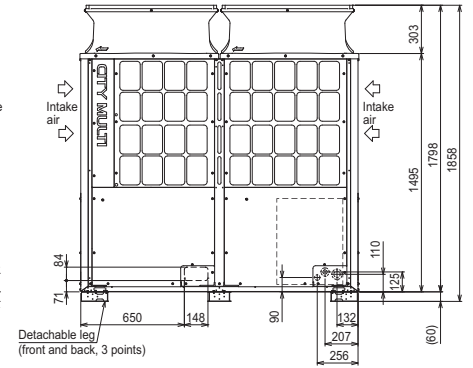
Product Dimensions

PURY-EM500YNW-A1

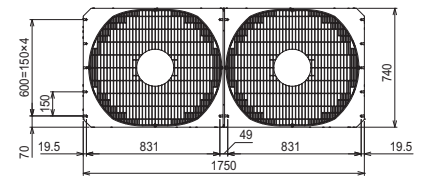
Side View



Front View



Upper View



# R2 Series HVRF Standard Efficiency (22.4-56kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit

The award-winning City Multi R2 Series HVRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. By utilising lower GWP R32 refrigerant, the **PURY-M** helps businesses achieve their Corporate Social Responsibility targets, as well as future-proof their buildings and equipment.

### Key Features & Benefits

- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Adjustable noise level options to suit application
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Decentralised system allows for phased installation - ideal for Cat A to Cat B fit-outs



OUTDOOR UNITS		PURY-M200YNW-A1	PURY-M250YNW-A1	PURY-M300YNW-A1	PURY-M300YNW-A1 X 2HBC	PURY-M350YNW-A1	PURY-M350YNW-A1 X 2HBC	PURY-M400YNW-A1	PURY-M450YNW-A1	PURY-M500YNW-A1
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5	37.5	45.0	45.0	45.0	56.0	63.0
	Cooling (nominal)	22.4	28.0	33.5	33.5	40.0	40.0	45.0	50.0	56.0
	High Performance Heating (UK)	25.0	31.5	37.5	37.5	42.8	42.8	42.8	50.4	58.0
	COP Priority Heating (UK)	22.8	28.7	32.3	32.3	38.7	38.7	38.7	49.3	54.8
	Cooling (UK)	20.1	25.1	30.0	30.0	35.8	35.8	40.3	44.8	50.1
POWER INPUT (kW)	Heating (nominal)	6.39	9.15	11.00	10.33	13.14	12.16	14.08	16.18	18.26
	Cooling (nominal)	5.53	8.40	11.65	9.88	14.93	12.15	15.15	15.47	22.25
	High Performance Heating (UK)	7.73	11.07	15.07	14.15	18.00	16.66	16.33	18.77	21.18
	COP Priority Heating (UK)	6.39	9.15	11.00	10.33	13.14	12.16	13.66	15.69	17.71
	Cooling (UK)	3.21	4.87	6.76	5.73	8.66	7.05	9.71	9.92	14.26
COP / EER (nominal)		3.91 / 4.05	3.44 / 3.33	3.40 / 2.87	3.63 / 3.39	3.42 / 2.67	3.70 / 3.29	3.55 / 2.97	3.46 / 3.23	3.45 / 2.51
MAX No. OF CONNECTABLE INDOOR UNITS		30	37	45	45	35	35	40	45	50
MAX CONNECTABLE CAPACITY		50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity
AIRFLOW (m³/min)	High	170	185	240	240	250	250	315	315	295
	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")
PIPE SIZE mm (in)	Liquid	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")
	SOUND PRESSURE LEVEL (dBA) Heating / Cooling	59.0 / 59.0	61.0 / 60.5	67.0 / 61.0	67.0 / 61.0	64.0 / 62.5	64.0 / 62.5	69.0 / 65.0	70.0 / 65.5	64.5 / 63.5
SOUND POWER LEVEL (dBA) Heating / Cooling		78.0 / 76.0	80.0 / 78.5	86.5 / 80.0	86.5 / 80.0	83.0 / 81.0	83.0 / 81.0	88.0 / 83.0	89.0 / 83.0	84.0 / 82.0
WEIGHT (kg)		227	227	227	227	270	270	273	293	337
DIMENSIONS (mm)	Width	920	920	920	920	1240	1240	1240	1240	1750
	Depth	740	740	740	740	740	740	740	740	740
	(1798mm without legs) Height	1858	1858	1858	1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY*1		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1		Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)*1		8	8	8	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*1 Heating/Cooling [MAX]		10.2 / 8.8 [16.1]	14.6 / 13.4 [22.5]	17.6 / 18.6 [25.6]	16.5 / 15.8 [25.6]	21.0 / 23.9 [31.6]	19.5 / 19.4 [31.6]	22.5 / 24.2 [39.3]	25.9 / 24.8 [40.2]	29.2 / 35.6 [56.6]
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)*1		1 x 20	1 x 25	1 x 32	1 x 32	1 x 32	1 x 32	1 x 40	1 x 50	1 x 63
MAINS CABLE No. Cores*1		4	4	4	4	4	4	4	4	4
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		5.2 / 3.5	5.2 / 3.5	5.2 / 3.5	5.2 / 3.5	8 / 5.4	8 / 5.4	8 / 5.4	10.8 / 7.3	10.8 / 7.3
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		13.5 / 9.1	13.5 / 9.1	15.5 / 10.5	15.5 / 10.5	15.5 / 10.5	15.5 / 10.5	19.5 / 13.2	19.5 / 13.2	19.5 / 13.2

Notes: \*SEER/SCOP available separately in the 'City Multi HVRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. Specification subject to change. R410A equivalent systems are also available - please contact your local sales office for further information.

Product Dimensions

PURY-M200/250/300YNW-A1

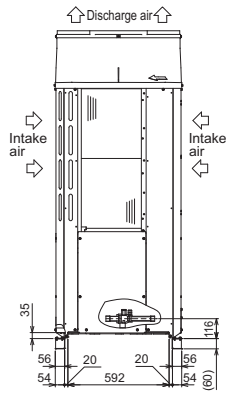
Product Dimensions

PURY-M350/400/450YNW-A1

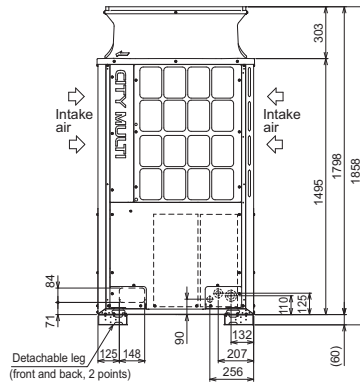
Product Dimensions

PURY-M500YNW-A1

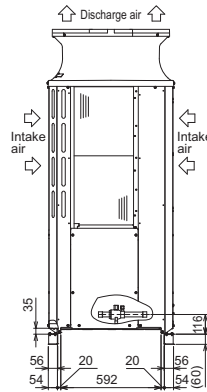
Side View



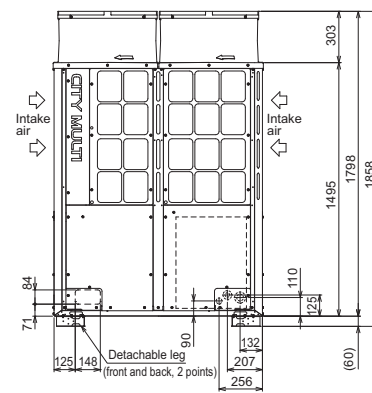
Front View



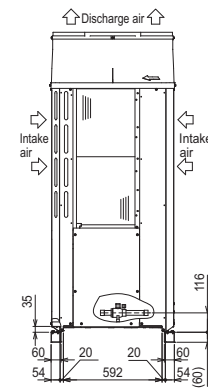
Side View



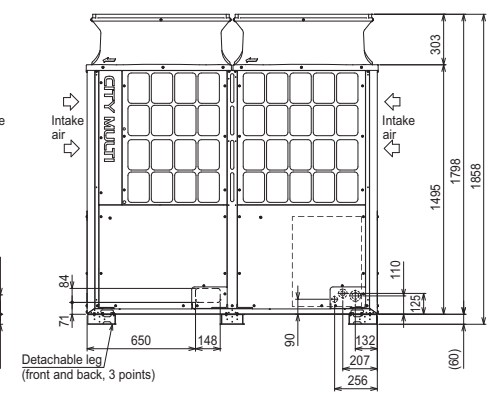
Front View



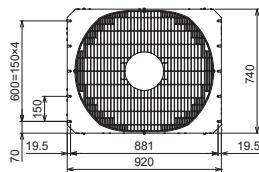
Side View



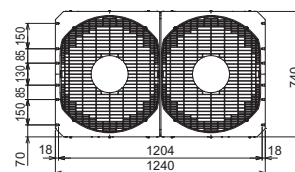
Front View



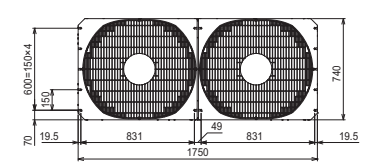
Upper View



Upper View



Upper View



# WR2 Series HVRF (22.4-56kW)

Simultaneous Heating and Cooling with Double Heat Recovery, Water Cooled Condensing Unit

The City Multi **WR2** Series HVRF Heat Recovery system is ideal where a water loop is available and outdoor space is limited. These models utilise water instead of air as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WR2 systems provide the ultimate solution for a breadth of applications requiring simultaneous heating and cooling, including hotels, offices, leisure, retail and high-end residential.

## Key Features & Benefits

- High efficiency, modular systems, with ability to recover energy between units on the water circuit, in either a closed or open loop building, or ground source application
- Able to utilise waste heat from commercial sources such as server cooling, or renewable heat from landlord loops, rivers, lakes or geothermal sources
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation



CONDENSING UNITS		PQRY-P 200YLM-A1	PQRY- P250YLM-A1	PQRY- P300YLM-A1	PQRY-P300YLM-A1 (2 X MAIN)	PQRY- P350YLM-A1	PQRY-P350YLM-A1 (2 X MAIN)	PQRY- P400YLM-A1	PQRY- P450YLM-A1	PQRY- P500YLM-A1
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5	37.5	45.0	45.0	50.0	56.0	63.0
	Cooling (nominal)	22.4	28.0	33.5	33.5	40.0	40.0	45.0	50.0	56.0
POWER INPUT (kW)	Heating (nominal)	4.04	5.41	7.13	6.79	8.87	8.25	9.45	11.11	13.07
	Cooling (nominal)	3.97	5.44	7.55	6.71	9.98	8.72	10.05	12.05	14.58
OPERATING WATER VOLUME (m³/h)		3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2	4.5 ~ 11.6	4.5 ~ 11.6	4.5 ~ 11.6	4.5 ~ 11.6	4.5 ~ 11.6
GUARANTEED OPERATING RANGE (°C) Heating / Cooling		-5~45 / -5~45	10~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
COP / EER (nominal)		6.18 / 5.64	5.82 / 5.14	5.25 / 4.43	5.52 / 4.99	5.07 / 4.00	5.45 / 4.58	5.29 / 4.47	5.04 / 4.14	4.82 / 3.84
MAX NO. OF CONNECTABLE INDOOR UNITS		20	25	30	30	35	35	40	45	50
MAX CONNECTABLE CAPACITY		50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")
	Liquid	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")
SOUND PRESSURE LEVEL (dBA)		46	48	54	54	52	52	52	54	54
SOUND POWER LEVEL (dBA)		60	62	68	68	66	66	66	70	70.5
WEIGHT (kg)		172	172	172	172	216	216	216	216	216
DIMENSIONS (mm)	Width	880	880	880	880	880	880	880	880	880
	Depth	550	550	550	550	550	550	550	550	550
	Height	1100	1100	1100	1100	1450	1450	1450	1450	1450
ELECTRICAL SUPPLY <sup>1</sup>		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>1</sup>		Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)		8	8	8	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>1</sup> Heating / Cooling [MAX]		6.1 / 5.7 [16.1]	7.8 / 7.5 [16.1]	9.6 / 9.3 [18.6]	9.6 / 9.3 [18.6]	11.6 / 11.0 [23.1]	11.6 / 11.0 [23.1]	12.9 / 12.4 [27.6]	15.1 / 14.3 [32.9]	17.6 / 17.2 [39.2]
FUSE RATING (BS88) - HRC (A) <sup>1</sup>		1 x 20	1 x 20	1 x 20	1 x 20	1 x 25	1 x 25	1 x 32	1 x 40	1 x 40
MAINS CABLE No. Cores <sup>1</sup>		4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		5.0 / 10.4	5.0 / 10.4	5.0 / 10.4	5.0 / 10.4	6.0 / 12.5	6.0 / 12.5	6.0 / 12.5	6.0 / 12.5	6.0 / 12.5
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)		27.0 / 56.4	32.0 / 66.8	33.0 / 68.9	33.0 / 68.9	52.0 / 108.6	52.0 / 108.6	52.0 / 108.6	53.0 / 110.7	55.0 / 114.8

Notes: \*SEER/SCOP available separately in the 'City Multi HVRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

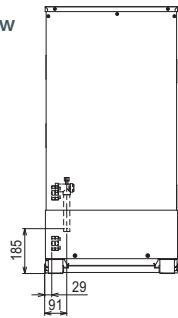
PQRY-P-YLM-A1 units are not compatible with CMB-WM350/500F-AA vertical HBC controllers.

<sup>1</sup> A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

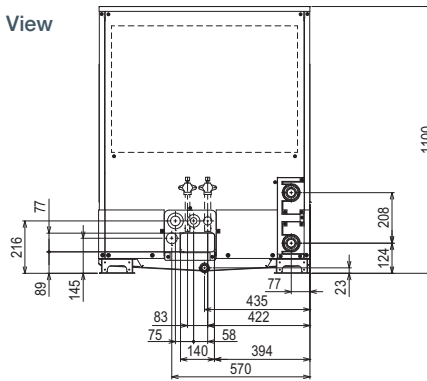
Product Dimensions

PQRY-P200/250/300YLM-A1

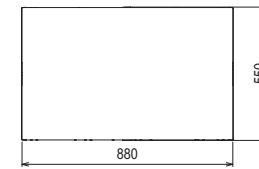
Side View



Front View



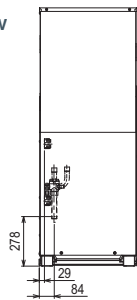
Upper View



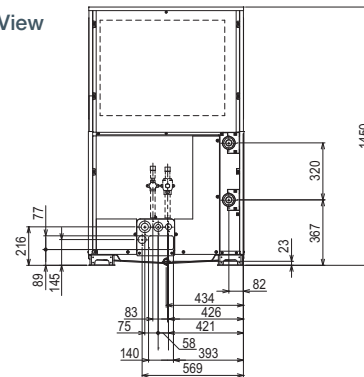
Product Dimensions

PQRY-P350/400/450/500YLM-A1

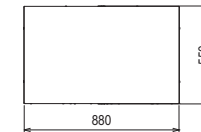
Side View



Front View



Upper View



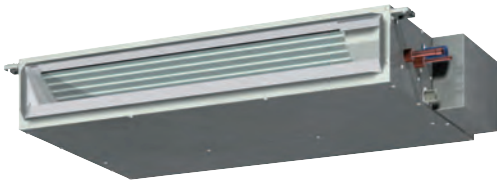
# PEFY-WP-VMS1-E

## Ultra Thin Ceiling Concealed Ducted Indoor Unit

The **PEFY-WP-VMS1-E** ceiling concealed ducted indoor unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium. It has been designed with an ultra thin, slimline body, specifically for applications where ceiling void space is limited. With an extremely quiet operation, these units are ideal for applications such as hotel rooms.

### Key Features & Benefits

- Ultra thin body allowing installation in smaller spaces - height of only 200mm & width of only 790mm (size WP10-25)
- Extremely quiet operation for minimal disturbance - as low as 22dBA (size WP10-20)
- External static pressure of 5-50Pa, allowing flexibility of design and application
- Available in 1.1 and 1.5kW sizes, which are ideal for hotel rooms
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

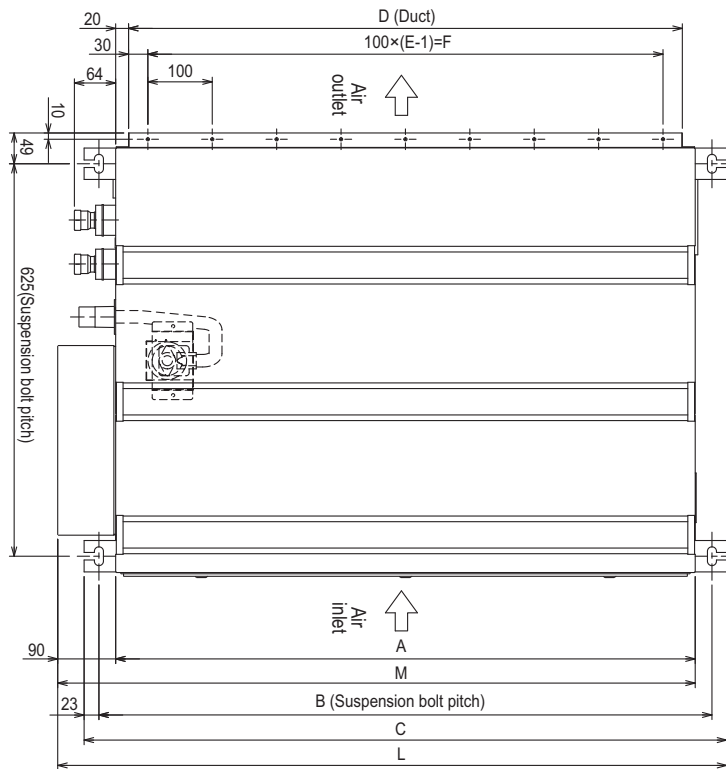


INDOOR UNITS		PEFY-WP10VMS1-E	PEFY-WP15VMS1-E	PEFY-WP20VMS1-E	PEFY-WP25VMS1-E	PEFY-WP32VMS1-E	PEFY-WP40VMS1-E	PEFY-WP50VMS1-E
CAPACITY (kW)	Heating (nominal)	1.4	1.9	2.5	3.2	4.0	5.0	6.3
	Cooling (nominal)	1.2	1.7	2.2	2.8	3.6	4.5	5.6
	UK Heating	1.4	1.9	2.5	3.2	4.0	5.0	6.3
	UK Total Cooling - Hi (Sensible)	1.10 (1.00)	1.50 (1.50)	2.00 (1.70)	2.50 (2.00)	3.20 (2.70)	4.00 (3.20)	5.00 (4.00)
	UK Total Cooling - M2	-	-	-	-	-	-	-
	UK Total Cooling - Mi1	1.07	1.44	1.89	2.32	3.03	3.82	4.78
POWER INPUT (kW)	UK Total Cooling - Lo	1.03	1.34	1.76	2.08	2.88	3.61	4.51
	Heating (nominal)	0.03	0.03	0.03	0.04	0.05	0.07	0.07
AIRFLOW (l/s)	Cooling (nominal)	0.03	0.05	0.05	0.06	0.07	0.09	0.09
	Lo-Mi-Hi	67-75-83	83-100-117	92-108-133	92-117-150	133-150-183	158-183-217	200-233-275
EXTERNAL STATIC PRESSURE (Pa)		5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50
SOUND PRESSURE LEVEL (dBA) Lo-Mi-Hi		22-23-25	22-24-28	22-25-29	23-26-30	28-30-33	30-32-35	30-33-36
WEIGHT (kg)		19	19	20	20	25	25	27
DIMENSIONS (mm)	Width	790	790	790	790	990	990	1190
	Depth	700	700	700	700	700	700	700
	Height	200	200	200	200	200	200	200
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.33 / 0.21	0.33 / 0.44	0.38 / 0.49	0.40 / 0.51	0.50 / 0.61	0.62 / 0.73	0.66 / 0.77
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3	3
WATER PIPE CONNECTION		3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW

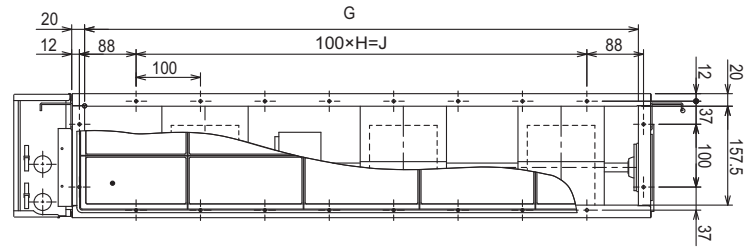
Note: HVRF indoor units can only be configured with the CMB-WM HBC (HVRF) and PURY-(E)M YNW-A1 or PORY-P YLM-A1 outdoor units.



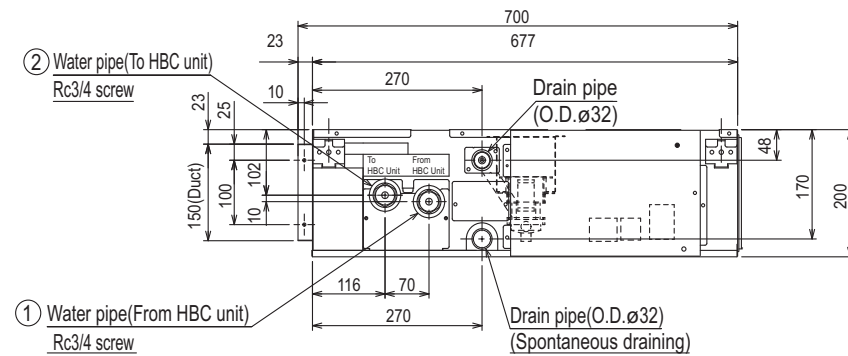
Upper View



Front View



Side View



Model	A	B	C	D	E	F	G	H	J	K	L	M	① Water pipe (From HBC unit)	② Water pipe (To HBC unit)
PEFY-WP10VMS1-E													Rc3/4 screw	
PEFY-WP15VMS1-E														
PEFY-WP20VMS1-E	700	752	798	660	7	600	660	5	500	16	839	790		
PEFY-WP25VMS1-E														
PEFY-WP32VMS1-E	900	952	998	860	9	800	860	7	700	20	1039	990		
PEFY-WP40VMS1-E														
PEFY-WP50VMS1-E	1100	1152	1198	1060	11	1000	1060	9	900	24	1239	1190		

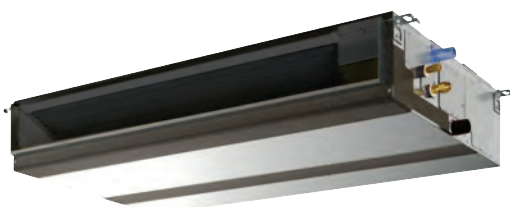
# PEFY-WP-VMA-E

## Ceiling Concealed Ducted Indoor Unit

The **PEFY-WP-VMA-E** low-height ducted indoor unit is concealed within the ceiling space and connects to the Hybrid Branch Controller, using water as the heat transfer medium. Offering unobtrusive air conditioning, the flexibility of duct layout allows airflow patterns to be arranged to suit any application.

### Key Features & Benefits

- Low height allowing installation in smaller spaces - only 250mm
- Centrifugal fan minimises noise levels to as low as 23dBA (sizes 20-25) for minimal disturbance
- Wide range of external static pressure settings across entire range (35-150Pa) offers flexibility of application
- Drain pump included as standard
- CN105 connector available - connect to MELCOBEMS MINI for simple BEMS interfacing
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

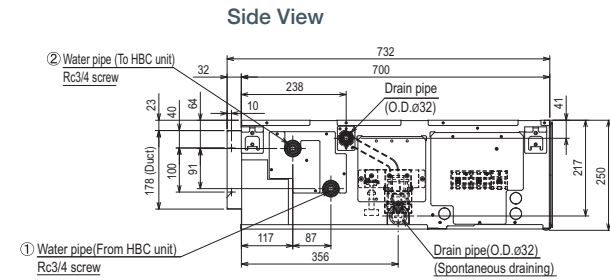
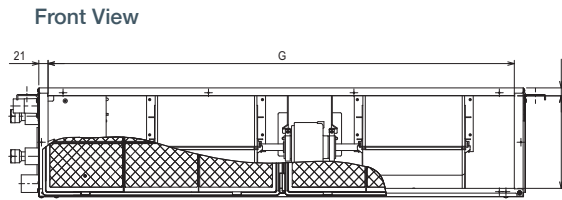
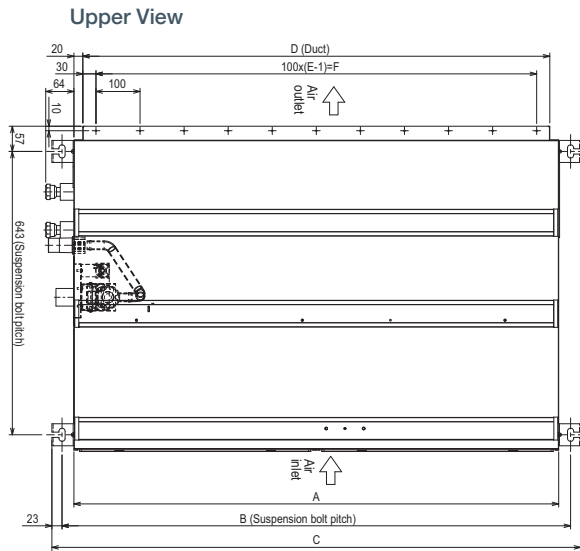


INDOOR UNITS		PEFY-WP20VMA-E	PEFY-WP25VMA-E	PEFY-WP32VMA-E	PEFY-WP40VMA-E	PEFY-WP50VMA-E	PEFY-WP63VMA-E	PEFY-WP80VMA-E
CAPACITY (kW)	Heating (nominal)	2.5	3.2	4.0	5.0	6.3	8.0	10.0
	Cooling (nominal)	2.2	2.8	3.6	4.5	5.6	7.1	9.0
	UK Heating	2.5	3.2	4.0	5.0	6.3	8.0	10.0
	UK Total Cooling - Hi (Sensible)	2.00 (1.80)	2.50 (2.50)	3.20 (3.00)	4.00 (3.80)	5.00 (4.20)	6.40 (5.10)	8.10 (7.20)
	UK Total Cooling - Mi2	-	-	-	-	-	-	-
	UK Total Cooling - Mi1	1.92	2.40	3.07	3.84	4.80	6.15	7.76
POWER INPUT (kW)	UK Total Cooling - Lo	1.79	2.24	2.85	3.53	4.41	5.64	7.17
	Heating (nominal)	0.05	0.07	0.9	0.12	0.12	0.12	0.22
	Cooling (nominal)	0.07	0.09	0.11	0.14	0.14	0.14	0.24
AIRFLOW (l/s)	Lo-Mi-Hi	125-150-175	167-200-233	200-242-283	242-300-350	242-300-350	242-300-350	383-467-550
EXTERNAL STATIC PRESSURE (Pa)		35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150
SOUND PRESSURE LEVEL (dBA) (50Pa) Lo-Mi-Hi		23-26-29	23-27-30	25-29-32	26-29-34	26-29-34	26-29-34	28-33-37
WEIGHT (kg)		21	26	26	31	31	31	40
DIMENSIONS (mm)	Width	700	900	900	1100	1100	1100	1400
	Depth	732	732	732	732	732	732	732
	Height	250	250	250	250	250	250	250
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.44 / 0.55	0.53 / 0.64	0.63 / 0.74	1.04 / 1.15	1.04 / 1.15	1.04 / 1.15	1.36 / 1.47
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3	3
WATER PIPE CONNECTION		3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	1 1/4" BSP SCREW	1 1/4" BSP SCREW

Note: HVRF indoor units can only be configured with the CMB-WM HBC (HVRF) and PURY-(EM YNW-A1 or PQRY-P YLM-A1) outdoor units.

**Product Dimensions**

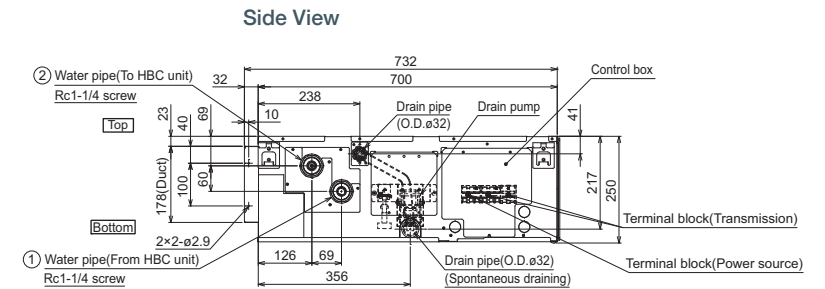
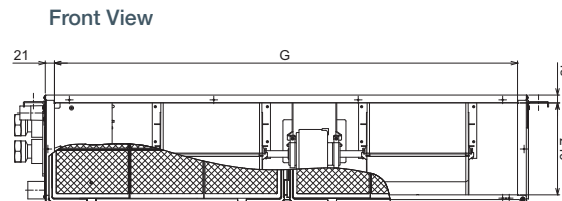
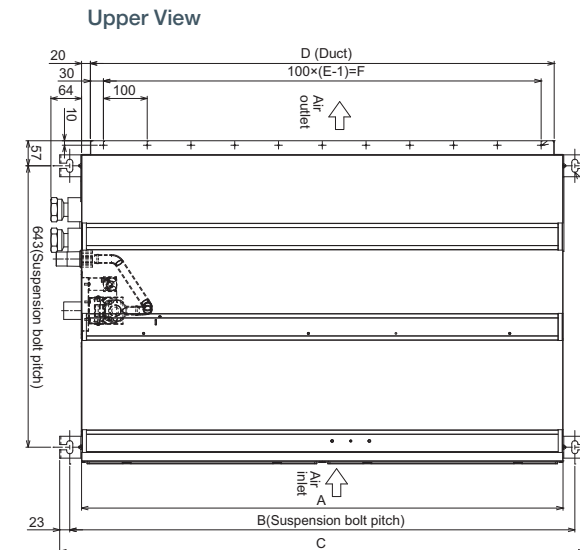
PEFY-WP20/25/32/40/50VMA-E



Model	A	B	C	D	E	F	G	① Water pipe (From HBC unit)	② Water pipe (To HBC unit)
PEFY-WP20VMA-E	700	754	800	660	7	600	658	Rc3/4 screw	
PEFY-WP25.32VMA-E	900	954	1000	860	9	800	858		
PEFY-WP40.50VMA-E	1100	1154	1200	1060	11	1000	1058		

**Product Dimensions**

PEFY-WP63/80VMA-E



Model	A	B	C	D	E	F	G	① Water pipe (From HBC unit)	② Water pipe (To HBC unit)
PEFY-WP63VMA-E	1100	1154	1200	1060	11	1000	1058	Rc1-1/4 screw	
PEFY-WP80VMA-E	1400	1454	1500	1360	14	1300	1358		

# PLFY-WL-VEM-E

## 4-Way Blow Ceiling Cassette Indoor Unit

The **PLFY-WL-VEM-E** ceiling cassette unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium. Offering 72 different airflow patterns, with the ability to handle a multitude of ceiling applications up to 4.2 metres in height, the easy to install, slimline unit is ideal for maintaining constant temperatures, thanks to adjustable vanes that allow users to precisely direct air where it's needed.

### Key Features & Benefits

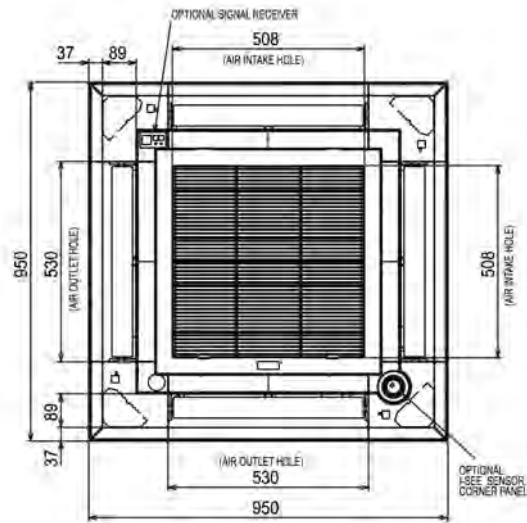
- Enhanced airflow control through directional vanes
- Optional 3D i-see sensor grille (PLP-6EAE) provides customised comfort by automatically monitoring room occupancy, position and body temperatures
- Optional filter lowering operation down to 4m (PLP-6EAJ), allowing for easier maintenance
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



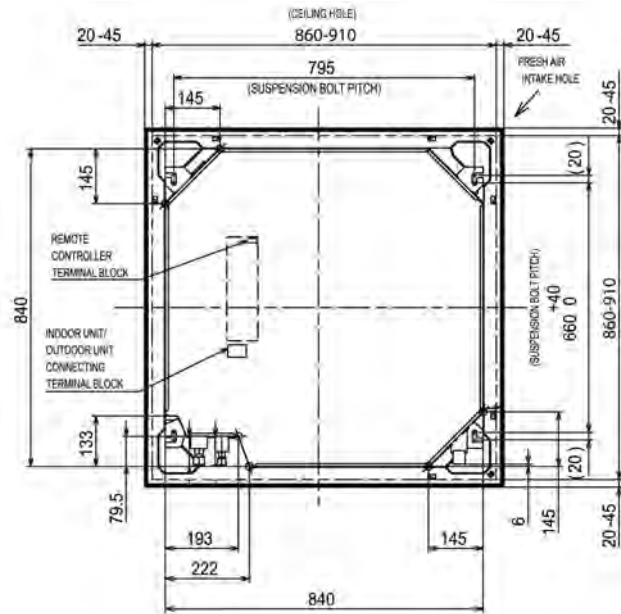
INDOOR UNITS		PLFY-WL32VEM-E	PLFY-WL40VEM-E	PLFY-WL50VEM-E	PLFY-WL63VEM-E	PLFY-WL80VEM-E
CAPACITY (kW)	Heating (nominal)	4.0	5.0	6.3	8.0	10.0
	Cooling (nominal)	3.6	4.5	5.6	7.1	9.0
	UK Heating	4.0	5.0	6.3	8.0	8.0
	UK Total Cooling - Hi (Sensible)	3.20 (3.20)	4.00 (3.60)	5.00 (4.20)	6.4 (5.0)	8.1 (6.1)
	UK Total Cooling - Mi2	3.16	3.95	4.87	6.26	7.94
	UK Total Cooling - Mi1	3.09	3.87	4.66	6.02	7.53
POWER INPUT (kW)	UK Total Cooling - Lo	3.02	3.77	4.39	5.73	6.95
	Heating (nominal)	0.03	0.03	0.04	0.04	0.05
	Cooling (nominal)	0.03	0.03	0.04	0.05	0.05
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi	233-250-267-283	233-250-267-283	233-267-300-333	250-283-317-350	250-300-350-383
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	26-27-29-30	26-28-29-31	27-29-31-33	27-29-31-33	27-30-33-35
WEIGHT (kg)		20	20	20	23	23
DIMENSIONS (mm)	Width (Grille)	840 (950)	840 (950)	840 (950)	840 (950)	840 (950)
	Depth (Grille)	840 (950)	840 (950)	840 (950)	840 (950)	840 (950)
	Height (Grille)	258 (40)	258 (40)	258 (40)	298 (40)	298 (40)
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50/60Hz	220-240v, 50/60Hz
PHASE		Single	Single	Single	Single	Single
RUNNING CURRENT (A)	Heating / Cooling	0.27 / 0.33	0.29 / 0.35	0.34 / 0.40	0.34 / 0.40	0.40 / 0.46
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3
GRILLE MODEL REFERENCE		PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
WATER PIPE CONNECTION		20mm I.D	20mm I.D	20mm I.D	22 mm (O.D)	22 mm (O.D)

Note: HVRF indoor units can only be configured with the CMB-WM HBC (HVRF) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.

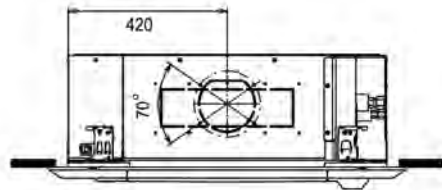
Lower View



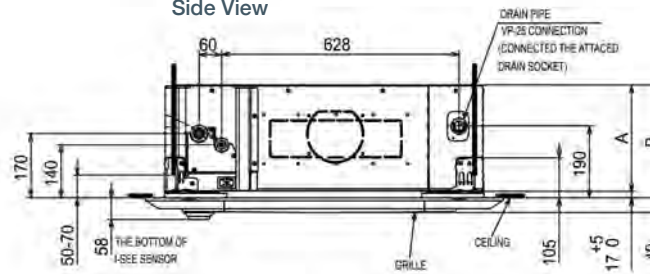
Upper View



Front View



Side View



	A	B
32/40/50	241	258
63/80	281	298

# PLFY-WL-VFM-E

## 600x600 4-Way Blow Ceiling Cassette Indoor Unit



The **PLFY-WL-VFM-E** ceiling cassette unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium. Providing a smart air conditioning solution for tight ceiling spaces, and designed to fit directly into standard 600mm square ceiling grids, these units are a perfect choice for both offices and retail applications. The optional 3D i-see sensor grille optimises both energy consumption and comfort levels.

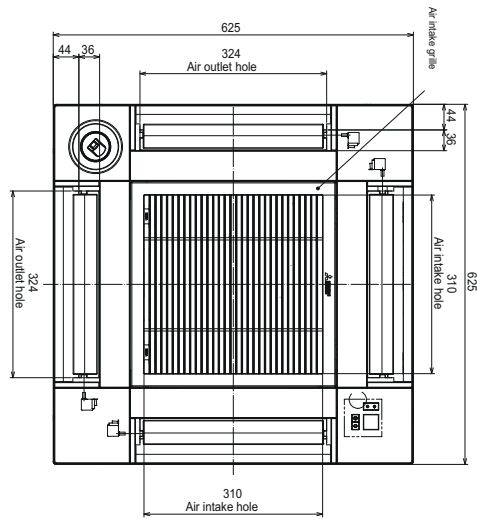
### Key Features & Benefits

- Stylish square, slimline design - fits into narrow ceiling spaces with a height of only 245mm
- Low noise levels for minimal disturbance - reduced noise value with 3D turbo fan
- Enhanced airflow control through directional vanes
- Easy installation - temporary hanging hook on grille and no screw removal for corner panel / control box
- Optional 3D i-see sensor grille (SLP-2FAE) provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould

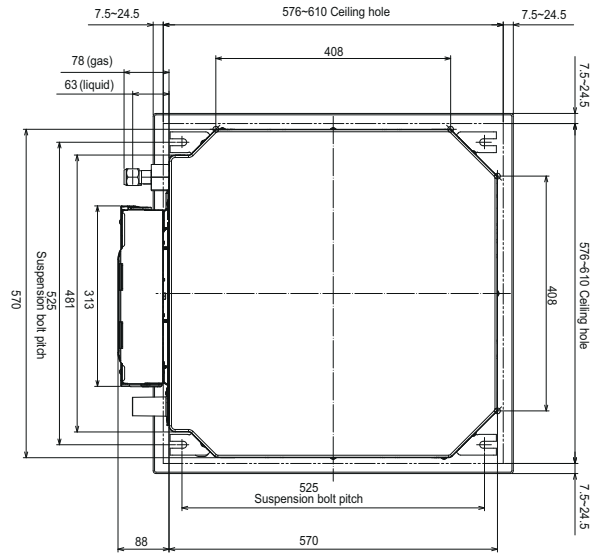
INDOOR UNITS		PLFY-WL15VFM-E	PLFY-WL20VFM-E	PLFY-WL25VFM-E	PLFY-WL32VFM-E	PLFY-WL40VFM-E
CAPACITY (kW)	Heating (nominal)	1.9	2.5	3.2	4.0	5.0
	Cooling (nominal)	1.7	2.2	2.8	3.6	4.5
	UK Heating	1.9	2.5	3.2	4.0	5.0
	UK Total Cooling - Hi (Sensible)	1.50 (1.30)	2.00 (1.60)	2.50 (2.00)	3.20 (2.60)	4.0 (3.1)
POWER INPUT (kW)	UK Total Cooling - Mi1	1.44	1.92	2.38	2.92	3.88
	UK Total Cooling - Lo	1.36	1.89	2.26	2.52	2.98
	Heating (nominal)	0.02	0.02	0.03	0.04	0.05
AIRFLOW (l/s)	Cooling (nominal)	0.02	0.02	0.03	0.04	0.05
	Lo-Mi-Hi	100-115-135	110-115-135	110-125-150	110-150-200	108-192-217
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	25-26-29	27-29-31	27-30-34	27-33-41	27-40-43
	(Grille)	13 (3)	14 (3)	14 (3)	14 (3)	14 (3)
WEIGHT (kg)	(Grille)	13 (3)	14 (3)	14 (3)	14 (3)	14 (3)
	Width (Grille)	570 (625)	570 (625)	570 (625)	570 (625)	570 (625)
	Depth (Grille)	570 (625)	570 (625)	570 (625)	570 (625)	570 (625)
DIMENSIONS (mm)	Height (Grille)	245 (10)	245 (10)	245 (10)	245 (10)	245(10)
	ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	
RUNNING CURRENT (A)	Heating / Cooling	0.18 / 0.24	0.20 / 0.26	0.23 / 0.29	0.32 / 0.38	0.40 / 0.46
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3
GRILLE MODEL REFERENCE		SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA
WATER PIPE CONNECTION		20mm I.D	20mm I.D	20mm I.D	20mm I.D	20mm I.D

Note: HVRV indoor units can only be configured with the CMB-WM HBC (HVRV) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.

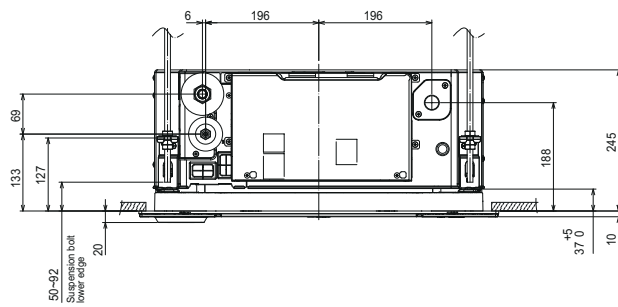
Upper View



Lower View



Side View



# PFFY-WP-VLRMM-E

## Floor Standing Concealed Indoor Unit



The **PFFY-WP-VLRMM-E** floor standing unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium. A compact concealed unit that provides simple, effective air conditioning in perimeter zones, the unit is easy to install and at only 200mm deep offers an unobtrusive method of delivering a highly efficient air conditioning performance.

### Key Features & Benefits

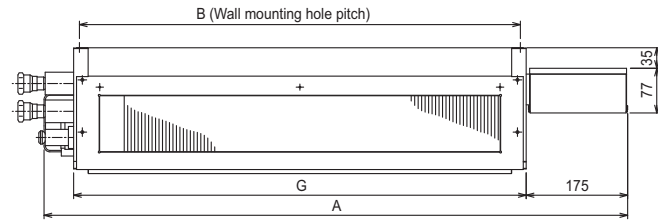
- Concealed unit for hidden installation or low visual impact
- Ideal for perimeter refurbishments
- Reduced noise levels for minimal disturbance
- Three static pressure settings - 20/40/60Pa, ideal for ducting in the perimeter zone
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels

INDOOR UNITS		PFFY-WP20VLRMM-E	PFFY-WP25VLRMM-E	PFFY-WP32VLRMM-E	PFFY-WP40VLRMM-E	PFFY-WP50VLRMM-E
CAPACITY (kW)	Heating (nominal)	2.5	3.2	4.0	5.0	6.3
	Cooling (nominal)	2.2	2.8	3.6	4.5	5.6
	UK Heating	2.5	3.2	4.0	5.0	6.3
	UK Total Cooling - Hi (Sensible)	2.00 (1.50)	2.50 (2.00)	3.20 (2.50)	4.00 (3.10)	5.00 (3.90)
	UK Total Cooling - Mi2	-	-	-	-	-
POWER INPUT (kW)	UK Total Cooling - Mi1	1.96	2.42	3.07	3.86	4.82
	UK Total Cooling - Lo	1.83	2.29	2.86	3.53	4.43
	Heating (nominal)	0.04	0.04	0.05	0.05	0.07
AIRFLOW (l/s)	Cooling (nominal)	0.04	0.04	0.05	0.05	0.07
	Lo-Mi-Hi	75-83-100	100-117-133	125-150-175	133-167-192	175-217-250
EXTERNAL STATIC PRESSURE (Pa)		20-40-60	20-40-60	20-40-60	20-40-60	20-40-60
SOUND PRESSURE LEVEL (dBA) (20Pa) Lo-Mi-Hi		31-33-38	31-33-38	31-35-38	34-37-40	37-42-45
WEIGHT (kg)		22	25	25	29	29
DIMENSIONS (mm)	Width	886	1006	1006	1246	1246
	Depth	220	220	220	220	220
	Height	639	639	639	639	639
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.35 / 0.35	0.35 / 0.35	0.47 / 0.47	0.47 / 0.47	0.65 / 0.65
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3
WATER PIPE CONNECTION		3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW

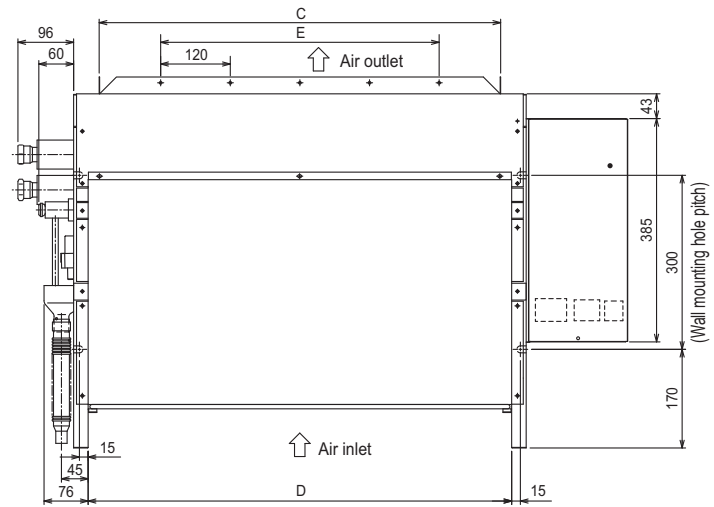
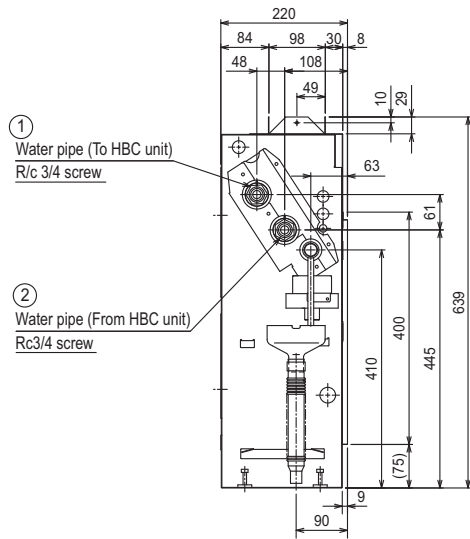
Note: HVRF indoor units can only be configured with the CMB-WM HBC (HVRF) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.



Upper View



Side View



Front View

Dimensions

Model	A	B	C	D	E	F	G	① Water pipe (To HBC unit)	② Water pipe (From HBC unit)
PFFY-WP20VLRMM-E	886	640	572	610	360	4	660	Rc3/4 screw	
PFFY-WP25VLRMM-E	1006	760	692	730	480	5	780		
PFFY-WP32VLRMM-E									
PFFY-WP40VLRMM-E									
PFFY-WP50VLRMM-E	1246	1000	932	970	720	7	1020		

# PKFY-WL-VLM-E / VKM-E

## Wall Mounted Indoor Unit

The **PKFY-WL** wall mounted indoor unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium. Elegant and compact in design, it is an ideal unit choice for exposed applications. The units quiet operation promotes minimal disturbance in close proximity.

### Key Features & Benefits

- Compact flat panel design - only 773mm wide (sizes 10-32)
- Widened vane control for improved air distribution and comfort
- Reduced noise levels of 22dB(A) (sizes 10-25) enabling minimal disturbance
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



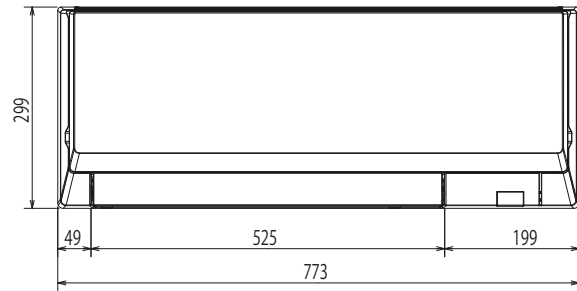
INDOOR UNITS		PKFY-WL10VLM-E	PKFY-WL15VLM-E	PKFY-WL20VLM-E	PKFY-WL25VLM-E	PKFY-WL32VLM-E	PKFY-WL40VLM-E	PKFY-WL50VKM-E	PKFY-WL63VKM-E
CAPACITY (kW)	Heating (nominal)	1.4	1.9	2.5	3.2	4.0	5.0	6.3	8.0
	Cooling (nominal)	1.2	1.7	2.2	2.8	3.6	4.5	5.6	7.1
	UK Heating	1.4	1.9	2.5	3.2	4.0	5.0	6.3	8.0
	UK Total Cooling - Hi (Sensible)	1.10 (0.90)	1.50 (1.10)	2.00 (1.50)	2.50 (1.90)	3.20 (2.40)	4.00 (3.00)	5.00 (4.10)	6.40 (5.00)
	UK Total Cooling - Mi2	1.08	1.45	1.92	2.38	3.09	3.82	-	-
	UK Total Cooling - Mi1	1.05	1.38	1.78	2.13	2.90	3.53	-	-
POWER INPUT (kW)	UK Total Cooling - Lo	1.00	1.30	1.61	1.82	2.65	3.12	4.88	6.05
	Heating (nominal)	0.01	0.01	0.02	0.03	0.03	0.04	0.04	0.05
AIRFLOW (l/s)	Cooling (nominal)	0.02	0.02	0.03	0.04	0.04	0.05	0.04	0.05
	Lo-Mi1-Mi2-Hi	55-63-68-75	55-63-72-82	67-83-100-117	67-90-117-140	105-127-150-173	107-137-167-198	300-333	300-367
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	22-26-28-30	22-26-29-32	22-28-33-36	22-30-36-41	29-34-38-41	30-36-41-45	39-42	39-45
WEIGHT (kg)		11	11	11	11	13	13	20	20
DIMENSIONS (mm)	Width	773	773	773	773	898	898	1170	1170
	Depth	237	237	237	237	237	237	295	295
	Height	299	299	299	299	299	299	365	365
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50/60Hz	220-240v, 50/60Hz
PHASE		Single	Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.15 / 0.20	0.15 / 0.20	0.20 / 0.25	0.30 / 0.35	0.30 / 0.35	0.40 / 0.45	0.40 / 0.46	0.50 / 0.56
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3	3	3
WATER PIPE CONNECTION		3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW

Note: HVRF indoor units can only be configured with the CMB-WM HBC (HVRF) and PURY-(EM) YNW-A1 or PQRY-P YLM-A1 outdoor units.

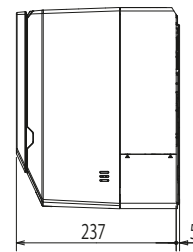
Product Dimensions

PKFY-WL10/15/20/25VLM-E

Front View



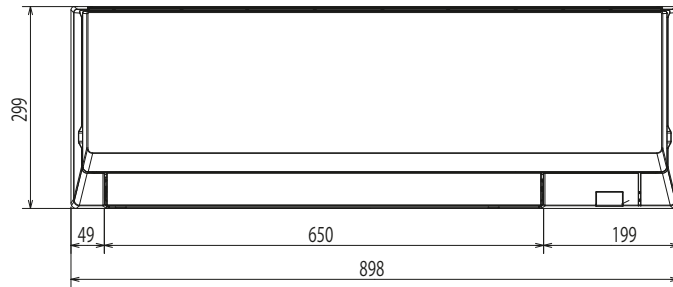
Side View



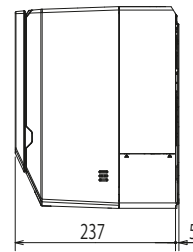
Product Dimensions

PKFY-WL32/40VLM-E

Front View



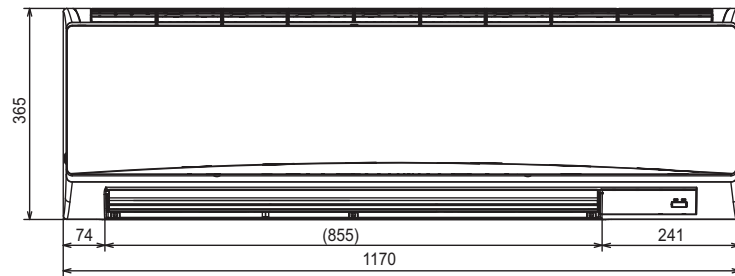
Side View



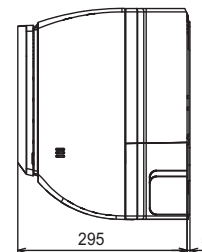
Product Dimensions

PKFY-WL50/63VKM-E

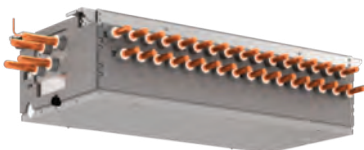
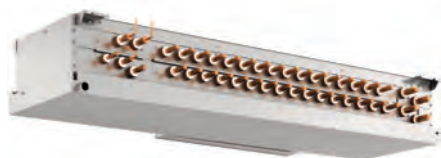
Front View



Side View



# HBC Controllers



At the heart of both the R2 and WR2 Series, the HBC Controller makes simultaneous heating and cooling possible. Improved system efficiency is achieved when energy is transferred intelligently around the building. The **HBC Controller** is available as a 6, 8 or 16 port model, and now includes both horizontal and vertical types, offering greater freedom and flexibility in system design.

## Key Features & Benefits

- Valves, pumps and heat exchanger all contained within the HBC
- Manageable, phased installation through modular HBC system design - ideal for Cat A to Cat B applications
- Intuitive load adjusting flow control valves and inverter driven pumps for maximum efficiency
- Where ceiling space is tight or congested, the compact vertical HBC can be considered as an alternative to the traditional horizontal type HBC box
- The vertical HBC's reduced footprint enables easier installation and service access



MAIN HBC CONTROLLERS		CMB-WM108V-AA	CMB-WM1016V-AA	CMB-WM350F-AA	CMB-WM500F-AA
NUMBER OF CONNECTIONS		8	16	6	6
ORIENTATION		Horizontal	Horizontal	Vertical	Vertical
COMPATIBILITY		R32 / R410A	R32 / R410A	R32	R32
WEIGHT (kg)		86 (96)*	98 (111)*	196 (216)*	209 (233)*
DIMENSIONS (mm)					
	Width	1520	1800	800	800
	Depth (Control Box)	540 (630)	540 (630)	500	500
	Height	300	300	1500	1500
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single
POWER INPUT (kW)		0.46	0.46	1.50	1.50
RUNNING CURRENT (A)		2.83	2.83	6.52	6.52
FUSE RATING (BS88) - HRC (A)		6	6	10	10
MAINS CABLE No. Cores		3	3	3	3

SUB HBC CONTROLLERS		CMB-WM108V-BB	CMB-WM1016V-BB
NUMBER OF CONNECTIONS		8	16
ORIENTATION		Horizontal	Horizontal
COMPATIBILITY		R32 / R410A	R32 / R410A
WEIGHT (kg)		40 (45)*	53 (62)*
DIMENSIONS (mm)			
	Width	930	1210
	Depth (Control Box)	540 (630)	540 (630)
	Height	310	310
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single
POWER INPUT (kW)		0.01	0.01
RUNNING CURRENT (A)		0.14	0.14
FUSE RATING (BS88) - HRC (A)		6	6
MAINS CABLE No. Cores		3	3

Notes: CMB-WM-V-AA (Main) and CMB-WM-V-BB (Sub) units are for use with PURY-(E)M200-500YNW-A1, PQRY-P200-500YLM-A1 outdoor/condenser units and HVRF indoor units only. CMB-WM-F-AA (Main) and CMB-WM-F-BB (Sub) units are for use with PURY-(E)M200-500YNW-A1 outdoor units and HVRF indoor units only.

One CMB-WM-V-AA unit can be used on PURY-(E)M200-250YNW-A1 and PQRY-P200-250YNW-A1 units. One CMB-WM-V-AA unit can be used on PURY-(E)M300-350YNW-A1 and PQRY-P300-350YLM-A1 units with a system efficiency reduction. Two CMB-WM-V-AA units can be used in parallel on PURY-(E)M300-500YNW-A1 and PQRY-P300-500YLM-A1 outdoor/condenser units. PURY-(E)M400-500YNW-A1 requires two CMB-WM-V-AA units.

One CMB-WM-F-AA can only be used on PURY-(E)M200-500YNW-A1 outdoor units.

A CMB-WM-V-AA and a CMB-WM-F-AA cannot be connected to the same R32 outdoor unit.

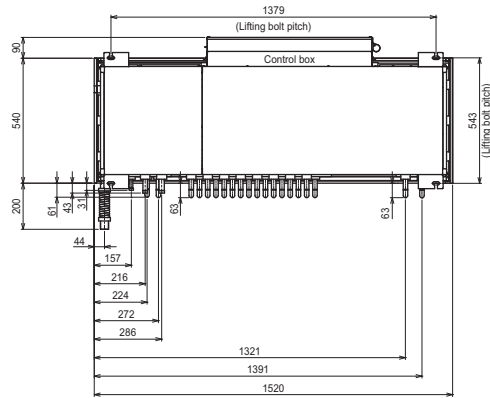
CMB-WM-V-BB units are for use with PURY-(E)M200-500YNW-A1, PQRY-P200-500YLM-A1 outdoor/condenser units and HVRF indoor units only, when accompanied by a CMB-WM-V-AA or CMB-WM-F-AA unit.

\*() Includes Water

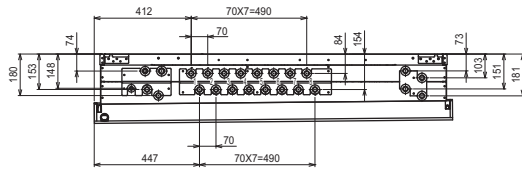
**Product Dimensions**

**CMB-WM108V-AA**

Upper View



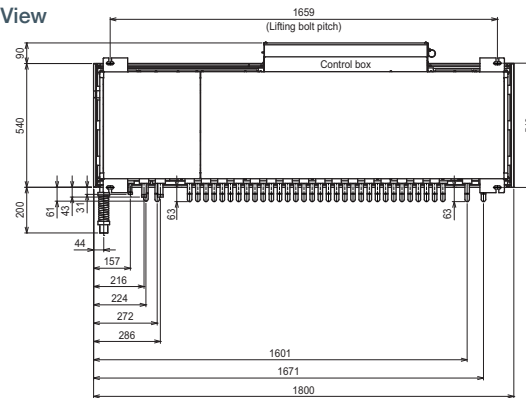
Side View



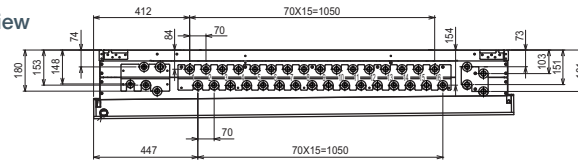
**Product Dimensions**

**CMB-WM1016V-AA**

Upper View



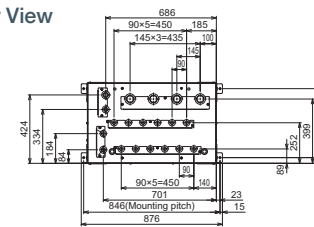
Side View



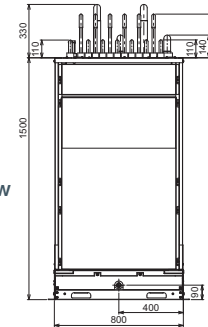
**Product Dimensions**

**CMB-WM350/500F-AA**

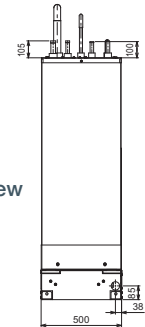
Upper View



Front View



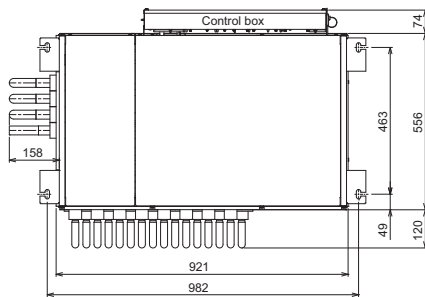
Side View



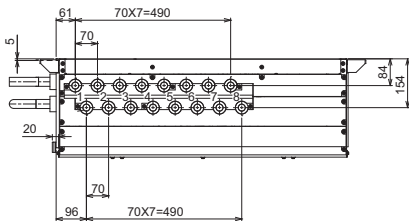
**Product Dimensions**

**CMB-WM108V-BB**

Upper View



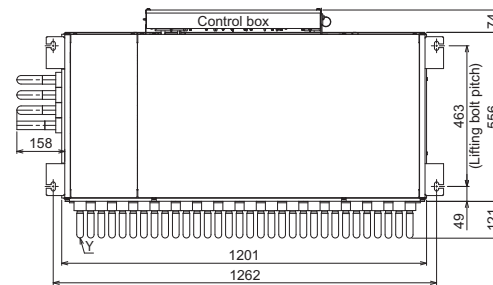
Side View



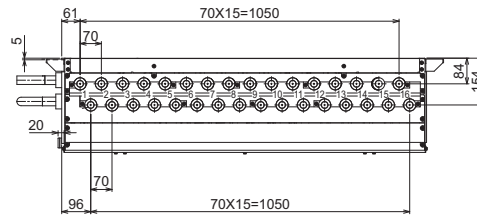
**Product Dimensions**

**CMB-WM1016V-BB**

Upper View



Side View



# City Multi Hybrid VRF Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>Outdoor Units</b>	
Fin Guard Side surfaces S / L modules (2pc) (P200-P450)	PAC-FG01S-E
Fin Guard Side surfaces XL module (2 pc) (P500)	PAC-FG02S-E
Fin Guard Rear surface S module (P200-P300)	PAC-FG01B-E
Fin Guard Rear surface L module (P350-P450)	PAC-FG02B-E
Fin Guard Rear surface XL module (P500)	PAC-FG03B-E
Differential pressure switch for PQRY-P200-300YLM-A1	KS10-EP100S
<b>Indoor Units</b>	
Remote Temperature Sensor	PAC-SE41TS-E
Discreet Remote Temperature Sensor	KS9-BS1-A
<b>Ceiling Concealed Ducted Indoor Units</b>	
Plasma Quad Connect air purifying device for PEFY-WP-VMS1-E / PEFY-WP-VMA-E	MAC-100FT-E
Plasma Quad Connect metal fitment for PEFY-WP-VMS1-E	PAC-HA11PAR
Plasma Quad Connect metal fitment for PEFY-WP-VMA-E	PAC-HA31PAR
<b>4-Way Blow Cassette Indoor Units</b>	
Grille for PLFY-WL-VFM-E	SLP-2FA
3D i-see sensor grille for PLFY-WL-VFM-E	SLP-2FAE
Grille for PLFY-WL-VEM-E	PLP-6EA
3D i-see sensor grille for PLFY-WL-VEM-E	PLP-6EAE
Self elevating grille for PLFY-WL-VEM-E	PLP-6EAJ
Corner panel with i-see sensor for PLFY-WL-VEM-E	PAC-SE1ME-E
Corner panel with signal receiver for PLFY-WL-VEM-E	PAR-SE9FA-E
Shutter plate for PLFY-WL-VEM-E	PAC-SJ37SP-E
Multi-function casement for PLFY-WL-VEM-E	PAC-SJ41TM-E
High efficiency filter for PLFY-WL-VEM-E (must be used with PAC-SJ41TM-E)	PAC-SH59KF-E
V Blocking air purifying filter for PLFY-WL-VEM-E	PAC-SK53KF-E
V Blocking air purifying filter for PLFY-WL-VFM-E	PAC-SK54KF-E
Plasma Quad Connect air purifying device (x1) with multi-function casement for PLFY-WL-VEM-E	PAC-SK51FT-E
<b>Wall Mounted Indoor Units</b>	
Plasma Quad Connect air purifying device for PKFY-WL-VLM-E / VKM-E	MAC-100FT-E



# Commercial Heat Pumps & Chillers

A new generation of energy saving  
and innovative technology







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## Commercial Heat Pumps & Chillers

# The Innovative Commercial Heat Pump & Chiller Range

Mitsubishi Electric has developed a range of heat pumps and chillers specifically designed for heating and cooling commercial buildings.

The Ecodan® range provides renewable heating, challenging traditional heating solutions, whilst meeting the energy and carbon reduction demands of today and beyond. At the same time the e-Series modular chiller range provides a low-carbon, flexible and cost effective option, allowing up to six individual units to be connected together to provide a system capacity from 150kW to 1,080kW, in either cooling only or heat pump options.

In 2015 Mitsubishi Electric purchased Climaveneta, enhancing our product line up and marking our full scale entry into the chiller market.

Climaveneta is a strong European brand, supported by 45 years of customer trust and high quality production. Its range of energy-saving, low-noise and innovative heat pump and chiller technology further expands the application and customisation capabilities we are now able to offer.

Through our technical expertise, long experience and innovative product range, we enable building operators everywhere to significantly improve energy efficiency, reduce running costs and adhere to increasingly tough legislation.

**We believe that global climate challenges need local solutions.  
Our aim is to help individuals and businesses reduce the energy consumption of their buildings and their running costs.**



**ecodan**<sup>®</sup>  
Renewable Heating Technology

**e-series**

**CLIMAVENETA**  
SUSTAINABLE COMFORT

## Commercial Heat Pumps & Chillers

### Our Commercial Heating range at a glance

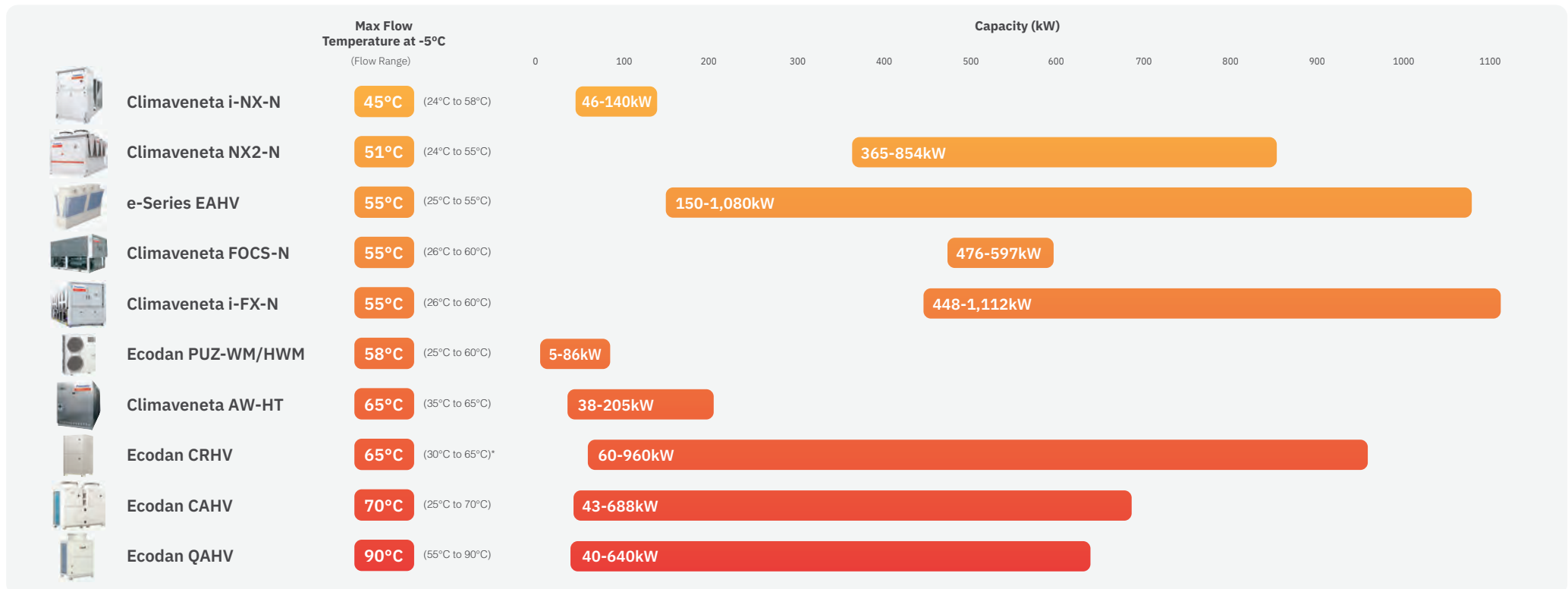
The range of heat pumps on the market is now wider than it ever has been. This means it's possible to select exactly the right equipment for the specific application. Our commercial heat pumps fall into three broad ranges:



**Climaveneta** - Commercial heat pumps that use a wide range of low and lower GWP refrigerants, alongside the latest fixed speed/inverter scroll and screw compressors.

**e-Series** - Designed for medium to large capacity LTHW commercial applications, the e-Series modular heat pump range allows for up to 6 individual units to be connected together.

**Ecodan** - A range of renewable heat pumps that efficiently and reliably generate sustainable space heating and hot water all year round.



Notes: \* Water source



# Hydrodan EHWT17D-MHEDW R32 Water to Water Heat Pump



The **Ecodan Hydrodan** is a water to water heat pump, designed to produce heating and hot water in residential apartments, and connect to a 5th generation ambient temperature heat network deployed throughout the building. The use of these networks helps to reduce overheating in apartments and also produces negligible distribution losses. The local heat network can be maintained at ambient temperature by a Mitsubishi Electric commercial heat pump, environmental source or connected to a district heat network.

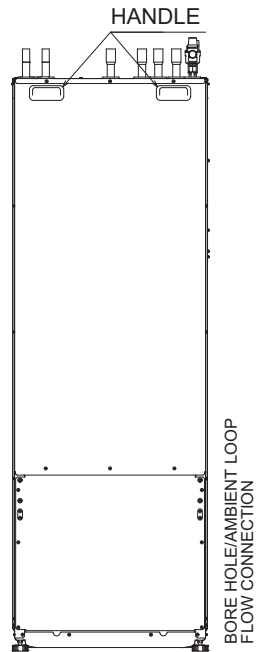
## Key Features & Benefits

- Removable heat pump module - simple for repairs
- Highly efficient heating and hot water production - low running costs for owners
- Low quantity R32 refrigerant - low environmental impact
- PIC valve network control - simple pressure balancing and flow control
- Ultra-low noise output - no disturbance for owners

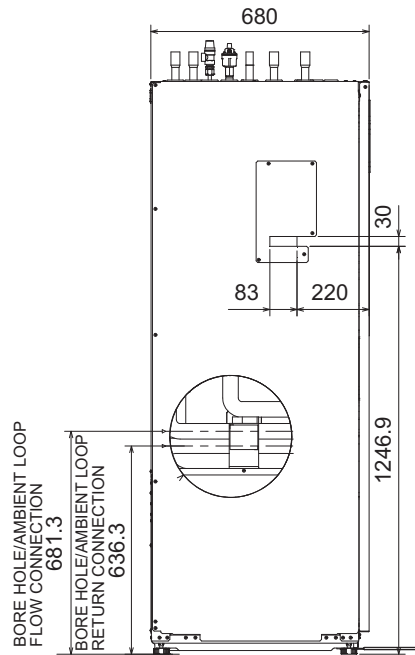


MODEL			EHWT17D-MHEDW	
CAPACITY INFORMATION	L20 / W35	Heating Capacity (min-max)	kW	1.2 - 8.0
		Power Input (min-max)	kW	0.3 - 1.0
		COP (Nom.)	-	9.2
	L20 / W45	Heating Capacity (min-max)	kW	1.1 - 7.5
		Power Input (min-max)	kW	0.5 - 1.3
		COP (Nom.)	-	6.3
	L20 / W55 (DHW)	Heating Capacity (DHW)	kW	6.3
		Power Input (DHW)	kW	1.3
		COP (DHW)	-	5.0
	L25 / W35	Heating Capacity (min-max)	kW	1.5 - 9.3
		Power Input (min-max)	kW	0.2 - 1.0
		COP (Nom.)	-	11.3
	L25 / W45	Heating Capacity (min-max)	kW	1.3 - 8.5
		Power Input (min-max)	kW	0.4 - 1.3
COP (Nom.)		-	7.8	
L25 / W55 (DHW)	Heating Capacity (DHW)	kW	6.8	
	Power Input (DHW)	kW	1.5	
	COP (DHW)	-	5.4	
	Heating Circuit Flow Rate (min - max)	l/min	-	7.1 - 27.7
LOOP INFORMATION	Control Type	-	-	PICV + Actuator
	Inlet Temperature Range (min - max)	°C	-	10 - 30
	Flow Rate (min - max)	l/min	-	7.2 - 24
	Maximum Loop Pressure Rating	bar	-	10
	Pipe Connection Size	mm	-	28
ELECTRICAL INFORMATION	Voltage/Phase/Frequency	v/ph/Hz	-	230v/1ph/50Hz
	Fuse Rating - Heat Pump/Immersion Heater	A	-	16/20
	Number of Connections	-	-	2
	Immersion Rating (Tank)	kW	-	3
	Start up Current	A	-	3.1
GENERAL INFORMATION	Unit Dimensions (WxDxH)	mm	-	595 x 680 x 1750
	Compressor Type	-	-	Rotary compressor
	Domestic Hot Water Tank Volume (net)	l	-	170
	Weight (empty)	kg	-	166
	Weight (full)	kg	-	345
	Refrigerant	-	-	R32
	Volume of Refrigerant	kg	-	0.9
	Heating Temperature Range	°C	-	20 - 60
	Hot Water Temperature Range	°C	-	40 - 60
	Internal Water Volume Loop Side / Heating Side	l	-	3.16 / 5.47
	Sound Power Level	dBA	-	38
Sound Pressure Level @1m	dBA	-	27	

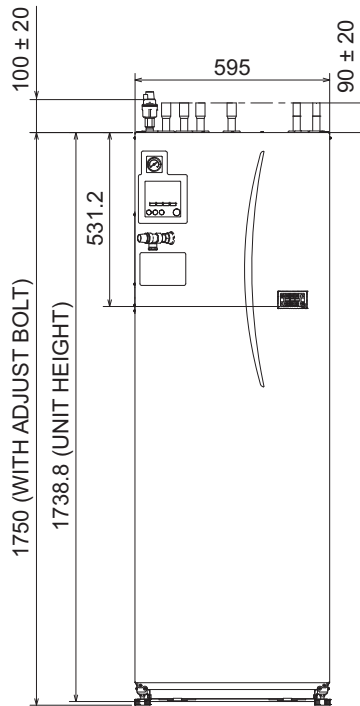
Rear View



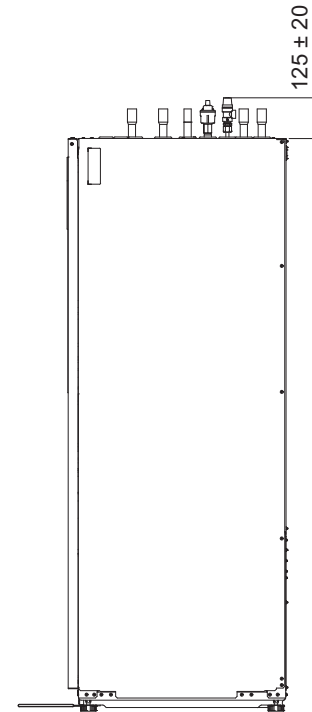
Left Side View



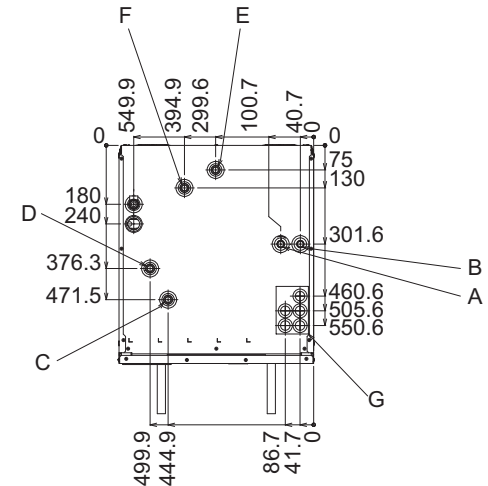
Front View



Right Side View



Upper View



Letter	Pipe description	Connection size/type
A	DHW outlet connection	22 mm/Compression
B	Cold water inlet connection	22 mm/Compression
C	Space heating return connection	28 mm/Compression
D	Space heating flow connection	28 mm/Compression
E	Ambient loop return connection	28 mm/Compression
F	Ambient loop flow connection	28 mm/Compression
G	Electrical cable inlets	For inlets 1 and 2, run low-voltage wires including external input wires and thermistor wires. For inlets 3, 4 and 5, run high-voltage wires including power cable, and external output wires. *For a wireless receiver (option) cable and ecodan Wi-Fi interface (option) cable, use inlet 1.

e-series

# EAHV R32 Modular Air Source Heat Pump

(150 to 1,080kW)

The R32 e-Series **EAHV** range allows for up to 6 individual units to be connected together to provide a system capacity from 150kW to 1,080kW. Using this modular approach reduces space requirements and simplifies lifting and installation.

## Key Features & Benefits

- Highly efficient inverter scroll compressors
- Modular to maximise space saving
- Y-shaped heat exchangers allow for a greater surface area, maximising efficiency, whilst also keeping the units much narrower than conventional heat pumps

MODEL		EAHV-M1500YCL-N	EAHV-M1800YCL-N	
POWER SOURCE		3-phase 4-wire 380-400-415v 50/60Hz		
COOLING CAPACITY <sup>1</sup>		150	180	
	Power Input	kW	44.73	57.02
	EER		3.35	3.16
	IPLV <sup>6</sup>		6.42	6.31
	Water Flow Rate	m <sup>3</sup> /h	25.8	31.0
COOLING CAPACITY (EN14511) <sup>2</sup>		149.18	178.80	
	Power Input	kW	45.55	58.22
	EER		3.28	3.07
	Eurovent Efficiency Class		A	B
	SEER		5.52	5.36
	Performance (η <sub>s,c</sub> )	%	217.8	211.4
	Water Flow Rate	m <sup>3</sup> /h	25.8	31.0
HEATING CAPACITY <sup>3</sup>		150	180	
	Power Input	kW	42.61	53.09
	COP		3.52	3.39
	Water Flow Rate	m <sup>3</sup> /h	25.8	31.0
HEATING CAPACITY (EN14511) <sup>4</sup>		150.82	181.20	
	Power Input	kW	43.43	54.29
	COP		3.47	3.34
	SCOP Low/Medium		3.31/2.88	3.31/2.88
	Water Flow Rate	m <sup>3</sup> /h	25.8	31.0
CURRENT INPUT		76 - 72 - 69	96 - 91 - 88	
	Cooling Current 380-400-415V <sup>1</sup>	A	72 - 68 - 66	90 - 85 - 82
	Heating Current 380-400-415V <sup>3</sup>	A	120	120
	Maximum Current	A	55	78
WATER PRESSURE DROP <sup>1</sup>		55	78	
TEMP RANGE	Cooling	°C	Outlet water 4-30	Outlet water 4-30
	Heating	°C	Outlet water 25-55	Outlet water 25-55
	Outdoor (Cooling)	°C	-15-52	-15-52
	Outdoor (Heating)	°C	-20-43	-20-43
CIRCULATING WATER VOLUME RANGE		m <sup>3</sup> /h	12.9-43.0	12.9-43.0
SOUND PRESSURE LEVEL (Measured in anechoic room) at 1m <sup>1</sup>		dB (A)	65	67
SOUND POWER LEVEL (Measured in anechoic room) <sup>1</sup>		dB (A)	83	85
DIAMETER OF WATER PIPE (Standard piping)	Inlet	mm (in)	65A (2 1/2B) housing type joint	65A (2 1/2B) housing type joint
	Outlet	mm (in)	65A (2 1/2B) housing type joint	65A (2 1/2B) housing type joint
DIAMETER OF WATER PIPE (Inside header piping)	Inlet	mm (in)	150A (6B) housing type joint	150A (6B) housing type joint
	Outlet	mm (in)	150A (6B) housing type joint	150A (6B) housing type joint
EXTERNAL FINISH			Polyester powder coating steel plate	Polyester powder coating steel plate
EXTERNAL DIMENSION	W x D x H	mm	3400 x 1080 x 2350	3400 x 1080 x 2350
NET WEIGHT	Standard Piping	kg (lbs)	1280 (2822)	1280 (2822)
	Inside Header Piping	kg (lbs)	1307 (2881)	1307 (2881)
DESIGN PRESSURE	R32	MPa	4.15	4.15
	Water	MPa	1.0	1.0
HEAT EXCHANGER	Water Side		Stainless steel plate and copper brazing	Stainless steel plate and copper brazing
	Air Side		Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube
COMPRESSOR	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting Method		Inverter	Inverter
FAN	Quantity		4	4
	Motor Output	kW	11.5 x 4	11.5 x 4
	Air Flow Rate	m <sup>3</sup> /min	270 x 4	270 x 4
		L/s	4500 x 4	4500 x 4
		cfm	9534 x 4	9534 x 4
REFRIGERANT	Type, Quantity		Propeller fan x 4	Propeller fan x 4
	Starting Method		Inverter	Inverter
	Motor Output	kW	0.92 x 4	0.92 x 4
	External Static Pressure	Pa	20	20
	Type x Charge		R32 x 11.5 (kg) x 4 <sup>5</sup>	R32 x 11.5 (kg) x 4 <sup>5</sup>
Control		LEV	LEV	

### Notes:

<sup>1</sup> Under normal cooling conditions at outdoor temp 35°CDB/24°CWB (95°FDB / 75.2°FWB) outlet water temp 7°C (44.6°F) inlet water temp 12°C (53.6°F). Pump input is not included in cooling capacity and power input.

<sup>2</sup> Under normal cooling conditions at outdoor temp 35°CDB/24°CWB (95°FDB/75.2°FWB) outlet water temp 7°C (44.6°F) inlet water temp 12°C (53.6°F). Pump input is included in cooling capacity and power input based on EN14511.

<sup>3</sup> Under normal heating conditions at outdoor temp 7°CDB/6°CWB (44.6°FDB/42.8°FWB) outlet water temp 45°C (113°F) inlet water temp 40°C (104°F). Pump input is not included in heating capacity and power input.

<sup>4</sup> Under normal heating conditions at outdoor temp 7°CDB/6°CWB (44.6°FDB/42.8°FWB) outlet water temp 45°C (113°F) inlet water temp 40°C (104°F). Pump input is included in heating capacity and power input based on EN14511.

<sup>5</sup> Amount of factory-charged refrigerant is 3 (kg) x 4. Please add the refrigerant at the field.

<sup>6</sup> IPLV is calculated in accordance with AHRI 550-590.

\*Please don't use the steel material for the water piping.

\*Please always make water circulate, or pull the circulation water out completely when not in use.

\*Please do not use groundwater or well water in direct.

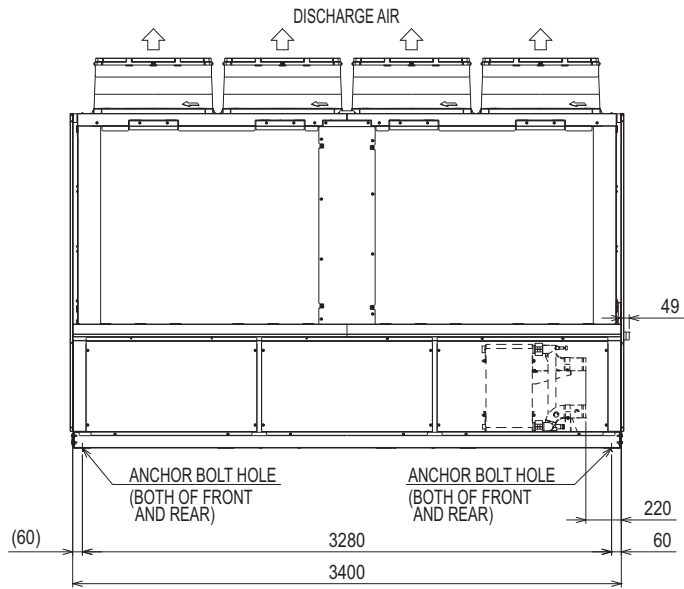
\*The water circuit must be closed circuit.

\*Due to continuous improvement, the above specifications may be subject to change without notice.

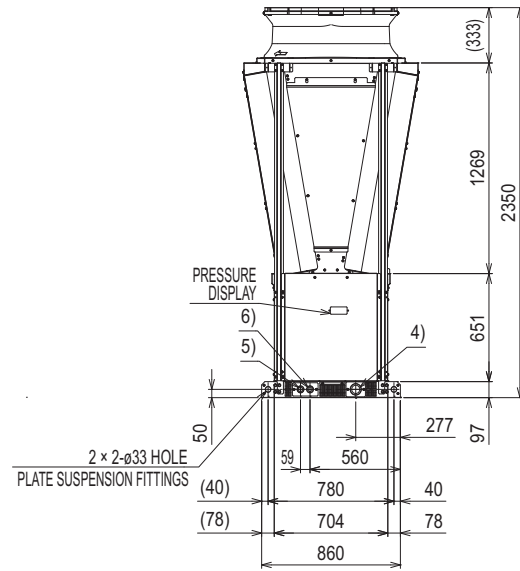
\*This model doesn't equip with a pump.



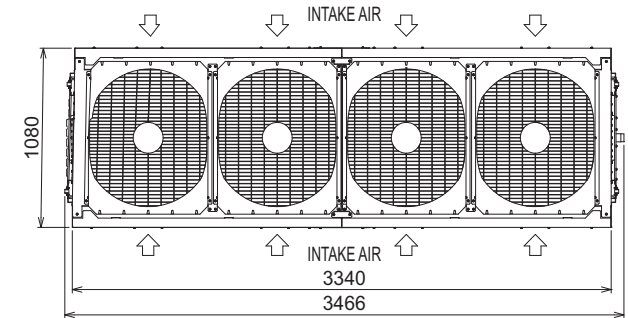
Front View



Side View



Upper View





# CRHV R410A Ground / Water Source Heat Pump



**PLEASE NOTE:** Full design criteria is needed to ascertain the capacity which could change based on heat source temperature and building flow temperature.

- <sup>1</sup> Under normal heating conditions at brine inlet: 0°C, outlet water temp 35°C as tested to BS EN14511 (60kW)  
<sup>2</sup> Under normal heating conditions at brine inlet: 0°C, outlet water temp 35°C as tested to BS EN14511 (45kW)  
<sup>3</sup> Under normal heating conditions at water inlet: 10°C, outlet water temp 35°C as tested to BS EN14511 (60kW)  
<sup>4</sup> Under normal heating conditions at water inlet: 10°C, outlet water temp 35°C as tested to BS EN14511 (45kW)  
<sup>5</sup> Sound power level as tested to BS EN12102  
<sup>6</sup> Heat source inlet temperature above 27°C and up to 45°C option must reverse the inlet and outlet heat source connections and refer to manual for dip switch changes  
<sup>7</sup> The system should be adequately protected from freezing  
<sup>8</sup> MCB Sizes BS EN60898-2 & BS EN60947-2  
 \* LTHW - Low Temperature Hot Water  
 \* Please use adequate frost protection to ensure pipework and the unit do not freeze if the system is powered down  
 \* Please do not use ground water or well water directly within the unit  
 \* The water circuit must be a closed circuit

$\eta_s$  is the seasonal space heating energy efficiency (SSHEE)  
 $\eta_w$  is the water heating energy efficiency



Certificate Number: MCS HP0002  
 Product Type: Heat Pumps  
 Product Reference: CRHV-P600YA-HPB

The inverter driven Ecodan **CRHV** monobloc ground / water source heat pump can operate singly, or be banked together to create a system that can modulate and cascade available units on and off to meet the load from a building.

This level of modulation is unprecedented within the heating industry, and with cascade and rotation built in as standard, the Ecodan CRHV system is perfectly suited to a wide range of commercial applications.

## Key Features & Benefits

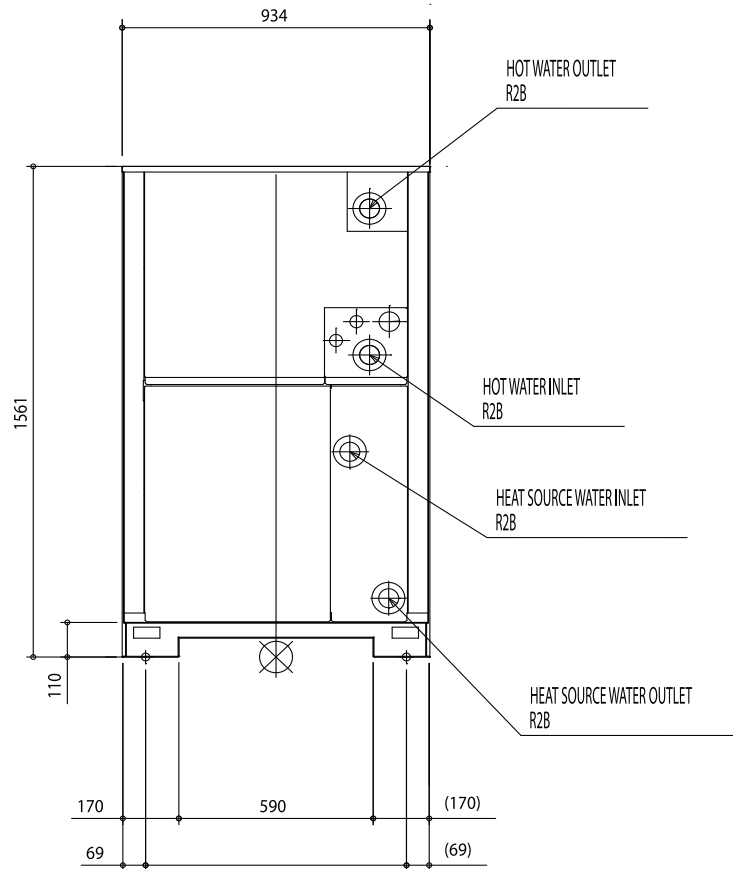
- Wide range of heat sources - bore holes, slinkies, aquifers, lakes, rivers and waste heat
- Multiple unit cascade control of up to 16 units / 960kW
- Ability to rotate units based on accumulated run hours
- Provides up to 65°C water flow temperatures without booster heaters
- Low maintenance, just electrical and water connections
- Heat recovery applications can be achieved by moving heat between applications
- Passive cooling possible by exchanging ground / water source with a chilled water system



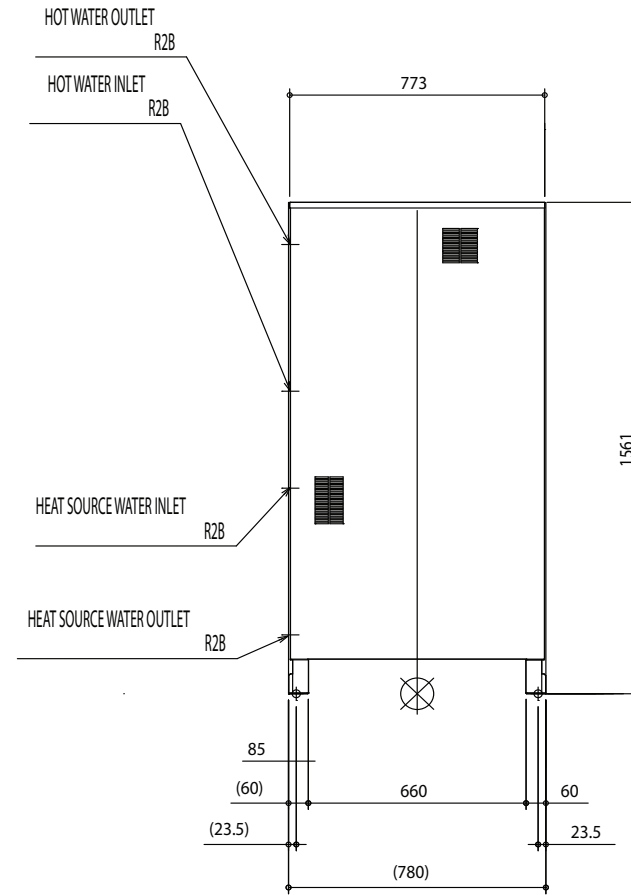
MODEL		CRHV-P600YA-HPB
HEAT PUMP SPACE HEATER - 55°C		ErP Rating $\eta_s$ SCOP
HEAT PUMP SPACE HEATER - 35°C		ErP Rating $\eta_s$ SCOP
HEATING <sup>1</sup> (B0/W35)		Capacity (kW) Power Input inc. pump (kW) COP
SEASONAL EFFICIENCY EN14825 (SPF) HEATING <sup>2</sup> (B0/W35)		B0/W35 (60kW) Capacity (kW) Power Input inc. pump (kW) COP
SEASONAL EFFICIENCY EN14825 (SPF) HEATING <sup>3</sup> (W10/W35)		B0/W35 (45kW) Capacity (kW) Power Input inc. pump (kW) COP
SEASONAL EFFICIENCY EN14825 (SPF) HEATING <sup>4</sup> (W10/W35)		W10/W35 (60kW) Capacity (kW) Power Input inc. pump (kW) COP
SEASONAL EFFICIENCY EN14825 (SPF) HEATING <sup>4</sup> (W10/W35)		W10/W35 (45kW) Capacity (kW) Power Input inc. pump (kW) COP
SOUND DATA		W10/W35 (45kW) Pressure Level $L_{pA}$ at 1m (dBA) Power Level $L_{wA}$ (dBA) <sup>5</sup>
WATER DATA		Heat Source (Brine) (l/s (m <sup>3</sup> /hr)) Building Side (LTHW) (l/s (m <sup>3</sup> /hr)) Heat Source Outlet (Brine) (mm (")) Heat Source Inlet (Brine) (mm (")) Building Side Outlet (LTHW) (mm (")) Building Side Inlet (LTHW) (mm (")) Heat Source Inlet (Brine) (°C) Heat Source Inlet Option (Brine) (°C) <sup>6</sup> Building Side Outlet (LTHW) (°C)
		1.5 to 4.1 (5.4 to 15) 1.5 to 4.4 (5.4 to 16) 50.8 (R2) screw 50.8 (R2) screw 50.8 (R2) screw 50.8 (R2) screw -5 to +27 -5 to +45 +30 to +65
		Min 30% Ethylene Glycol or equivalent
		Heat Source (Brine) (kPa) Building Side (LTHW) (kPa) Heat Source (Brine) (MPa(Bar)) Building Side (LTHW) (MPa(Bar))
		12 7 1 (10) 1 (10)
DIMENSIONS		Width (mm) Depth (mm) Height (mm)
		934 780 1561
WEIGHT (kg)		395
REFRIGERANT		Type Charge (kg) / CO <sub>2</sub> Equivalent (t) Max pressure (MPa (Bar)) Compressor Type Circuit type
		R410A 9 / 18.7 4.15 (41.5) Inverter Driven Hermetically Sealed System
ELECTRICAL DATA		Electrical Supply Phase Maximum Running Current (A) Fuse Rating - MCB Size (A) <sup>8</sup>
		415V, 50Hz 3 44 50



Front View



Side View





# CAHV R407C Air Source Heat Pump

Specifically designed for large applications, the Ecodan **CAHV** air source heat pump monobloc system can operate singularly, or form part of a multiple unit system. The CAHV also comes equipped with a wide range of controller features as standard.

A multiple unit system has the ability to cascade available units on and off to meet the load from a building. As an example of this modulation, a 16 unit system allows 0.5kW increments of capacity, from 18kW all the way up to 688kW. This level of modulation is unprecedented within the heating industry and with cascade and rotation built in as standard, the Ecodan CAHV system is perfectly suited to a wide range of commercial applications.

## Key Features & Benefits

- Multiple unit cascade control of up to 688kW capacity, only water and electrical connections needed
- Ability to rotate units based on accumulated run hours
- Provides from 25°C up to 70°C water flow temperatures without boost heaters
- Low maintenance



MODEL		CAHV-P500YB-HPB
HEAT PUMP SPACE HEATER - 55°C	ErP Rating	A++
	$\eta_{s}$	125%
	SCOP	3.19
HEAT PUMP SPACE HEATER - 35°C	ErP Rating	A+
	$\eta_{s}$	139%
	SCOP	3.54
HEATING*1 (A-3/W35)	Capacity (kW)	42.6
	Power Input (kW)	15.2
	COP	2.80
OPERATING AMBIENT TEMPERATURE (°C DB)		-20~+40°C
SOUND PRESSURE LEVEL AT 1M (dBA)**3		59
LOW NOISE MODE (dBA)**2		Variable
FLOW RATE (l/min)		126
WATER PRESSURE DROP (kPa)		18
DIMENSIONS (mm)	Width	1978
	Depth	759
	Height	1710 (1650 without legs)
WEIGHT (kg)		526
ELECTRICAL SUPPLY		380-415v, 50Hz
PHASE		3
RUNNING CURRENT Min - Max (A)**5		17.6 - 52.9
FUSE RATING - MCB SIZES (A)**4		63
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R407C (GWP 1774)	11 / 19.5

### Notes:

\*1 Under normal heating conditions at outdoor temp: -3°CDB / -4°CWB, outlet water temp 35°C, inlet water temp 30°C. \*2 Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 35°C, inlet water temp 30°C as tested to BS EN14511  
\*3 Sound power level of the CAHV-P500YB-HPB is 70.7dBA. Tested to BS EN12102. \*4 MCB Sizes BS EN60898-2 & BS EN60947-2. \*5 Minimum running current is based on 7°C ambient temperature with a 35°C flow temperature. Maximum running current is based on -7°C ambient temperature with a 70°C flow temperature.

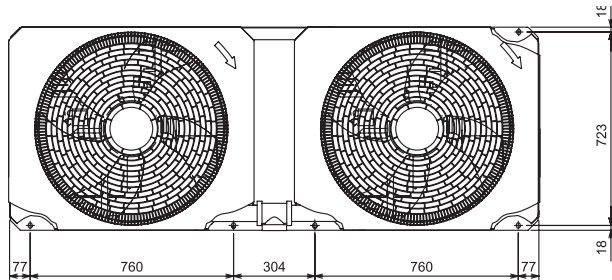
$\eta_{s}$  is the seasonal space heating energy efficiency (SSHEE)  $\eta_{w}$  is the water heating energy efficiency

APPROVED PRODUCT

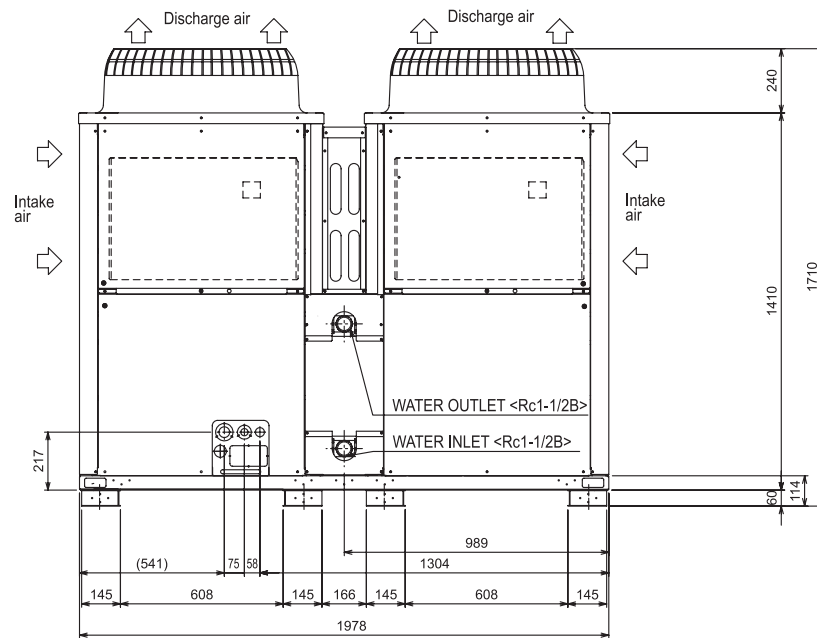


Certificate Number: MCS HP0002  
Product Type: Heat Pumps  
Product Reference: CAHV-P500YB-HPB

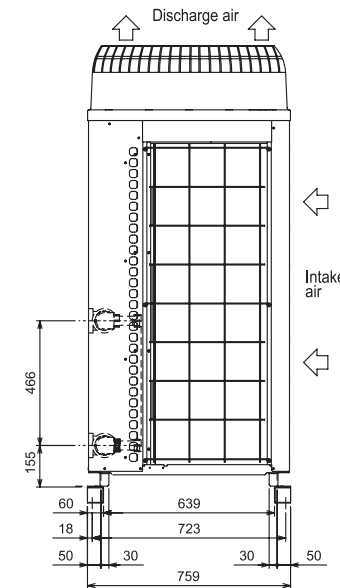
Upper View



Front View



Side View





# QAHV R744 Air Source Heat Pump



Specifically designed for commercial sanitary hot water application, where gas boilers, combined heat and power systems (CHP) or electric water heating have been traditionally utilised, the 40kW Ecodan **QAHV** provides a low carbon solution for hotels, apartment blocks, leisure centres, hospitals, care homes, restaurants and education.

Utilising the natural and stable refrigerant CO<sub>2</sub> (R744), the environmentally clean solution enables compliance to strict local planning laws and boosts BREEAM points. Compounded by the increasing decarbonisation of the electrical grid, the QAHV provides a high efficiency, low carbon hot water delivery solution with leaving water temperature up to 90°C.

## Key Features & Benefits

- High efficiency at high flow temperatures
- Utilises CO<sub>2</sub> refrigerant which has a GWP of 1
- Uses a unique twisted and spiral gas cooler to enhance energy efficiency
- Full heating capacity down to -3°C outdoor temperature and operates down to -25°C
- Super low noise levels
- Able to utilise with an indirect system



MODEL		QAHV-N560YA-HPB
WATER HEATING 65°C <sup>1</sup>	CAPACITY (kW)	40
	POWER INPUT (kW)	10.31
	CURRENT INPUT (A)	16.3
	COP	3.88
WATER HEATING 65°C <sup>2</sup>	CAPACITY (kW)	40
	POWER INPUT (kW)	10.97
	CURRENT INPUT (A)	18.3
	COP	3.65
WATER HEATING 65°C <sup>3</sup>	CAPACITY (kW)	40
	POWER INPUT (kW)	11.6
	CURRENT INPUT (A)	18.7
	COP	3.44
WATER HEATING ENERGY EFFICIENCY CLASS TEMPERATURE RANGE	FOR MEDIUM TEMPERATURE APPLICATION	A
	INLET WATER TEMPERATURE (°C)	5 ~ 63
	OUTLET WATER TEMPERATURE (°C)	55 ~ 90
	OUTDOOR TEMPERATURE (°C)	-25~43
ELECTRICAL	MAX CURRENT INPUT (A)	33.8
	ELECTRICAL SUPPLY (V / Hz)	380-415v, 50Hz
	PHASE	3
	FUSE RATING - MCB SIZES (A) <sup>5</sup>	40
WATER DETAIL	INLET / OUTLET (mm (in.))	19.05 (Rc 3/4") / 19.05 (Rc 3/4")
	ALLOWABLE EXTERNAL PUMP HEAD (kPa)	77
DIMENSIONS (mm)	WIDTH	1220
	DEPTH	760
	HEIGHT	1837 (1777 without legs)
WEIGHT (kg)		400
NOISE LEVEL	SOUND PRESSURE <sup>4</sup> (dB(A))	56
REFRIGERANT	TYPE	R744 (GWP 1)
	REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	6.5 / 0.0065

### Notes:

<sup>1</sup> Under Normal heating conditions at the outdoor temp, 16°CDB/12°CWB, the outlet water temperature 65°C, and the inlet water temperature 17°C

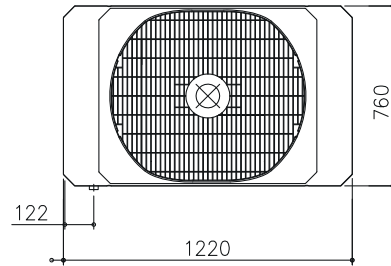
<sup>2</sup> Under Normal heating conditions at the outdoor temp, 7°CDB/6°CWB, the outlet water temperature 65°C, and the inlet water temperature 9°C

<sup>3</sup> Under Normal heating conditions at the outdoor temp, 7°CDB/6°CWB, the outlet water temperature 65°C, and the inlet water temperature 15°C

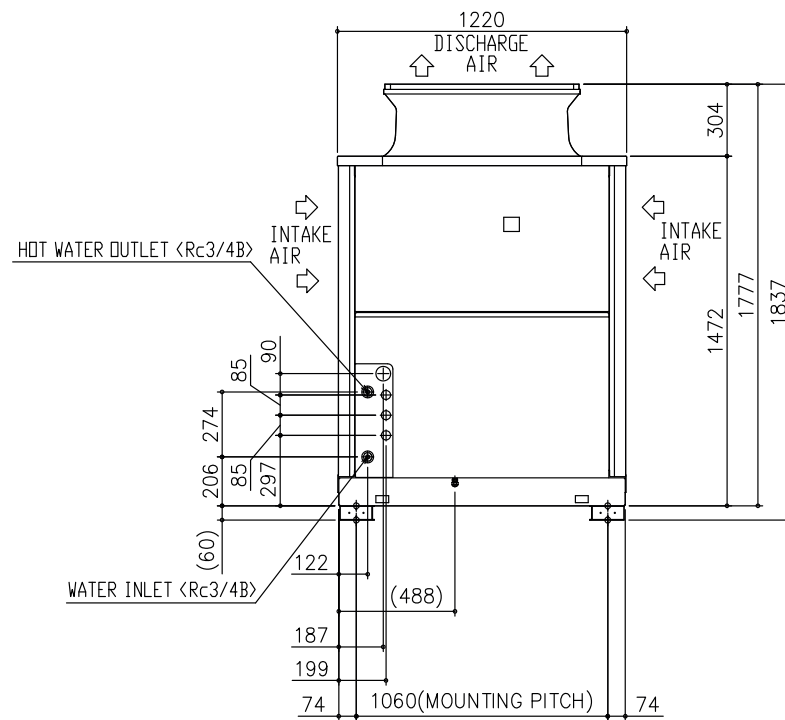
<sup>4</sup> Measured 1m from the front of the unit in an anechoic room

<sup>5</sup> MCB Sizes BS EN60898-2 & BS EN60947-2

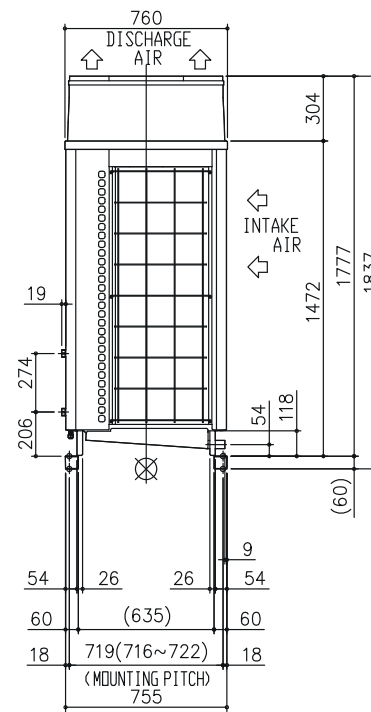
Upper View



Front View



Side View



# i-NX-N R410A Air Source Heat Pump

(46 to 138kW)

## Key Features & Benefits

- Inverter compressor technology
- Simplified installation
- Super silent operation
- Extensive options



### Notes:

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C.
5. Rated in accordance with AHRI Standard 550/590.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.
10. Sound power on the basis of measurements made in compliance with ISO 9614.
11. Sound power level in cooling, outdoors.
12. Sound power level in heating, outdoors.
13. Unit in standard configuration/execution, without optional accessories.

Designed for medium capacity LTHW commercial applications, our Climaveneta range of **i-NX-N** heat pumps include the exclusive 1 + i compressor philosophy. Both the fixed speed scroll compressor and the scroll inverter compressor are combined in the same circuit. This technology ensures maximum benefit in terms of efficiency at partial loads compared to a solution with separate circuits.



MODEL		0151P	0182P	0202P	0262P	0302P	0352P	0402P	0502P
POWER SUPPLY	V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>									
<b>COOLING ONLY (GROSS VALUE)</b>									
COOLING CAPACITY <sup>1</sup>	kW	43.87	50.9	62.09	74.4	85.27	104.7	113.8	128.3
TOTAL POWER INPUT <sup>1</sup>	kW	15.79	18.34	22.11	26.13	30.4	37.39	41.1	46.15
EER <sup>1</sup>	kW/kW	2.78	2.78	2.81	2.85	2.81	2.8	2.77	2.78
ESEER <sup>1</sup>	kW/kW	4.27	4.3	4.14	4.35	4.26	4.45	4.38	4.47
<b>COOLING ONLY (EN14511 VALUE)</b>									
COOLING CAPACITY <sup>1,2</sup>	kW	43.6	50.6	61.7	74	84.9	104.2	113.3	127.7
EER <sup>1,2</sup>	kW/kW	2.71	2.72	2.75	2.79	2.75	2.75	2.72	2.74
ESEER <sup>1,2</sup>	kW/kW	4	4	3.86	4.06	4.01	4.16	4.1	4.2
COOLING ENERGY CLASS		C	C	C	C	C	C	C	C
<b>HEATING ONLY (GROSS VALUE)</b>									
TOTAL HEATING CAPACITY <sup>3</sup>	kW	46.8	53.82	66.6	79.72	90.6	111.6	119.5	138
TOTAL POWER INPUT <sup>3</sup>	kW	14.85	17.09	21.08	24.83	28.81	35.54	37.97	42.95
COP <sup>3</sup>	kW/kW	3.14	3.15	3.16	3.21	3.15	3.14	3.15	3.21
<b>HEATING ONLY (EN14511 VALUE)</b>									
TOTAL HEATING CAPACITY <sup>3,2</sup>	kW	47.1	54.1	67	80.2	91.1	112.2	120.1	138.7
COP <sup>3,2</sup>	kW/kW	3.1	3.1	3.11	3.17	3.11	3.11	3.11	3.17
HEATING ENERGY CLASS		B	B	B	B	B	B	B	B
<b>HEATING ONLY (EN14825 VALUE - AVERAGE CLIMATE)</b>									
RATED HEATING CAPACITY AT Tdesign, h <sup>11,12</sup>	kW	35	41	46	61	69	85	85	106
BIVALENT TEMPERATURE <sup>11,12</sup>	°C	-6	-7	-7	-7	-7	-7	-7	-7
SCOP <sup>11,12</sup>	kW/kW	3.73	3.8	3.68	3.83	3.84	4.02	3.98	3.97
SEASONAL SPACE HEATING ENERGY EFFICIENCY <sup>11,12</sup>	%	146	149	144	150	151	158	156	156
SEASONAL SPACE HEATING ENERGY EFFICIENCY CLASS <sup>11,12</sup>		A+	A+	A+	A++	A++	-	-	-
<b>EXCHANGERS</b>									
<b>HEAT EXCHANGER USER SIDE IN COOLING</b>									
WATER FLOW <sup>1</sup>	l/s	2.1	2.43	2.97	3.56	4.08	5.01	5.44	6.14
PRESSURE DROP <sup>1</sup>	kPa	37.2	38.2	40.9	42	36.2	39.0	38.8	38.4
<b>HEAT EXCHANGER USER SIDE IN HEATING</b>									
WATER FLOW <sup>3</sup>	l/s	2.26	2.6	3.22	3.85	4.37	5.39	5.77	6.66
PRESSURE DROP <sup>3</sup>	kPa	43.1	43.6	48	49.1	41.6	45.1	43.6	45.2
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>									
WATER FLOW <sup>3</sup>	l/s	0.63	0.74	0.88	1.05	1.14	1.44	1.6	1.83
PRESSURE DROP <sup>3</sup>	kPa	9.05	12.5	17.5	12.4	14.6	23.4	20.3	26.6
<b>REFRIGERANT CIRCUIT</b>									
COMPRESSORS	No.	1	2	2	2	2	2	2	2
NO. CIRCUITS	No.	1	1	1	1	1	1	1	1
REGULATION		STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS
REFRIGERANT TYPE		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
REFRIGERANT CHARGE	kg	14.4	19.5	22.9	27.1	26.8	38.7	39.2	50.9
OIL CHARGE	kg	3.9	6.8	7.1	7.4	7.9	13.9	14.1	14.5
Rc (ASHRAE) <sup>5</sup>	kg/kW	0.33	0.39	0.37	0.37	0.32	0.37	0.35	0.4
<b>FANS</b>									
QUANTITY	No.	4	4	6	6	2	2	2	2
AIR FLOW	m <sup>3</sup> /s	5.28	5.15	7.95	7.76	11.89	11.65	11.65	12.9
FANS POWER INPUT	kW	0.3	0.3	0.3	0.3	2	2	2	1.84
<b>NOISE LEVEL</b>									
SOUND PRESSURE <sup>6</sup>	dB(A)	66	66	68	69	68	70	70	70
SOUND POWER LEVEL IN COOLING <sup>7,8</sup>	dB(A)	84	84	86	87	87	89	89	89
SOUND POWER LEVEL IN HEATING <sup>7,9</sup>	dB(A)	84	84	85	86	87	89	89	89
<b>DIMENSIONS AND WEIGHT</b>									
L <sup>10</sup>	mm	2000	2000	2625	2625	3250	3250	3250	3875
W <sup>10</sup>	mm	1350	1350	1350	1350	1350	1350	1350	1350
H <sup>10</sup>	mm	2070	2070	2070	2070	2170	2170	2170	2170
OPERATING WEIGHT <sup>10</sup>	kg	650	730	820	880	1030	1190	1210	1340

# NX2-N R454B Air Source Heat Pump

(365 to 580kW)

Designed for medium to large capacity commercial applications, the Climaveneta **NX2-N** heat pump range is the ideal solution for LTHW in a wide range of applications. The unit is supplied fully factory tested, with site installation only requiring power and hydraulic connection.

## Key Features & Benefits

- Lower GWP R454B refrigerant
- Wide capacity range
- Scroll compressors
- Patented fan section layout



MODEL		344	364	404	446	506	526	546
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>								
<b>COOLING ONLY (GROSS VALUE)</b>								
COOLING CAPACITY <sup>1</sup>	kW	334.7	355	382.4	430.6	475.7	516.4	533.6
TOTAL POWER INPUT <sup>1</sup>	kW	122.8	126.2	141.6	163	175.4	183.7	189.4
EER <sup>1</sup>	kW/kW	2.73	2.81	3	2.64	2.71	2.81	2.82
<b>COOLING ONLY (EN14511 VALUE)</b>								
COOLING CAPACITY <sup>1,2</sup>	kW	334.3	354.7	382	430.2	475.1	515.9	533.1
EER <sup>1,2</sup>	kW/kW	2.69	2.78	2.67	2.62	2.68	2.78	2.79
SEER <sup>1,3</sup>	kW/kW	3.93	4.04	4.07	4.01	3.93	4.07	4.1
SEASONAL SPACE HEATING ENERGY EFFICIENCY <sup>1,3</sup>		154	159	160	157	154	160	161
<b>HEATING ONLY (GROSS VALUE)</b>								
TOTAL HEATING CAPACITY <sup>3</sup>	kW	364.7	386.5	414.9	469.4	512.7	560.2	579.9
TOTAL POWER INPUT <sup>3</sup>	kW	119.3	124.9	134.8	155.5	168.4	181.7	186.9
COP <sup>3</sup>	kW/kW	3.06	3.09	3.08	3.02	3.05	3.08	3.10
<b>HEATING ONLY (EN14511 VALUE)</b>								
TOTAL HEATING CAPACITY <sup>3,2</sup>	kW	365.2	387	415.4	470	513.3	560.7	580.5
COP <sup>3,2</sup>	kW/kW	3.02	3.06	3.04	2.98	3	3.05	3.07
<b>HEATING ONLY (EN14825 VALUE - AVERAGE CLIMATE)</b>								
RATED HEATING CAPACITY AT Tdesign, h <sup>11,12</sup>	kW	268	294	323	369	388	363	373
BIVALENT TEMPERATURE <sup>11,12</sup>	°C	-7	-7	-7	-7	-7	-10	-10
SCOP <sup>11,12</sup>	kW/kW	3.6	3.7	3.73	3.66	3.53	3.49	3.53
SEASONAL SPACE HEATING ENERGY EFFICIENCY <sup>11,12</sup> %		141	145	146	143	138	137	137
<b>EXCHANGERS</b>								
<b>HEAT EXCHANGER USER SIDE IN COOLING</b>								
WATER FLOW <sup>1</sup>	l/s	16.01	16.98	18.29	20.59	22.75	24.7	25.52
PRESSURE DROP <sup>1</sup>	kPa	48.1	38.5	44.7	43.4	53	43.5	46.4
<b>HEAT EXCHANGER USER SIDE IN HEATING</b>								
WATER FLOW <sup>3</sup>	l/s	17.6	18.66	20.03	22.66	24.75	27.04	27.99
PRESSURE DROP <sup>3</sup>	kPa	58.2	46.5	53.5	52.6	62.7	52.1	55.9
<b>REFRIGERANT CIRCUIT</b>								
COMPRESSORS	No.	4	4	4	6	6	6	6
NUMBER OF CAPACITY STEPS	No.	4	4	4	6	6	6	6
NO. CIRCUITS	No.	2	2	2	3	3	3	3
REGULATION	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
MINIMUM CAPACITY STEP	%	25	25	25	17	17	17	17
REFRIGERANT TYPE		R454B	R454B	R454B	R454B	R454B	R454B	R454B
REFRIGERANT CHARGE	kg	64.8	68.4	68.4	83.7	87.3	98.1	113
OIL CHARGE	kg	25	25	25	39	38	38	38
Rc (ASHRAE) <sup>5</sup>	kg/kW	0.2	0.19	0.18	0.2	0.19	0.19	0.21
<b>FANS</b>								
QUANTITY	No.	12	12	12	10	18	18	18
AIR FLOW	m <sup>3</sup> /s	35.95	34.59	34.59	39.52	53.07	51.13	51.88
FANS POWER INPUT	kW	2	2	2	2	2	2	2
<b>NOISE LEVEL</b>								
SOUND PRESSURE <sup>6</sup>	dB(A)	76	76	76	76	76	76	76
SOUND POWER LEVEL IN COOLING <sup>7,8</sup>	dB(A)	96	96	96	96	97	97	97
SOUND POWER LEVEL IN HEATING <sup>7,9</sup>	dB(A)	96	96	96	96	97	97	97
<b>DIMENSIONS AND WEIGHT</b>								
L <sup>10</sup>	mm	3905	3905	3905	4515	5690	5690	5690
W <sup>10</sup>	mm	2260	2260	2260	2260	2260	2260	2260
H <sup>10</sup>	mm	2450	2450	2450	2450	2450	2450	2450
OPERATING WEIGHT <sup>10</sup>	kg	3030	3110	3150	4040	4400	4530	4600

### Notes:

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C.
5. Rated in accordance with AHRI Standard 550/590.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.
10. Sound power on the basis of measurements made in compliance with ISO 9614.
11. Sound power level in cooling, outdoors.
12. Sound power level in heating, outdoors.
13. Unit in standard configuration/execution, without optional accessories.

# NX2-N R454B Air Source Heat Pump

(362 to 569kW)

Low Noise Version



**CLIMAVENETA**  
SUSTAINABLE COMFORT

Designed for medium to large capacity commercial applications, the Climaveneta **NX2-N** heat pump range is the ideal solution for LTHW in a wide range of applications. The unit is supplied fully factory tested, with site installation only requiring power and hydraulic connection.

## Key Features & Benefits

- Lower GWP R454B refrigerant
- Wide capacity range
- Scroll compressors
- Patented fan section layout



MODEL		344	364	404	446	506	526	546
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>								
<b>COOLING ONLY (GROSS VALUE)</b>								
COOLING CAPACITY <sup>1</sup>	kW	316.4	336.8	370.6	409.4	444	486.6	506.1
TOTAL POWER INPUT <sup>1</sup>	kW	128.4	132.8	144.6	170	184.7	194	199.4
EER <sup>1</sup>	kW/kW	2.46	2.54	2.56	2.4	2.4	2.51	2.54
<b>COOLING ONLY (EN14511 VALUE)</b>								
COOLING CAPACITY <sup>112</sup>	kW	316	336.4	370.2	409	443.6	486.1	505.7
EER <sup>112</sup>	kW/kW	2.44	2.51	2.54	2.38	2.38	2.49	2.51
SEER <sup>13</sup>	kW/kW	4.1	4.13	4.23	4.14	4.1	4.19	4.19
<b>SEASONAL SPACE HEATING ENERGY EFFICIENCY<sup>13</sup></b>								
<b>HEATING ONLY (GROSS VALUE)</b>								
TOTAL HEATING CAPACITY <sup>3</sup>	kW	362	379.2	420.1	470.8	511.1	552	568.8
TOTAL POWER INPUT <sup>3</sup>	kW	114.1	120.5	131.1	150.6	162.1	174.2	180.3
COP <sup>3</sup>	kW/kW	3.17	3.15	3.2	3.13	3.15	3.17	3.16
<b>HEATING ONLY (EN14511 VALUE)</b>								
TOTAL HEATING CAPACITY <sup>32</sup>	kW	362.5	380	420.6	471	511.7	552.6	569.4
COP <sup>32</sup>	kW/kW	3.13	3.11	3.16	3.09	3.11	3.13	3.12
<b>HEATING ONLY (EN14825 VALUE - AVERAGE CLIMATE)</b>								
RATED HEATING CAPACITY AT Tdesign, h <sup>11112</sup>	kW	227	252	319	294	390	356	378
BIVALENT TEMPERATURE <sup>11112</sup>	°C	-7	-7	-7	-7	-7	-7	-7
SCOP <sup>1112</sup>	kW/kW	3.67	3.71	3.78	3.67	3.8	3.73	3.72
SEASONAL SPACE HEATING ENERGY EFFICIENCY <sup>1112</sup>	%	144	145	148	144	149	146	146
<b>EXCHANGERS</b>								
<b>HEAT EXCHANGER USER SIDE IN COOLING</b>								
WATER FLOW <sup>1</sup>	l/s	15.13	16.11	17.72	19.58	21.23	23.27	24.2
PRESSURE DROP <sup>1</sup>	kPa	43	34.6	41.9	39.2	46.2	38.6	41.8
<b>HEAT EXCHANGER USER SIDE IN HEATING</b>								
WATER FLOW <sup>3</sup>	l/s	17.47	18.3	20.28	22.73	24.67	26.65	27.46
PRESSURE DROP <sup>3</sup>	kPa	57.4	44.7	54.9	52.9	62.3	50.6	53.7
<b>REFRIGERANT CIRCUIT</b>								
COMPRESSORS	No.	4	4	4	6	6	6	6
NUMBER OF CAPACITY STEPS	No.	4	4	4	6	6	6	6
NO. CIRCUITS	No.	2	2	2	3	3	3	3
REGULATION	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
MINIMUM CAPACITY STEP	%	25	25	25	17	17	17	17
REFRIGERANT TYPE		R454B	R454B	R454B	R454B	R454B	R454B	R454B
REFRIGERANT CHARGE	kg	71.9	74.1	85.2	96.3	106	112	113
OIL CHARGE	kg	25	25	25	39	38	38	38
Rc (ASHRAE) <sup>5</sup>	kg/kW	0.23	0.22	0.23	0.24	0.24	0.23	0.23
<b>FANS</b>								
QUANTITY	No.	10	8	8	18	18	14	12
AIR FLOW	m <sup>3</sup> /s	27.28	30.33	29.48	35.07	33.16	42.86	45.49
FANS POWER INPUT	kW	1	1	1	1	1	1	1
<b>NOISE LEVEL</b>								
SOUND PRESSURE <sup>6</sup>	dB(A)	68	68	68	68	68	69	69
SOUND POWER LEVEL IN COOLING <sup>79</sup>	dB(A)	88	88	88	89	89	90	90
SOUND POWER LEVEL IN HEATING <sup>79</sup>	dB(A)	89	89	89	90	90	91	91
<b>DIMENSIONS AND WEIGHT</b>								
L <sup>10</sup>	mm	4515	5080	5080	5690	5690	6865	7430
W <sup>10</sup>	mm	2260	2260	2260	2260	2260	2260	2260
H <sup>10</sup>	mm	2450	2450	2450	2450	2450	2450	2450
OPERATING WEIGHT <sup>10</sup>	kg	3330	3460	3630	4640	4750	5050	5170

### Notes:

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C.
5. Rated in accordance with AHRI Standard 550/590.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.
10. Sound power on the basis of measurements made in compliance with ISO 9614.
11. Sound power level in cooling, outdoors.
12. Sound power level in heating, outdoors.
13. Unit in standard configuration/execution, without optional accessories.



# NX2-N R454B Air Source Heat Pump

(376 to 853kW)

High Efficiency Version



Designed for medium to large capacity commercial applications, the Climaveneta **NX2-N** heat pump range is the ideal solution for LTHW in a wide range of applications. The unit is supplied fully factory tested, with site installation only requiring power and hydraulic connection.

## Key Features & Benefits

- Lower GWP R454B refrigerant
- Wide capacity range
- Scroll compressors
- Patented fan section layout



MODEL		344	364	404	446	506	526	546	606	708	738	768	808
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>													
<b>COOLING ONLY (GROSS VALUE)</b>													
COOLING CAPACITY <sup>1</sup>	kW	345.3	361.5	399.8	446.5	500	525.8	543.5	599.3	696.6	724.8	762	799.2
TOTAL POWER INPUT <sup>1</sup>	kW	116.8	121.4	133.4	152	168.8	177	182.1	196.5	228.7	238.0	248.8	262
EER <sup>1</sup>	kW/kW	2.96	2.98	3	2.94	2.96	2.97	2.99	3.05	3.05	3.05	3.06	3.05
<b>COOLING ONLY (EN14511 VALUE)</b>													
COOLING CAPACITY <sup>112</sup>	kW	344.9	361.1	399.3	446	499.5	525.3	543	598.8	696	724.2	761.4	798.6
EER <sup>112</sup>	kW/kW	2.92	2.95	2.96	2.9	2.92	2.94	2.95	3.01	3.01	3.01	3.03	3.02
SEER <sup>13</sup>	kW/kW	4.28	4.39	4.44	4.4	4.28	4.37	4.37	4.56	4.56	4.56	4.58	4.56
<b>SEASONAL SPACE HEATING ENERGY EFFICIENCY<sup>13</sup></b>													
<b>HEATING ONLY (GROSS VALUE)</b>													
TOTAL HEATING CAPACITY <sup>3</sup>	kW	376.3	397.2	426.7	492.5	531	573.6	596	640	752.7	794.7	825.4	853.3
TOTAL POWER INPUT <sup>3</sup>	kW	116.4	123	131.8	153.1	164.1	177.1	184	193.6	227.6	239.7	250.1	258.1
COP <sup>3</sup>	kW/kW	3.23	3.23	3.24	3.22	3.24	3.24	3.24	3.31	3.31	3.32	3	3.31
<b>HEATING ONLY (EN14511 VALUE)</b>													
TOTAL HEATING CAPACITY <sup>32</sup>	kW	376.8	397.7	427.2	493.1	531.6	574.2	596.6	640.6	753.4	795.3	826	854.1
COP <sup>32</sup>	kW/kW	3.19	3.19	3.2	3.17	3.19	3.2	3.2	3.26	3.26	3.28	3.26	3.26
<b>HEATING ONLY (EN14825 VALUE - AVERAGE CLIMATE)</b>													
RATED HEATING CAPACITY AT Tdesign, h <sup>1112</sup>	kW	271	296	321	368	386	356	371	-	-	-	-	-
BIVALENT TEMPERATURE <sup>1112</sup>	°C	-7	-7	-7	-7	-7	-10	-10	-	-	-	-	-
SCOP <sup>1112</sup>	kW/kW	3.76	3.83	3.79	3.9	3.81	3.8	3.83	-	-	-	-	-
SEASONAL SPACE HEATING ENERGY EFFICIENCY <sup>1112</sup>	%	147	150	149	153	149	149	150	-	-	-	-	-
<b>EXCHANGERS</b>													
<b>HEAT EXCHANGER USER SIDE IN COOLING</b>													
WATER FLOW <sup>1</sup>	l/s	16.51	17.29	19.12	21.35	23.91	25.14	25.99	28.7	33.3	34.7	36.4	38.2
PRESSURE DROP <sup>1</sup>	kPa	51.2	39.9	48.8	46.7	58.5	45.1	48.2	51.1	50.3	40.5	44.7	49.2
<b>HEAT EXCHANGER USER SIDE IN HEATING</b>													
WATER FLOW <sup>3</sup>	l/s	18.17	19.17	20.6	23.77	25.63	27.69	28.77	30.9	36.3	38.4	39.8	41.2
PRESSURE DROP <sup>3</sup>	kPa	62	49.1	56.6	57.9	67.3	54.6	59	59.4	59.9	49.6	53.5	57.2
<b>REFRIGERANT CIRCUIT</b>													
COMPRESSORS	No.	4	4	4	6	6	6	6	6	8	8	8	8
NUMBER OF CAPACITY STEPS	No.	4	4	4	6	6	6	6	6	8	8	8	8
NO. CIRCUITS	No.	2	2	2	3	3	3	3	3	4	4	4	4
<b>REGULATION</b>													
MINIMUM CAPACITY STEP	%	25	25	25	17	17	17	17	17	12.5	12.5	12.5	12.5
REFRIGERANT TYPE		R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B
REFRIGERANT CHARGE	kg	81	86.4	86.9	109	112	124	133	133	162	173	174	176
OIL CHARGE	kg	25	25	25	39	38	38	38	38	50	50	50	50
Rc (ASHRAE) <sup>5</sup>	kg/kW	0.24	0.24	0.22	0.25	0.23	0.24	0.25	0.22	0.23	0.24	0.23	0.22
<b>FANS</b>													
QUANTITY	No.	8	8	8	16	12	12	12	12	16	16	16	16
AIR FLOW	m <sup>3</sup> /s	47.93	46.12	46.12	56.58	70.76	68.18	69.18	69.18	95.87	92.24	92.24	92.24
<b>FANS POWER INPUT</b>													
FANS POWER INPUT	kW	2	2	2	2	2	2	2	2	2	2	2	2
<b>NOISE LEVEL</b>													
SOUND PRESSURE <sup>6</sup>	dB(A)	77	77	77	76	77	77	77	78.0	77.0	78.0	78.0	78
SOUND POWER LEVEL IN COOLING <sup>78</sup>	dB(A)	97	97	97	97	98	98	98	99.0	99.0	100.0	100	100
SOUND POWER LEVEL IN HEATING <sup>79</sup>	dB(A)	97	97	97	97	98	98	98	-	-	-	-	-
<b>DIMENSIONS AND WEIGHT</b>													
L <sup>10</sup>	mm	5080	5080	5080	6255	7430	7430	7430	7430	9780	9780	9780	9780
W <sup>10</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
H <sup>10</sup>	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
OPERATING WEIGHT <sup>10</sup>	kg	3350	3440	3480	4650	4900	5060	5140	5200	6580	6760	6800	6840

### Notes:

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C.
5. Rated in accordance with AHRI Standard 550/590.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.
10. Sound power on the basis of measurements made in compliance with ISO 9614.
11. Sound power level in cooling, outdoors.
12. Sound power level in heating, outdoors.
13. Unit in standard configuration/execution, without optional accessories.

# FOCS-N R513A Air Source Heat Pump

(465 to 584kW)

Designed for medium to large capacity LTHW commercial applications, the Climaveneta **FOCS-N** heat pump features screw compressors and is suitable for a wide range of projects. The new generation of air source heat pump has been perfectly designed for reducing operating costs, while keeping an extremely compact design.

## Key Features & Benefits

- Compact design
- Lower GWP R513A refrigerant
- Screw compressors



MODEL		2022	2222	2422	2622
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE					
COOLING ONLY (GROSS VALUE)					
COOLING CAPACITY <sup>1</sup>	kW	440.7	487.9	519.6	558.6
TOTAL POWER INPUT <sup>1</sup>	kW	169.4	178.7	192.6	217.5
EER <sup>1</sup>	kW/kW	2.6	2.73	2.7	2.57
ESEER <sup>1</sup>	kW/kW	3.76	3.84	3.83	3.85
COOLING ONLY (EN14511 VALUE)					
COOLING CAPACITY <sup>1,2</sup>	kW	439.6	486.6	518	557.4
EER <sup>1,2</sup>	kW/kW	2.58	2.7	2.67	2.55
ESEER <sup>1,2</sup>	kW/kW	3.67	3.74	3.71	3.77
COOLING ENERGY CLASS		D	C	D	D
HEATING ONLY (GROSS VALUE)					
TOTAL HEATING CAPACITY <sup>3</sup>	kW	465.6	519.6	551.8	583.9
TOTAL POWER INPUT <sup>3</sup>	kW	147.7	160.8	172.4	182.6
COP <sup>3</sup>	kW/kW	3.15	3.23	3.2	3.2
HEATING ONLY (EN14511 VALUE)					
TOTAL HEATING CAPACITY <sup>3,2</sup>	kW	466.9	521.2	553.7	585.2
COP <sup>3,2</sup>	kW/kW	3.13	3.21	3.18	3.18
HEATING ENERGY CLASS		B	A	B	B
HEATING ONLY (EN14825 VALUE - AVERAGE CLIMATE)					
RATED HEATING CAPACITY AT Tdesign, h <sup>11,12</sup>	kW	339	366	400	-
BIVALENT TEMPERATURE <sup>11,12</sup>	°C	-7	-7	-7	-
SCOP <sup>11,12</sup>	kW/kW	3.19	3.2	3.19	-
SEASONAL SPACE HEATING ENERGY EFFICIENCY <sup>11,12</sup>	%	125	125	125	-
EXCHANGERS					
HEAT EXCHANGER USER SIDE IN COOLING					
WATER FLOW <sup>1</sup>	l/s	21.08	23.33	24.85	26.71
PRESSURE DROP <sup>1</sup>	kPa	28.8	32.5	36.8	24.00
HEAT EXCHANGER USER SIDE IN HEATING					
WATER FLOW <sup>3</sup>	l/s	22.47	25.08	26.64	28.18
PRESSURE DROP <sup>3</sup>	kPa	32.7	37.5	42.3	26.8
REFRIGERANT CIRCUIT					
COMPRESSORS	No.	2	2	2	2
NUMBER OF CAPACITY STEPS	No.	0	0	0	0
NO. CIRCUITS	No.	2	2	2	2
REGULATION					
MINIMUM CAPACITY STEP	%	STEPLESS	STEPLESS	STEPLESS	STEPLESS
REFRIGERANT TYPE		R513A	R513A	R513A	R513A
REFRIGERANT CHARGE	kg	243	268	285	307
OIL CHARGE	kg	44	44	44	44
Rc (ASHRAE) <sup>5</sup>	kg/kW	0.56	0.55	0.55	0.55
FANS					
QUANTITY	No.	10	12	12	12
AIR FLOW	m <sup>3</sup> /s	35.07	46.62	42.44	42.44
FANS POWER INPUT	kW	1.1	1.1	1.1	1.1
NOISE LEVEL					
SOUND PRESSURE <sup>8</sup>	dB(A)	69	70	70	70
SOUND POWER LEVEL IN COOLING <sup>7,9</sup>	dB(A)	89	91	91	91
SOUND POWER LEVEL IN HEATING <sup>7,9</sup>	dB(A)	90	92	92	92
DIMENSIONS AND WEIGHT					
L <sup>10</sup>	mm	4900	5800	5800	5800
W <sup>10</sup>	mm	2260	2260	2260	2260
H <sup>10</sup>	mm	2430	2430	2430	2430
OPERATING WEIGHT <sup>10</sup>	kg	6190	6680	6770	7010

### Notes:

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C.
5. Rated in accordance with AHRI Standard 550/590.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.
10. Sound power on the basis of measurements made in compliance with ISO 9614.
11. Sound power level in cooling, outdoors.
12. Sound power level in heating, outdoors.
13. Unit in standard configuration/execution, without optional accessories.

# FOCS-N R513A Air Source Heat Pump

(474 to 596kW)

High Efficiency Version



Designed for medium to large capacity LTHW commercial applications, the Climaveneta **FOCS-N** heat pump features screw compressors and is suitable for a wide range of projects. The new generation of air source heat pump has been perfectly designed for reducing operating costs, while keeping an extremely compact design.

## Key Features & Benefits

- Compact design
- Lower GWP R513A refrigerant
- Screw compressors



MODEL		2022	2222	2422	2622
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>					
<b>COOLING ONLY (GROSS VALUE)</b>					
COOLING CAPACITY <sup>1</sup>	kW	459.6	502.8	537.8	586
TOTAL POWER INPUT <sup>1</sup>	kW	164	176.2	188.1	209.6
EER <sup>1</sup>	kW/kW	2.8	2.85	2.86	2.8
ESEER <sup>1</sup>	kW/kW	3.82	3.85	3.85	3.88
<b>COOLING ONLY (EN14511 VALUE)</b>					
COOLING CAPACITY <sup>112</sup>	kW	458.4	501.4	536.1	584.7
EER <sup>112</sup>	kW/kW	2.77	2.82	2.82	2.77
ESEER <sup>112</sup>	kW/kW	3.72	3.75	3.73	3.80
COOLING ENERGY CLASS		C	C	C	C
<b>HEATING ONLY (GROSS VALUE)</b>					
TOTAL HEATING CAPACITY <sup>3</sup>	kW	474.9	525.3	558.7	595.6
TOTAL POWER INPUT <sup>3</sup>	kW	149.3	162.5	174.2	184.5
COP <sup>3</sup>	kW/kW	3.18	3.23	3.21	3.23
<b>HEATING ONLY (EN14511 VALUE)</b>					
TOTAL HEATING CAPACITY <sup>32</sup>	kW	476.3	526.9	560.6	597.00
COP <sup>32</sup>	kW/kW	3.16	3.21	3.18	3.21
HEATING ENERGY CLASS		B	A	B	A
<b>HEATING ONLY (EN14825 VALUE - AVERAGE CLIMATE)</b>					
RATED HEATING CAPACITY AT Tdesign, h <sup>11112</sup>	kW	342	372	361	393
BIVALENT TEMPERATURE <sup>11112</sup>	°C	-7	-7	-9	-9
SCOP <sup>1112</sup>	kW/kW	3.38	3.41	3.38	3.56
SEASONAL SPACE HEATING ENERGY EFFICIENCY <sup>1112</sup>	%	132	133	132	139
<b>EXCHANGERS</b>					
<b>HEAT EXCHANGER USER SIDE IN COOLING</b>					
WATER FLOW <sup>1</sup>	l/s	21.98	24.05	25.72	28.02
PRESSURE DROP <sup>1</sup>	kPa	31.3	34.5	39.4	26.5
<b>HEAT EXCHANGER USER SIDE IN HEATING</b>					
WATER FLOW <sup>3</sup>	l/s	22.92	25.36	26.97	28.75
PRESSURE DROP <sup>3</sup>	kPa	34.1	38.3	43.4	27.9
<b>REFRIGERANT CIRCUIT</b>					
COMPRESSORS	No.	2	2	2	2
NUMBER OF CAPACITY STEPS	No.	0	0	0	0
NO. CIRCUITS	No.	2	2	2	2
<b>REGULATION</b>					
MINIMUM CAPACITY STEP	%	25	25	25	25
REFRIGERANT TYPE		R513A	R513A	R513A	R513A
REFRIGERANT CHARGE	kg	233	256	276	276
OIL CHARGE	kg	44	44	44	44
Rc (ASHRAE) <sup>5</sup>	kg/kW	0.51	0.51	0.48	0.48
<b>FANS</b>					
QUANTITY	No.	10	12	12	12
AIR FLOW	m <sup>3</sup> /s	50.61	65.6	61.02	61.02
FANS POWER INPUT	kW	2	2	2	2
<b>NOISE LEVEL</b>					
SOUND PRESSURE <sup>6</sup>	dB(A)	79	80	80	80
SOUND POWER LEVEL IN COOLING <sup>78</sup>	dB(A)	99	101	101	101
SOUND POWER LEVEL IN HEATING <sup>79</sup>	dB(A)	99	101	101	101
<b>DIMENSIONS AND WEIGHT</b>					
L <sup>10</sup>	mm	4900	5800	5800	5800
W <sup>10</sup>	mm	2260	2260	2260	2260
H <sup>10</sup>	mm	2430	2430	2430	2430
OPERATING WEIGHT <sup>10</sup>	kg	6050	6630	6710	6950

### Notes:

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C.
5. Rated in accordance with AHRI Standard 550/590.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.
10. Sound power on the basis of measurements made in compliance with ISO 9614.
11. Sound power level in cooling, outdoors.
12. Sound power level in heating, outdoors.
13. Unit in standard configuration/execution, without optional accessories.

# i-FX-N R513A Air Source Heat Pump

(452 to 1,111kW)

High Efficiency Version



**CLIMAVENETA**  
SUSTAINABLE COMFORT

Designed for medium to large capacity LTHW commercial applications, the Climaveneta **i-FX-N** heat pump features inverter driven screw compressors and is suitable for a wide range of projects. The new generation of air source heat pump has been perfectly designed for reducing operating costs, while keeping an extremely compact design.

## Key Features & Benefits

- Total Inverter Technology
- Lower GWP R513A refrigerant
- Inverter screw compressors



MODEL		472	512	572	602	652	772	902	1002	1152
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE										
COOLING ONLY (GROSS VALUE)										
COOLING CAPACITY <sup>1</sup>	kW	465	517.9	549.9	590.8	669.9	764.1	899	1034	1154
TOTAL POWER INPUT <sup>1</sup>	kW	166	177.9	194.2	211.1	238	265.5	314	351.4	390.5
EER <sup>1</sup>	kW/kW	2.8	2.91	2.8	2.8	2.82	2.9	2.86	2.94	2.96
ESEER <sup>1</sup>	kW/kW	4.56	4.66	4.66	4.61	4.51	4.55	4.58	4.66	4.7
COOLING ONLY (EN14511 VALUE)										
COOLING CAPACITY <sup>1,2</sup>	kW	464.6	517.4	549	590.4	669.4	763.6	898.8	1033	1153
EER <sup>1,2</sup>	kW/kW	2.78	2.9	2.8	2.78	2.79	2.85	2.84	2.91	2.93
ESEER <sup>1,2</sup>	kW/kW	4.41	4.49	4.47	4.48	4.36	4.41	4.44	4.5	4.56
HEATING ONLY (GROSS VALUE)										
TOTAL HEATING CAPACITY <sup>3</sup>	kW	452.8	506.3	547.4	575.3	663.8	747.6	871.4	1006	1111
TOTAL POWER INPUT <sup>3</sup>	kW	139.1	152.6	166	174.8	202.2	223.2	261.3	293.8	327.5
COP <sup>3</sup>	kW/kW	3.26	3.32	3.3	3.3	3.28	3.35	3.34	3.42	3.4
HEATING ONLY (EN14511 VALUE)										
TOTAL HEATING CAPACITY <sup>3,2</sup>	kW	453.2	506.8	547.9	575.7	664	748.1	872	1007	1112
COP <sup>3,2</sup>	kW/kW	3.23	3.29	3.26	3.27	3.26	3.32	3.31	3.39	3.36
HEATING ONLY (EN14825 VALUE - AVERAGE CLIMATE)										
RATED HEATING CAPACITY AT Tdesign, h <sup>11,12</sup>	kW	348	384	-	-	-	-	-	-	-
BIVALENT TEMPERATURE <sup>11,12</sup>	°C	-7	-7	-	-	-	-	-	-	-
SCOP <sup>11,12</sup>	kW/kW	4.00	4.03	-	-	-	-	-	-	-
SEASONAL SPACE HEATING ENERGY EFFICIENCY <sup>11,12</sup>	%	157	158	-	-	-	-	-	-	-
EXCHANGERS										
HEAT EXCHANGER USER SIDE IN COOLING										
WATER FLOW <sup>1</sup>	l/s	22.24	24.76	26.29	28.25	32.04	36.5	43	49.43	55.17
PRESSURE DROP <sup>1</sup>	kPa	32	36.6	41.2	27	33.3	34.3	32.4	42.8	37.5
HEAT EXCHANGER USER SIDE IN HEATING										
WATER FLOW <sup>3</sup>	l/s	21.86	24.44	26.42	27.77	32.04	36.09	42.1	48.56	53.64
PRESSURE DROP <sup>3</sup>	kPa	31	35.6	41.6	26	33.30	33.4	31	41.3	35.4
REFRIGERANT CIRCUIT										
COMPRESSORS	No.	2	2	2	2	2	2	2	2	2
NUMBER OF CAPACITY STEPS	No.	0	0	0	0	0	0	0	0	0
NO. CIRCUITS	No.	2	2	2	2	2	2	2	2	2
REGULATION		STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS
MINIMUM CAPACITY STEP	%	-	-	-	-	-	-	-	-	-
REFRIGERANT TYPE		R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A
REFRIGERANT CHARGE	kg	233	259	253	276	288	391	495	518	618
OIL CHARGE	kg	44	44	44	44	38	60	60	60	60
Rc (ASHRAE) <sup>5</sup>	kg/kW	0.51	0.51	0.46	0.47	0.43	0.52	0.56	0.51	0.54
FANS										
QUANTITY	No.	10	12	12	12	14	16	20	24	24
AIR FLOW	m <sup>3</sup> /s	48.5	58.37	58.37	58.37	69.25	79.14	97.00	121.01	116.73
FANS POWER INPUT	kW	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
NOISE LEVEL										
SOUND PRESSURE <sup>6</sup>	dB(A)	80	81	81	81	81	81	81	82	82
SOUND POWER LEVEL IN COOLING <sup>7,8</sup>	dB(A)	100	102	102	102	102	103	103	105	105
SOUND POWER LEVEL IN HEATING <sup>7,9</sup>	dB(A)	101	103	103	103	103	104	104	106	106
DIMENSIONS AND WEIGHT										
L <sup>10</sup>	mm	4900	5800	5800	5800	7000	7900	10000	11800	11800
W <sup>10</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
H <sup>10</sup>	mm	2580	2580	2580	2580	2580	2580	2580	2580	2580
OPERATING WEIGHT <sup>10</sup>	kg	6400	6894	7033	7256	7518	8551	9835	11578	12651

### Notes:

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C.
5. Rated in accordance with AHRI Standard 550/590.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.
10. Sound power on the basis of measurements made in compliance with ISO 9614.
11. Sound power level in cooling, outdoors.
12. Sound power level in heating, outdoors.
13. Unit in standard configuration/execution, without optional accessories.

# AW-HT R407C Air Source Heat Pump

(28 to 139kW)

High Efficiency Version



#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C.
5. Rated in accordance with AHRI Standard 550/590.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.
10. Sound power on the basis of measurements made in compliance with ISO 9614.
11. Sound power level in cooling, outdoors.
12. Sound power level in heating, outdoors.
13. Unit in standard configuration/execution, without optional accessories.

Designed for medium capacity commercial applications, the Climaveneta **AW-HT** heat pump system is the ideal solution for a wide range of applications requiring both LTHW and DHW.

### Key Features & Benefits

- Maximum operating reliability
- Cascade control
- Scroll compressors



MODEL		122	152	202	262	302	404	524	604
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>									
HEATING CAPACITY <sup>3</sup>		38	51.3	68.8	84.9	102	135	171	205
TOTAL POWER INPUT (UNIT) <sup>3</sup>		10.7	14.4	19.4	23.6	27.7	39.6	48.1	58.9
COP <sup>3</sup>		3.6	3.6	3.6	3.6	3.7	3.4	4	3
<b>HEATING ONLY (EN14825 VALUE - AVERAGE CLIMATE)</b>									
RATED HEATING CAPACITY AT Tdesign, h <sup>1112</sup>	kW	28.4	33.8	47.5	58.5	70.6	92.6	117	139
BIVALENT TEMPERATURE <sup>11112</sup>	°C	-6	-7	-7	-7	-7	-7	-7	-7
SCOP <sup>11112</sup>	kW/kW	3.12	3.07	3.14	3.2	3.3	3.15	3.32	3.22
SEASONAL SPACE HEATING ENERGY EFFICIENCY <sup>1112</sup>	%	122	120	123	125	129	123	130	126
<b>EXCHANGERS</b>									
HEAT EXCHANGER WATER FLOW <sup>3</sup>	l/s	1.8	2.48	3.3	4.11	4.92	6.5	8.25	9.89
HEAT EXCHANGER PRESSURE DROP <sup>3</sup>	kPa	10.2	12.9	14.6	18.3	22.9	25.40	28.60	31.30
<b>REFRIGERANT CIRCUIT</b>									
COMPRESSORS	No.	2	2	2	2	2	4	4	4
NUMBER OF CIRCUITS	No.	2	2	2	2	2	4	4	4
TYPE OF REGULATION	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
MINIMUM CAPACITY STEPS	%	50	50	50	50	50	25	25	25
TYPE OF REFRIGERANT		R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C
REFRIGERANT CHARGE	kg	18	26	30	33	40	66	108	108
OIL CHARGE	kg	3.8	8.0	8.0	8.2	8.2	16	16.4	16.4
<b>FANS</b>									
NUMBER	No.	4	6	8	8	8	4	4	6
AIR FLOW	l/s	1.43	2.09	2.89	2.94	2.89	4.4	5	7
SINGLE POWER INPUT	kW	0.25	0.25	0.25	0.25	0.25	1.2	1.2	1.2
<b>NOISE LEVEL</b>									
SOUND POWER LEVEL <sup>9</sup>	dB(A)	84	86	87	87	87	86	86	87
SOUND PRESSURE LEVEL <sup>9</sup>	dB(A)	-	-	-	-	-	67	66	67
<b>DIMENSIONS AND WEIGHT</b>									
L <sup>10</sup>	mm	1695	2195	2745	2745	2745	3110	4110	4110
W <sup>10</sup>	mm	1120	1120	1120	1120	1120	2220	2220	2220
H <sup>10</sup>	mm	1420	1420	1420	1620	1620	2150	2150	2150
OPERATING WEIGHT <sup>10</sup>	kg	510	750	870	940	1030	1960	2410	2540

## Commercial Heat Pumps & Chillers

# Our Chiller Range - An Overview

Consisting of a wide range of models, the Mitsubishi Electric range of chillers are a new generation of water chiller designed for comfort and process cooling applications.

Modern multi-function buildings, shopping centres, large business centres and process cooling are just some of the examples where increased comfort and precision control are required. The Mitsubishi Electric range of chillers can deliver all of this and more through their ability to be easily integrated into ever increasingly complex building systems.

In order to maximise performance, reliability and overall system efficiency, the Mitsubishi Electric range of products bring advanced technology and know-how together in customisable packages to aid design, specification, installation and on-going operation.

- Advanced modular technology
- Scalable and fully customisable
- Air source and water cooled versions
- Plate or Shell & Tube heat exchanger options



## Flexible Application Options

### Comfort Cooling

By using hydronic terminals, a simple application of a chiller can include cooling a space or environment to a set temperature. By using water as the medium of energy, high sensible cooling and stable room temperatures can be achieved.

- Retail stores / Shopping centres
- Airports
- Offices
- Cinemas / Theatres
- Schools / Universities
- Museums
- Hotels and Resorts
- Hospitals / Healthcare

### Process Cooling

During manufacturing processes, many substances become hot and if overheated can negatively effect the productivity and efficiency of the process. By correctly applying a chiller it is possible to ensure optimum temperatures and conditions are maintained at a steady state.

- Manufacturing processes
- Automotive and Electronic processes
- Energy and Power generation
- Industrial technology



e-series

**CLIMAVENETA**  
SUSTAINABLE COMFORT

# Chillers for Cooling Only Applications

A wide range of advanced, customisable models for use in efficiently cooling a space or an environment to a set temperature.

## Key Features & Benefits

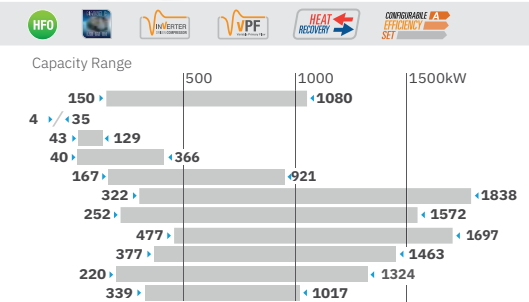
- Energy efficient, customisable chillers
- Low noise levels
- Low and lower GWP, HFO, R32, R454B and R513A refrigerant options
- Free cooling available



## Air Cooled Chillers

e-Series EACV	Inverter driven scroll compressors
i-BX	Inverter driven scroll compressors
i-NX	Inverter driven scroll compressors
NX2	Scroll compressors
NX2	Scroll compressors
FX2	Screw compressors
FX2 HFO	Screw compressors
i-FX	Inverter driven screw compressors
i-FX HFO	Inverter driven screw compressors
TECS2	Inverter driven oil-free centrifugal compressors
TECS2 HFO	Inverter driven oil-free centrifugal compressors

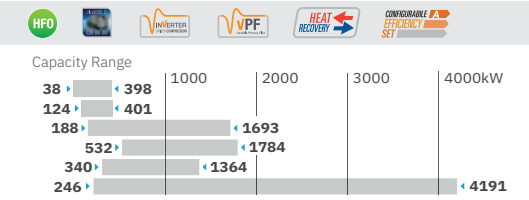
R 32	INVERTER	DC FAN	PLATES
R 410A	INVERTER	AXIAL	PLATES
R 410A	INVERTER	AXIAL	PLATES
R 454B	AXIAL	PLATES	
R 454B	AXIAL	SHELL&T.	
R 513A	AXIAL	SHELL&T.	
R HFO1234ze	AXIAL	SHELL&T.	
R HFO1234ze	INVERTER	AXIAL	SHELL&T.
R HFO1234ze	INVERTER	AXIAL	SHELL&T.
R 513A	INVERTER	AXIAL	FLOODED
R 513A	INVERTER	R HFO1234ze	FLOODED



## Water Cooled Chillers

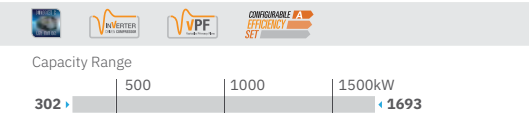
NX-W	Scroll compressors
FX-W	Screw compressors
FOCS3-W	Screw compressors
i-FX-W (1+i)	Screw compressors
TECS2-W HFO	Inverter driven oil-free centrifugal compressors
TX-W	Inverter driven oil-free centrifugal compressors

R 410A	PLATES
R 513A	SHELL&T.
R 513A	FLOODED
R 513A	INVERTER
R HFO1234ze	INVERTER
R 513A	INVERTER



## Air Cooled with Free-Cooling Technology

TECS-FC	Inverter driven oil-free centrifugal compressors	R 513A	INVERTER	SHELL&T.
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## Air Cooled Chillers with Evaporative Free-Cooling Technology

TECS-EFC	Inverter driven oil-free centrifugal compressors	R R134e	INVERTER	AXIAL	FLOODED
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**Green HFO Refrigerants**  
Climaveneta uses green HFO refrigerants such as HFO1234ze and HFO1234yf in many ranges.



**Magnetic Levitation**  
Magnetic levitation centrifugal compressors range from 200kW to 4MW in both air source and water source, free cooling and evaporative free cooling versions, to deliver the highest efficiency in every application.



**Inverter Driven Compressor**  
The capacity is modulated resulting in increased efficiency as well as in the possibility to effectively implement smart management solutions such as active redundancy.



**VFP**  
The VFP (Variable Primary Flow) dynamically optimises the unit's thermoregulation for variable flow operation, thus ensuring both the highest pump energy savings and stable chiller operation.



**Leading Heat Recovery Technology**  
Heat recovery solutions are employed, such as thermodynamic, plate and rotary heat recovery as well as refrigerant booster.



**Configurable Efficiency Set**  
3 energy efficiency standard configurations available with most hydronic units.



# Chillers for Heat Pump Applications

A wide range of advanced, customisable models for use in efficiently cooling or heating a space or an environment to a set temperature.

## Key Features & Benefits

- Energy efficient, customisable chillers
- Low noise levels
- Low and lower GWP, HFO, R32, R454B and R513A refrigerant options



**Inverter Driven Compressor**  
The capacity is modulated resulting in increased efficiency as well as in the possibility to effectively implement smart management solutions such as active redundancy.



**VPF**  
The VPF (Variable Primary Flow) dynamically optimises the unit's thermoregulation for variable flow operation, thus ensuring both the highest pump energy savings and stable chiller operation.



**High Water Temperature**  
A complete range of solutions designed to deliver high water temperature for any heating requirement.



**Leading Heat Recovery Technology**  
Heat recovery solutions are employed, such as thermodynamic, plate and rotary heat recovery as well as refrigerant booster.



**Configurable Efficiency Set**  
3 energy efficiency standard configurations available with most hydronic units.

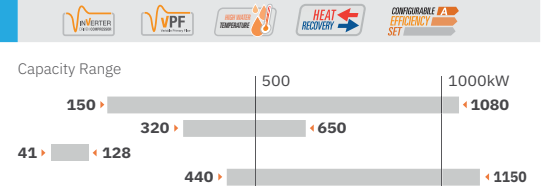
**e-series**



## Air to Water Reversible Heat Pumps

- e-Series EAHV** Inverter driven scroll compressors  
**NX2-N** Scroll compressors  
**i-NX-N** Inverter driven scroll compressors  
**i-FX-N** Inverter driven screw compressors

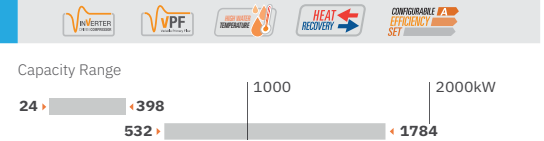
R 32	INVERTER	DC FAN	P PLATES
R 454B	SCROLL	AXIAL	P PLATES
R 410A	INVERTER	SCROLL	AXIAL
R 454B	INVERTER	SCREW	AXIAL
			T SHELL&T.



## Water to Water Heat Pumps Reversible on Hydraulic Side

- NX-W/H** Scroll compressors  
**i-FX-W (1+i/H)** Inverter screw compressors

R 410A	SCROLL	P PLATES
R 513A	INVERTER	SCREW
		F FLOODED



## Water to Water Reversible Heat Pumps

- NX-WN** Scroll compressors

R 410A	SCROLL	P PLATES
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# INTEGRA Simultaneous Heating & Cooling 4-Pipe Chiller System



**Inverter Driven Compressor**  
The capacity is modulated resulting in increased efficiency as well as in the possibility to effectively implement smart management solutions such as active redundancy.



**VPF**  
The VPF (Variable Primary Flow) dynamically optimises the unit's thermoregulation for variable flow operation, thus ensuring both the highest pump energy savings and stable chiller operation.



**Smart Thermal Energy Management**  
An innovative heat recovery system that allows the smart use of rejected heat from the industrial process for comfort heating and other neighbouring applications.



**High Water Temperature**  
A complete range of solutions designed to deliver high water temperature for any heating requirement.



**Configurable Efficiency Set**  
3 energy efficiency standard configurations available with most hydronic units.

Air and Water sourced units for 4-pipe systems, using either scroll, screw or inverter screw compressors. Available from 45 to 1,125kW, these systems provide simultaneous heating and cooling in a highly efficient manner.

## Key Features & Benefits

- TER (Total efficiency Ratio) of up to 8
- Minimal footprint requiring less plant space
- Reduction of onsite operations as INTEGRA negates the need to connect to the gas network

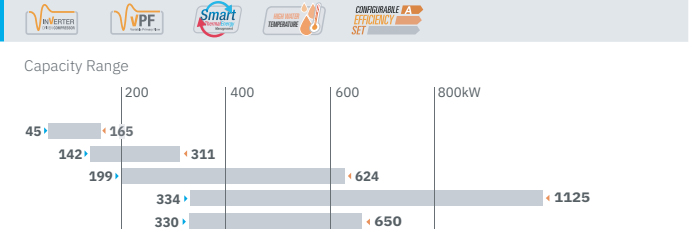


INTEGRA

### Air to Water Units

i-NX-Q	Inverter scroll compressors
NECS-Q	Scroll compressors
ERACS-Q	Screw compressors
i-FX-Q2	Inverter screw compressors
NX2-Q	Scroll compressors

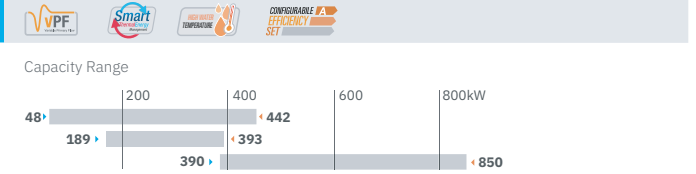
R 410A	INVERTER	SCROLL	AXIAL	PLATES
R 410A	SCROLL	AXIAL	T SHELL&T	
R 513A	SCREW	AXIAL	EC FAN	T SHELL&T
R 513A	INVERTER	SCREW	EC FAN	T SHELL&T
R 454B	SCROLL	AXIAL	PLATES	



### Water to Water Units

NECS-WQ	Scroll compressors
ERACS-WQ	Screw compressors
i-FX-WQ	Inverter screw compressors

R 410A	SCROLL	PLATES
R 513A	SCREW	T SHELL&T
INVERTER	SCREW	AXIAL
	T SHELL&T	



e-series

# EACV R32 Modular Air Cooled Chiller

(150 to 1,080kW)



The R32 e-Series **EACV** range allows for up to 6 individual units to be connected together to provide a system capacity from 150kW to 1,080kW. Using this modular approach reduces space requirements and simplifies lifting and installation.

## Key Features & Benefits

- Highly efficient inverter scroll compressors
- Modular to maximise space saving
- Y-shaped heat exchangers allow for a greater surface area, maximising efficiency, whilst also keeping the units much narrower than conventional chillers

MODEL		EACV-M1500YCL-N	EACV-M1800YCL-N
POWER SOURCE		3-phase 4-wire 380-400-415v 50/60Hz	
COOLING CAPACITY <sup>1</sup>		150	180
	Power Input	44.73	57.02
	EER	3.35	3.16
	IPLV <sup>4</sup>	6.42	6.31
	Water Flow Rate	25.8	31.0
COOLING CAPACITY (EN14511) <sup>2</sup>		149.18	178.80
	Power Input	45.55	58.22
	EER	3.28	3.07
	Eurovent Efficiency Class	A	B
	SEER	5.52	5.36
	Performance (η <sub>s,c</sub> )	217.8	211.4
	SEPR (HT)	7.11	6.36
	Water Flow Rate	25.8	31.0
CURRENT INPUT		76 - 72 - 69	96 - 91 - 88
	Cooling Current 380-400-415V <sup>1</sup>	A	A
	Maximum Current	120	120
WATER PRESSURE DROP <sup>1</sup>		55	78
	kPa		
TEMP RANGE		Outlet water 4~30	Outlet water 4~30
	Cooling	°C	°C
	Outdoor	-15~52	-15~52
CIRCULATING WATER VOLUME RANGE		12.9~43.0	12.9~43.0
	m <sup>3</sup> /h		
SOUND PRESSURE LEVEL (Measured in anechoic room) at 1m <sup>1</sup>		65	67
	dB (A)		
SOUND POWER LEVEL (Measured in anechoic room) <sup>1</sup>		83	85
	dB (A)		
DIAMETER OF WATER PIPE (Standard piping)		65A (2 1/2B) housing type joint	65A (2 1/2B) housing type joint
	Inlet	mm (in)	mm (in)
	Outlet	65A (2 1/2B) housing type joint	65A (2 1/2B) housing type joint
DIAMETER OF WATER PIPE (Inside header piping)		150A (6B) housing type joint	150A (6B) housing type joint
	Inlet	mm (in)	mm (in)
	Outlet	150A (6B) housing type joint	150A (6B) housing type joint
EXTERNAL FINISH		Polyester powder coating steel plate	Polyester powder coating steel plate
EXTERNAL DIMENSION		3400 x 1080 x 2350	3400 x 1080 x 2350
	W x D x H	mm	mm
NET WEIGHT		1039 (2291)	1039 (2291)
	Standard Piping	kg (lbs)	kg (lbs)
	Inside Header Piping	1067 (2352)	1067 (2352)
DESIGN PRESSURE		4.15	4.15
	R32	MPa	MPa
	Water	1.0	1.0
HEAT EXCHANGER		Stainless steel plate and copper brazing	Stainless steel plate and copper brazing
	Water Side	Salt-resistant corrugated fin & aluminium micro channel	Salt-resistant corrugated fin & aluminium micro channel
	Air Side		
COMPRESSOR		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Type		
	Starting Method	Inverter	Inverter
	Quantity	4	4
	Motor Output	11.5 x 4	11.5 x 4
	kW		
FAN		270 x 4	270 x 4
	Air Flow Rate	m <sup>3</sup> /min	m <sup>3</sup> /min
	L/s	4500 x 4	4500 x 4
	cfm	9534 x 4	9534 x 4
	Type, Quantity	Propeller fan x 4	Propeller fan x 4
	Starting Method	Inverter	Inverter
	Motor Output	0.92 x 4	0.92 x 4
	kW		
	External Static Pressure	20	20
	Pa		
REFRIGERANT		R32 x 4.7 (kg) x 4 <sup>3</sup>	R32 x 4.7 (kg) x 4 <sup>3</sup>
	Type x Charge		
	Control	LEV	LEV

### Notes:

<sup>1</sup> Under normal cooling conditions at outdoor temp 35°CDB/24°CWB (95°FDB/75.2°FWB) outlet water temp 7°C (44.6°F) inlet water temp 12°C (53.6°F). Pump input is not included in cooling capacity and power input.

<sup>2</sup> Under normal cooling conditions at outdoor temp 35°CDB/24°CWB (95°FDB/75.2°FWB) outlet water temp 7°C (44.6°F) inlet water temp 12°C (53.6°F). Pump input is included in cooling capacity and power input based on EN14511.

<sup>3</sup> Amount of factory-charged refrigerant is 3 (kg) x 4. Please add the refrigerant at the field.

<sup>4</sup> IPLV is calculated in accordance with AHRI 550-590.

\*Please don't use the steel material for the water piping.

\*Please always make water circulate, or pull the circulation water out completely when not in use.

\*Please do not use groundwater or well water in direct.

\*The water circuit must be closed circuit.

\*Due to continuous improvement, the above specifications may be subject to change without notice.

\*This model doesn't equip with a pump.

For dimensional drawings of this model please see page 2.9

# i-BX R410A Air Cooled Chiller

(4.3 to 12.9kW)

Single Phase



Climaveneta's **i-BX** range of small to medium sized, cooling only chillers efficiently and easily adapt to a wide range of cooling capacities. The whole range contains inverter driven compressors for enhanced efficiency and control.

## Key Features & Benefits

- Packaged monobloc unit for easy installation
- Full inverter technology with Mitsubishi Electric BLDC compressors
- Extended cooling range, water outlet temperature -8 ~ 18°C, at ambient range of -10 ~ 45°C
- Dynamic water set point, varies outlet temperature depending on ambient temperature
- EC water pump, relief valve, flow switch, safety valve and expansion vessel
- Night function incorporated to reduce noise levels during the night
- ErP 2021 compliant
- Modbus connectivity option
- Additional accessories available upon request



MODEL		i-BX 004 MHAN RV	i-BX 006 MHAN RV	i-BX 008 MHAN RV	i-BX 010 MHAN RV	i-BX 013 MHAN RV
POWER SUPPLY	V / ph / Hz	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50
<b>PERFORMANCE</b>						
COOLING CAPACITY <sup>*1</sup>	kW	4.3	6.11	8.1	10.6	12.9
TOTAL POWER INPUT <sup>*1</sup>	kW	1.55	2.12	2.82	3.64	4.74
EER <sup>*1</sup>		2.77	2.88	2.87	2.91	2.72
ESEER <sup>*1</sup>		4.2	4.36	4.7	4.29	4.55
<b>COOLING ONLY (EN14511 VALUE)</b>						
COOLING CAPACITY <sup>*1,2</sup>	kW	4.3	6.11	8.11	10.6	12.9
EER <sup>*1,2</sup>		2.82	2.92	2.92	2.92	2.74
ESEER <sup>*1,2</sup>		4.53	4.6	5.08	4.34	4.69
COOLING ENERGY CLASS		C	B	B	B	C
<b>SEASONAL EFFICIENCY IN COOLING (REG.EU 2016/2281) - AVERAGE CLIMATE CONDITIONS</b>						
SEER		4.38	4.43	4.93	4.39	4.78
PERFORMANCE $\eta_{s,3}$	%	172	174	194	172	188
<b>HEAT EXCHANGER (USER SIDE)</b>						
WATER FLOW <sup>*1</sup>	l/s	0.21	0.29	0.39	0.51	0.62
MIN. SYSTEM WATER CONTENT <sup>*8</sup>	l	30	43	57	74	90
INLET / OUTLET CONNECTION SIZE	in	1"	1"	1"	1"	1"1/4"
<b>REFRIGERANT CIRCUIT</b>						
COMPRESSORS	N°	1	1	1	1	1
CIRCUITS	N°	1	1	1	1	1
REGULATION		STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS
MIN. CAPACITY STEP	%	25	25	25	25	25
REFRIGERANT CHARGE R410A	kg	1.45	2.1	3.55	3.6	3.65
CO <sub>2</sub> EQUIVALENT	t	3.02	4.38	7.41	7.51	7.62
OIL CHARGE	kg	0.35	0.35	0.4	0.87	1.4
<b>ELECTRICAL</b>						
FULL LOAD POWER (F.L.I.)	kW	1.9	2.7	3.7	4.9	6.5
FULL LOAD CURRENT (F.L.A.)	A	8.7	12.3	16.1	22.6	25.3
INRUSH CURRENT (S.A.)	A	1	1	1	1	1
<b>FANS</b>						
QUANTITY	N°	1	1	1	2	2
AIRFLOW	m <sup>3</sup> /s	1.02	0.98	0.99	1.74	1.58
FANS POWER INPUT	kW	0.12	0.12	0.12	0.12	0.12
<b>NOISE LEVEL</b>						
SOUND PRESSURE <sup>*4</sup>	dB(A)	33	34	35	38	39
SOUND POWER <sup>*5,6</sup>	dB(A)	64	65	66	69	70
<b>SIZE AND WEIGHT</b>						
WIDTH <sup>*7</sup>	mm	900	900	900	900	900
DEPTH <sup>*7</sup>	mm	370	370	420	420	420
HEIGHT <sup>*7</sup>	mm	940	940	1240	1240	1240
OPERATING WEIGHT <sup>*7</sup>	kg	70	80	95	110	125

### Notes:

- \*1 Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- \*2 Values in compliance with EN14511-3:2013.
- \*3 Seasonal energy efficiency of space cooling.
- \*4 Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- \*5 Sound power on the basis of measurements made in compliance with ISO 9614.
- \*6 Sound power level in cooling, outdoors.
- \*7 Unit in standard configuration/execution, without optional accessories.
- \*8 Calculated with a 7°C flow temperature.

Eurovent Certified Data

2.29

Commercial Heat  
Pumps & Chillers

e-Series EACV R32 Modular Air Cooled Chiller  
i-BX R410A Air Cooled Chiller, Single Phase

# i-BX R410A Air Cooled Chiller

(10.7 to 35.1kW)

Three Phase



Climaveneta's **i-BX** range of small to medium sized, cooling only chillers efficiently and easily adapt to a wide range of cooling capacities. The whole range contains inverter driven compressors for enhanced efficiency and control.

## Key Features & Benefits

- Packaged monobloc unit for easy installation
- Full inverter technology with Mitsubishi Electric BLDC compressors
- Extended cooling range, water outlet temperature -8 ~ 18°C, at ambient range of -10 ~ 45°C
- Dynamic water set point, varies outlet temperature depending on ambient temperature
- EC water pump, relief valve, flow switch, safety valve and expansion vessel
- Night function incorporated to reduce noise levels during the night
- ErP 2021 compliant
- Modbus connectivity option
- Additional accessories available upon request



MODEL		i-BX 010 THAN RV	i-BX 013 THAN RV	i-BX 015 THAN RV	i-BX 020 THAN RV	i-BX 025 THAN RV	i-BX 030 THAN RV	i-BX 035 THAN RV
POWER SUPPLY	V / ph / Hz	415/3/50+N	415/3/50+N	415/3/50+N	415/3/50+N	415/3/50+N	415/3/50+N	415/3/50+N
<b>PERFORMANCE</b>								
COOLING CAPACITY <sup>1</sup>	kW	10.7	13.3	15.5	20.6	25.0	29.8	35.1
TOTAL POWER INPUT <sup>1</sup>	kW	3.64	4.74	5.44	7.2	8.69	10.0	11.8
EER <sup>1</sup>		2.94	2.81	2.85	2.86	2.88	2.98	2.97
ESEER <sup>1</sup>		4.36	4.57	4.14	4.12	4.26	4.15	4.29
<b>COOLING ONLY (EN14511 VALUE)</b>								
COOLING CAPACITY <sup>1,2</sup>	kW	10.7	13.3	15.5	20.6	25.0	29.9	35.2
EER <sup>1,2</sup>		2.95	2.82	2.87	2.88	2.90	3.01	3.00
ESEER <sup>1,2</sup>		4.42	4.69	4.2	4.2	4.36	4.27	4.39
COOLING ENERGY CLASS		B	C	C	C	B	B	B
<b>SEASONAL EFFICIENCY IN COOLING (REG.EU 2016/2281) - AVERAGE CLIMATE CONDITIONS</b>								
SEER		4.46	4.80	4.31	4.31	4.52	4.52	4.57
PERFORMANCE $\eta_s$ <sup>3</sup>	%	176	189	169	169	178	178	180
<b>HEAT EXCHANGER (USER SIDE)</b>								
WATER FLOW <sup>1</sup>	l/s	0.51	0.64	0.74	0.99	1.2	1.43	1.68
MIN. SYSTEM WATER CONTENT <sup>8</sup>	l	75	93	109	144	175	209	246
INLET / OUTLET CONNECTION SIZE	in	1"	1"1/4	1"1/4	1"1/4	1"1/4	1"1/2	1"1/2
<b>REFRIGERANT CIRCUIT</b>								
COMPRESSORS	N°	1	1	1	1	1	1	1
CIRCUITS	N°	1	1	1	1	1	1	1
<b>REGULATION</b>								
MIN. CAPACITY STEP	%	25	25	25	25	25	25	25
REFRIGERANT CHARGE R410A	kg	3.6	3.65	4.7	6.8	7	7.9	8.4
CO <sub>2</sub> EQUIVALENT	t	7.51	7.62	9.81	14.19	14.62	16.49	17.54
OIL CHARGE	kg	0.87	1.4	1.4	1.4	1.4	2.3	2.3
<b>ELECTRICAL</b>								
FULL LOAD POWER (F.L.I.)	kW	4.9	6.5	7.4	9.4	11.3	13.7	16
FULL LOAD CURRENT (F.L.A.)	A	13	17	18	20	29	29	39
INRUSH CURRENT (S.A.)	A	1	1	1	1	1	1	1
<b>FANS</b>								
QUANTITY	N°	2	2	2	1	2	2	2
AIRFLOW	m <sup>3</sup> /s	1.74	1.7	1.64	2.26	3.76	4.2	4.86
FANS POWER INPUT	kW	0.12	0.12	0.12	0.6	0.4	0.55	0.52
<b>NOISE LEVEL</b>								
SOUND PRESSURE <sup>4</sup>	dB(A)	38	39	43	43	43	44	45
SOUND POWER <sup>5,6</sup>	dB(A)	69	70	74	74	75	76	77
<b>SIZE AND WEIGHT</b>								
WIDTH <sup>7</sup>	mm	900	900	900	1450	1450	1450	1700
DEPTH <sup>7</sup>	mm	420	420	420	550	550	550	650
HEIGHT <sup>7</sup>	mm	1240	1240	1390	1200	1700	1700	1700
OPERATING WEIGHT <sup>7</sup>	kg	110	125	135	190	250	270	305

### Notes:

<sup>1</sup> Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.

<sup>2</sup> Values in compliance with EN14511-3:2013.

<sup>3</sup> Seasonal energy efficiency of space cooling.

<sup>4</sup> Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.

<sup>5</sup> Sound power on the basis of measurements made in compliance with ISO 9614.

<sup>6</sup> Sound power level in cooling, outdoors.

<sup>7</sup> Unit in standard configuration/execution, without optional accessories.

<sup>8</sup> Calculated with a 7°C flow temperature.

 Eurovent Certified Data

# i-NX R410A Air Cooled Chiller

(44 to 129kW)



Climaveneta's **i-NX** range of small to medium sized cooling only chillers efficiently and easily adapt to a wide range of cooling capacities. With the exclusive 1 + i philosophy, both the fixed speed scroll compressor and the scroll inverter compressor are combined in the same circuit. This technology ensures maximum benefit in terms of efficiency at partial loads compared to a solution with separate circuits. In different load conditions, only the most efficient combination of compressors required for optimum adaptation to the system load conditions is called upon.

## Key Features & Benefits

- High Efficiency - inverter driven scroll compressor
- Aluminium microchannel coils
- Wide operating range
- Available with EC fans
- ERP 2021 compliant
- Available with hydronic module



MODEL		i-NX 0151P	i-NX 0182P	i-NX 0202P	i-NX 0262P	i-NX 0302P	i-NX 0352P	i-NX 0402P	i-NX 0502P
POWER SUPPLY	V / ph / Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3/50	400/3/50
<b>PERFORMANCE</b>									
COOLING CAPACITY <sup>1</sup>	kW	43.9	52.9	63.1	72.1	83.8	101	120	129
TOTAL POWER INPUT <sup>1</sup>	kW	15.7	18.8	21.4	25	29.2	35.2	41.9	46.8
EER <sup>1</sup>		2.8	2.81	2.95	2.88	2.87	2.87	2.86	2.76
ESEER <sup>1</sup>		4.56	4.55	4.51	4.54	4.51	4.66	4.58	4.53
<b>COOLING ONLY (EN14511 VALUE)</b>									
COOLING CAPACITY <sup>1,2</sup>	kW	43.6	52.6	62.7	71.7	83.4	100.0	119.0	129.0
EER <sup>1,2</sup>		2.73	2.75	2.88	2.82	2.82	2.82	2.80	2.72
ESEER <sup>1,2</sup>		4.27	4.19	4.17	4.23	4.24	4.36	4.27	4.25
COOLING ENERGY CLASS		C	C	C	C	C	C	C	C
<b>SEASONAL EFFICIENCY IN COOLING (REG.EU 2016/2281) - AVERAGE CLIMATE CONDITIONS</b>									
SEER		4.15	4.11	4.13	4.18	4.23	4.36	4.32	4.30
PERFORMANCE $\eta_{s,35}$	%	163	161	162	164	166	171	170	169
<b>HEAT EXCHANGER (USER SIDE)</b>									
WATER FLOW <sup>1</sup>	l/s	0.64	0.76	0.86	1.01	1.18	1.41	1.63	1.85
MIN. SYSTEM WATER CONTENT	l	154	185	221	252	293	354	420	452
PRESSURE DROP	kPa	37.2	41.2	42.3	39.4	35	36.2	42.9	38.9
INLET / OUTLET CONNECTION SIZE	in	1 1/2" VICTAULIC	1 1/2" VICTAULIC	1 1/2" VICTAULIC	2" VICTAULIC	2" VICTAULIC	2" VICTAULIC	2 1/2" VICTAULIC	2 1/2" VICTAULIC
<b>REFRIGERANT CIRCUIT</b>									
COMPRESSORS	N°	1	2	2	2	2	2	2	2
CIRCUITS	N°	1	1	1	1	1	1	1	1
REGULATION		STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS	STEPLESS
MIN. CAPACITY STEP	%	30	22	19	22	19	23	20	18
REFRIGERANT CHARGE R410A	kg	7	7.2	8.9	9.4	9.5	12.5	12.9	13.5
CO <sub>2</sub> EQUIVALENT	t	14.6	15	18.6	19.6	19.8	26.1	26.9	28.2
OIL CHARGE	kg	3.5	6.1	6.4	6.7	7	13.4	13.4	13.4
<b>ELECTRICAL</b>									
FULL LOAD POWER (F.L.I.)	kW	23.5	27.4	30.2	37.5	41.4	53.9	59.7	64.6
FULL LOAD CURRENT (F.L.A.)	A	39	46	52	63	70	87	96	104
INRUSH CURRENT (S.A.)	A	4	118	164	174	225	198	243	288
<b>FANS</b>									
QUANTITY	N°	4	4	5	5	6	2	2	2
AIRFLOW	m <sup>3</sup> /s	3.77	5.07	6.57	6.57	7.66	9.08	11.53	11.53
FANS POWER INPUT	kW	0.2	0.3	0.3	0.3	0.3	1.2	2	2
<b>NOISE LEVEL</b>									
SOUND PRESSURE <sup>4</sup>	dB(A)	51	52	53	53	54	55	57	57
SOUND POWER <sup>5,6</sup>	dB(A)	83	84	85	85	86	87	89	89
<b>SIZE AND WEIGHT</b>									
WIDTH <sup>7</sup>	mm	2000	2000	2625	2625	2625	3250	3250	3250
DEPTH <sup>7</sup>	mm	1350	1350	1350	1350	1350	1350	1350	1350
HEIGHT <sup>7</sup>	mm	2070	2070	2070	2070	2070	2170	2170	2170
OPERATING WEIGHT <sup>7</sup>	kg	600	660	750	780	810	1060	1070	1080



### Notes:

- \*1 Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- \*2 Values in compliance with EN14511-3:2013.
- \*3 Seasonal energy efficiency of space cooling.
- \*4 Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- \*5 Sound power on the basis of measurements made in compliance with ISO 9614.
- \*6 Sound power level in cooling, outdoors.
- \*7 Unit in standard configuration/execution, without optional accessories.

Eurovent Certified Data

2.31

Commercial Heat  
Pumps & Chillers

i-BX R410A Air Cooled Chiller, Three Phase  
i-NX R410A Air Cooled Chiller

# NX2 2 Compressor R454B Air Cooled Chiller (40kW to 208kW )



#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

 Eurovent Certified Data

The **NX2** units are air cooled chillers with scroll compressors designed for delivering the best efficiencies in comfort applications. The complete range is Eurovent certified and all the sizes are completely ErP2021 compliant. Available from 40kW to 208kW using lower GWP R454B refrigerant, the NX2 is a two scroll compressor, single circuit solution. All the main hydraulic and mechanical components are integrated inside the unit, providing the ideal plug & play solution for HVAC plants within applications including hotels, offices, leisure centres, hospitals and universities.

### Key Features & Benefits

- Two Scroll compressors
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R454B refrigerant



MODEL		NX2-G06-0042	NX2-G06-0052	NX2-G06-0062	NX2-G06-0072	NX2-G06-0082	NX2-G06-0092	NX2-G06-0102	X2-G06-0112	NX2-G06-0122	NX2-G06-0142	NX2-G06-0162	NX2-G06-0182	NX2-G06-0202	NX2-G06-0222
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>															
COOLING ONLY (GROSS VALUE)															
COOLING CAPACITY <sup>1</sup>	kW	40.53	48.50	54.16	60.98	68.18	79.82	93.31	103.8	116.5	129.6	152.0	174.2	186.9	208.7
TOTAL POWER INPUT <sup>1</sup>	kW	13.64	2.970	17.02	17.66	20.47	25.36	27.94	32.74	38.27	44.42	47.39	55.37	61.54	70.86
EER <sup>1</sup>	kW/kW	2.978	3.019	3.188	3.446	3.327	3.142	3.344	3.174	3.042	2.919	3.207	3.144	3.039	2.944
COOLING ONLY (EN14511 VALUE)															
COOLING CAPACITY <sup>1,2</sup>	kW	40.40	48.50	54.00	60.80	68.00	79.60	93.10	103.5	116.2	129.3	151.7	173.9	186.6	208.3
EER <sup>1,2</sup>	kW/kW	2.920	2.970	3.120	3.380	3.260	3.090	3.290	3.110	2.990	2.870	3.150	3.100	3.000	2.900
<b>ENERGY EFFICIENCY</b>															
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)															
AMBIENT REFRIGERATION															
P <sub>rated,C</sub> <sup>7</sup>	kW	40.4	48.5	54.0	60.8	68.0	79.6	93.1	104	116	129	152	174	187	208
SEER <sup>7,8</sup>		4.61	4.72	4.56	4.65	4.57	4.60	4.53	4.29	4.32	4.38	4.48	4.49	4.48	4.46
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	181	186	179	183	180	181	178	168	170	172	176	177	176	175
<b>EXCHANGERS</b>															
HEAT EXCHANGER USER SIDE IN REFRIGERATION															
WATER FLOW <sup>1</sup>	l/s	1.938	2.323	2.590	2.916	3.261	3.817	4.462	4.965	5.573	6.198	7.268	8.331	8.937	9.979
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	44.8	33.3	41.4	45.4	46.2	45.3	36.6	45.4	45.5	42.6	47.9	44.1	38.5	48.0
REFRIGERANT CIRCUIT															
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
REFRIGERANT CHARGE	kg	7.60	7.60	8.00	9.90	10.0	11.1	13.1	14.3	15.5	15.8	21.9	22.7	22.8	22.9
<b>NOISE LEVEL</b>															
SOUND PRESSURE <sup>3</sup>	dB(A)	49	50	49	51	52	52	52	52	52	53	54	55	55	56
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	81	82	81	83	84	84	84	84	84	85	86	87	87	88
<b>SIZE AND WEIGHT</b>															
WIDTH (A) <sup>6</sup>	mm	1825	1825	1825	2395	2395	2395	2325	2825	2825	2825	3980	3980	3980	3980
DEPTH (B) <sup>6</sup>	mm	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195
HEIGHT (H) <sup>6</sup>	mm	1865	1865	1865	1865	1865	1865	1865	1980	1980	1980	1980	1980	1980	1980
OPERATING WEIGHT <sup>6</sup>	kg	500	510	550	630	630	640	770	770	850	920	1130	1170	1180	1220

# NX2

## 4 Compressor R454B Air Cooled Chiller

(168kW to 345kW)

The **NX2** units are air cooled chillers with scroll compressors designed for delivering the best efficiencies in comfort applications. The complete range is Eurovent certified and all the sizes are completely ErP2021 compliant. Available from 168kW to 345kW using lower GWP R454B refrigerant, the NX2 is a four scroll compressor, twin circuit solution. All the main hydraulic and mechanical components are integrated inside the unit, providing the ideal plug & play solution for HVAC plants within applications including hotels, offices, leisure centres, hospitals and universities.

### Key Features & Benefits

- Twin circuit tandem scroll compressors
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R454B refrigerant



- Notes:**
1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
  2. Values in compliance with EN14511.
  3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
  4. Sound power on the basis of measurements taken in compliance with ISO 9614.
  5. Sound power level in cooling, outdoors.
  6. Unit in standard configuration, without optional accessories.
  7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
  8. Seasonal energy efficiency ratio.
  9. Seasonal space cooling energy efficiency.

■ Eurovent Certified Data

MODEL		NX2-G06-0184P	NX2-G06-0214P	NX2-G06-0244P	NX2-G06-0264P	NX2-G06-0294P	NX2-G06-0334P	NX2-G06-0374P
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>								
<b>COOLING ONLY (GROSS VALUE)</b>								
COOLING CAPACITY <sup>1</sup>	kW	168.4	197.5	226.2	250.7	280.0	313.1	345.8
TOTAL POWER INPUT <sup>1</sup>	kW	49.44	58.24	68.66	77.32	81.59	93.64	106.6
EER <sup>1</sup>	kW/kW	3.409	3.393	3.293	3.243	3.431	3.345	3.244
<b>COOLING ONLY (EN14511 VALUE)</b>								
COOLING CAPACITY <sup>1,2</sup>	kW	168.1	197.2	225.8	250.4	279.7	312.8	345.4
EER <sup>1,2</sup>	kW/kW	3.350	3.340	3.240	3.200	3.380	3.300	3.200
<b>ENERGY EFFICIENCY</b>								
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>								
<b>AMBIENT REFRIGERATION</b>								
P <sub>INTED,C</sub> <sup>7</sup>	kW	168	197	226	250	280	313	345
SEER <sup>7,8</sup>		4.73	4.76	4.78	4.79	4.71	4.73	4.62
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	186	188	188	189	185	186	182
<b>EXCHANGERS</b>								
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>								
WATER FLOW <sup>1</sup>	l/s	8.052	9.444	10.81	11.99	13.39	14.97	16.54
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	42.7	44.3	46.7	46.6	42.8	39.8	48.5
<b>REFRIGERANT CIRCUIT</b>								
COMPRESSORS NR.	No.	4	4	4	4	4	4	4
CIRCUITS	No.	2	2	2	2	2	2	2
REFRIGERANT CHARGE	kg	30.1	31.9	37.5	37.6	47.5	51.8	51.9
<b>NOISE LEVEL</b>								
SOUND PRESSURE <sup>3</sup>	dB(A)	54	54	55	55	56	58	59
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	86	86	87	87	88	90	91
<b>SIZE AND WEIGHT</b>								
WIDTH (A) <sup>6</sup>	mm	3160	3160	3160	3160	4335	4335	4335
DEPTH (B) <sup>6</sup>	mm	2250	2250	2250	2250	2250	2250	2250
HEIGHT (H) <sup>6</sup>	mm	2290	2290	2290	2290	2290	2290	2290
OPERATING WEIGHT <sup>6</sup>	kg	1620	1640	1850	1880	2230	2260	2470

# NX2

## 4-8 Compressor

### R454B Air Cooled Chiller

(379kW to 867kW)

The **NX2** units are air cooled chillers with scroll compressors designed for delivering the best efficiencies in comfort applications. The complete range is Eurovent certified and all the sizes are completely ErP2021 compliant. All the main hydraulic and mechanical components are integrated inside the unit, providing the ideal plug & play solution for HVAC plants within applications including hotels, offices, leisure centres, hospitals and universities.

### Key Features & Benefits

- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R454B refrigerant



#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

■ Eurovent Certified Data

MODEL		0404	0424	0464	0515	0576	0585	0636	0676	0706	0768	0808	0848	0898	0928
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE															
COOLING ONLY (GROSS VALUE)															
COOLING CAPACITY <sup>1</sup>	kW	379.1	398.9	437.0	488.0	538.9	546.7	597.9	636.3	656.5	720.5	759.5	798.1	835.5	867.1
TOTAL POWER INPUT <sup>1</sup>	kW	115.6	122.6	136.9	152.1	167.3	168.6	183.8	198.1	200.3	218.0	231.4	245.1	259.3	273.5
EER <sup>1</sup>	kW/kW	3.279	3.254	3.192	3.208	3.221	3.243	3.253	3.212	3.278	3.305	3.282	3.256	3.222	3.170
COOLING ONLY (EN14511 VALUE)															
COOLING CAPACITY <sup>1,2</sup>	kW	378.6	398.5	436.5	487.5	538.3	546.2	597.3	635.7	655.8	719.8	758.8	797.4	834.8	866.3
EER <sup>1,2</sup>	kW/kW	3.220	3.210	3.140	3.160	3.170	3.200	3.210	3.170	3.230	3.260	3.230	3.220	3.180	3.130
ENERGY EFFICIENCY															
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)															
AMBIENT REFRIGERATION															
P <sub>RATED,C</sub> <sup>7</sup>	kW	379	398	436	488	538	546	597	636	656	720	759	797	835	866
SEER <sup>7,8</sup>		4.67	4.68	4.65	4.70	4.70	4.76	4.75	4.73	4.77	4.75	4.74	4.75	4.75	4.74
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	184	184	183	185	185	187	187	186	188	187	187	187	187	187
EXCHANGERS															
HEAT EXCHANGER USER SIDE IN REFRIGERATION															
WATER FLOW <sup>1</sup>	l/s	18.13	19.08	20.90	23.34	25.77	26.14	28.59	30.43	31.39	34.45	36.32	38.17	39.96	41.46
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	61.8	48.6	58.3	55.1	67.1	42.5	50.9	49.2	52.4	56.9	63.3	47.2	51.7	55.7
REFRIGERANT CIRCUIT															
COMPRESSORS NR.	No.	4	4	4	5	6	5	6	6	6	8	8	8	8	8
CIRCUITS	No.	2	2	2	2	2	2	2	3	2	4	4	4	4	4
REFRIGERANT CHARGE	kg	46.6	51.5	51.7	59.6	64.4	72.0	74.8	75.1	85.6	88.5	95.1	104	106	106
NOISE LEVEL															
SOUND PRESSURE <sup>3</sup>	dB(A)	62	62	62	62	63	63	62	62	63	63	63	64	64	64
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	94	94	94	95	95	95	95	95	96	96	96	97	97	97
SIZE AND WEIGHT															
94															
WIDTH (A) <sup>6</sup>	mm	3905	3905	3905	5080	5080	5080	6255	6255	6255	7430	7430	7430	7430	7430
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560
OPERATING WEIGHT <sup>6</sup>	kg	2590	2620	2660	3190	3420	3500	3940	3980	4100	4970	5010	5080	5120	5150



# NX2 4-8 Compressor R454B Air Cooled Chiller

(380kW to 872kW)

High Efficiency Version







**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

 Eurovent Certified Data

The **NX2** units are air cooled chillers with scroll compressors designed for delivering the best efficiencies in comfort applications. The complete range is Eurovent certified and all the sizes are completely ErP2021 compliant. All the main hydraulic and mechanical components are integrated inside the unit, providing the ideal plug & play solution for HVAC plants within applications including hotels, offices, leisure centres, hospitals and universities.

## Key Features & Benefits

-  ErP2021 compliant
-  Low noise
-  Energy efficient
-  Lower GWP R454B refrigerant



MODEL		0404	0424	0464	0515	0576	0585	0636	0676	0706	0768	0808	0848	0898	0928
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>															
<b>COOLING ONLY (GROSS VALUE)</b>															
COOLING CAPACITY <sup>1</sup>	kW	380.1	400.0	439.8	490.2	540.8	548.6	599.7	639.0	658.6	721.1	762.2	801.1	839.7	872.3
TOTAL POWER INPUT <sup>1</sup>	kW	111.3	117.1	129.4	145.0	161.1	161.7	177.4	188.0	194.1	211.0	222.5	234.3	246.4	258.3
EER <sup>1</sup>	kW/kW	3.415	3.416	3.399	3.381	3.357	3.393	3.380	3.399	3.393	3.418	3.426	3.419	3.408	3.377
<b>COOLING ONLY (EN14511 VALUE)</b>															
COOLING CAPACITY <sup>1,2</sup>	kW	379.6	399.5	439.2	489.7	540.2	548.1	599.1	638.4	658.0	720.5	761.5	800.4	839.0	871.6
EER <sup>1,2</sup>	kW/kW	3.350	3.370	3.340	3.330	3.300	3.350	3.330	3.350	3.350	3.370	3.370	3.380	3.360	3.330
<b>ENERGY EFFICIENCY</b>															
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>															
<b>AMBIENT REFRIGERATION</b>															
P <sub>RATED,C</sub> <sup>7</sup>	kW	380	400	439	490	540	548	599	638	658	720	762	800	839	872
SEER <sup>7,8</sup>		4.74	4.77	4.73	4.78	4.72	4.82	4.82	4.86	4.83	4.81	4.81	4.83	4.84	4.86
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	187	188	186	188	186	190	190	191	190	189	189	190	190	191
<b>EXCHANGERS</b>															
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>															
WATER FLOW <sup>1</sup>	l/s	18.18	19.13	21.03	23.44	25.86	26.24	28.68	30.56	31.50	34.49	36.45	38.31	40.16	41.72
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	62.1	48.8	59.0	55.6	67.6	42.8	51.2	49.6	52.7	57.0	63.7	47.6	52.2	56.4
<b>REFRIGERANT CIRCUIT</b>															
COMPRESSORS NR.	No.	4	4	4	5	6	5	6	6	6	8	8	8	8	8
CIRCUITS	No.	2	2	2	2	2	2	2	3	2	4	4	4	4	4
REFRIGERANT CHARGE	kg	56.1	59.9	62.7	76.5	77.9	80.8	88.8	94.1	98.8	107	129	129	129	129
<b>NOISE LEVEL</b>															
SOUND PRESSURE <sup>3</sup>	dB(A)	63	63	63	62	63	63	63	64	64	64	64	65	65	65
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	95	95	95	95	96	96	96	97	97	97	97	98	98	98
<b>SIZE AND WEIGHT</b>															
WIDTH (A) <sup>6</sup>	mm	5080	5080	5080	6255	6255	6255	7430	7430	7430	9780	9780	9780	9780	9780
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560
OPERATING WEIGHT <sup>6</sup>	kg	2960	2960	3000	3600	3830	3900	4290	4430	4450	5660	5720	5770	5810	5850

2.35

Commercial Heat  
Pumps & Chillers

NX2 4-8 Compressor R454B Air Cooled Chiller  
NX2 4-8 Compressor R454B Air Cooled Chiller, High Efficiency Version

# i-FX R513A Air Cooled Chiller

(478kW to 1,029kW)

The Climaveneta range of **i-FX** units are air cooled chillers with inverter screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new i-FX chillers apply variable speed technology in all of its main components, achieving top-level performances in any load condition.

## Key Features & Benefits

- Total Inverter Technology
- Multiple heat recovery configurations
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

MODEL		2202	2602	2652	2702	2722	3152	3602	3902	4202	4502	4802
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE												
COOLING ONLY (GROSS VALUE)												
COOLING CAPACITY <sup>1</sup>	kW	478.6	531.1	561.2	598.1	656.7	720.7	801.4	874.1	932.0	900.3	1029
TOTAL POWER INPUT <sup>1</sup>	kW	172.0	189.2	198.6	209.1	237.2	263.0	290.3	312.1	331.0	358.1	383.8
EER <sup>1</sup>	kW/kW	2.783	2.807	2.826	2.860	2.769	2.740	2.761	2.801	2.816	2.765	2.681
COOLING ONLY (EN14511 VALUE)												
COOLING CAPACITY <sup>1,2</sup>	kW	477.3	529.4	559.6	596.2	654.7	718.2	798.9	871.3	928.7	987.3	1026
EER <sup>1,2</sup>	kW/kW	2.750	2.770	2.800	2.830	2.740	2.710	2.730	2.770	2.780	2.730	2.650
COOLING ENERGY CLASS		C	C	C	C	C	C	C	C	C	C	D
ENERGY EFFICIENCY												
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)												
AMBIENT REFRIGERATION												
P <sub>PARTED,C</sub> <sup>7</sup>	kW	477	529	560	596	655	718	799	871	929	987	1026
SEER <sup>7,8</sup>		4.77	4.78	4.73	4.76	4.76	4.82	4.83	4.79	4.82	4.77	4.80
PERFORMANCE η <sub>S</sub> <sup>7,9</sup>	%	188	188	186	187	187	190	190	189	190	188	189
EXCHANGERS												
HEAT EXCHANGER USER SIDE IN REFRIGERATION												
WATER FLOW <sup>1</sup>	l/s	22.89	25.40	26.84	28.60	31.40	34.47	38.33	41.80	44.57	47.36	49.20
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	32.0	39.5	35.2	40.0	38.3	46.2	40.7	42.8	48.7	42.4	45.8
REFRIGERANT CIRCUIT												
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE	kg	79.0	87.0	92.0	101	108	120	135	146	155	161	168
NOISE LEVEL												
SOUND PRESSURE <sup>3</sup>	dB(A)	67	68	68	68	69	69	68	69	70	70	71
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	99	100	100	100	101	101	101	102	103	103	104
SIZE AND WEIGHT												
WIDTH (A) <sup>6</sup>	mm	4150	5400	5400	5400	5400	6650	6650	7900	7900	7900	7900
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
OPERATING WEIGHT <sup>6</sup>	kg	4790	5270	5280	5330	5720	6210	6270	6700	6740	7350	7750

# i-FX R513A Air Cooled Chiller

(1,054kW to 1,697kW)

The Climaveneta range of **i-FX** units are air cooled chillers with inverter screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new i-FX chillers apply variable speed technology in all of its main components, achieving top-level performances in any load condition.

## Key Features & Benefits

- Total Inverter Technology
- Multiple heat recovery configurations
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



MODEL		4812	4822	5412	6002	6022	6303	6903	7203	7213	7223
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE											
COOLING ONLY (GROSS VALUE)											
COOLING CAPACITY <sup>1</sup>	kW	1054	1128	1169	1242	1302	1409	1493	1559	1649	1697
TOTAL POWER INPUT <sup>1</sup>	kW	366.8	405.3	430.5	438.8	477.1	498.8	544.8	578.9	596.2	618.5
EER <sup>1</sup>	kW/kW	2.874	2.783	2.715	2.830	2.729	2.825	2.740	2.693	2.766	2.744
COOLING ONLY (EN14511 VALUE)											
COOLING CAPACITY <sup>1,2</sup>	kW	1050	1124	1166	1238	1297	1405	1488	1555	1644	1691
EER <sup>1,2</sup>	kW/kW	2.840	2.750	2.690	2.800	2.690	2.790	2.710	2.670	2.740	2.710
COOLING ENERGY CLASS		C	C	D	C	D	C	C	D	C	C
ENERGY EFFICIENCY											
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)											
AMBIENT REFRIGERATION											
P <sub>PARTED,C</sub> <sup>7</sup>	kW	1050	1124	1166	1238	1297	1405	1488	1555	1644	1691
SEER <sup>7,8</sup>		4.79	4.82	4.89	4.90	4.90	4.74	4.77	4.76	4.76	4.79
PERFORMANCE η <sub>S</sub> <sup>7,9</sup>	%	189	190	193	193	193	187	188	187	187	189
EXCHANGERS											
HEAT EXCHANGER USER SIDE IN REFRIGERATION											
WATER FLOW <sup>1</sup>	l/s	50.41	53.94	53.90	59.42	62.28	67.38	71.40	74.58	78.86	81.17
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	48.1	51.7	41.7	47.1	51.8	45.9	51.5	39.6	44.3	50.4
REFRIGERANT CIRCUIT											
COMPRESSORS NR.	No.	2	2	2	2	2	3	2	3	3	3
CIRCUITS	No.	2	2	2	2	2	3	3	3	3	3
REFRIGERANT CHARGE	kg	174	189	193	208	214	236	244	254	273	288
NOISE LEVEL											
SOUND PRESSURE <sup>3</sup>	dB(A)	71	72	72	72	72	72	72	72	73	73
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	104	105	105	105	105	105	105	105	106	106
SIZE AND WEIGHT											
WIDTH (A) <sup>6</sup>	mm	9150	9150	9150	10400	10400	11650	11650	11650	12900	12900
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
OPERATING WEIGHT <sup>6</sup>	kg	8220	8340	8500	8890	9000	10650	11460	11840	12350	12340



### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

# i-FX R513A Air Cooled Chiller

(477kW to 1,028kW)

Low Noise Version

The Climaveneta range of **i-FX** units are air cooled chillers with inverter screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new i-FX chillers apply variable speed technology in all of its main components, achieving top-level performances in any load condition.

## Key Features & Benefits

- Total Inverter Technology
- Multiple heat recovery configurations
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



MODEL		2202	2602	2652	2702	2722	3152	3602	3902	4202	4502	4802
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE												
COOLING ONLY (GROSS VALUE)												
COOLING CAPACITY <sup>1</sup>	kW	477.0	516.7	554.6	578.0	662.9	711.3	774.2	845.6	903.1	972.7	1028
TOTAL POWER INPUT <sup>1</sup>	kW	168.1	177.0	195.5	212.2	228.3	260.2	295.6	317.7	336.9	356.8	373.5
EER <sup>1</sup>	kW/kW	2.838	2.919	2.837	2.724	2.904	2.734	2.619	2.662	2.681	2.726	2.752
COOLING ONLY (EN14511 VALUE)												
COOLING CAPACITY <sup>1,2</sup>	kW	475.7	515.1	553.0	576.3	660.9	708.9	772.0	843	900.1	969.8	1025
EER <sup>1,2</sup>	kW/kW	2.810	2.880	2.810	2.690	2.870	2.700	2.590	2.630	2.650	2.700	2.720
COOLING ENERGY CLASS		C	C	C	D	C	C	D	D	D	C	C
ENERGY EFFICIENCY												
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)												
AMBIENT REFRIGERATION												
P <sub>rated,C</sub> <sup>7</sup>	kW	476	515	553	576	661	709	772	843	900	970	1025
SEER <sup>7,8</sup>		4.91	4.88	4.83	4.74	4.89	4.90	4.87	4.76	4.78	4.86	4.95
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	194	192	190	187	193	193	192	187	188	191	195
EXCHANGERS												
HEAT EXCHANGER USER SIDE IN REFRIGERATION												
WATER FLOW <sup>1</sup>	l/s	22.81	24.71	26.52	27.64	31.70	34.02	37.02	40.44	43.19	46.52	49.15
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	31.8	37.4	34.4	37.3	39.1	45.0	38.0	40.1	45.7	40.9	45.7
REFRIGERANT CIRCUIT												
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE	kg	83.0	91.0	97.0	101	116	125	135	146	155	168	178
NOISE LEVEL												
SOUND PRESSURE <sup>3</sup>	dB(A)	60	61	61	61	61	61	61	62	63	63	63
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	92	93	93	93	94	94	94	95	96	96	96
SIZE AND WEIGHT												
WIDTH (A) <sup>6</sup>	mm	5400	5400	5400	5400	6650	6650	6650	7900	7900	9150	9150
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
OPERATING WEIGHT <sup>6</sup>	kg	5450	5600	5620	5650	6560	6580	6590	7050	7100	8110	8550



### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

# i-FX R513A Air Cooled Chiller

(1,046kW to 1,635kW)

Low Noise Version



**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The Climaveneta range of **i-FX** units are air cooled chillers with inverter screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new i-FX chillers apply variable speed technology in all of its main components, achieving top-level performances in any load condition.

## Key Features & Benefits

- Total Inverter Technology
- Multiple heat recovery configurations
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



MODEL		4812	4822	5412	6002	6022	6303	6903	7203	7213	7223
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE											
COOLING ONLY (GROSS VALUE)											
COOLING CAPACITY <sup>1</sup>	kW	1046	1120	1162	1199	1290	1365	1474	1541	1590	1635
TOTAL POWER INPUT <sup>1</sup>	kW	359.4	397.2	422.1	446.5	470.5	507.7	541.1	572.2	610.0	633.6
EER <sup>1</sup>	kW/kW	2.870	2.820	2.753	2.685	2.742	2.689	2.724	2.693	2.607	2.580
COOLING ONLY (EN14511 VALUE)											
COOLING CAPACITY <sup>1,2</sup>	kW	1042	1116	1159	1195	1286	1361	1469	1537	1589	1630
EER <sup>1,2</sup>	kW/kW	2.870	2.780	2.720	2.660	2.710	2.660	2.690	2.670	2.580	2.550
COOLING ENERGY CLASS		C	C	C	D	C	D	D	D	D	D
ENERGY EFFICIENCY											
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)											
AMBIENT REFRIGERATION											
P <sub>PARTED,C</sub> <sup>7</sup>	kW	1042	1116	1159	1195	1286	1361	1469	1537	1586	1630
SEER <sup>7,8</sup>		4.89	4.93	5.00	4.95	4.99	4.77	4.94	4.84	4.84	4.85
PERFORMANCE η <sub>S</sub> <sup>7,9</sup>	%	192	194	197	195	197	188	194	191	190	191
EXCHANGERS											
HEAT EXCHANGER USER SIDE IN REFRIGERATION											
WATER FLOW <sup>1</sup>	l/s	50.01	53.58	55.57	57.32	61.67	65.28	70.50	73.70	76.02	78.18
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	47.3	51.0	41.2	43.9	50.8	43.1	50.2	38.7	41.2	46.7
REFRIGERANT CIRCUIT											
COMPRESSORS NR.	No.	2	2	2	2	2	3	2	3	2	3
CIRCUITS	No.	2	2	2	2	2	3	3	3	3	3
REFRIGERANT CHARGE	kg	183	198	204	208	224	236	255	267	278	288
NOISE LEVEL											
SOUND PRESSURE <sup>3</sup>	dB(A)	63	63	63	63	63	63	63	63	63	64
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	96	96	96	96	96	96	96	96	96	97
SIZE AND WEIGHT											
WIDTH (A) <sup>6</sup>	mm	10400	10400	10400	10400	11650	11650	12900	12900	12900	12900
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
OPERATING WEIGHT <sup>6</sup>	kg	9010	9130	9310	9270	9790	11140	12390	12770	12850	12930

# i-FX R513A Air Cooled Chiller

(510kW to 1,520kW)

High Efficiency Version

The Climaveneta range of **i-FX** units are air cooled chillers with inverter screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new i-FX chillers apply variable speed technology in all of its main components, achieving top-level performances in any load condition.

## Key Features & Benefits

- Total Inverter Technology
- Multiple heat recovery configurations
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

 Eurovent Certified Data



MODEL		2202	2602	2652	2702	2772	3152	3602	3902	4202	4502	4802	4822	5412	5703	6303	6603
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE																	
COOLING ONLY (GROSS VALUE)																	
COOLING CAPACITY <sup>1</sup>	kW	510.2	551.9	590.0	626.9	684.3	767.2	839.9	899.4	959.4	1028	1099	1162	1230	1334	1467	1520
TOTAL POWER INPUT <sup>1</sup>	kW	163.5	177.8	189.4	203.0	222.2	257.2	286.0	303.4	320.6	340.0	358.2	388.6	401.1	452.6	493.4	518.9
EER <sup>1</sup>	kW/kW	3.120	3.104	3.115	3.088	3.080	2.983	2.937	2.964	2.993	3.024	3.068	2.990	3.067	2.947	2.973	2.929
COOLING ONLY (EN14511 VALUE)																	
COOLING CAPACITY <sup>1,2</sup>	kW	508.7	550.4	588.2	624.8	682.1	765.0	837.1	896.4	955.9	1025	1095	1159	1226	1330	1463	1515
EER <sup>1,2</sup>	kW/kW	3.080	3.070	3.080	3.050	3.040	2.950	2.900	2.930	2.950	2.980	3.020	2.960	3.030	2.910	2.940	2.900
COOLING ENERGY CLASS		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
ENERGY EFFICIENCY																	
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)																	
AMBIENT REFRIGERATION																	
P <sub>rated,C</sub> <sup>7</sup>	kW	509	550	588	625	682	765	837	896	956	1025	1025	1159	1226	1330	1463	1515
SEER <sup>7,8</sup>		5.26	5.27	5.26	5.20	5.21	5.21	5.22	5.17	5.12	5.26	5.21	5.16	5.22	5.15	5.06	5.12
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	207	208	207	205	205	206	206	204	202	207	206	203	206	203	199	202
EXCHANGERS																	
HEAT EXCHANGER USER SIDE IN REFRIGERATION																	
WATER FLOW <sup>1</sup>	l/s	24.40	26.39	28.22	29.98	32.73	36.69	40.16	43.01	45.88	49.16	52.54	55.59	58.81	63.78	70.16	72.70
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	36.4	34.0	38.9	43.9	41.6	37.3	44.7	45.3	51.6	45.7	50.1	41.2	46.2	41.1	35.1	37.7
REFRIGERANT CIRCUIT																	
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	4	3	4
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3
REFRIGERANT CHARGE	kg	91.0	93.0	100	106	115	130	141	153	162	174	185	199	209	227	260	258
NOISE LEVEL																	
SOUND PRESSURE <sup>3</sup>	dB(A)	67	68	67	67	68	68	68	69	70	70	71	72	72	72	72	72
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	99	100	100	100	101	101	101	102	103	103	104	105	105	105	105	105
SIZE AND WEIGHT																	
WIDTH (A) <sup>6</sup>	mm	5400	5400	6650	6650	6650	7900	7900	9150	9150	10400	10400	10400	11650	12900	12900	12900
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
OPERATING WEIGHT <sup>6</sup>	kg	5180	5240	5720	5800	6210	6620	6670	7080	7120	8110	8550	8810	9280	10880	10920	11610

# i-FX HFO1234ze Air Cooled Chiller

(382kW to 1,463kW)

High Efficiency Version



**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The Climaveneta range of **i-FX** units are air cooled chillers with inverter screw compressors and HFO green refrigerant, designed for delivering high efficiencies in comfort applications. Available with HFO1234ze refrigerant, the new i-FX chillers apply variable speed technology in all of its main components, achieving top-level performances in any load condition.

## Key Features & Benefits

- Total Inverter Technology
- Multiple heat recovery configurations
- ErP2021 compliant
- Low noise
- Energy efficient
- Low GWP HFO1234ze refrigerant



MODEL		2202	2602	2702	2722	3602	4202	4802	4822	6002	6022	6603	7203	7223	7283
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE															
COOLING ONLY (GROSS VALUE)															
COOLING CAPACITY <sup>1</sup>	kW	382.7	417.9	486.9	534.8	642.0	725.9	843.1	915.7	994.1	1038	1146	1280	1399	1463
TOTAL POWER INPUT <sup>1</sup>	kW	117.7	130.2	147.7	168.4	211.1	237.1	281.3	305.7	322.1	340.6	379.0	423.0	471.2	499.3
EER <sup>1</sup>	kW/kW	3.251	3.210	3.297	3.176	3.041	3.062	2.997	2.995	3.086	3.048	3.024	3.026	2.969	2.930
COOLING ONLY (EN14511 VALUE)															
COOLING CAPACITY <sup>1,2</sup>	kW	381.5	416.4	485.7	533.2	639.7	723.4	841.1	912.6	991.0	1035	1143	1276	1394	1458
EER <sup>1,2</sup>	kW/kW	3.210	3.160	3.260	3.140	3.000	3.020	2.970	2.960	3.050	3.010	2.990	2.990	2.930	2.890
COOLING ENERGY CLASS		A	A	A	A	B	B	B	B	A	A	B	B	B	B
ENERGY EFFICIENCY															
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)															
AMBIENT REFRIGERATION															
P <sub>PARTED,C</sub> <sup>7</sup>	kW	382	416	486	533	640	723	841	913	991	1035	1143	1276	1394	1458
SEER <sup>7,8</sup>		5.18	5.26	5.26	5.18	5.09	5.18	5.09	5.06	5.13	5.09	5.11	5.04	5.04	5.00
PERFORMANCE η <sub>S</sub> <sup>7,9</sup>	%	204	207	207	204	201	204	201	199	202	200	201	199	199	197
EXCHANGERS															
HEAT EXCHANGER USER SIDE IN REFRIGERATION															
WATER FLOW <sup>1</sup>	l/s	18.30	19.98	23.29	25.58	30.70	34.71	40.32	43.79	47.52	49.65	54.79	61.21	66.89	69.95
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	35.3	42.1	30.1	36.4	46.1	46.8	30.8	47.0	42.8	43.8	40.1	40.8	48.7	53.3
REFRIGERANT CIRCUIT															
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	3	3	3	3
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	3	3	3	3
REFRIGERANT CHARGE	kg	63.0	70.0	81.0	86.0	108	124	134	139	167	171	189	195	203	218
NOISE LEVEL															
SOUND PRESSURE <sup>3</sup>	dB(A)	67	68	68	69	68	70	72	72	72	72	72	72	73	73
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	99	100	100	101	101	103	105	105	105	105	105	105	106	106
SIZE AND WEIGHT															
WIDTH (A) <sup>6</sup>	mm	4150	5400	5400	5400	6650	7900	7900	9150	10400	10400	11650	11650	12900	12900
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
OPERATING WEIGHT <sup>6</sup>	kg	4780	5220	5360	5430	6060	6820	7810	8240	8780	8880	11170	11800	12430	12390

# i-FX-Q2 R513A Air Cooled Chiller

(520kW to 1,125kW)

## Key Features & Benefits

- Total Inverter Technology
- Multiple heat recovery configurations
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



INTEGRATA

**CLIMAVENETA**  
SUSTAINABLE COMFORT

### Notes:

1. Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40,00°C/45,00°C; Source (side) heat exchanger air (in) 7,0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Plant (side) heat exchanger water (in/out) 40,00°C/45,00°C.
5. Rated in accordance with AHRI Standard 550/590.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.
10. Sound power on the basis of measurements made in compliance with ISO 9614.
11. Sound power level in cooling, outdoors.
12. Sound power level in heating, outdoors.
13. Unit in standard configuration/execution, without optional accessories.

■ Eurovent Certified Data

The Climaveneta range of **i-FX-Q2** units are air cooled chillers, designed to produce chilled and hot water simultaneously and efficiently using variable frequency drive compressors. Available with lower GWP R513A refrigerant, the new i-FX-Q2 chillers apply variable speed technology in all of its main components, achieving top-level performances in any load condition.



MODEL		0502	0532	0602	0652	0702	0802	0902	1002	1102
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE										
COOLING ONLY (GROSS VALUE)										
COOLING CAPACITY <sup>1</sup>	kW	520.5	536.1	570.0	670.8	712.2	787.4	982.0	1048	1125
TOTAL POWER INPUT <sup>1</sup>	kW	180.4	181.2	189.0	229.8	238.9	261.5	344.9	356.6	411.4
EER <sup>1</sup>	kW/kW	2.885	2.959	3.016	2.919	2.981	3.011	2.847	2.939	2.735
COOLING ONLY (EN14511 VALUE)										
COOLING CAPACITY <sup>1,2</sup>	kW	485.9	529.2	568.5	624.8	686.6	785.6	912.3	982.3	1079
EER <sup>1,2</sup>	kW/kW	2.980	2.980	2.980	2.990	2.980	2.980	3.020	3.000	2.850
HEATING ONLY (GROSS VALUE)										
TOTAL HEATING CAPACITY <sup>3</sup>	kW	496.8	496.8	531.0	643.9	684.9	764.8	939.9	988.7	1071
TOTAL POWER INPUT <sup>3</sup>	kW	152.9	152.9	160.1	195.5	205.8	224.6	294.3	311.5	332.4
COP <sup>3</sup>	kW/kW	3.249	3.249	3.317	3.294	3.328	3.405	3.194	3.174	3.222
HEATING ONLY (EN14511 VALUE)										
TOTAL HEATING CAPACITY <sup>2,3</sup>	kW	464.1	49.3	532.0	600.0	660.7	766.8	873.3	940.2	1030
COP <sup>2,3</sup>	kW/kW	3.320	3.280	3.300	3.340	3.330	3.380	3.340	3.370	3.350
COOLING WITH HEAT RECOVERY (EN14511 VALUE)										
COOLING CAPACITY <sup>2,4</sup>	kW	487.0	531.0	569.0	622.0	680.3	782.6	911.8	984.4	1098
TOTAL POWER INPUT <sup>2,4</sup>	kW	145.8	160.6	170.6	185.8	205.7	234.7	275.9	292.7	329.6
RECOVERY HEAT EXCHANGER CAPACITY <sup>2,4</sup>	kW	624.2	682.1	729.5	796.9	874.0	1003	1171	1260	1408
TER	kW/kW	7.620	7.553	7.613	7.637	7.555	7.609	7.546	7.667	7.603
ENERGY EFFICIENCY										
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)										
AMBIENT REFRIGERATION										
P <sub>Rated,C</sub> <sup>7</sup>	kW	485.9	529.2	568.5	624.8	686.6	785	912.3	982.3	1079.0
SEER <sup>7,8</sup>		5.15	5.09	5.11	5.08	5.12	5.02	4.73	4.66	4.63
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	203.0	201.0	202.0	200.0	202.0	198.0	186.0	183.0	182.0
EXCHANGERS										
HEAT EXCHANGER USER SIDE IN REFRIGERATION										
WATER FLOW <sup>1</sup>	l/s	24.89	25.64	27.26	32.08	34.06	37.65	46.96	50.12	53.78
PRESSURE DROP AT THE HEAT EXCHANGER <sup>1</sup>	kPa	40.8	51.6	32.5	40.5	45.4	29.0	39.7	42.3	51.4
HEAT EXCHANGER USER SIDE IN HEATING										
WATER FLOW <sup>3</sup>	l/s	23.98	23.98	25.63	31.08	33.06	36.92	45.37	47.73	53.68
PRESSURE DROP AT THE HEAT EXCHANGER <sup>3</sup>	kPa	26.5	26.5	21.9	31.9	35.3	32.9	49.6	39.6	33.2
REFRIGERANT CIRCUIT										
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2
NUMBER OF CAPACITY STEPS	No.	0	0	0	0	0	0	0	0	0
CIRCUITS	No.	2	2	2	2	2	2	2	2	2
REGULATION										
		Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless
REFRIGERANT		R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A
REFRIGERANT CHARGE	kg	253	257	307	338	372	425	451	473	473
OIL CHARGE	kg	36.0	36.0	36.0	36.0	36.0	36.0	60.0	60.0	60.0
RC (ASHARE) <sup>5</sup>	kg/kW	0.49	0.52	0.54	0.51	0.53	0.55	0.46	0.46	0.42
NOISE LEVEL										
SOUND PRESSURE <sup>6</sup>	dB(A)	67	67	68	69	69	68	70	70	70
SOUND POWER LEVEL IN COOLING <sup>10,11</sup>	dB(A)	100	100	100	102	102	101	103	103	103
SOUND POWER LEVEL IN HEATING <sup>10,11</sup>	dB(A)	100	100	100	102	102	101	103	103	103
SIZE AND WEIGHT										
WIDTH (A) <sup>13</sup>	mm	8150	8150	8900	9650	10400	10400	10400	11900	11900
DEPTH (B) <sup>13</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>13</sup>	mm	2530	2530	2530	2530	2530	2530	2530	2530	2530
OPERATING WEIGHT <sup>13</sup>	kg	8350	8380	9080	9590	10060	11010	12310	14110	14150



# i-FX-Q2 R513A Air Cooled Chiller

(498kW to 1,039kW)

Low Noise Version

## Key Features & Benefits

- Total Inverter Technology
- Multiple heat recovery configurations
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



INTEGRATA

**CLIMAVENETA**  
SUSTAINABLE COMFORT

### Notes:

1. Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,00°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40,00°C/45,00°C; Source (side) heat exchanger air (in) 7,0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Plant (side) heat exchanger water (in/out) 40,00°C/45,00°C.
5. Rated in accordance with AHRI Standard 550/590.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.
10. Sound power on the basis of measurements made in compliance with ISO 9614.
11. Sound power level in cooling, outdoors.
12. Sound power level in heating, outdoors.
13. Unit in standard configuration/execution, without optional accessories.

■ Eurovent Certified Data

The Climaveneta range of **i-FX-Q2** units are air cooled chillers, designed to produce chilled and hot water simultaneously and efficiently using variable frequency drive compressors. Available with lower GWP R513A refrigerant, the new i-FX-Q2 chillers apply variable speed technology in all of its main components, achieving top-level performances in any load condition.



MODEL		0502	0532	0602	0652	0702	0802	0902	1002	1102
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE										
COOLING ONLY (GROSS VALUE)										
COOLING CAPACITY <sup>1</sup>	kW	498.6	513.3	549.0	646.7	686.7	765.6	905.4	981.9	1039
TOTAL POWER INPUT <sup>1</sup>	kW	183.1	184.0	188.8	229.5	235.8	261.6	322.0	347.6	386.2
EER <sup>12</sup>	kW/kW	2.723	2.790	2.908	2.818	2.912	2.927	2.812	2.825	2.690
COOLING ONLY (EN14511 VALUE)										
COOLING CAPACITY <sup>12</sup>	kW	466.1	506.6	547.6	602.3	662.8	763.9	878.7	949.1	1036
EER <sup>12</sup>	kW/kW	2.850	2.840	2.880	2.920	2.930	2.900	2.850	2.860	2.660
HEATING ONLY (GROSS VALUE)										
TOTAL HEATING CAPACITY <sup>3</sup>	kW	492.0	492.0	526.1	637.4	678.9	756.3	881.6	948.9	1018
TOTAL POWER INPUT <sup>3</sup>	kW	150.9	150.9	157.6	192.7	203.0	221.5	265.7	283.7	301.1
COP <sup>3</sup>	kW/kW	3.260	3.260	3.334	3.308	3.344	3.414	3.318	3.345	3.381
HEATING ONLY (EN14511 VALUE)										
TOTAL HEATING CAPACITY <sup>23</sup>	kW	459.6	487.6	527.1	594.3	654.9	758.2	862.8	930.9	1020
COP <sup>23</sup>	kW/kW	3.330	3.290	3.320	3.360	3.350	3.390	3.340	3.380	3.360
COOLING WITH HEAT RECOVERY (EN14511 VALUE)										
COOLING CAPACITY <sup>24</sup>	kW	487.2	531.2	569.1	622.2	680.5	782.6	912.1	984.6	1098
TOTAL POWER INPUT <sup>24</sup>	kW	145.6	160.2	170.4	185.4	205.4	234.5	274.7	291.7	329.3
RECOVERY HEAT EXCHANGER CAPACITY <sup>24</sup>	kW	624.2	681.9	729.4	796.7	873.8	1003	1170	1259	1407
TER	kW/kW	7.630	7.572	7.616	7.654	7.566	7.614	7.579	7.693	7.607
ENERGY EFFICIENCY										
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)										
AMBIENT REFRIGERATION										
P <sub>rated,C</sub> <sup>7</sup>	kW	466.1	506.6	547.6	602.3	662.8	763.9	878.7	949.1	1036.0
SEER <sup>78</sup>		5.10	5.07	5.07	5.07	5.12	4.96	4.70	4.62	4.60
PERFORMANCE η <sub>s</sub> <sup>79</sup>	%	201.0	200.0	200.0	200.0	202.0	195.0	185.0	182.0	181.0
EXCHANGERS										
HEAT EXCHANGER USER SIDE IN REFRIGERATION										
WATER FLOW <sup>1</sup>	l/s	23.84	24.55	26.26	30.93	32.84	36.61	43.30	46.96	49.69
PRESSURE DROP AT THE HEAT EXCHANGER <sup>1</sup>	kPa	37.5	47.3	30.2	37.6	42.3	27.4	36.8	39.5	47.4
HEAT EXCHANGER USER SIDE IN HEATING										
WATER FLOW <sup>3</sup>	l/s	23.75	23.75	25.39	30.77	32.77	36.51	42.55	45.80	49.13
PRESSURE DROP AT THE HEAT EXCHANGER <sup>3</sup>	kPa	26.0	26.0	21.5	31.3	34.7	32.1	43.7	36.4	30.0
REFRIGERANT CIRCUIT										
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2
NUMBER OF CAPACITY STEPS	No.	0	0	0	0	0	0	0	0	0
CIRCUITS	No.	2	2	2	2	2	2	2	2	2
REGULATION		Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless
REFRIGERANT		R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A
REFRIGERANT CHARGE	kg	253	275	307	338	372	425	451	473	473
OIL CHARGE	kg	36.0	36.0	36.0	36.0	36.0	36.0	60.0	60.0	60.0
RC (ASHARE) <sup>15</sup>	kg/kW	0.51	0.54	0.57	0.53	0.55	0.56	0.50	0.49	0.46
NOISE LEVEL										
SOUND PRESSURE <sup>6</sup>	dB(A)	57	58	58	59	59	59	61	61	59
SOUND POWER LEVEL IN COOLING <sup>1011</sup>	dB(A)	90	91	91	92	92	92	94	94	92
SOUND POWER LEVEL IN HEATING <sup>1011</sup>	dB(A)	90	91	91	92	92	92	94	94	92
SIZE AND WEIGHT										
WIDTH (A) <sup>13</sup>	mm	8150	8150	8900	9650	10400	10400	10400	11900	11900
DEPTH (B) <sup>13</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>13</sup>	mm	2530	2530	2530	2530	2530	2530	2530	2530	2530
OPERATING WEIGHT <sup>13</sup>	kg	8800	8830	9530	10040	10510	11450	12750	14560	14600

# FX2 R513A Air Cooled Chiller

(322kW to 996kW)

The Climaveneta range of **FX2** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

## Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

■ Eurovent Certified Data

MODEL		0322	0352	0402	0472	0512	0572	0652	0702	0772	0852	0902	1002
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE													
COOLING ONLY (GROSS VALUE)													
COOLING CAPACITY <sup>1</sup>	kW	322.1	350.2	411.9	464.4	516.7	573.4	645.8	707.6	779.8	862.9	937.3	996.0
TOTAL POWER INPUT <sup>1</sup>	kW	102.4	119.2	133.1	146.1	172.5	188.6	207.4	239.2	254.6	272.4	295.1	315.5
EER <sup>1</sup>	kW/kW	3.146	2.938	3.095	3.179	2.995	3.040	3.114	2.958	3.063	3.168	3.176	3.157
ESEER <sup>1</sup>	kW/kW	4.430	4.440	4.510	4.500	4.440	4.460	4.470	4.480	4.470	4.450	4.450	4.460
COOLING ONLY (EN14511 VALUE)													
COOLING CAPACITY <sup>1,2</sup>	kW	321.8	349.8	411.5	463.9	516.2	572.9	645.2	707.0	779.1	862.3	936.6	995.2
EER <sup>1,2</sup>	kW/kW	3.120	2.910	3.060	3.140	2.970	3.010	3.080	2.930	3.020	3.130	3.140	3.120
ESEER <sup>1,2</sup>		4.300	4.300	4.350	4.310	4.290	4.280	4.300	4.320	4.270	4.290	4.280	4.270
ENERGY EFFICIENCY													
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)													
AMBIENT REFRIGERATION													
P <sub>RATED,C</sub> <sup>7</sup>	kW	322	350	412	464	516	573	645	707	779	862	937	995
SEER <sup>7,8</sup>		4.51	4.50	4.56	4.58	4.56	4.56	4.58	4.57	4.57	4.58	4.59	4.59
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	177	177	179	180	179	179	180	180	180	180	180	181
EXCHANGERS													
HEAT EXCHANGER USER SIDE IN REFRIGERATION													
WATER FLOW <sup>1</sup>	l/s	15.40	16.75	19.70	22.21	24.71	27.42	30.88	33.84	37.29	41.27	44.82	47.63
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	27.7	32.7	38.8	49.4	37.3	46.0	46.6	44.5	54.1	47.2	49.2	55.6
REFRIGERANT CIRCUIT													
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE	kg	57.0	60.0	71.0	81.0	88.0	98.0	113	120	133	150	163	173
NOISE LEVEL													
SOUND PRESSURE <sup>3</sup>	dB(A)	67	67	67	68	68	68	68	70	69	69	70	70
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	99	99	99	100	100	100	100	102	102	102	103	103
SIZE AND WEIGHT													
WIDTH (A) <sup>6</sup>	mm	2750	2750	4000	4000	4000	5250	5250	5250	6500	6500	7750	7750
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT <sup>6</sup>	kg	3120	2950	3600	3730	4570	5060	5190	5550	6400	6980	7460	7620

# FX2 R513A Air Cooled Chiller

(1,056kW to 1,839kW)

The Climaveneta range of **FX2** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

## Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

  Eurovent Certified Data

MODEL		1052	1102	1152	1222	1262	1322	1402	1503	1593	1663	1773	1883
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE													
COOLING ONLY (GROSS VALUE)													
COOLING CAPACITY <sup>1</sup>	kW	1056	1098	1139	1232	1264	1332	1400	1506	1592	1664	1778	1839
TOTAL POWER INPUT <sup>1</sup>	kW	343.2	369.3	354.3	396.3	423.2	433.9	474.8	475.0	523.1	556.9	580.4	605.3
EER <sup>1</sup>	kW/kW	3.077	2.973	3.215	3.109	2.987	3.070	2.949	3.171	3.043	2.988	3.063	3.038
ESEER <sup>1</sup>	kW/kW	4.460	4.470	4.460	4.490	4.470	4.460	4.490	4.430	4.450	4.440	4.440	4.470
COOLING ONLY (EN14511 VALUE)													
COOLING CAPACITY <sup>1,2</sup>	kW	1055	1097	1138	1231	1264	1331	1399	1505	1591	1663	1777	1838
EER <sup>1,2</sup>	kW/kW	3.040	2.940	3.170	3.070	2.960	3.030	2.910	3.130	3.010	2.960	3.030	3.000
ESEER <sup>1,2</sup>		4.290	4.300	4.280	4.290	4.300	4.280	4.300	4.270	4.270	4.290	4.280	4.290
ENERGY EFFICIENCY													
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)													
AMBIENT REFRIGERATION													
P <sub>RATED,C</sub> <sup>7</sup>	kW	1055	1097	1138	1231	1264	1331	1399	1505	1591	1663	1777	1838
SEER <sup>7,8</sup>		4.56	2.940	4.58	4.60	4.56	4.57	4.58	4.59	4.59	4.58	4.60	4.63
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	180	4.300	180	181	179	180	180	181	181	180	181	182
EXCHANGERS													
HEAT EXCHANGER USER SIDE IN REFRIGERATION													
WATER FLOW <sup>1</sup>	l/s	50.51	52.49	54.45	58.92	60.46	63.71	66.96	72.03	76.12	79.55	85.04	87.92
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	48.3	52.1	56.1	61.6	48.8	54.2	59.9	52.5	58.6	45.1	51.6	59.1
REFRIGERANT CIRCUIT													
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	3	3	3	3	3
CIRCUITS	No.	2	2	2	2	2	2	2	3	3	3	3	3
REFRIGERANT CHARGE	kg	179	104	195	210	214	232	238	263	271	281	303	318
NOISE LEVEL													
SOUND PRESSURE <sup>3</sup>	dB(A)	71	71	71	71	72	73	73	73	73	73	73	73
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	104	104	104	104	105	106	106	106	106	106	106	106
SIZE AND WEIGHT													
WIDTH (A) <sup>6</sup>	mm	7750	7750	9000	9000	9150	10400	10400	11650	11650	11650	12900	12900
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT <sup>6</sup>	kg	7870	7900	8430	8500	8860	9470	9610	12050	12110	12120	12710	12720

# FX2 R513A Air Cooled Chiller

(310kW to 960kW)

Low Noise Version



#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The Climaveneta range of **FX2** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

### Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



MODEL		0322	0352	0402	0472	0512	0572	0652	0702	0772	0852	0902	1002
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE													
COOLING ONLY (GROSS VALUE)													
COOLING CAPACITY <sup>1</sup>	kW	310.2	358.4	410.2	450.1	511.7	557.4	621.9	713.0	770.4	828.6	901.6	959.9
TOTAL POWER INPUT <sup>1</sup>	kW	103.1	115.1	128.2	148.9	164.4	177.9	211.2	226.9	251.5	276.9	300.1	321.0
EER <sup>1</sup>	kW/kW	3.009	3.114	3.200	3.023	3.113	3.133	2.945	3.142	3.063	2.992	3.004	2.990
ESEER <sup>1</sup>	kW/kW	4.400	4.440	4.480	4.490	4.470	4.480	4.470	4.450	4.470	4.440	4.460	4.470
COOLING ONLY (EN14511 VALUE)													
COOLING CAPACITY <sup>1,2</sup>	kW	309.8	358.0	409.8	449.7	511.2	556.9	621.3	712.4	769.7	828.0	901.0	959.1
EER <sup>1,2</sup>	kW/kW	2.980	3.080	3.160	2.990	3.080	3.100	2.910	3.110	3.020	2.960	2.970	2.960
ESEER <sup>1,2</sup>		4.270	4.280	4.320	4.310	4.320	4.310	4.300	4.290	4.280	4.280	4.300	4.300
ENERGY EFFICIENCY													
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)													
AMBIENT REFRIGERATION													
P <sub>RATED,C</sub> <sup>7</sup>	kW	310	358	410	450	511	557	621	712	770	828	901	959
SEER <sup>7,8</sup>		4.46	4.50	4.56	4.55	4.57	4.55	4.55	4.56	4.58	4.56	4.58	4.58
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	175	177	179	179	180	179	179	180	180	180	180	180
EXCHANGERS													
HEAT EXCHANGER USER SIDE IN REFRIGERATION													
WATER FLOW <sup>1</sup>	l/s	14.83	17.14	19.62	21.53	24.47	26.66	29.74	34.10	36.84	39.63	43.12	45.90
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	25.7	34.3	38.5	46.4	36.6	43.5	43.2	45.2	52.8	43.5	45.5	51.6
REFRIGERANT CIRCUIT													
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE	kg	57.0	66.0	76.0	81.0	93.0	103	113	131	140	150	163	173
NOISE LEVEL													
SOUND PRESSURE <sup>3</sup>	dB(A)	55	55	56	56	57	57	57	57	58	58	59	59
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	87	87	88	88	89	89	89	90	91	91	92	92
SIZE AND WEIGHT													
WIDTH (A) <sup>6</sup>	mm	2750	4000	4000	4000	5250	5250	5250	6500	6500	6500	7750	7750
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT <sup>6</sup>	kg	3380	3830	3960	4000	5270	5680	5720	6600	7090	7590	8100	8270

# FX2 R513A Air Cooled Chiller

(1,098kW to 1,773kW)

Low Noise Version



**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

  Eurovent Certified Data

The Climaveneta range of **FX2** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

### Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



MODEL		1052	1102	1152	1222	1262	1322	1402	1503	1593	1663	1773	1883
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>													
<b>COOLING ONLY (GROSS VALUE)</b>													
COOLING CAPACITY <sup>1</sup>	kW	1037	1098	1131	1222	1257	1284	1386	1451	1573	1645	1714	1773
TOTAL POWER INPUT <sup>1</sup>	kW	341.7	359.9	347.4	388.0	415.0	441.0	467.8	483.3	519.5	550.6	593.8	620.9
EER <sup>1</sup>	kW/kW	3.035	3.051	3.256	3.149	3.029	2.912	2.963	3.002	3.028	2.988	2.886	2.856
ESEER <sup>1</sup>	kW/kW	4.450	4.480	4.480	4.480	4.450	4.470	4.480	4.450	4.470	4.440	4.440	4.450
<b>COOLING ONLY (EN14511 VALUE)</b>													
COOLING CAPACITY <sup>1,2</sup>	kW	1037	1097	1130	1222	1256	1283	1385	1451	1572	1644	1714	1772
EER <sup>1,2</sup>	kW/kW	3.000	3.020	3.210	3.110	3.000	2.880	2.930	2.970	2.990	2.960	2.860	2.820
ESEER <sup>1,2</sup>		4.290	4.300	4.290	4.290	4.290	4.310	4.290	4.290	4.290	4.300	4.280	4.280
<b>ENERGY EFFICIENCY</b>													
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>													
<b>AMBIENT REFRIGERATION</b>													
P <sub>RATED,C</sub> <sup>7</sup>	kW	1037	1097	1130	1222	1256	1283	1385	1451	1572	1644	1714	1772
SEER <sup>7,8</sup>		4.56	4.59	4.62	4.62	4.58	4.55	4.58	4.59	4.61	4.59	4.57	4.57
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	179	180	182	182	180	179	180	180	182	180	180	180
<b>EXCHANGERS</b>													
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>													
WATER FLOW <sup>1</sup>	l/s	49.60	52.51	54.06	58.46	60.10	61.40	66.26	69.40	75.22	78.65	81.99	84.78
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	46.6	52.2	55.3	60.7	48.2	50.3	58.6	48.7	57.2	44.1	47.9	55.0
<b>REFRIGERANT CIRCUIT</b>													
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	3	3	3	3	3
CIRCUITS	No.	2	2	2	2	2	2	2	3	3	3	3	3
REFRIGERANT CHARGE	kg	187	199	207	222	228	232	251	263	285	297	308	318
<b>NOISE LEVEL</b>													
SOUND PRESSURE <sup>3</sup>	dB(A)	60	60	61	61	61	61	61	61	61	61	61	62
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	93	93	94	94	94	94	94	94	94	94	94	95
<b>SIZE AND WEIGHT</b>													
WIDTH (A) <sup>6</sup>	mm	9000	9000	10250	10250	10400	10400	11650	11650	12900	12900	12900	12900
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT <sup>6</sup>	kg	8920	9060	9640	9710	10060	10150	10720	12980	13560	13560	13650	13670

# FX2 R513A Air Cooled Chiller

(340kW to 1,372kW)

High Efficiency Version



#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

 Eurovent Certified Data

The Climaveneta range of **FX2** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

### Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant



MODEL		0352	0402	0452	0472	0572	0602	0652	0702	0772	0852	0902	1002	1052	1152	1222	1322	1402	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>																			
<b>COOLING ONLY (GROSS VALUE)</b>																			
COOLING CAPACITY <sup>1</sup>	kW	340.3	389.8	444.9	485.0	570.3	619.0	658.9	698.5	756.1	844.7	918.1	1001	1061	1133	1207	1311	1372	
TOTAL POWER INPUT <sup>1</sup>	kW	98.73	113.1	128.5	142.9	163.3	178.3	189.4	200.5	222.8	246.7	267.5	289.5	310.9	331.5	352.4	390.1	409.2	
EER <sup>1</sup>	kW/kW	3.448	3.447	3.462	3.394	3.492	3.472	3.479	3.484	3.394	3.424	3.432	3.458	3.413	3.418	3.425	3.361	3.353	
ESEER <sup>1</sup>	kW/kW	4.610	4.630	4.520	4.620	4.610	4.610	4.620	4.640	4.620	4.610	4.630	4.680	4.630	4.650	4.650	4.580	4.610	
<b>COOLING ONLY (EN14511 VALUE)</b>																			
COOLING CAPACITY <sup>1,2</sup>	kW	339.9	389.4	444.5	484.6	569.8	618.5	658.4	697.9	755.5	844.1	917.4	1000	1060	1132	1206	1310	1371	
EER <sup>1,2</sup>	kW/kW	3.410	3.410	3.430	3.360	3.450	3.440	3.440	3.440	3.360	3.390	3.390	3.410	3.370	3.370	3.380	3.330	3.320	
ESEER <sup>1,2</sup>		4.470	4.470	4.490	4.490	4.440	4.470	4.470	4.470	4.470	4.450	4.450	4.450	4.450	4.470	4.440	4.440	4.450	
<b>ENERGY EFFICIENCY</b>																			
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>																			
<b>AMBIENT REFRIGERATION</b>																			
P <sub>RATED,C</sub> <sup>7</sup>	kW	340	389	444	485	570	618	658	689	756	844	917	1000	1060	1132	1206	1310	1371	
SEER <sup>7,8</sup>		4.63	4.64	4.69	4.66	4.72	4.64	4.66	4.73	4.71	4.71	4.74	4.79	4.72	4.74	4.74	4.66	4.69	
PERFORMANCE η <sub>s</sub> <sup>7,9</sup>	%	182	182	185	183	186	183	183	186	185	185	187	188	186	187	187	183	185	
<b>EXCHANGERS</b>																			
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>																			
WATER FLOW <sup>1</sup>	l/s	16.27	18.64	21.27	23.20	27.27	29.60	31.51	33.40	36.16	40.40	43.90	47.88	50.72	54.17	57.73	62.68	65.62	
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	26.5	34.8	27.7	32.9	41.4	34.1	38.6	43.4	36.3	40.0	47.2	61.2	48.7	53.2	59.2	39.7	43.5	
<b>REFRIGERANT CIRCUIT</b>																			
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
REFRIGERANT CHARGE	kg	65.0	76.0	86.0	94.0	109	117	126	134	143	160	173	188	200	213	227	244	258	
<b>NOISE LEVEL</b>																			
SOUND PRESSURE <sup>3</sup>	dB(A)	66	67	67	67	67	67	68	68	68	68	69	69	70	70	70	70	71	
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	98	99	99	99	99	100	101	101	101	101	102	102	103	103	103	103	104	
<b>SIZE AND WEIGHT</b>																			
WIDTH (A) <sup>6</sup>	mm	4000	5250	5250	5250	6500	6500	7750	7750	7750	9000	9000	10250	10250	11650	11650	11650	12900	
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT (H) <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	
OPERATING WEIGHT <sup>6</sup>	kg	3660	4270	4390	4440	5660	5960	6420	6550	6640	7530	8060	8570	8920	9430	9550	10490	11150	

# FX2 HFO1234ze Air Cooled Chiller

(255kW to 1,561kW)

High Efficiency Version



**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The Climaveneta range of **FX2** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with HFO1234ze refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

## Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Low GWP HFO1234ze refrigerant



MODEL		0252	0302	0322	0352	0402	0452	0512	0572	0652	0772	0902	0972	1052	1152	1243	1373	1503	1593	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>																				
<b>COOLING ONLY (GROSS VALUE)</b>																				
COOLING CAPACITY <sup>1</sup>	kW	255.3	289.9	315.1	365.0	405.4	445.9	519.7	573.4	679.0	781.7	903.5	967.9	1058	1145	1239	1362	1488	1561	
TOTAL POWER INPUT <sup>1</sup>	kW	75.98	87.26	94.43	106.7	121.7	135.2	156.8	172.2	204.8	235.6	276.0	287.2	319.7	343.6	373.1	415.8	446.3	473.4	
EER <sup>1</sup>	kW/kW	3.359	3.321	3.338	3.421	3.331	3.298	3.314	3.330	3.315	3.318	3.274	3.370	3.309	3.332	3.321	3.276	3.334	3.297	
ESEER <sup>1</sup>	kW/kW	4.530	4.500	4.560	4.480	4.500	4.590	4.530	4.570	4.530	4.550	4.530	4.540	4.590	4.630	4.550	4.570	4.590	4.600	
<b>COOLING ONLY (EN14511 VALUE)</b>																				
COOLING CAPACITY <sup>1*2</sup>	kW	255.0	289.5	314.7	364.7	405.0	445.4	519.2	572.9	678.4	781.0	902.9	967.1	1057	1145	1238	1361	1487	1560	
EER <sup>1*2</sup>	kW/kW	3.320	3.280	3.310	3.390	3.290	3.250	3.280	3.290	3.270	3.270	3.240	3.330	3.270	3.290	3.280	3.240	3.290	3.250	
<b>ENERGY EFFICIENCY</b>																				
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>																				
<b>AMBIENT REFRIGERATION</b>																				
P <sub>RATED,C</sub> <sup>7</sup>	kW	255	290	315	365	405	445	519	573	678	781	903	967	1057	1145	1238	1361	1487	1560	
SEER <sup>7*8</sup>		4.55	4.52	4.61	4.54	4.56	4.61	4.56	4.61	4.60	4.63	4.61	4.64	4.65	4.69	4.63	4.58	4.67	4.69	
PERFORMANCE η <sub>s</sub> <sup>7*9</sup>	%	179	178	181	178	179	181	179	182	181	182	181	183	183	185	182	180	184	185	
<b>EXCHANGERS</b>																				
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>																				
WATER FLOW <sup>1</sup>	l/s	12.21	13.86	15.07	17.46	19.39	21.32	24.85	27.42	32.47	37.38	43.21	46.28	50.57	54.77	59.24	65.14	71.14	74.65	
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	38.1	36.3	23.9	32.1	39.7	48.0	34.3	41.8	51.5	54.3	35.3	52.5	48.4	53.3	46.9	46.2	55.1	60.7	
<b>REFRIGERANT CIRCUIT</b>																				
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	
REFRIGERANT CHARGE	kg	51.0	55.0	59.0	67.0	72.0	81.0	93.0	98.0	123	142	152	160	191	195	216	222	232	248	
<b>NOISE LEVEL</b>																				
SOUND PRESSURE <sup>3</sup>	dB(A)	66	67	67	68	68	68	68	70	69	70	71	71	73	73	73	73	73	73	
SOUND POWER LEVEL IN COOLING <sup>4*5</sup>	dB(A)	98	99	99	100	100	100	100	102	102	103	104	104	106	106	106	106	106	106	
<b>SIZE AND WEIGHT</b>																				
WIDTH (A) <sup>6</sup>	mm	4000	4000	4000	4000	4000	5250	5250	5250	6500	7750	7750	9000	10400	10400	11650	11650	12900	12900	
DEPTH (B) <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT (H) <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	
OPERATING WEIGHT <sup>9</sup>	kg	3540	3560	3660	3810	4470	4990	5190	5250	6710	7650	7900	8340	9370	9440	11380	12070	12680	12930	

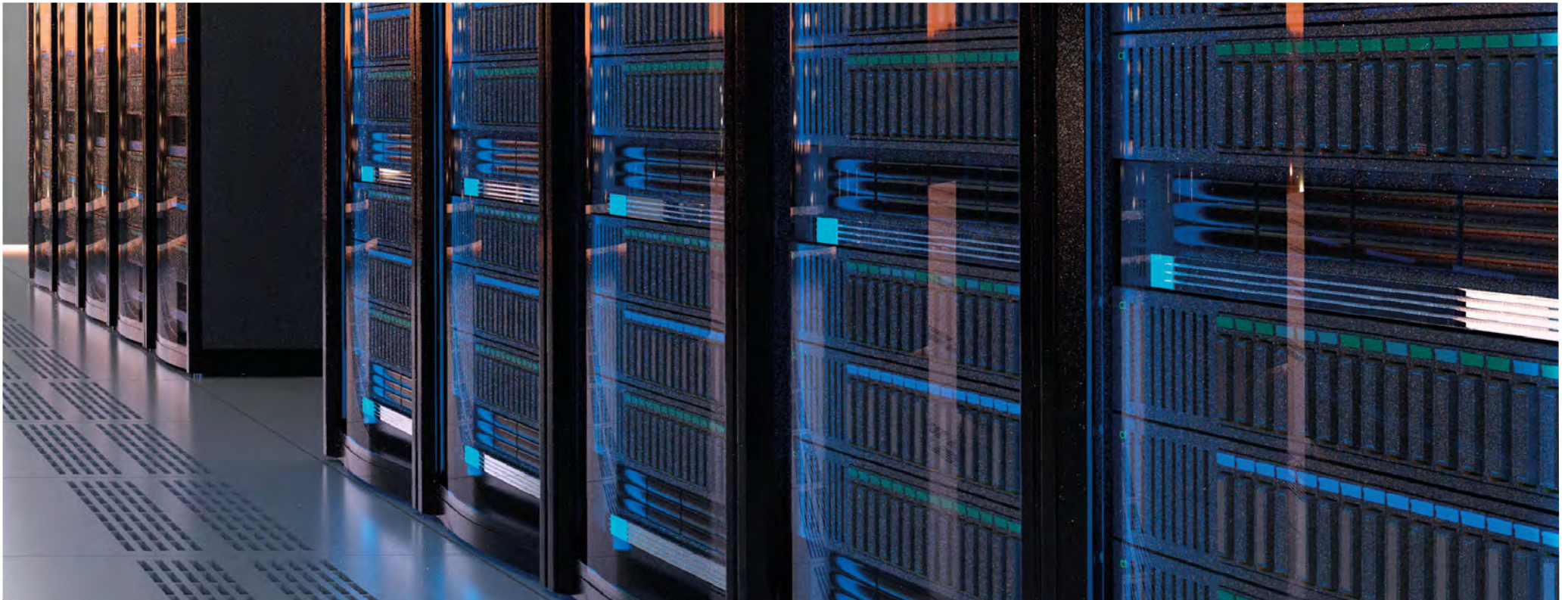
# Commercial Heat Pumps & Chillers Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>e-Series</b>	
Fin Guard for EACV-M / EAHV-M	EC-130FG
<b>Ecodan CRHV</b>	
Main Pipework Thermistor	TW-TH16
Differential Pressure Switch for Water Systems	KS10-EP100S
Wired Remote Controller	PAR-W21MAA-J
Centralised Controller	AE-200E
AE-200E Wall Mounted Box - for Wall Mounting	PAC-YG82TB
External Temperature Sensor and Solar Guard	TMP-O
<b>Ecodan CAHV</b>	
Main Pipework Thermistor	TW-TH16
Differential Pressure Switch for Water Systems	KS10-EP100S
Wired Remote Controller	PAR-W21MAA-J
Centralised Controller	AE-200E
AE-200E Wall Mounted Box - for Wall Mounting	PAC-YG82TB
<b>Ecodan QAHV</b>	
Main Pipework Thermistor	TW-TH16
Centralised Controller	AE-200E
AE-200E Wall Mounted Box - for Wall Mounting	PAC-YG82TB
Secondary Side Control Circuit Kit	Q-1SCK
<b>i-BX</b>	
Storage tank 30 litres	BTB30
Storage tank 60 litres	BTB60
Epoxy coated coil	
i-BX N-RS Serial card RS485 for ModBus	



# I.T. Cooling

Close Control Computer Room  
Air Conditioning Systems





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# Close Control Air Conditioning Systems

## Precise Temperature and Humidity Control

Complex I.T. environments are often characterised by variable cooling loads, which require a high cooling capacity at full load in order to allow the I.T. equipment to operate correctly when it is most needed.

Our I.T. Cooling range makes it possible to keep temperature and humidity constant, even with very wide load variations, ensuring the correct room conditions all year round.

### The perfect match between efficiency and reliability

With our I.T. cooling systems, both efficiency and reliability are paramount throughout all the stages of research, design and manufacturing. By using this approach along **with over 50 years of manufacturing experience within the I.T. cooling sector**, we are able to offer tailor made I.T. Cooling solutions

## Close Control Air Conditioning Systems

The need for high sensible cooling and close control of both temperatures and humidity in critical I.T. environments has never been higher.

Mitsubishi Electric and RC I.T. cooling systems have been designed to fulfil this requirement, reducing operational costs in the process through the use of highly efficient technology, with many systems incorporating inverter control as standard.





### ■ Mitsubishi Electric Perimeter Cooling units

Mitsubishi Electric's Close Control systems are specifically designed for rooms with a high sensible cooling load that require precise temperature and humidity control. Because of the need for close control 24 hours a day, 365 days a year, an inverter driven compressor has been incorporated into the outdoor units, maximising the energy efficiency of the system.

- Connects to Mr Slim Power Inverter outdoor units
- Easily integrates into existing and new control networks
- Quick recovery following power failure
- High Sensible cooling
- Close control of supply temperature
- Back-up and rotate function available
- Easy to install - no space required at the rear of the unit
- Inverter driven capacity control



### ■ RC Perimeter Cooling Units

The RC I.T. Cooling range of perimeter, upflow or downflow units have been designed to cool new and existing I.T. rooms efficiently and effectively. The perimeter range offers a broad range of unit types to meet any I.T. perimeter cooling demand.

- DX or chilled water versions available
- Precise temperature and humidity control
- New generation EC PUL (Polymeric ULtralight) high efficiency fans
- DC inverter technology
- Free cooling available
- Dual fluid circuits for the highest reliability
- Advanced control systems



# MSY-TP

## R32 High SHF Wall Mounted System

### Inverter Heat Pump (Cooling Only)



The M Series **MSY-TP** R32 High SHF wall mounted system blends energy efficiency with a modern design. This cooling only unit has a high sensible cooling capacity, making it ideal for small computer rooms and areas that require a greater degree of sensible cooling. The MSY-TP also utilises lower GWP R32 refrigerant.

### Key Features & Benefits

- Compact and stylish white design
- High sensible cooling ability
- Weekly timer provides greater control of scheduling
- Cooling down to -25°C outdoor air temperature

# R32

MSY-TP - INDOOR UNITS		MSY-TP35VF	MSY-TP50VF
CAPACITY (kW)	Cooling (nominal)	3.5 (1.5-4.0)	5.0 (1.5-5.7)
	Cooling (UK)	3.47 (1.48-3.96)	4.96 (1.48-5.65)
SHF (nominal)		0.98	0.82
EER (nominal)		4.61	3.45
SEER (BS EN14825)		9.00	8.00
ErP ENERGY EFFICIENCY CLASS	Cooling	A+++	A++
AIRFLOW (l/s)	Cooling - Lo-Mi-Hi-SHi	168-193-228-273	168-193-228-273
PIPE SIZE mm (in)	Gas	9.52 (3/8")	9.52 (3/8")
	Liquid	6.35 (1/4")	6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Cooling - Lo-Mi-Hi-SHi	31-36-40-45	31-36-40-45
SOUND POWER LEVEL (dBA)		60	60
DIMENSIONS (mm)	Width x Depth x Height	923 x 250 x 305	923 x 250 x 305
WEIGHT (kg)		12.5	12.5
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
FUSE RATING (BS88) - HRC (A)		10	10
INTERCONNECTING CABLE No. CORES		4	4

MUY-TP - OUTDOOR UNITS		MUY-TP35VF	MUY-TP50VF
SOUND PRESSURE LEVEL (dBA)	Cooling	45	47
SOUND POWER LEVEL (dBA)	Cooling	58	61
WEIGHT (kg)		34	34
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 550
ELECTRICAL SUPPLY		Fed by Indoor Unit	Fed by Indoor Unit
PHASE		Single	Single
SYSTEM POWER INPUT (kW)	Cooling (nominal)	0.76	1.45
	Cooling (UK)	0.64	1.12
STARTING CURRENT (A)		3.6	6.4
SYSTEM RUNNING CURRENT (A)	Cooling [MAX]	3.6 [9.2]	6.4 [9.2]
FUSE RATING (BS88) - HRC (A)		10	10
MAINS CABLE No. CORES		3	3
MAX PIPE LENGTH (m)		20	20
MAX HEIGHT DIFFERENCE (m)		12	12
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)		0.85 / 0.57	0.85 / 0.57
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)		0.13 / 0.09	0.13 / 0.09

Notes: The SHF figures are based on nominal conditions. Requires an additional MAC-334IF-E interface and PAR-41MAA wired remote controller

# s-MEXT-G00 DX

## R32 Close Control System

### Key Features & Benefits

- High Efficiency - full Mitsubishi Electric inverter technology and EC plug fans
- Small footprint
- Pipe runs up to 100m
- Trusted Mr Slim Power Inverter technology
- Available in Upflow [over] and Downflow [under] variants



High precision air conditioners are ideal for applications where high sensible cooling and close control of temperature and humidity are required. **s-MEXT** takes advantage of more than 50 years experience of the RC brand within the I.T. Cooling market, coupled with Mitsubishi Electric renowned quality standards. The split cooling package consists of the indoor s-MEXT high precision air conditioner connected to a Mr Slim R32 Power Inverter outdoor unit. The result is a full inverter split system, designed according to the best quality standards and dedicated to the most reliable I.T. environments.



CRAC UNITS (Computer Room Air Conditioning)			s-MEXT-G00-DX-F1-006-S	s-MEXT-G00-DX-F1-009-S	s-MEXT-G00-DX-F1-013-S	s-MEXT-G00-DX-F1-022-S	s-MEXT-G00-DX-F1-038-S	s-MEXT-G00-DX-F1-044-S
<b>PERFORMANCE</b>								
COOLING CAPACITY**1	Total	kW	6.81	10.1	11.9	22.5	38.9	42.3
	Sensible	kW	6.08	8.88	10.2	19.3	33.6	35.2
SHR**2			0.89	0.88	0.86	0.86	0.86	0.83
EER			4.67	4.3	3.49	3.16	3.56	2.866
<b>REFRIGERANT</b>								
REFRIGERANT	Type		R32	R32	R32	R32	R32	R32
REFRIGERANT CIRCUITS	No.		1	1	1	1	2	2
<b>CONNECTIONS</b>								
REFRIGERANT PIPES DIAMETER - GAS	Ø Inch		5/8"	5/8"	5/8"	1"	1"	1"
REFRIGERANT PIPES DIAMETER - LIQUID	Ø Inch		3/8"	3/8"	3/8"	1/2"	3/8"	1/2"
CONDENSATE**5	Ø mm		19	19	19	19	19	19
POWER SUPPLY WIRING CABLE**6	No. x mm <sup>2</sup>		3G1.5	3G1.5	3G1.5	3G1.5	5G1.5	5G1.5
<b>FANS</b>								
FAN TYPE			EC BASIC	EC BASIC	EC BASIC	EC BASIC	EC BASIC	EC BASIC
EC SUPPLY FAN	No.		1	1	1	2	1	1
AIRFLOW	m <sup>3</sup> /h		2000	2500	2800	5000	8800	10000
NOMINAL EXTERNAL STATIC PRESSURE	Pa		20	20	20	20	20	20
POWER INPUT**3	kW		0.21	0.35	0.47	0.7	1.43	1.96
<b>ELECTRICAL HEATER</b>								
QUANTITY	No.		1	1	1	1	1	1
STEPS	No.		2	2	2	3	3	3
ELECTRICAL POWER ABS.	kW		2.6	2.6	2.6	3.9	9	9
MAX ABSORBED CURRENT	A		11.3	11.3	11.3	17	13	13
POWER SUPPLY	V/ph/Hz		230/1/50	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50
<b>HUMIDIFIER</b>								
QUANTITY	No.		1	1	1	1	1	1
CAPACITY	kg/h		3	3	3	3	8	8
ELECTRICAL POWER ABS.	kW		2.3	2.3	2.3	2.3	6	6
MAX ABSORBED CURRENT	A		14.1	14.1	14.1	14.1	12.4	12.4
POWER SUPPLY	V/ph/Hz		230/1/50	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50
<b>SOUND LEVEL [ISO 3744]**4</b>								
PRESSURE LEVEL	dB(A)		53	57	61	60	63	67
POWER LEVEL	dB(A)		69	73	77	76	79	83
<b>ELECTRICAL DATA</b>								
POWER SUPPLY	V/ph/Hz		230/1/50	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50
STARTING CURRENT	A		2	2	2.8	3.3	3.8	3.8
MAX ABSORBED CURRENT	A		27.7	27.7	28.2	35	29.2	29.2
<b>DIMENSIONS AND WEIGHT</b>								
<b>DIMENSIONS</b>								
	Width	mm	600	600	600	1000	1000	1000
	Depth	mm	500	500	500	500	890	890
	Height	mm	1980	1980	1980	1980	1980	1980
NET WEIGHT	Upflow (O)	kg	107	110	114	169	247	247
	Downflow (U)	kg	114	119	124	179	257	257

OUTDOOR UNITS		PUZ-ZM60VHA2	PUZ-ZM100VKA2	PUZ-ZM125YKA2	PUZ-ZM250YKA2	2 x PUZ-ZM200YKA2	2 x PUZ-ZM250YKA2
SOUND PRESSURE LEVEL (dB(A))	Cooling	47	49	50	59	59	59
WEIGHT (kg)		70	116	125	138	137	138
DIMENSIONS (mm)	Width x Depth x Height	950 x 330+25 x 943	1050 x 330+40 x 1338	1050 x 330+40 x 1338	1050 x 330+40 x 1338	1050 x 330+40 x 1338	1050 x 330+40 x 1338
ELECTRICAL SUPPLY		220-240V, 50Hz	220-240V, 50Hz	380-415V, 50Hz	380-415V, 50Hz	380-415V, 50Hz	380-415V, 50Hz
PHASE		Single	Single	Three	Three	Three	Three
OUTDOOR POWER INPUT (kW)	Cooling (nominal)	1.25	2.00	2.94	6.41	4.73	6.41
STARTING CURRENT (A)		6.0	13.0	6.0	12.3	8.67	12.3
MAX RUNNING CURRENT (A)	Cooling	19.2	27.0	10.0	22.5	22.5	22.5
FUSE RATING (BS88) - HRC (A)		25	32	16	32	32	32
MAINS CABLE	No. Cores	3	3	5	5	5	5
MAX PIPE LENGTH (m)		55	100	100	100	100	100
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	6.80 / 4.59 (30m)	6.30 / 4.25 (30m)	6.80 / 4.59 (30m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.90 / 1.96	2.40 / 1.62
GUARANTEED OPERATING RANGE (°C)	Max Temp	46	46	46	46	46	46
	Min Temp**7	-15	-15	-15	-15	-15	-15

Notes:  
 The cooling capacity does not consider the supply fan motor thermal load.  
 \*1 Gross value based on return air of 27°C - 47%RH; Ambient Temperature 35°C; ESP=20Pa;  
 Interconnecting pipework length 5m. \*2 SHR = Sensible cooling capacity / Total cooling capacity.  
 \*3 Corresponding to the nominal ESP=20Pa. \*4 Sound pressure level on air return at 1m.  
 \*5 Rubber pipe - referred to internal diameter. \*6 Minimum section.  
 \*7 Optional air protection guide is required for temperatures below -5°C.  
 These units contain <HFC R32 [GWP100 675]> fluorinated greenhouse gas.

# m-MRAC / m-MROW G02

## R410A Multi Density Close Coupled Control System



Mitsubishi Electric's **Multi Density** systems combine the efficiency, quality and simplicity of VRF with high performance close coupled air conditioning units. Multi Density is ideal for applications where high sensible cooling and close control of temperature in high density applications is required. This system consists of multiple indoor 'coolside' close coupled air conditioners connected to a City Multi VRF outdoor unit. The result is a full inverter multi-split system, designed according to the best quality standards and dedicated to the most reliable I.T. environments. The range is particularly suitable for high density racks and blade server cooling in data centres, as it is able to cope with the high density of the thermal load, putting the air conditioning unit directly within the rows of racks to cool the localised heat sources (hot spots).

### Key Features & Benefits

- High Efficiency - full Mitsubishi Electric inverter technology
- Small footprint
- Pipe runs up to 165m
- Trusted VRF technology



CRAC UNITS (COMPUTER ROOM AIR CONDITIONING)		M-MRAC G02 009 / M-MROW G02 009	M-MRAC G02 015 / M-MROW G02 015	M-MRAC G02 025 / M-MROW G02 025
COOLING CAPACITY (kW) <sup>1</sup>	Total	10.6	16.6	28.6
	Sensible	9.6	15.7	27.4
SHR <sup>2</sup>		0.91	0.94	0.96
EC SUPPLY FAN (no.)		2	4	5
AIRFLOW (m <sup>3</sup> /h)		1,500	2,700	4,200
NOMINAL EXTERNAL STATIC PRESSURE (Pa)		20	20	20
MAX EXTERNAL STATIC PRESSURE (Pa)		60	60	60
POWER INPUT (kW) <sup>3</sup>		0.18	0.34	0.85
REFRIGERANT		R410A	R410A	R410A
REFRIGERANT CIRCUITS (n <sup>3</sup> )		1	1	1
AIR FILTERS	NO.	2	2	2
	Extended filtering surface (m <sup>2</sup> )	0.35	0.35	0.35
	Efficiency [ISO EN 16890] (COARSE)	40%	40%	40%
SOUND LEVEL [ISO 3744] (dB(A)) <sup>4</sup>	Pressure Level	63.5	64.5	70.5
	Power Level	79	80	86
POWER SUPPLY (V / Ph / Hz)		230 / 1 / 50	230 / 1 / 50	230 / 1 / 50
ABSORBED CURRENT (A) <sup>5</sup>		0.8	1.5	4
STARTING CURRENT (A)		2.9	5.8	7.3
DIMENSIONS (mm)	Width	300	300	300
	Depth (MROW / MRAC)	1000 / 1200	1000 / 1200	1000 / 1200
	Height	2,085	2,085	2,085
NET WEIGHT (kg)	In-Row	175	190	193
	Enclosure	185	200	203
CONNECTIONS	Refrigerant pipes diameter - Gas (Ø Inch)	3/4"	7/8"	1"
	Refrigerant pipes diameter - Liquid (Ø Inch)	1/2"	5/8"	3/4"
	Condensate (Ømm) <sup>6</sup>	16	16	16
	Power supply wiring cable (no. x mm <sup>2</sup> ) <sup>7</sup>	3G1.5	3G1.5	3G1.5

OUTDOOR UNITS		M-MOCU G02 050	2 X M-MOCU G02 050
RATED COOLING CAPACITY	kW	50	50 x 2
SYSTEM EER <sup>2</sup>	kW/kW	2.96	3.24
SOUND PRESSURE LEVEL (dB(A))	Cooling	65	68
WEIGHT (kg)		304	304 x 2
DIMENSIONS (mm)	Width x Depth x Height	1650 x 740 x 1750	1650 x 740 x 1750 [x2]
POWER SUPPLY (V / Hz)		380-415v, 50Hz	380-415v, 50Hz
PHASE		3	3
OUTDOOR POWER INPUT (kW)	Cooling (nominal)	15.2	13.7
STARTING CURRENT (A)		27.8	27.8 x 2
MAX RUNNING CURRENT (A)	Cooling	37.6	37.6 x 2
FUSE RATING (BS88) - HRC (A)		40	40 x 2
MAINS CABLE	No. Cores	5G6	5G6
MAX PIPE LENGTH (m)		165	165
MAX HEIGHT DIFFERENCE (m)		50 (40 <sup>7</sup> )	50 (40 <sup>7</sup> )
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (T)	R410A (GWP 2088)	11.8 / 24.6	11.8 / 24.6 x 2
GUARANTEED OPERATING RANGE (°C)	Max Temp	45	45
	Min Temp	-15	-15

#### Notes:

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD.

<sup>1</sup> All data refers to the Rating Configuration with 2x m-MROW-Z G02 F/S 025 @35°C Outdoor Temperature and 35°C/27%rh Indoor Temperature.

<sup>2</sup> SHR = Sensible cooling capacity / Total cooling capacity.

<sup>3</sup> Corresponding to the nominal ESP=20Pa.

<sup>4</sup> Sound pressure level on air return at 1m.

<sup>5</sup> Rubber pipe - refers to internal diameter.

<sup>6</sup> Minimum section. It's possible to connect indoor units with a sum of sizing from 25 to 75.

<sup>7</sup> When outdoor unit is below indoor unit.

These units contain <HFC R410A (GWP100 2088)> fluorinated greenhouse gas.



# i-NEXT DX

## R410A Close Control System



High precision air conditioners are ideal for applications where high sensible cooling and close control of temperature and humidity are required. The **i-NEXT** direct expansion air cooled range incorporates full inverter driven BLDC Mitsubishi Electric compressors and a new microchannel coil remote condenser, perfect for keeping room conditions constant under varying loads, whilst being highly efficient.

### Key Features & Benefits

- Perimeter unit with downflow and upflow configurations
- Full inverter technology with BLDC Mitsubishi Electric compressors
- Ultralight composite EC plug fans resulting in reduced noise and power usage
- Integrated control of up to 10 units for intelligent redundancy management
- Front access to main components for easy inspection and routine maintenance
- Automatic restart from power outage
- Return air temperature operating limits up to 40°C
- New microchannel coil remote condensers with AC axial fans
- Optional Modbus RS485 and BACnet TCP/IP connectivity
- Optional electrical heater and steam humidifiers
- Optional floor stands and discharge plenums



CRAC UNITS (Computer Room Air Conditioning)		i-NEXT DX 012 M1 S E1	i-NEXT DX 018 M1 S E2	i-NEXT DX 022 M1 S E3	i-NEXT DX 030 M1 S E4	i-NEXT DX 047 M1 S E5	i-NEXT DX 042 M2 D E5	i-NEXT DX 068 M2 D E7	i-NEXT DX 094 M2 D E8	i-NEXT DX 120 M4 D E9 <sup>1</sup>	i-NEXT DX 150 M4 D E9 <sup>1</sup>
COOLING CAPACITY (kW) <sup>2</sup>	Capacity Range	3.2 - 10.0	6.7 - 20.4	7.1 - 23.1	12.5 - 37.7	17.4 - 51.6	15.4 - 47.4	23.9 - 75.7	33.5 - 101.0	25.7 - 108.0	32.1-129.0
	Total	10.0	20.4	23.1	37.7	51.6	47.4	75.7	101.0	108.0	129.0
	Sensible	9.8	19.3	23.1	37.7	51.4	47.4	75.7	97.1	108.0	129.0
SHR <sup>3</sup>	Nominal	0.98	0.95	1.00	1.00	0.99	1.00	1.00	0.96	1.00	1.00
	Nominal	3.21	2.80	3.18	3.02	2.98	3.14	3.12	3.01	3.21	2.79
EER <sup>4</sup>	Nominal	3.21	2.80	3.18	3.02	2.98	3.14	3.12	3.01	3.21	2.79
	Nominal	3.21	2.80	3.18	3.02	2.98	3.14	3.12	3.01	3.21	2.79
EC SUPPLY FAN(S)	No.	1	1	1	1	1	1	2	2	3	3
	AIRFLOW (m <sup>3</sup> /h)	2,800	4,100	5,500	10,000	12,000	12,000	20,000	22,000	28,000	32,000
EXTERNAL STATIC PRESSURE (Pa)	Nominal	20	20	20	20	20	20	20	20	20	20
	MAX EXTERNAL STATIC PRESSURE (Pa)	75	311	831	191	217	283	451	388	572	379
POWER INPUT (kW)	Fan Motor ESP=20Pa	0.29	0.52	0.78	2.04	2.27	2.05	3.51	3.72	4.20	5.82
	Total <sup>4</sup>	3.11	7.28	7.27	12.50	17.30	15.10	24.30	33.60	33.60	46.30
REFRIGERANT		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
REFRIGERANT CIRCUITS	No.	1	1	1	1	1	2	2	2	2	2
COMPRESSORS		BLDC Rotary Inverter	BLDC Scroll Inverter	BLDC Scroll Inverter	BLDC Scroll Inverter	BLDC Scroll Inverter	2x BLDC Scroll Inverter	2x BLDC Scroll Inverter	2x BLDC Scroll Inverter	4x BLDC Scroll <sup>6</sup>	4x BLDC Scroll <sup>6</sup>
	AIR FILTERS	No.	1	1	2	2	3	3	4	5	6
SOUND LEVEL dB(A) (ISO3774) <sup>5</sup>	Extended filtering surface (m <sup>2</sup> )	0.6	0.8	1.2	2.1	2.6	2.6	3.9	4.5	5.2	5.2
	Efficiency (ISO EN 16890) (COARSE)	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Downflow - Power / Pressure	63 / 47	64 / 48	62 / 46	74 / 57	76 / 59	76 / 59	75 / 58	78 / 60	80 / 62	80 / 62
POWER SUPPLY (V/Ph/Hz)	Upflow - Power / Pressure	69 / 53	63 / 47	65 / 49	75 / 58	81 / 64	81 / 64	79 / 62	83 / 65	N/A	N/A
	STARTING CURRENT (A)	4.3	5.7	8.2	9.2	11.4	8.4	13.9	15.9	70.9	72.9
MAX RUNNING CURRENT (A)	400 / 3 / 50+N	400 / 3 / 50+N	400 / 3 / 50+N	400 / 3 / 50+N	400 / 3 / 50+N	400 / 3 / 50+N	400 / 3 / 50+N	400 / 3 / 50+N	400 / 3 / 50+N	400 / 3 / 50+N	400 / 3 / 50+N
	DIMENSIONS (mm)	17.3	18.7	21.2	29.2	29.4	38.4	58.9	58.9	90.9	90.9
NET WEIGHT (kg)	Width	650	785	1,085	1,305	1,630	1,630	2,175	2,499	2,899	2,899
	Depth	675	675	775	930	930	930	930	930	930	930
	Height	1,925	1,925	1,925	1,980	1,980	1,980	1,980	1,980	1,980	1,980
CONNECTIONS	Downflow	220	250	330	440	490	575	705	865	985	1,010
	Upflow	210	240	320	430	480	565	650	805	N/A	N/A
	Refrigerant pipe diameter - Gas (Ø mm) <sup>7</sup>	12	16	16	18	22	2 x 16	2 x 18	2 x 22	2 x 28	2 x 28
CONDENSATE (Ømm) <sup>8</sup>	Refrigerant pipe diameter - Liquid (Ø mm) <sup>7</sup>	12	12	16	16	22	2 x 16	2 x 16	2 x 22	2 x 22	2 x 22
	Condensate (Ømm) <sup>8</sup>	19	19	19	19	19	19	19	19	19	19

OUTDOOR UNITS / REMOTE CONDENSER(S)		GR-Z A B 50 013	GR-Z A B 50 027	GR-Z A B 50 034	GR-Z A B 50 049	GR-Z A B 50 067	2 x GR-Z A B 50 034	2 x GR-Z A B 50 049	2 x GR-Z A B 50 067	2 x GR-Z A B 50 082	2 x GR-Z A B 50 082
AIRFLOW (m <sup>3</sup> /h)		3,300	8,350	9,550	15,555	19,000	9,550	15,555	19,000	25,000	25,000
POWER SUPPLY (V/Ph/Hz)		230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50
MAX POWER INPUT (kW)		0.32	0.64	0.64	1.08	1.28	0.64	1.08	1.28	1.92	1.92
MAX RUNNING CURRENT (A)		1.40	2.90	2.90	4.94	5.80	2.90	4.94	5.80	8.70	8.70
SOUND PRESSURE LEVEL (dB(A)) <sup>5</sup>	1m (ISO3744)	50	55	56	54	58	56	54	58	59	59
DIMENSIONS (mm)	Horizontal Airflow (W x D x H)	770 x 718 x 900	1150 x 718 x 900	1360 x 718 x 1100	2040 x 718 x 1100	2600 x 718 x 1100	1360 x 718 x 1100	2040 x 718 x 1100	2600 x 718 x 1100	2600 x 718 x 1100	2600 x 718 x 1100
	Vertical Airflow (W x L x H)	940 x 770 x 1143	940 x 1150 x 1168	1140 x 1360 x 1168	1140 x 2040 x 1168	1140 x 2600 x 1168	1140 x 1360 x 1168	1140 x 2040 x 1168	1140 x 2600 x 1168	1140 x 2600 x 1168	1140 x 2600 x 1168
NET WEIGHT (kg)		30	45	53	86	100	53	86	100	120	120
CONNECTION SIZE	Refrigerant pipe diameter - Gas (Ø mm) <sup>7</sup>	16	18	18	22	22	18	22	22	28	28
	Refrigerant pipe diameter - Liquid (Ø mm) <sup>7</sup>	12	16	16	18	18	16	18	18	22	22

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

<sup>1</sup> Downflow version only.

<sup>2</sup> Gross value based on return air at 26°C - 40%RH; Ambient Temperature 35°C with above condenser(s) models.

<sup>3</sup> SHR = Sensible cooling capacity / Total cooling capacity.

<sup>4</sup> Compressor(s) & Fan(s) input power (ESP=20Pa) - Remote air cooled condenser not included.

<sup>5</sup> Average level at 1m from unit in free field conditions.

<sup>6</sup> In 2(1+) configuration, 2 inverter driven with 2 direct online.

<sup>7</sup> Please refer to i-NEXT databook for interconnecting pipework size.

<sup>8</sup> Rubber pipe - refers to internal diameter.

These units contain <HFC R410A [GWP100 2088]> fluorinated greenhouse gas.

# w-NEXT

## Chilled Water Close Control System



High precision air conditioners are ideal for applications where high sensible cooling and close control of temperature and humidity are required. The **w-NEXT** chilled water range incorporates the latest EC plug fan(s), advanced controls software and an increased coil area resulting in the highest efficiency.

### Key Features & Benefits

- High Efficiency - EC plug fans
- Small footprint
- Adaptive Set Point
- Active Redundancy
- Available in Upflow [over] and Downflow [under] variants

CRAC UNITS (Computer Room Air Conditioning)		w-NEXT S 007 E0	w-NEXT S 013 E1	w-NEXT S 021 E2	w-NEXT S 032 E3	w-NEXT S 045 E3P	w-NEXT S 053 E4	w-NEXT S 072 E5
CAPACITY (kW)*2	Total	6.5	11.2	18.9	29.1	41.0	48.1	66.1
	Sensible	5.8	11.2	18.9	29.1	41.0	48.1	66.1
SHR*3		0.89	1.00	1.00	1.00	1.00	1.00	1.00
EER		54.2	38.6	21.5	17.5	18.6	22.4	22.8
EC SUPPLY FAN(S)	No.	1	1	1	1	1	1	2
AIRFLOW (m³/h)		1,800	2,900	4,920	7,800	10,800	13,100	16,350
EXTERNAL STATIC PRESSURE (Pa)		20	20	20	20	20	20	20
MAX EXTERNAL STATIC PRESSURE (Pa)		82	75	101	471	297	194	532
POWER INPUT (kW)*4		0.12	0.29	0.88	1.66	2.20	2.15	2.90
AIR FILTERS	No.	1	1	1	2	2	3	3
	Extended filtering surface (m²)	0.28	0.61	0.78	1.24	1.71	2.07	2.59
	Efficiency [ISO EN 16890] (COARSE)	40%	60%	60%	60%	60%	60%	60%
CHILLED WATER FLOW RATE (l/s)		0.31	0.54	0.90	1.39	1.96	2.30	3.16
WATERSIDE PRESSURE DROP (kPa)	Coil + 2-Port Valve	25.6	16.4	45.2	40.9	34.1	37.3	42.9
SOUND LEVEL dB(A) (ISO3774)*5	Downflow - Power / Pressure	58 / 43	63 / 47	67 / 51	68 / 52	73 / 57	74 / 57	73 / 56
	Upflow - Power / Pressure	65 / 50	67 / 51	71 / 55	72 / 56	77 / 61	78 / 61	77 / 60
POWER SUPPLY (V/Ph/Hz)		230 / 1 / 50	400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50
MAX POWER ABSORBED (kW)		0.15	1.32	0.97	2.70	2.90	2.70	5.40
MAX RUNNING CURRENT (A)		1.2	2.1	1.7	4.2	4.4	4.2	8.4
DIMENSIONS (mm)	Width	656	650	785	1085	1085	1305	1630
	Depth	445	675	675	675	930	930	930
	Height	1680	1925	1925	1925	1925	1980	1980
NET WEIGHT (kg)	Downflow	150	203	239	302	321	345	470
	Upflow	150	216	257	325	329	379	428
CONNECTIONS	Water Inlet / Outlet ISO 7/1 (Ø inch)	3/4"	1"	1"	1 1/4"	1 1/4"	1 1/2"	2"
	Condensate (Ømm)*6	19	19	19	19	19	19	19

CRAC UNITS (Computer Room Air Conditioning)		w-NEXT S 081 E6	w-NEXT S 100 E7	w-NEXT S 120 E8	w-NEXT S 138 E9	w-NEXT S 160 E10*1	w-NEXT S 215 E10*1
CAPACITY (kW)*2	Total	73.5	91.6	111.0	126.0	147.0	204.0
	Sensible	73.5	91.6	111.0	126.0	147.0	177.0
SHR*3		1.00	1.00	1.00	1.00	1.00	0.87
EER		21.2	23.0	17.8	19.6	22.8	31.7
EC SUPPLY FAN(S)	No.	2	2	3	3	3	3
AIRFLOW (m³/h)		20,000	24,200	28,300	33,100	37,150	37,150
EXTERNAL STATIC PRESSURE (Pa)		20	20	20	20	20	20
MAX EXTERNAL STATIC PRESSURE (Pa)		458	247	237	309	207	207
POWER INPUT (kW)*4		3.47	3.98	6.22	6.42	6.44	6.44
AIR FILTERS	No.	4	4	5	6	6	6
	Extended filtering surface (m²)	3.16	3.83	4.47	5.24	6.54	6.54
	Efficiency [ISO EN 16890] (COARSE)	60%	60%	60%	60%	60%	60%
CHILLED WATER FLOW RATE (l/s)		3.51	4.38	5.33	6.04	7.03	9.74
WATERSIDE PRESSURE DROP (kPa)	Coil + 2-Port Valve	35.6	31.7	48.6	47	66.7	62.2
SOUND LEVEL dB(A) (ISO3774)*5	Downflow - Power / Pressure	75 / 58	76 / 59	79 / 61	80 / 62	79 / 61	79 / 61
	Upflow - Power / Pressure	79 / 62	80 / 63	83 / 65	81 / 63	N/A	N/A
POWER SUPPLY (V/Ph/Hz)		400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50
MAX POWER ABSORBED (kW)		5.80	5.40	8.10	8.70	8.10	8.10
MAX RUNNING CURRENT (A)		8.9	8.3	12.6	13.3	12.5	12.5
DIMENSIONS (mm)	Width	1875	2175	2499	2899	3510	3510
	Depth	930	930	930	930	930	930
	Height	1980	1980	1980	1980	1980	1980
NET WEIGHT (kg)	Downflow	531	589	660	753	900	970
	Upflow	483	535	598	679	N/A	N/A
CONNECTIONS	Water Inlet / Outlet ISO 7/1 (Ø inch)	2"	2 1/2"	2 1/2"	3"	3"	3"
	Condensate (Ømm)*6	19	19	19	19	19	19

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD

\*1 Downflow version only.

\*2 Gross value based on return air at 24°C - 45%RH; Chiller water 7°C / 12°C.

\*3 SHR = Sensible cooling capacity / Total cooling capacity.

\*4 Fan(s) input power (ESP=20Pa).

\*5 Average level at 1m from unit in free field conditions.

\*6 Rubber pipe - refers to internal diameter.

# I.T. Cooling Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>MSY-TP / MUY-TP</b>	
Air outlet guide for MUY-TP35/50VF	MAC-881SG
Standard wired remote controller	PAR-41MAA
Interface for M-NET, MA remote controller (PAR-41MAA), on/off input and run/fault output	MAC-334IF-E
Interface for connection to Wi-Fi MELCloud service	MAC-587IF-E
<b>s-MEXT-G00 DX</b>	
s-MEXT-G00 F01 Support Frame H510 P043	
s-MEXT-G00 F02 Support Frame H510 P043	
s-MEXT-G00 F03 Support Frame H510 P043	
s-MEXT-G00 F01 Plenum c/w 3 Grilles P013	
s-MEXT-G00 F02 Plenum c/w 3 Grilles P013	
s-MEXT-G00 F03 Plenum c/w 3 Grilles P013	
s-MEXT-G00 Modbus serial card (RS485)	
s-MEXT-G00 BACnet TCP/IP card (RJ45)	
<b>m-MRAC / m-MROW G02</b>	
Multi Density Tee & Adaptor	
<b>i-NEXT DX</b>	
Modbus Serial card (RS485)	
BACNet TCP/IP Ethernet card (RJ45)	
Floor stand with rubber holders (255-350mm)	
Floor stand with rubber holders (355-450mm)	
Floor stand with rubber holders (400-510mm)	
Electric heater	
Steam humidifier	
Air discharge plenum with 3 grilles	
Inlet damper with actuator	
Epoxy coated condenser coil(s)	
<b>w-NEXT</b>	
Modbus Serial card (RS485)	
BACNet TCP/IP Ethernet card (RJ45)	
Floor stand with rubber holders (255-350mm)	
Floor stand with rubber holders (355-450mm)	
Floor stand with rubber holders (400-510mm)	
Electric heater	
Steam humidifier	
Air discharge plenum with 3 grilles	
Inlet damper with actuator	





# Residential Heating

Ecodan Residential Renewable Heating Systems



ecodan<sup>®</sup>  
Renewable Heating Technology



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# Ecodan Heat Pumps - Renewable Heating Systems

There is now no doubt that the world is in a climate crisis and that we need to act immediately to avoid catastrophic climate change. The UK Government have reacted by being the first major economy to pass net zero (Greenhouse Gas) emission laws. Renewable technologies, such as heat pumps, have become an integral part of the solution to the problem of reducing carbon emissions generated through heating.

As a market leader in both commercial and domestic heat pumps, Mitsubishi Electric is a pioneer in the development of this renewable technology. Around the world, heat pumps have been utilised for decades and Mitsubishi Electric has refined this technology to produce Ecodan - one of the most advanced, efficient heating systems available on the market today.

The award winning Ecodan heat pumps are available from 4kW up to 960kW, making them suitable for virtually any property, from small flats to large detached houses, from an office block to a school. They are the renewable, low carbon alternative to traditional high carbon heating systems.

- Renewable heating solution capable of reducing emissions and achieving climate targets
- Highly efficient, proven and refined technology that can lower energy bills
- Range of easy to design, install and maintain systems suitable for a variety of property and application types

**Ecodan heat pumps are a renewable heating technology that efficiently and reliably generates sustainable space heating and hot water all year round, delivering a level of comfort that sets the technology apart from other forms of heating.**



**TV presenter, architect, lecturer and writer, George Clarke is a passionate advocate of design excellence and high levels of quality in the construction industry.**

“ The way we design, build, heat, power and recycle our homes needs to change, and change quickly, and renewable heating is an important part of our future.

I'm therefore delighted to associate myself with Ecodan, the market-leading brand of heat pumps built here in the UK and which can help reduce energy bills and lower emissions for almost any home. ”

**George Clarke**

Ecodan Brand Ambassador





QUHZ-W40VA PUZ-WM50VHA PUZ-WM60VAA PUZ-WM85VAA PUZ-WM85YAA PUZ-WM112VAA PUZ-WM112YAA PUZ-HWM140VHA PUZ-HWM140YHA QAHV-N560YA-HPB CAHV-P500YB-HPB CRHV-P600YA-HPB

## Range Overview

System Type	Litres	4kW	5kW	6kW	8.5kW	11.2kW	14kW	40kW	43kW	60kW
<b>Standalone</b>			●	●	●	●	●	●	●	●
<b>Thermal Store</b>	EHPT20Q-VM2EA 200	●								
<b>Packaged Cylinder</b>	EHPT20X-MHEDW 200		●	●	●	●	●			
<b>Pre-Plumbed Slimline Cylinder</b>	EHPT15X-UKHLDW 150		●	●	●					
	EHPT17X-UKHLDW 170		●	●	●					
<b>Pre-Plumbed Standard Cylinder</b>	EHPT15X-UKHDW 150		●	●	●					
	EHPT17X-UKHDW 170		●	●	●					
	EHPT21X-UKHDW 210		●	●	●	●	●			
	EHPT25X-UKHDW 250				●	●	●	●		
	EHPT30X-UKHDW 300				●	●	●	●		
<b>Pre-Plumbed Solar Cylinder</b>	EHPT21X-UKHSDW 210		●	●	●	●	●			
	EHPT25X-UKHSDW 250				●	●	●			
	EHPT30X-UKHSDW 300				●	●	●			
<b>Approvals</b>	Manufactured in the United Kingdom			●	●	●	●			
	Red Dot Award				●	●	●			
	Microgeneration Certification Scheme		●						●	●
	Keymark			●	●	●	●	●		

**Notes:** Microgeneration or Keymark certification qualifies the approved product for the Renewable Heat Incentive (RHI) scheme. For further information on the Ecodan QAHV, CAHV and CRHV models, please refer to the 'Commercial Heat Pumps & Chillers' section of this catalogue.

## QUHZ-W40VA

### Monobloc Air Source Heat Pump with Thermal Store



The Ecodan QUHZ system combines a 4kW outdoor unit with a 200 litre Thermal Store, and is the ideal plug and play heating and hot water solution for properties with a low space heating requirement.

With very low, market leading noise levels for its class and highly efficient hot water generation due to its unique CO<sub>2</sub> (R744) system design, this compact space saving product is capable of providing instantaneous hot water and removes the risk of legionella.

#### Key Features

- Self contained system, only requires water connections and can be powered via the Thermal Store
- No need for gas supply, flues or ventilation
- Low maintenance and very quiet operation
- Operates with outside temperatures as low as -15°C
- Optimised low ambient defrost control and operation
- Capable of being used in domestic hot water generation mode only
- Energy monitoring as standard



OUTDOOR UNIT		QUHZ-W40VA	THERMAL STORE		EHPT20Q-VM2EA	
HEAT PUMP COMBINATION HEATER - 55°C	ErP Rating	A+	NOMINAL THERMAL STORE WATER VOLUME (LITRES)		200	
	$\eta_{s}$	117%	WATER TEMPERATURE RANGE	DHW Mode (°C)	40-70	
	SCOP	2.90		Space Heating Mode (°C)	25-60	
HEAT PUMP COMBINATION HEATER - Large Profile <sup>1</sup>	ErP Rating	A	MECHANICAL ZONES		DHW and 1 Heating Zone (2 Zone capability with 3rd party 2-port valves)	
	$\eta_{wh}$	129%	OPERATING AMBIENT TEMPERATURE (°C DB)		0 ~ +35°C (RH<80%)	
	COP	3.00	SOUND PRESSURE LEVEL AT 1M (dBA)		30	
HEATING <sup>2</sup> (A-3/W55)	Capacity (kW)	4.32	SOUND POWER LEVEL (dBA) <sup>4</sup>		40	
	Power Input (kW)	2.18	WATER DATA	Primary Pump	Grundfos Solar PML 25-145 180	
	COP	1.98		Sanitary Hot Water Pump	Grundfos Solar PML 25-145 180	
OPERATING AMBIENT TEMPERATURE (°C DB)	-15 ~ +35		Connection Size (mm) Heating / DHW	22 / 22		
SOUND PRESSURE LEVEL AT 1M (dBA) <sup>3</sup>	43		Primary Expansion Vessel (Litres)	25		
SOUND POWER LEVEL (dBA) <sup>4</sup>	53		Charge Pressure (MPa (Bar))	0.1 (1)		
WATER DATA	Pipework Size (mm)	15	WATER SAFETY DEVICES		Pressure relief valve (Mpa (Bar))	0.3 (3) - 2 No. devices
	Flow Rate (l/min)	3 to 8	Flow sensor (supplied)		Min. flow 1.3 L/min	
DISTANCE BETWEEN OUTDOOR UNIT AND THERMAL STORE (m)	Height Difference	5	Manual reset thermostat (°C)		90	
	Piping Length	15	DIMENSIONS (mm)		Width	595
DIMENSIONS (mm)	Width	809+70 <sup>5</sup>	Depth		680	
	Depth	300+20 <sup>5</sup>	Height		1600	
	Height	715	WEIGHT EMPTY / FULL (kg)		77 / 283	
WEIGHT (kg)	57		ELECTRICAL DATA		Electrical Supply	220-240v, 50Hz
ELECTRICAL DATA	Powered from indoor unit		Phase		Single	
	REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R744 (GWP 1)	1.15 / 0.0015	Maximum Running Current (A)		12.8
Fuse Rating - MCB Sizes (A) <sup>6</sup>				20		
			OPTIONAL SIMPLIFIED WIRELESS ROOM THERMOSTAT AND WIRELESS RECEIVER		PAR-WT50-E Controller and PAR-WR51-E Receiver	

<sup>1</sup> Combination with EHPT20Q-VM2EA Thermal Store.

<sup>2</sup> Under normal heating conditions at outdoor temp: -3°CDB / -4°CWB, outlet water temp 55°C, inlet water temp 47°C.

<sup>3</sup> Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

<sup>4</sup> Sound power level tested to BS EN12102.

<sup>5</sup> Grille or pipe cover.

<sup>6</sup> MCB Sizes BS EN60898-2 & BS EN60947-2.

$\eta_{s}$  is the seasonal space heating energy efficiency (SSHEE)

$\eta_{wh}$  is the water heating energy efficiency

CERTIFIED

Certificate Number: MCS HP0002

Product Type: Heat Pumps

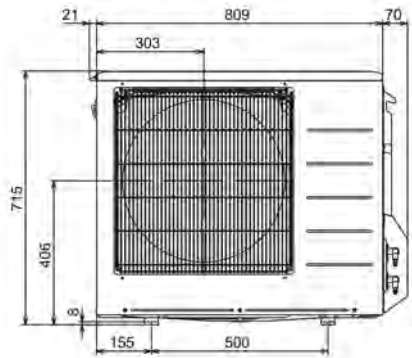
Product Reference: QUHZ-W40VA

## Product Dimensions

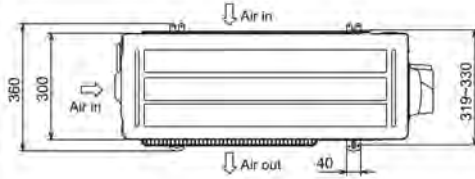
QUHZ-W40VA

All measurement in mm

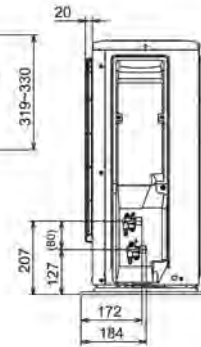
Front View



Upper View



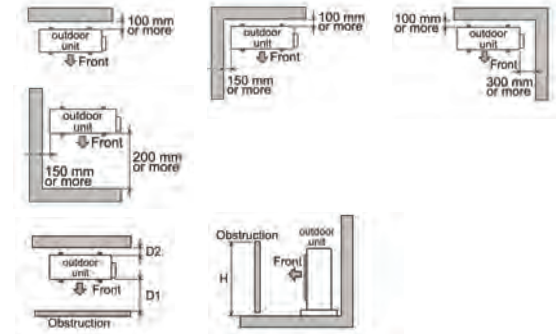
Side View



When there is no obstruction at the front (Discharge side) (Top view)  
The area above the unit must be open (clearance of at least 1m or more).

When there is no obstruction at the back (Suction side) (Top view)  
The upward direction must be open (clearance of at least 1m or more).

When there is an obstruction at the front (Discharge side)



The required clearance (D1 and D2) varies depending on the obstruction height (H). If wind guides are mounted, see the table below. Note that the operating noise levels may increase for certain installation conditions.

Obstruction height (H)	Required clearance (D1/D2)	
	Without wind guides	With wind guides
1200mm or less	200mm or more / 100mm or more	185mm or more / 30mm or more
More than 1200mm	300mm or more / 100mm or more	350mm or more / 30mm or more

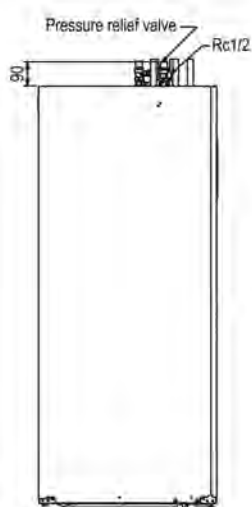
\*If discharge air is blown against a wall, the wall can become dirty.  
\*If the area is poorly ventilated and the discharge air becomes stuck in again, heating performance can be reduced by about 10%.  
Mounting of wind guides (product sold separately) can improve heating performance in certain cases.

## Product Dimensions

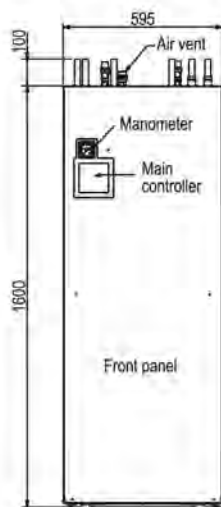
EHPT20Q-VM2EA

All measurement in mm

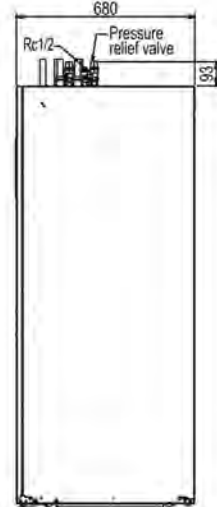
Left View



Front View



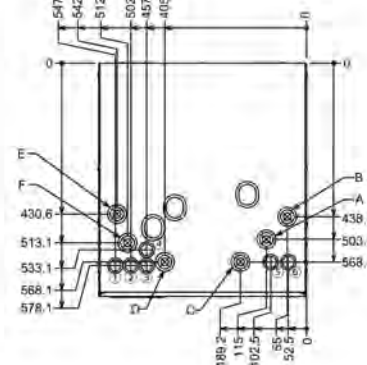
Right View



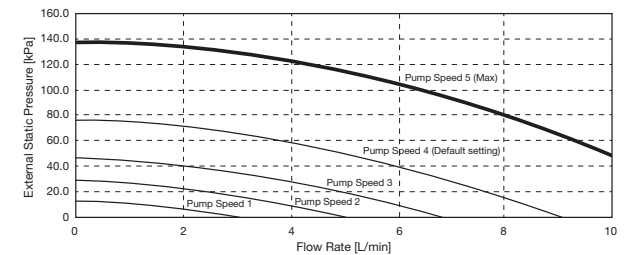
Rear View



Upper View



Water Circulation Pump 1 - Characteristics



The performance showing in the graph includes pressure drop of both cylinder unit and outdoor unit. Before installation, please check if the maximum performance of water circulation pump 1 can accommodate the per user drop of external heating circuit.

Letter	Pipe Description	Connection size/type
A	DHW outlet connection	22 mm/Compression
B	Cold water inlet connection	22 mm/Compression
C	Space heating return connection	22 mm/Compression
D	Space heating flow connection	22 mm/Compression
E	Flow from heat pump connection	22 mm/Compression
F	Return to heat pump connection	22 mm/Compression



## PUZ-WM50VHA

### Monobloc Standalone Air Source Heat Pump



Our range of Ecodan monobloc air source heat pumps includes a 5kW size.

With enhanced performance and efficiencies of the new chassis, combined with the ability to cascade up to six units of the same output, this Ecodan monobloc system can provide a capacity range from 5 through to 30kW. Designed to suit a wide number of applications, this model offers a viable solution for all types of domestic requirements that the UK housing market demands.

#### Key Features

- Self-contained unit, only requiring water and electric connections
- No need for gas supply, flues or ventilation
- Low maintenance and quiet operation
- Operates with outside temperatures as low as -20°C
- Optimised low ambient defrost control and operation down to -7°C
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- Multiple unit cascade function



OUTDOOR UNIT		PUZ-WM50VHA(-BS)
HEAT PUMP SPACE HEATER - 55°C	ErP Rating	A++
	$\eta_s$	129%
	SCOP	3.33
HEAT PUMP SPACE HEATER - 35°C	ErP Rating	A+++
	$\eta_s$	183%
	SCOP	4.58
HEAT PUMP COMBINATION HEATER - Large Profile <sup>1</sup>	ErP Rating	A+
	$\eta_{wh}$	135%
HEATING <sup>2</sup> (A-7/W35)	Capacity (kW)	5.0
	Power Input (kW)	1.67
	COP	3.00
OPERATING AMBIENT TEMPERATURE (°C DB)		-20 ~ +35
SOUND DATA <sup>3</sup>	Pressure Level at 1m (dBA)	47
	Power Level (dBA) <sup>4</sup>	61
WATER DATA	Pipework Size (mm)	22
	Flow Rate (l/min)	14
	Water Pressure Drop (kPa)	12.0
DIMENSIONS (mm)	Width	950
	Depth	330+30 <sup>7</sup>
	Height	923
WEIGHT (kg)		71
ELECTRICAL DATA	Electrical Supply	220-240v, 50Hz
	Phase	Single
	Nominal Running Current [MAX] (A) <sup>5</sup>	4.64 [13]
	Fuse Rating - MCB Sizes (A) <sup>6</sup>	16
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.0 / 1.35

<sup>1</sup> Combination with E\*PT20X Cylinder

<sup>2</sup> Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.

<sup>3</sup> Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

<sup>4</sup> Sound power level tested to BS EN12102.

<sup>5</sup> Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.

<sup>6</sup> MCB Sizes BS EN60898-2 & BS EN60947-2.

<sup>7</sup> Grille.

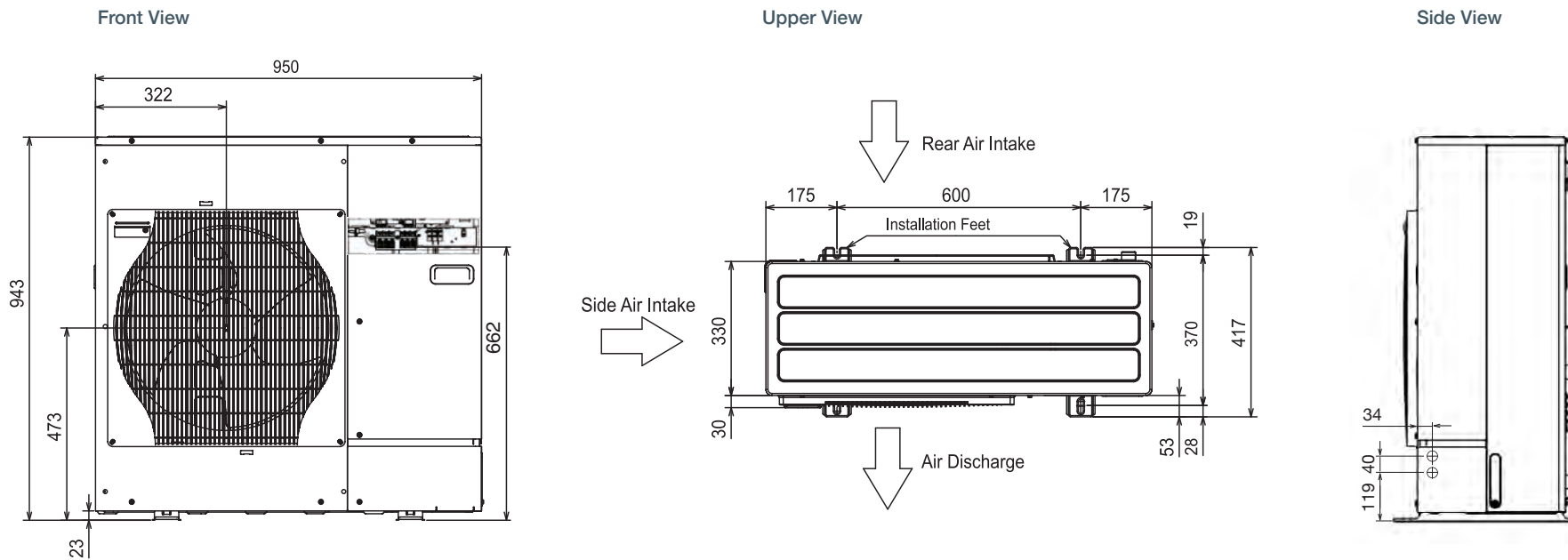
$\eta_s$  is the seasonal space heating energy efficiency (SSHEE)  $\eta_{wh}$  is the water heating energy efficiency



Product Dimensions

PUZ-WM50VHA(-BS)

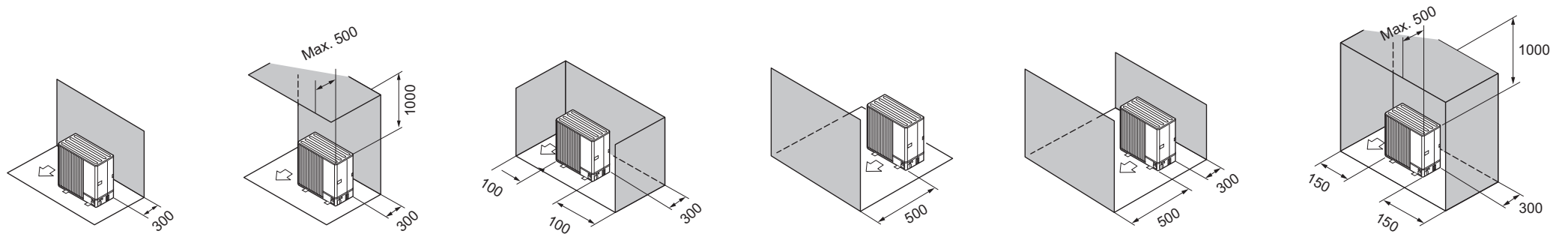
All measurement in mm



Installation Location

PUZ-WM50VHA(-BS)

All measurement in mm



Please refer to Databook and Installation Manual for further details.



## PUZ-WM60-112VAA/YAA

### Monobloc Standalone Ultra Quiet Air Source Heat Pumps



The multiple award winning range of Ultra Quiet AA chassis Ecodan monobloc air source heat pumps are designed specifically to suit the demands of the UK market and includes 6.0, 8.5 and 11.2kW sizes.

The innovative, stylish and compact single fan outdoor unit utilises advanced technologies to deliver improved efficiencies. Designed for a wide range of applications, the market leading low noise levels virtually eliminate the need for planning permission, maximises installation options and is a viable solution for all types of domestic requirements that the UK housing market demands.

#### Key Features

- Self-contained unit, only requiring water and electric connections
- No need for gas supply, flues or ventilation
- Low maintenance and ultra quiet operation
- Operates with outside temperatures as low as -25°C
- Optimised low ambient defrost control and operation down to -7°C
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- Multiple unit cascade function



OUTDOOR UNIT		PUZ-WM60VAA(-BS)	PUZ-WM85VAA(-BS)	PUZ-WM85YAA(-BS)	PUZ-WM112VAA(-BS)	PUZ-WM112YAA(-BS)
HEAT PUMP SPACE HEATER - 55°C	ErP Rating	A++	A++	A++	A++	A++
	$\eta_s$	142%	139%	139%	134%	134%
	SCOP	3.30	3.50	3.47	3.45	3.434
HEAT PUMP SPACE HEATER - 35°C	ErP Rating	A+++	A+++	A+++	A+++	A+++
	$\eta_s$	190%	193%	193%	191%	191%
	SCOP	4.62	4.57	4.79	4.58	4.78
HEAT PUMP COMBINATION HEATER - Large Profile <sup>1</sup>	ErP Rating	A+	A+	A+	A+	A+
	$\eta_{wh}$	145%	145%	145%	148%	148%
HEATING <sup>2</sup> (A-7/W35)	Capacity (kW)	6.0	8.5	8.5	11.2	11.2
	Power Input (kW)	1.88	3.27	3.27	3.73	3.73
	COP	3.20	2.60	2.60	3.00	3.00
OPERATING AMBIENT TEMPERATURE (°C DB)		-20 ~ +35	-20 ~ +35	-25 ~ +35	-25 ~ +35	-25 ~ +35
SOUND DATA <sup>3</sup>	Pressure Level at 1m (dBA)	45	45	45	45	45
	Power Level (dBA) <sup>4</sup>	58	58	58	60	60
WATER DATA	Pipework Size (mm)	22	28	28	28	28
	Flow Rate (l/min)	17	24	24	32	32
	Water Pressure Drop (kPa)	8.0	15.0	15.0	24.0	24.0
DIMENSIONS (mm)	Width	1050	1050	1050	1050	1050
	Depth	480	480	480	480	480
	Height	1020	1020	1020	1020	1020
WEIGHT (kg)		98	98	111	119	119
ELECTRICAL DATA	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	400v, 50Hz	220-240v, 50Hz	400v, 50Hz
	Phase	Single	Single	Three	Single	Three
	Nominal Running Current [MAX] (A) <sup>5</sup>	5.68 [13]	9.1 [22]	2.9 [11.5]	10.9 [28]	3.6 [13]
	Fuse Rating - MCB Sizes (A) <sup>6</sup>	16	25	16	32	16
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.2 / 1.49	2.2 / 1.49	2.2 / 1.49	3.0 / 2.03	3.0 / 2.03

<sup>1</sup> Combination with E-PT20X Cylinder

<sup>2</sup> Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.

<sup>3</sup> Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

<sup>4</sup> Sound power level tested to BS EN12102.

<sup>5</sup> Under normal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.

<sup>6</sup> MCB Sizes BS EN60898-2 & BS EN60947-2.

$\eta_s$  is the seasonal space heating energy efficiency (SSHEE)  $\eta_{wh}$  is the water heating energy efficiency

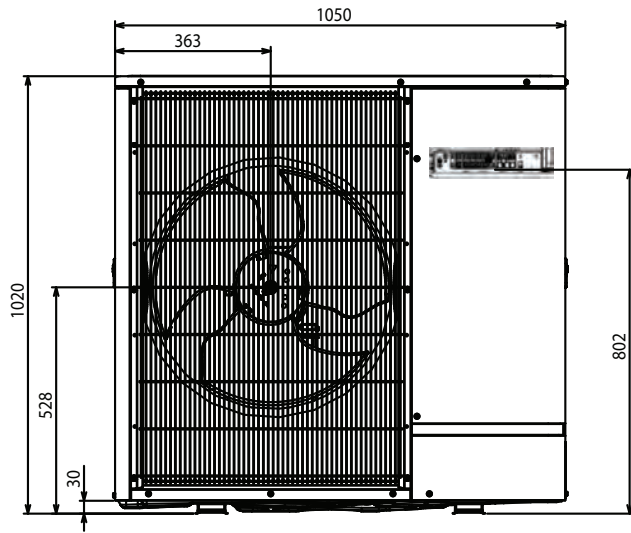


Product Dimensions

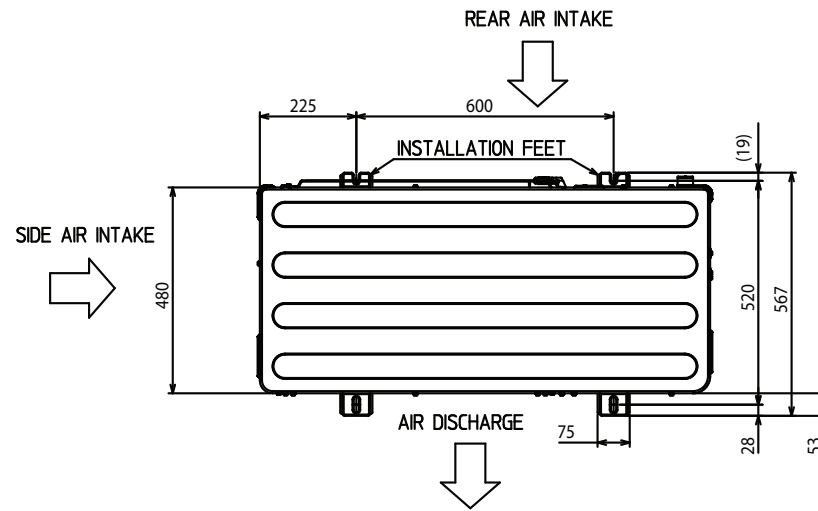
PUZ-WM60-112VAA/YAA(-BS)

All measurement in mm

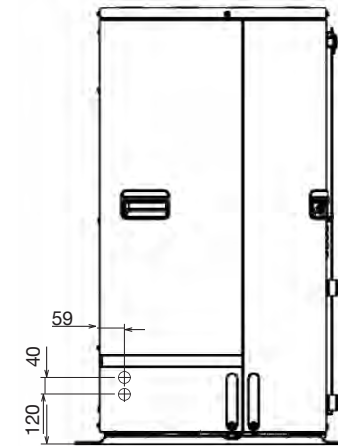
Front View



Upper View



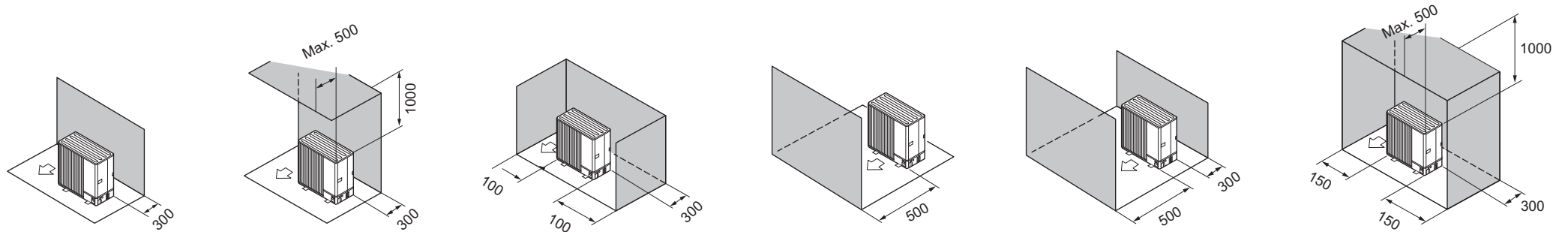
Side View



Installation Location

PUZ-WM60-112VAA/YAA(-BS)

All measurement in mm



Please refer to Databook and Installation Manual for further details.



## PUZ-HWM140VHA/YHA

### Monobloc Standalone Air Source Heat Pumps



Our range of Zubadan chassis Ecodan monobloc air source heat pumps are suitable for properties with large space heating requirements and are available in single or three phase 14kW sizes.

With its advanced flash injection technology, this product provides a solution to low ambient capacity issues common to standard systems and is a viable solution for all types of domestic requirements that the UK housing market demands.

#### Key Features

- Self-contained unit, only requiring water and electric connections
- No need for gas supply, flues or ventilation
- Low maintenance and quiet operation
- Operates with outside temperatures as low as -28°C
- Optimised low ambient defrost control and operation down to -15°C
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- Multiple unit cascade function



OUTDOOR UNIT		PUZ-HWM140VHA(-BS)	PUZ-HWM140YHA(-BS)
HEAT PUMP SPACE HEATER - 55°C	ErP Rating	A++	A++
	$\eta_s$	3.35	131
	SCOP	3.34	3.35
HEAT PUMP SPACE HEATER - 35°C	ErP Rating	A+++	A+++
	$\eta_s$	176	176
	SCOP	4.48	4.45
HEAT PUMP COMBINATION HEATER - Large Profile <sup>1</sup>	ErP Rating	A+	A+
	$\eta_{wh}$	130	130
HEATING <sup>2</sup> (A-7/W35)	Capacity (kW)	14.0	14.0
	Power Input (kW)	5.72	5.72
	COP	2.45	2.45
OPERATING AMBIENT TEMPERATURE (°C DB)		-28 ~ +35	-28 ~ +35
SOUND DATA <sup>3</sup>	Pressure Level at 1m (dBA)	53	53
	Power Level (dBA) <sup>4</sup>	67	67
WATER DATA	Pipework Size (mm)	28	28
	Flow Rate (l/min)	40	40
	Water Pressure Drop (kPa)	20	20
DIMENSIONS (mm)	Width	1020	1020
	Depth	330+30 <sup>7</sup>	330+30 <sup>7</sup>
	Height	1350	1350
WEIGHT (kg)		132	143
ELECTRICAL DATA	Electrical Supply	220-240v, 50Hz	380-415v, 50Hz
	Phase	Single	3
	Nominal Running Current [MAX] (A) <sup>5</sup>	xx [35]	xx [13]
	Fuse Rating - MCB Sizes (A) <sup>6</sup>	40	16
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	3.3 / 2.23	3.3 / 2.23

For information marked with a "-" please consult the databook or speak to your local sales office.

<sup>1</sup> Combination with E-PT20X Cylinder <sup>2</sup> Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.

<sup>3</sup> Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

<sup>4</sup> Sound power level tested to BS EN12102. <sup>5</sup> Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.

<sup>6</sup> MCB Sizes BS EN60898-2 & BS EN60947-2. <sup>7</sup> Grille.

$\eta_s$  is the seasonal space heating energy efficiency (SHEE)  $\eta_{wh}$  is the water heating energy efficiency



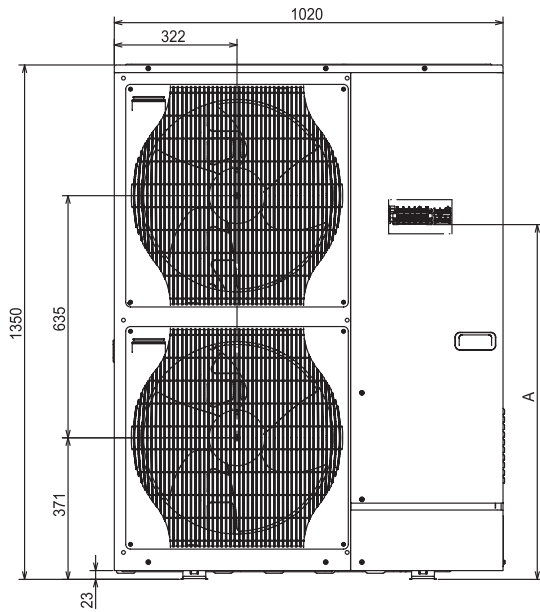


**Product Dimensions**

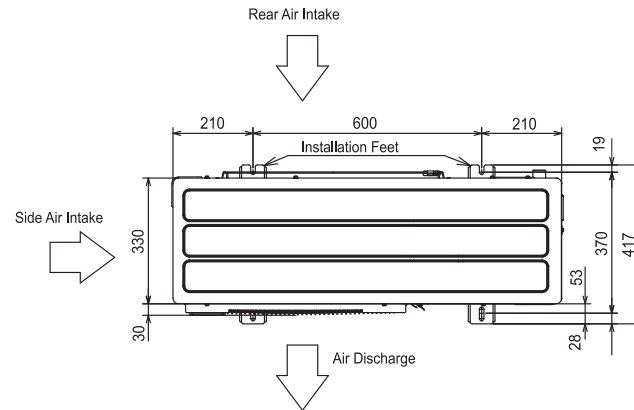
PUZ-HWM140VHA/YHA(-BS)

All measurement in mm

Front View

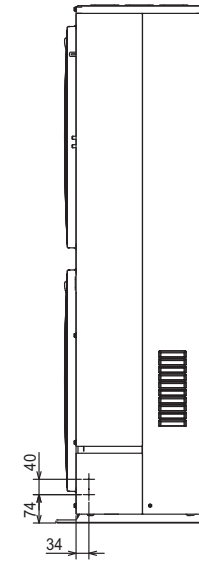


Upper View



	A
VHA	1079
YHA	931

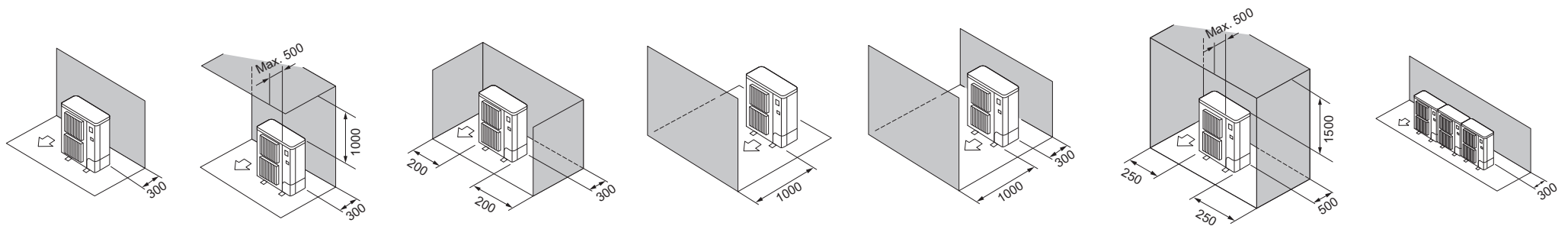
Side View



**Installation Location**

PUZ-HWM140VHA/YHA(-BS)

All measurement in mm



Please refer to Databook and Installation Manual for further details.



## EHPT20X-MHEDW

### Packaged Cylinder for Ecodan Monobloc Units



The Packaged Cylinder provides a highly adaptable heating solution for all property types.

Designed to optimise performance within a compact white goods footprint, the plug and play packaged cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

#### Key Features

- Optional 2-zone energy efficient space heating control
- Ready-plumbed and wired for faster installation
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- MELCloud Wi-Fi connectivity

#### FTC6 Controller

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.

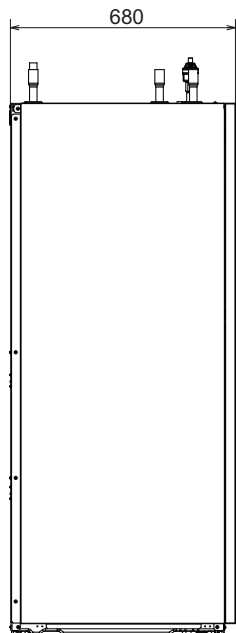


CYLINDER		EHPT20X-MHEDW	
NOMINAL HOT WATER VOLUME (LITRES)		200	
HEAT PUMP COMBINATION HEATER - Large Profile (Average Climate)		ErP Rating	
OPERATING AMBIENT TEMPERATURE (°C DB)		A+	
SOUND PRESSURE LEVEL AT 1M (dBA)		0 ~ +35°C (RH<80%)	
WATER DATA		28	
		Flow Rate (l/min) - (H)WM 50 / 60 / 85 / 112 / 140	14 / 17 / 24 / 32 / 37
		Primary Circuit Pump	Grundfos UPM3 15-75 130
		Sanitary Hot Water Pump	Grundfos UPSO 15-60 130
		Connection Size (mm) Heating / DHW	28 / 22
WATER SAFETY DEVICES		Heating Water Circuit	Control Thermistor (°C)
		DHW Cylinder	Flow Sensor (minimum flow 5L/min)
			Supplied
			Control Thermistor (°C)
			75
			Temp and Pressure Relief Valve (°C)/ (MPa (Bar))
			90 / 0.7 (7)
DIMENSIONS (mm)		Width	595
		Depth	680
		Height	1600
WEIGHT EMPTY / FULL (kg)		94 / 300	
ELECTRICAL DATA		Control Board - optionally powered by outdoor unit	Electrical Supply
			220-240v, 50Hz
			Phase
			Single
			Fuse Rating - MCB Sizes (A) <sup>1</sup>
			10
		Immersion Heater	Electrical Supply
			220-240v, 50Hz
			Phase
			Single
			Capacity (kW)
			3
			Max Running Current (A)
			13
			Fuse Rating - MCB Sizes (A) <sup>1</sup>
			16
MECHANICAL ZONES		DHW and 1 Heating Zone <sup>2</sup>	
OPTIONAL SIMPLIFIED WIRELESS ROOM THERMOSTAT AND WIRELESS RECEIVER		PAR-WT50-E Controller and PAR-WR51-E Receiver	

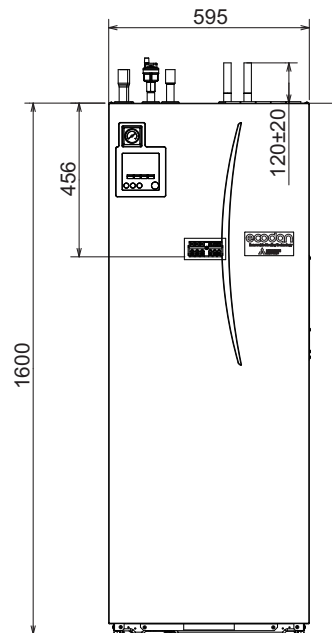
<sup>1</sup> MCB Sizes BS EN60898-2 & BS EN60947-2 <sup>2</sup> Optional 2 zone accessory pack available

**Notes:** Cylinder includes: Flow Temperature Controller (FTC6) with Main Controller and Temperature Sensors, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater.

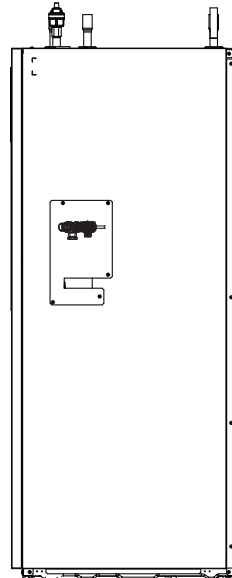
Left View



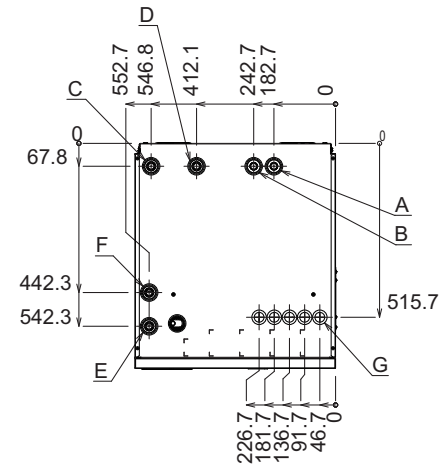
Front View



Right View



Upper View

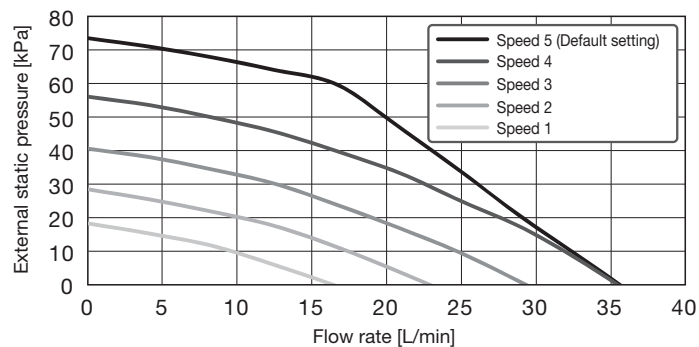


Letter	Pipe Description	Connection size/type
A	DHW outlet connection	22mm/Compression
B	Cold water inlet connection	22mm/Compression
C	Space heating return connection	28mm/Compression
D	Space heating flow connection	28mm/Compression
E	Flow from heat pump connection	28mm/Compression
F	Return to heat pump connection	28mm/Compression
G	Electrical cable inlets	

Circulation Pumps

EHPT20X-MHEDW

Heat Pump Circuit



Domestic Hot Water Sanitary Circuit

Default setting: Speed 2  
 DHW circulation pump **MUST** be set to speed 2.



## EHPT15-17X-UKHLDW

### Pre-Plumbed Slimline Cylinders for Ecodan Monobloc Units



The Pre-Plumbed Slimline Cylinder comes complete with integrated hydraulic components & advanced controls.

Designed to optimise performance and flexibility within a minimal footprint, the slimline cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

#### Key Features

- Optional 2-zone energy efficient space heating control
- Pre-Plumbed and wired for faster installation
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- MELCloud Wi-Fi connectivity

#### FTC6 Controller

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.



CYLINDER		EHPT15X-UKHLDW	EHPT17X-UKHLDW
NOMINAL HOT WATER VOLUME (LITRES)		150	170
ErP RATING		C	C
HEAT LOSS (kWh/24hrs)		1.40	1.59
HEAT LOSS (W)		58	66
WATER	Flow Rate (l/min) - WM 50 / 60 / 85	14 / 17 / 24	14 / 17 / 24
	Primary Circuit Pump		Grundfos UPMGEO 25-85
	Heating Circuit Pump		Grundfos UPM3 25-70
	Sanitary Hot Water Pump		Grundfos UPSO 15-60 CIL2
	Connection Size (mm) Heating / DHW	22 / 22	22 / 22
	Charge Pressure (MPa (Bar))	0.35 (3.5)	0.35 (3.5)
WATER SAFETY	Water Circuit DHW Cylinder	Control Thermistor (°C)	1 - 80
		DHW Expansion Vessel (Litres)	12
		Control Thermistor	75
		Over Temperature Cut-Out (°C)	80 ± 5
		Temp and Pressure Relief Valve (°C) / (MPa (Bar))	90 / 1.0 (10)
		Expansion Relief Valve (Cold) (MPa (Bar))	0.8 (8)
DIMENSIONS (mm)	Width	648	648
	Depth	645	645
	Height	1515	1689
WEIGHT EMPTY / FULL (kg)		54 / 204	60 / 230
CYLINDER MATERIAL	Cylinder	Stainless Steel	
	Insulation	CFC / HCFC-free flame-retardant expanded Polyurethane	
	Insulation Thickness (mm)	50	50
	GWP of Insulation	3.1	3.1
	ODP of Insulation	0	0
ELECTRICAL DATA	Control Board <i>optionally powered by outdoor unit</i>	Electrical Supply	220-240v, 50Hz
		Phase	Single
		Fuse Rating - MCB Sizes (A) <sup>1</sup>	16
		Electrical Supply	220-240v, 50Hz
	Immersion Heater	Phase	Single
		Capacity (kW)	3
		Max Running Current (A)	13
		Fuse Rating - MCB Sizes (A) <sup>1</sup>	16
MECHANICAL ZONES		DHW and 1 Heating Zone <sup>2</sup>	
OPTIONAL SIMPLIFIED WIRELESS ROOM THERMOSTAT AND WIRELESS RECEIVER		PAR-WT50-E Controller and PAR-WR51-E Receiver	

For information marked with a "\*" please consult the databook or speak to your local sales office.

<sup>1</sup> MCB Sizes BS EN60898-2 & BS EN60947-2 <sup>2</sup> Optional 2 zone accessory pack available

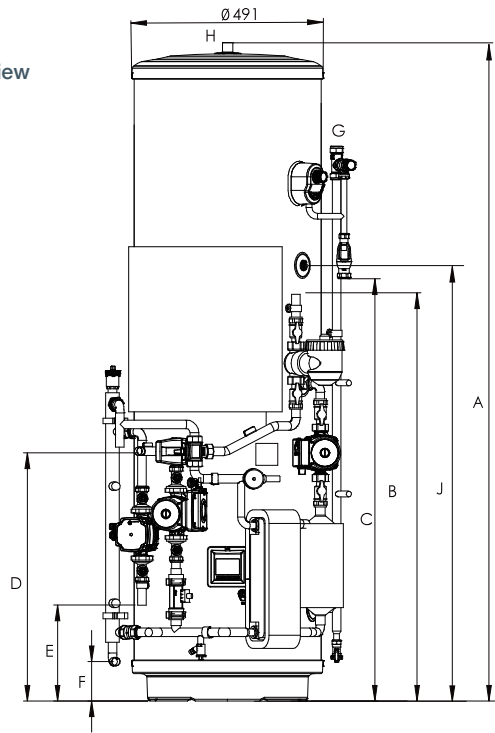
**Notes:** Cylinder includes: Flow Temperature Controller (FTC6) with Main Controller and Temperature Sensors, Magnetic & Cyclonic Filter, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater and Expansion Vessel.

## Product Dimensions

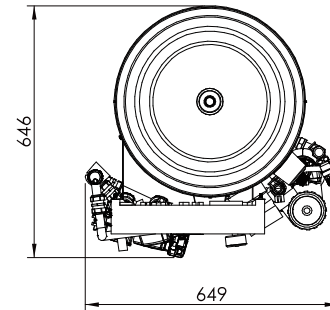
EHPT15-17X-UKHLDW

All measurement in mm

Front View



Upper View



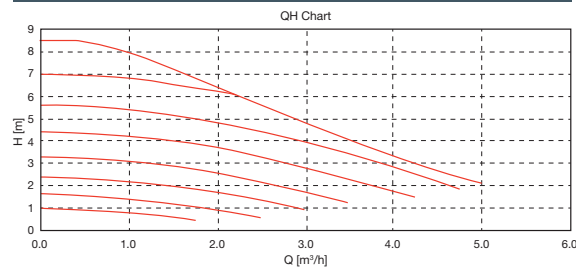
Letter	Pipe Description	Connection size/type
A	Overall height	
B	Heat pump flow	22mm O/D Copper
C	Tundish outlet	22mm/Compression
D	Heat pump return	22mm O/D Copper
E	Heating circuit flow	22mm O/D Copper
F	Heating circuit return	22mm O/D Copper
G	Cold water inlet	22mm/Compression
H	Hot water outlet	22mm/Compression / 3/4" BSP M
J	THW5A sensor pocket	
K	Wi-Fi adaptor (included, installer to locate and mount)	

Capacity	150	170
A	1515	1689
B	1047	1043
C	909	1083
D	640	640
E	246	246
F	101	101
J	943	1117
K	Installer to locate and mount	

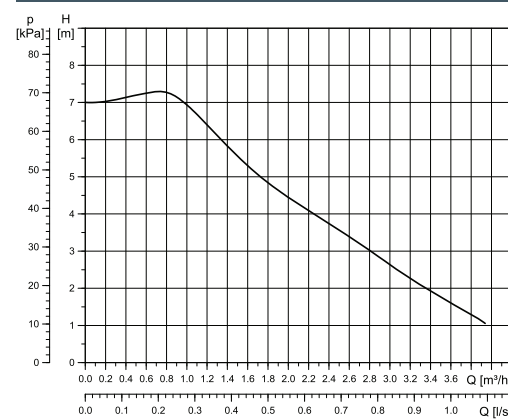
## Circulation Pumps

EHPT15-17X-UKHLDW

Heat Pump Circuit



Space Heating Zone 1 Circuit



Domestic Hot Water Sanitary Circuit

Default setting: Speed 2  
DHW circulation pump **MUST** be set to speed 2.



## EHPT15-30X-UKHDW

### Pre-Plumbed Standard Cylinders for Ecodan Monobloc Units

The Pre-Plumbed Standard Cylinder comes complete with integrated hydraulic components & advanced controls.

Designed to optimise performance and flexibility within an average footprint, the standard cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

#### Key Features

- Optional 2-zone energy efficient space heating control
- Pre-Plumbed and wired for faster installation
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- MELCloud Wi-Fi connectivity

#### FTC6 Controller

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.



CYLINDER		EHPT15X-UKHDW	EHPT17X-UKHDW	EHPT21X-UKHDW	EHPT25X-UKHDW	EHPT30X-UKHDW
NOMINAL HOT WATER VOLUME (LITRES)		150	170	210	250	300
ErP RATING		B	B	C	C	C
HEAT LOSS (kWh/24hrs)		1.15	1.23	1.53	1.80	2.09
HEAT LOSS (W)		48	51	64	75	87
WATER		Flow Rate (l/min) - (H)WM 50 / 60 / 85 / 112 / 140				
Primary Circuit Pump		Grundfos UPMGEO 25-85	Grundfos UPMGEO 25-85	Grundfos UPMGEO 25-85	Grundfos UPMXL GEO 25-125	Grundfos UPMXL GEO 25-125
Heating Circuit Pump		Grundfos UPM3 25-70				
Sanitary Hot Water Pump		Grundfos UPSO 15-60 CIL2				
Connection Size (mm) Heating / DHW		22 / 22	22 / 22	22 / 22	22 / 22	22 / 22
Charge Pressure (MPa (Bar))		0.35 (3.5)	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)
WATER SAFETY DEVICES		Control Thermostat (°C)				
Water Circuit		1 - 80	1 - 80	1 - 80	1 - 80	1 - 80
DHW Cylinder		DHW Expansion Vessel (Litres)				
		12	18	18	24	24
		Control Thermostat				
		75	75	75	75	75
		Over Temperature Cut-Out (°C)				
		80 ± 5	80 ± 5	80 ± 5	80 ± 5	80 ± 5
		Temp and Pressure Relief Valve (°C) / (MPa (Bar))				
		90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)
		Expansion Relief Valve (Cold) (MPa (Bar))				
		0.8 (8)	0.8 (8)	0.8 (8)	0.8 (8)	0.8 (8)
DIMENSIONS (mm)		Width				
		683	683	683	683	683
		Depth				
		730	730	730	730	730
		Height				
		1130	1256	1508	1760	2074
WEIGHT EMPTY / FULL (kg)		56 / 206	62 / 232	69 / 279	77 / 327	87 / 387
CYLINDER MATERIAL		Cylinder				
		Stainless Steel				
		Insulation Type				
		CFC / HCFC-free flame-retardant expanded Polyurethane				
		Insulation Thickness (mm)				
		60	60	60	60	60
		GWP of Insulation				
		3.1	3.1	3.1	3.1	3.1
		ODP of Insulation				
		0	0	0	0	0
ELECTRICAL DATA		Control Board optionally powered by outdoor unit				
		Electrical Supply				
		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
		Phase				
		Single	Single	Single	Single	Single
		Fuse Rating - MCB Sizes (A) <sup>1</sup>				
		16	16	16	16	16
		Immersion Heater				
		Electrical Supply				
		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
		Phase				
		Single	Single	Single	Single	Single
		Capacity (kW)				
		3	3	3	3	3
		Max Running Current (A)				
		13	13	13	13	13
		Fuse Rating - MCB Sizes (A) <sup>1</sup>				
		16	16	16	16	16
MECHANICAL ZONES		DHW and 1 Heating Zone <sup>2</sup>				
OPTIONAL SIMPLIFIED WIRELESS ROOM THERMOSTAT AND WIRELESS RECEIVER		PAR-WT50-E Controller and PAR-WR51-E Receiver				

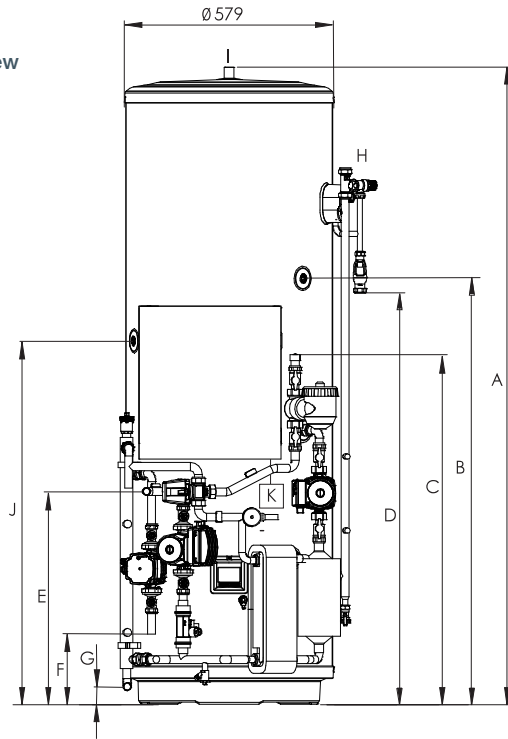
For information marked with a "-" please consult the databook or speak to your local sales office.

<sup>1</sup> MCB Sizes BS EN60898-2 & BS EN60947-2 <sup>2</sup> Optional 2 zone accessory pack available

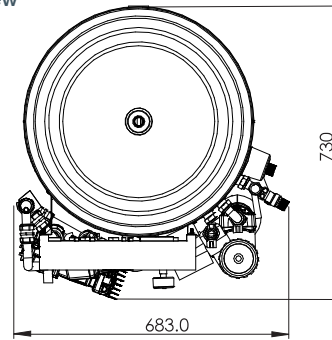
**Notes:** Cylinder includes: Flow Temperature Controller with Main Controller and Temperature Sensors, Magnetic & Cyclonic Filter, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater and Expansion Vessel. R410a model codes: EHPT\*\*UKH\*\*CW & R32 model code: EHPT\*\*UKHDW.



Front View



Upper View



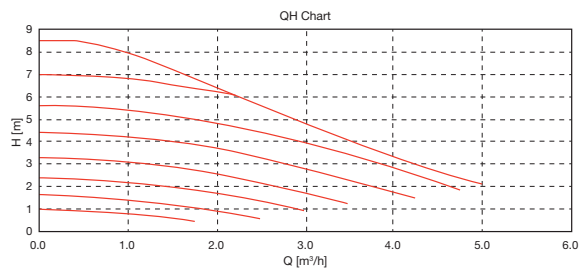
Letter	Pipe Description	Connection size/type
A	Overall height	
B	Secondary return tapping	
C	Heat pump flow	22mm O/D Copper
D	Tundish outlet	22mm/Compression
E	Heat pump return	22mm O/D Copper
F	Heating circuit flow	22mm O/D Copper
G	Heating circuit return	22mm O/D Copper
H	Cold water inlet	22mm/Compression
I	Hot water outlet	22mm/Compression / 3/4" BSP M
J	THW5A sensor pocket	
K	Wi-Fi adaptor (included, installer to locate and mount)	

Capacity	150	170	210	250	300
A	1130	1256	1505	1762	2074
B	-	-	1050	1175	1385
C	909	990	990	990	990
D	505	630	880	1136	1450
E	585	585	585	585	585
F	195	195	195	195	195
G	50	50	50	50	50
J	675	815	1005	1005	1193
K	Installer to locate and mount				

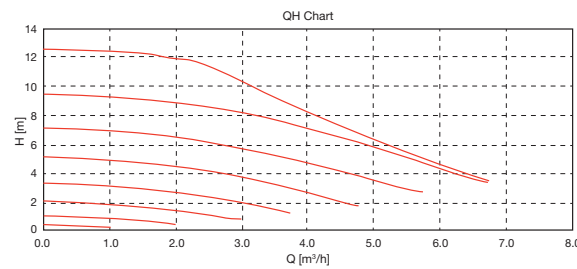
Circulation Pumps

EHPT15-30X-UKHDW

Heat Pump Circuit (150L - 210L)



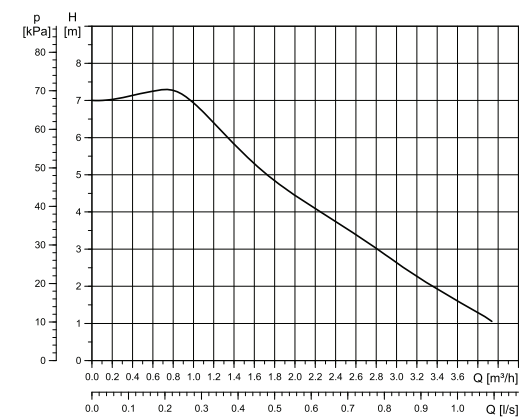
Heat Pump Circuit (250L-300L)



Domestic Hot Water Sanitary Circuit

Default setting: Speed 2  
 DHW circulation pump **MUST** be set to speed 2.

Space Heating Zone 1 Circuit





## EHPT21-30X-UKHSDW

### Pre-Plumbed Solar Cylinders for Ecodan Monobloc Units



The Pre-Plumbed Solar Cylinder comes complete with integrated hydraulic components & advanced controls.

Designed to optimise performance and flexibility within an average footprint, the solar cylinder includes an independent coil and fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity & energy monitoring functions are included as standard.

#### Key Features

- Includes independent coil for connection to solar thermal systems
- Optional 2-zone energy efficient space heating control
- Pre-Plumbed and wired for faster installation
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- MELCloud Wi-Fi connectivity

#### FTC6 Controller

Mitsubishi Electric's sixth generation controller (FTC6) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC6 now also includes energy monitoring showing consumed and produced energy.



CYLINDER			EHPT21X-UKHSDW	EHPT25X-UKHSDW	EHPT30X-UKHSDW
NOMINAL HOT WATER VOLUME (LITRES)			210	250	300
ErP RATING			C	C	C
HEAT LOSS (kWh/24hrs)			1.57	1.79	1.88
HEAT LOSS (W)			65	75	78
WATER					
Flow Rate (l/min) - (H)WM 50 / 60 / 85 / 112 / 140			14 / 17 / 24 / 32 / 40	N/A / N/A / 24 / 32 / 40	N/A / N/A / 24 / 32 / 40
Primary Circuit Pump			Grundfos UPMGEO 25-85	Grundfos UPMXL GEO 25-125	Grundfos UPMXL GEO 25-125
Heating Circuit Pump				Grundfos UPM3 25-70	
Sanitary Hot Water Pump				Grundfos UPSO 15-60 CIL2	
Connection Size (mm) Heating / DHW			22 / 22	22 / 22	22 / 22
Charge Pressure (MPa (Bar))			0.35 (3.5)	0.35 (3.5)	0.35 (3.5)
WATER SAFETY DEVICES					
Water Circuit			Control Thermistor (°C)	1 - 80	1 - 80
DHW Cylinder			DHW Expansion Vessel (Litres)	18	24
			Control Thermistor	75	75
			Over Temperature Cut-Out (°C)	80 ± 5	80 ± 5
			Temp and Pressure Relief Valve (°C) / (MPa (Bar))	90 / 1.0 (10)	90 / 1.0 (10)
			Expansion Relief Valve (Cold) (MPa (Bar))	0.8 (8)	0.8 (8)
DIMENSIONS (mm)					
Width			683	683	683
Depth			730	730	730
Height			1513	1765	2081
WEIGHT EMPTY / FULL (kg)			74 / 284	82 / 332	92 / 392
CYLINDER MATERIAL					
Cylinder			Stainless Steel	Stainless Steel	Stainless Steel
Insulation			CFC / HCFC-free flame-retardant expanded Polyurethane		
			Insulation Thickness (mm)	60	60
			GWP of Insulation	3.1	3.1
			ODP of Insulation	0	0
ELECTRICAL DATA					
Control Board			Electrical Supply	220-240v, 50Hz	220-240v, 50Hz
optionally powered by outdoor unit			Phase	Single	Single
			Fuse Rating - MCB Sizes (A) <sup>1</sup>	16	16
Immersion Heater			Electrical Supply	220-240v, 50Hz	220-240v, 50Hz
			Phase	Single	Single
			Capacity (kW)	3	3
			Max Running Current (A)	13	13
			Fuse Rating - MCB Sizes (A) <sup>1</sup>	16	16
MECHANICAL ZONES			DHW and 1 Heating Zone <sup>2</sup>		
OPTIONAL SIMPLIFIED WIRELESS ROOM THERMOSTAT AND WIRELESS RECEIVER			PAR-WT50-E Controller and PAR-WR51-E Receiver		

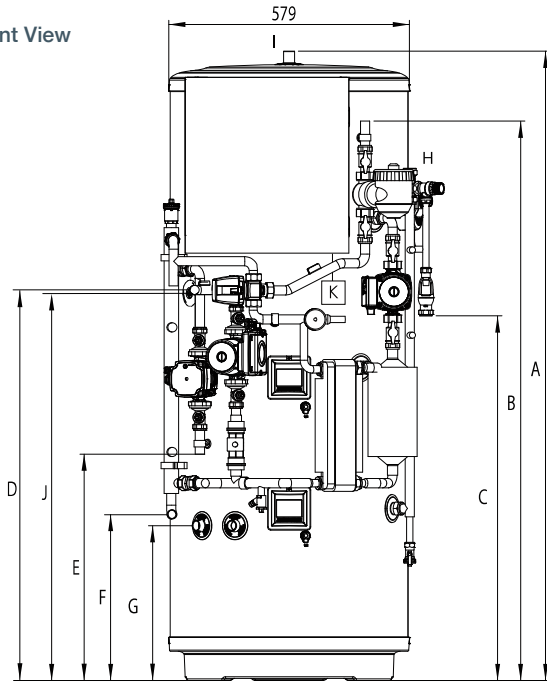
For information marked with a "-" please consult the databook or speak to your local sales office.

<sup>1</sup> MCB Sizes BS EN60898-2 & BS EN60947-2 <sup>2</sup> Optional 2 zone accessory pack available

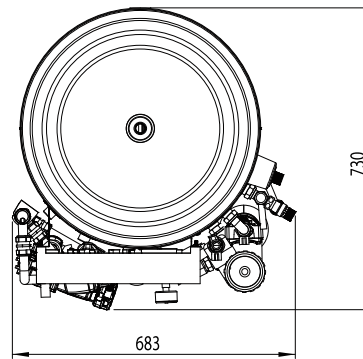
**Notes:** Cylinder includes: Flow Temperature Controller (FTC6) with Main Controller and Temperature Sensors, Magnetic & Cyclonic Filter, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater and Expansion Vessel.



Front View



Upper View



Solar coil specification:

Surface area: 1.1m<sup>2</sup>  
 Coil volume: 5.8 litres  
 Pressure drop: 3.6 kPa (0.036 bar)  
 Output rating: 30kW at 80°C flow temperature, 15 litres/minute flow rate  
 Connections: 22mm compression / 3/4" BSP male  
 Dedicated solar volume: 75 litres

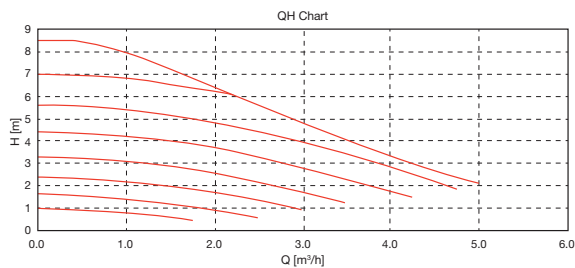
Letter	Pipe Description	Connection size/type
A	Overall height	
B	Heat pump flow	22mm O/D Copper
C	Tundish outlet	22mm/Compression
D	Heat pump return	22mm O/D Copper
E	Heating circuit flow	22mm O/D Copper
F	Heating circuit return	22mm O/D Copper
G	Solar coil	22mm/Compression / 3/4" BSP M
H	Cold water inlet	22mm/Compression
I	Hot water outlet	22mm/Compression / 3/4" BSP M
J	THWSA sensor pocket	
K	Wi-Fi adaptor (included, installer to locate and mount)	

Capacity	210	250	300
A	1513	1765	2081
B	1346	1346	1346
C	877	1129	1444
D	935	935	935
E	545	545	545
F	400	400	400
G	372	372	372
J	933	1008	1198
K	Installer to locate and mount		

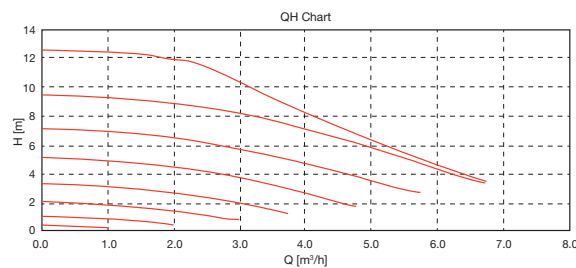
Circulation Pumps

EHPT21-30X-UKHSDW

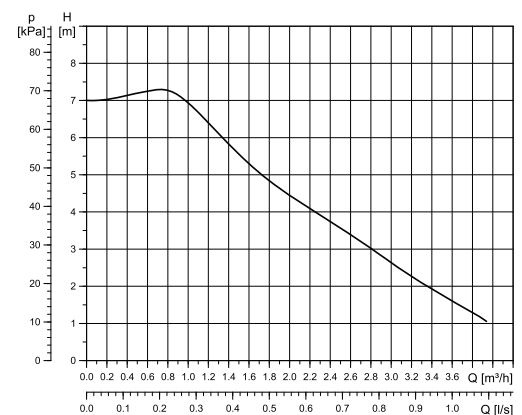
Heat Pump Circuit (210L)



Heat Pump Circuit (250L-300L)



Space Heating Zone 1 Circuit



Domestic Hot Water Sanitary Circuit

Default setting: Speed 2  
 DHW circulation pump **MUST** be set to speed 2.



## FTC6 / FTC2BR Flow Temperature Controllers

For use with Ecodan Monobloc Units and Third Party BEMS

The FTC6 Flow Temperature Controller is designed specifically by Mitsubishi Electric to integrate with the Ecodan PUZ monobloc air source heat pump range and a third party cylinder.

The FTC2BR has been developed to allow the Ecodan PUZ range to interface with third party or BEMS (Building Energy Management System) controls. A combination of volt free and voltage inputs allow the Ecodan PUZ monobloc range to be used in applications where only simple on/off and temperature control is required.

### Functions that can be controlled and monitored by third party controls:

#### Controlled

- On/Off heating mode
- On/Off heating ECO mode
- On/Off hot water mode
- On/Off holiday mode
- On/Off legionella mode
- Change water flow temperature

#### Monitored

- Unit running
- Error
- Defrost

The ability to interface with third party controls opens up a huge number of application opportunities. Many processes simply require a heat source that provides hot water, without polished end user controls. The FTC2BR controller allows the Ecodan PUZ to be used in these applications. FTC2BR inputs and outputs can be used in conjunction with local BEMS.



FLOW TEMPERATURE CONTROLLERS		FTC6 (PAC-IF072B-E)	FTC2BR (PAC-IF033B-E)
COMPATIBILITY	PUZ-WM50VHA(-BS)	✓	✓
	PUZ-WM60VAA(-BS)	✓	✓
	PUZ-WM85V(Y)AA(-BS)	✓	✓
	PUZ-WM112V(Y)AA(-BS)	✓	✓
	PUZ-HWM140V(Y)HA(-BS)	✓	✓
BUILT-IN FEATURES	Initial Setting Wizard	✓	
	Commissioning Aide	✓	
	Smart Grid Ready	✓	
	PV Connection	✓	
	Energy Monitoring	✓	
	Dual Set-Point DHW	✓	
	Silent-Mode	✓	
	Cascade <sup>1</sup>	✓	
Hybrid	✓		
MELCloud <sup>2</sup>		✓	
BEMS INTERFACE			✓
DIMENSIONS (MM)	Width	393	336
	Depth	86.7	69
	Height	422	278
WEIGHT (kg)		4.1	3.2
OPERATING AMBIENT TEMPERATURE (°C) / HUMIDITY		0~ +35°C (RH<80%)	0~ +35°C (RH<80%)
ELECTRICAL DATA	Electrical Supply	Via Outdoor Unit or Independent Source (230v)	Via Outdoor Unit or Independent Source (230v)
	Phase	Single	Single

<sup>1</sup> Requires Optional part(s) PAC-SIF051B-E. Please contact your regional sales office technical team. <sup>2</sup> Requires Wi-Fi interface MAC-567IF-E.





# Energy Monitoring Packs

All Ecodan Flow Temperature Control systems come with free energy monitoring as standard. System users are able to measure both consumed electrical energy and produced heat energy to the nearest kWh. Further energy monitoring packs are also available, ranging from electric meter packs, through to a Renewable Heat Incentive (RHI) compliant Metering and Monitoring Service Pack (MMSP) which allows additional RHI payments to be claimed.

In addition to the basic system functionality features, i.e. hot water and heating status, the system's energy performance can also now be viewed. Historic energy consumption, heat production and run cost reports are available via the main controller, SD card or MELCloud.



PACK	4kW	5kW	6kW	8.5kW	11.2kW	14kW	DESCRIPTION	ELECTRIC METER	HEAT METER	DATA STORAGE	OPTIONAL WI-FI
EMP1	✓	✓	✓	✓	✓	✓	Energy input & output estimation included as standard				-
EMP2	✓	✓	✓	✓	✓	✓	Electrical energy measurement consumption pack	2			-
EMP3-M-1Ph		✓	✓	✓ *VAA	✓ *VAA	✓ *VHA	MMSP compliant electrical energy consumption and heat generation pack with cloud data storage	2	1	✓	Optional*
EMP3-M-3Ph				✓ *YAA	✓ *YAA	✓ *YHA	MMSP compliant electrical energy consumption and heat generation pack with cloud data storage	2	1	✓	Optional*
EMP3-Q-1Ph	✓						MMSP compliant electrical energy consumption and heat generation pack with cloud data storage	2	1	✓	Optional*
EMPH-M-1Ph		✓	✓	✓	✓	✓	Electrical energy consumption and heat generation pack for hybrid systems	2	1		-

\* Wi-Fi Interface is required by OIGEM for MMSP. Note that the interface is included as standard within Ecodan system packages. Please contact your local sales office for guidance.



## MELCloud Wi-Fi Connectivity



Featuring the award-winning



MELCloud is a cloud based solution for controlling your Mitsubishi Electric Ecodan heating system either locally or remotely by PC, Mac, Tablet or Smartphone via the internet.

The set up and remote operation of your Ecodan heating system via MELCloud is simple and straight forward. All you need is a wireless connection where the Ecodan is located and an internet connection on your mobile or fixed device. To set up the system, the router and the Ecodan Wi-Fi interface need pairing and this is done simply and quickly via the WPS button found on all mainstream routers, or using access point pairing via a mobile phone.

### Key Features

- Access to remote maintenance and technical support
- View and control your heating and hot water from anywhere in the world
- Reports on energy use, temperature history and more
- Live weather feed at location of Ecodan
- Share / restrict access and control of the Ecodan system
- Compatible with Amazon Alexa or Google Assistant-enabled devices
- Available for any FTC6 based system, new or retrofit using a MAC-587IF-E interface

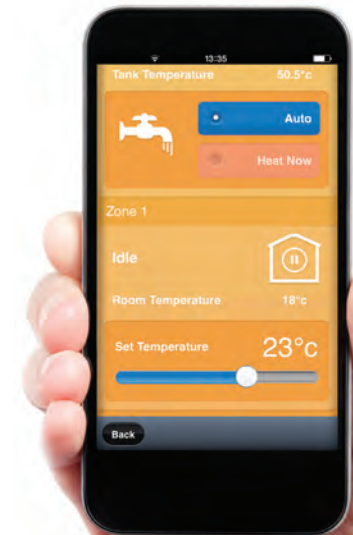


## MELConsole Ecodan Helpdesk

Once connected, you can also enjoy the benefits of **MELConsole** which provides **remote maintenance & technical support** reducing the need of a visit from an engineer.



24/7 Technical Support





For a demonstration of Mitsubishi Electric's MELCloud visit our website: [melcloud.com](http://melcloud.com) and click 'Login'



Available for PC, Mac, Tablet or Smartphone

### Supported Ecodan Models

All **Ecodan FTC6** systems have energy monitoring functionality as standard and the ability to connect to MELCloud. A MAC-587IF-E Wi-Fi Interface is required to use MELCloud.

Wi-Fi Interface		MAC-587IF-E
DESCRIPTION		Wi-Fi Interface
CONNECT TO		Indoor Unit
MAX NUMBER OF UNITS		1
COMPATIBILITY		Ecodan FTC6
POWER SUPPLY		From indoor unit
DIMENSIONS (WxDxH) mm		73.5 x 18.5 x 41.5
CONTROL	On/Off	✓
	Mode	✓
	Heating Setpoint	✓
	Hot Water Boost	✓
	2-Zone Control	✓
	Holiday Mode	✓
	Timer	✓
	Frost Protection	✓
MONITOR	On/Off	✓
	Mode	✓
	Heating Setpoint	✓
	Tank Temperature	✓
	Tank Target Temperature	✓
	Outside Temperature	✓
	Fault Codes	✓
	Consumed Electrical Energy	✓
	Produced Heat Energy	✓

### Supported Hardware / Software

#### Tablets (Apps or Web Client)

Apple iPad / iPad mini  
 Samsung Galaxy Tab / Note  
 Google Nexus  
 Dell Latitude 10  
 Microsoft Surface  
 BlackBerry PlayBook

#### Smartphones (Apps or Web Client)

Apple iPhone  
 Samsung Galaxy S  
 Google Nexus  
 Nokia Lumia  
 BlackBerry Z10

#### Operating Systems

Android™  
 Apple iOS / OS  
 Microsoft Windows  
 BlackBerry

#### Internet Browsers (Web Client only)

Microsoft Internet Explorer  
 Google Chrome  
 Apple Safari  
 Mozilla Firefox  
 Opera

#### Please Note:

This is not definitive list of all compatible devices, other similar devices which use supported Operating Systems or Internet Browsers should also work either via dedicated Apps or via Web Browser / Web Client options. Please note that user experience may vary slightly depending on hardware and software combination. Google, Android, Google Play, Google Chrome and other marks are trademarks of Google LLC.

# i-LIFE2 Slim

## Fan Assisted Radiator

The i-Life2 Slim Fan Assisted Radiator is designed to work seamlessly with existing heating or renewable technologies.

### Key Features

- **Stylish** - At only 13cm deep, the sleek and elegant satin-white, wall mounted cabinet is designed to blend seamlessly into any setting
- **Flexible** - Packed with advanced controls and functions, the i-Life2 Slim will work with traditional heating or renewable systems such as heat pumps
- **Easy to Use** - Airflow is managed by deflectors at the top of the unit, which open and close automatically, ensuring fast and even heat distribution



MODEL		i-LIFE2 SLIM DLMV 80	i-LIFE2 SLIM DLMV 170
CAPACITY (W) <sup>2 *8</sup>		500 / 780 / 880	1060 / 1660 / 2130
ELECTRICAL DATA	Electrical Supply	230v, 50Hz	230v, 50Hz
	Phase	Single	Single
	Fan Power Input (W) - (Lo-Mi-Hi) <sup>1 *8</sup>	0.7 / 4.6 / 10.7	1.62 / 10.1 / 19.0
WATER DATA	Water Flow Rate (l/min) - (Lo-Mi-Hi) <sup>2</sup>	1.2 / 2.4 / 2.4	3 / 4.8 / 6
	Water Pressure Drop (kPa) - (Lo-Mi-Hi) <sup>2 *8</sup>	3 / 6 / 8	2 / 5 / 8
AIR DATA	Air Flow Rate (m3/h) - (Lo-Mi-Hi) <sup>1</sup>	51 / 93 / 125	122 / 221 / 277
SOUND DATA	Sound Pressure (dB(A)) - (Lo-Mi-Hi) <sup>3</sup>	24 / 35 / 41	26 / 36 / 42
	Sound Power (dB(A)) - (Lo-Mi-Hi) <sup>4 *7 *8</sup>	33 / 44 / 50	35 / 45 / 51
DIMENSIONS (mm) <sup>5</sup>	Width	737	937
	Depth	131	131
	Height	579	579
WEIGHT (kg) <sup>5</sup>		17	20

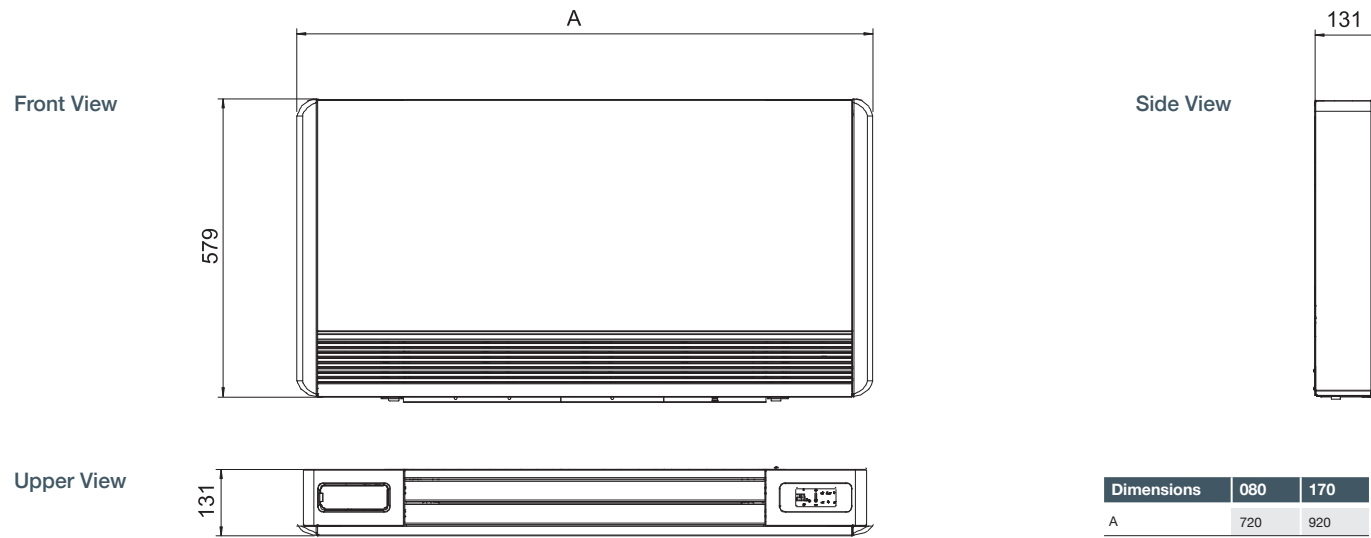
 i-Life2 Slim units are managed by a variable speed fan motor that continuously modulates the fan speed

1. Room temperature 27°C d.b./19°C w.b.; Chilled water (in/out) 7/12°C.
2. Room temperature 20°C d.b.; Hot water (in/out) 45/40 °C.
3. Sound pressure level in free field on a reflective surface, 1m from fan front and 1m from the ground. Non-binding value obtained from sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 374 and Eurovent 8/2.
5. Unit in standard configuration/execution, without optional accessories.
6. Values in compliance with EN14511-3:2013.
7. Values in compliance with [REGULATION (UE) N.2016/2281].
8. Certified data in EUROVENT.

**Product Dimensions**

i-LIFE2 SLIM DLMV 80 & i-LIFE2 SLIM DLMV 170

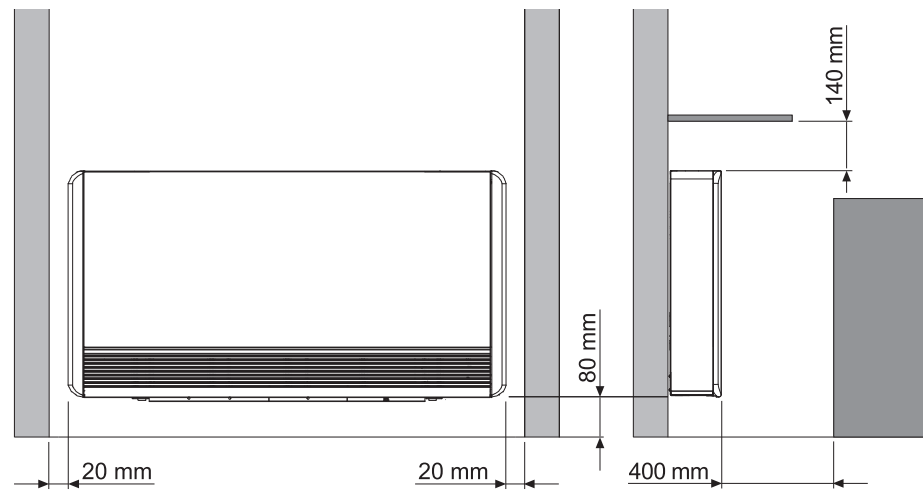
All measurement in mm



**Installation Location**

i-LIFE2 SLIM DLMV 80 & i-LIFE2 SLIM DLMV 170

All measurement in mm





## Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>QUHZ / PUZ</b>	
Wireless Controller Transmitter	PAR-WT50R-E
Wireless Controller Receiver	PAR-WR51R-E
Modbus CN105 Interface	ACC-BEMS-A1M
ODU Isolator 20A IP65	ACC-ISO-020
ODU Isolator 32A IP65	ACC-ISO-032
ODU Isolator 40A IP65	ACC-ISO-040
FTC6 High Temperature Sensor 5m Cable	PAC-TH012HT-E
FTC6 High Temperature Sensor 30m Cable	PAC-TH012HTL-E
FTC Flow and Return Temperature Sensors 5m Cable	PAC-TH011-E
FTC6 Cylinder DHW Temp Sensor 5m Cable	PAC-TH011TK2-E
FTC6 Cylinder DHW Temp Sensor 30m Cable	PAC-TH011TKL2-E
FTC Service Diagnostic Tool	PAC-SK52ST
Ecodan Anti-Vibration Fix-It-Foot 600mm Kit	ACC-AVM-001
Ecodan Reinforced Lightweight Slab +Anti-Vibration Fix-It-Foot Kit	ACC-AVS-001
Std Drain Socket Kit	PAC-SG61DS-E
10L Anti Freeze	ACC-AFZ-010
25L Anti Freeze	ACC-AFZ-025
Insulated Through Wall Sleeve Kit (85mm)	ACC-FCP-TW1
External Pipework Trunking Length (1m x 140mm Black x2)	ACC-TRU-LE1
External Pipework Trunking Length (2m x 140mm Black x1)	ACC-TRU-LE2
External Pipework Trunking Length Connector (140mm Black)	ACC-TRU-JO1
External Pipework Trunking Wall Cover (140mm Black)	ACC-TRU-CO1
External Pipework Trunking Elbow (140mm Black)	ACC-TRU-EL1
External Pipework Trunking External Corner (140mm Black)	ACC-TRU-EC1
External Pipework Trunking Internal Corner (140mm Black)	ACC-TRU-IC1
Pack for 2 Zone Systems with Equal Temperatures	ACC-2ZP-K01
Pack for 2 Zone Systems with Different Temperatures	ACC-2ZP-K02
ALL Flow Balancing Valve	ACC-FBV-40L
Insulated Flexible Connection Pipes (OUHZ: 750mm x 15mm) Standard Pair	ACC-FCP-QUHZ
Insulated Flexible Connection Pipes (22mm x 500mm) Standard Pair	ACC-FCP-S22
Insulated Flexible Connection Pipes (28mm x 500mm) Standard Pair	ACC-FCP-S28
Insulated Flexible Connection Pipes (28mm x 300mm) Elbow Pair	ACC-FCP-E28
12L Exp Vessel +PRV	PAC-EVP12-E1



# Ventilation

Fresh Air Ventilation Range





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## Fresh Air Ventilation Range

# Why Do We Need **Fresh Air Ventilation**?

The build-up of health damaging pollutants, mould and rot are all attributed to poor indoor air quality and the lack of effective ventilation.

With highly airtight buildings on the rise, alongside increasingly strict legislation on air quality, the need is growing for an effective solution such as mechanical ventilation, which is also energy efficient. Mitsubishi Electric systems are perfectly placed to address this need and are the ideal solution to provide fresh air.

Our range includes single and multi-room Mechanical Ventilation with Heat Recovery (MVHR) units and medium to large scale ventilation solutions including Air Handling Units (AHUs). All systems have been designed to provide the best ventilation solution for the chosen application, by delivering the required amount of fresh air, whilst extracting the right amount of stale air, in the most energy efficient way possible.



### Fresh air benefits include:

- A healthy and better maintained building
- Improved air quality for occupants
- Improved comfort via the recovery of heat to incoming fresh air



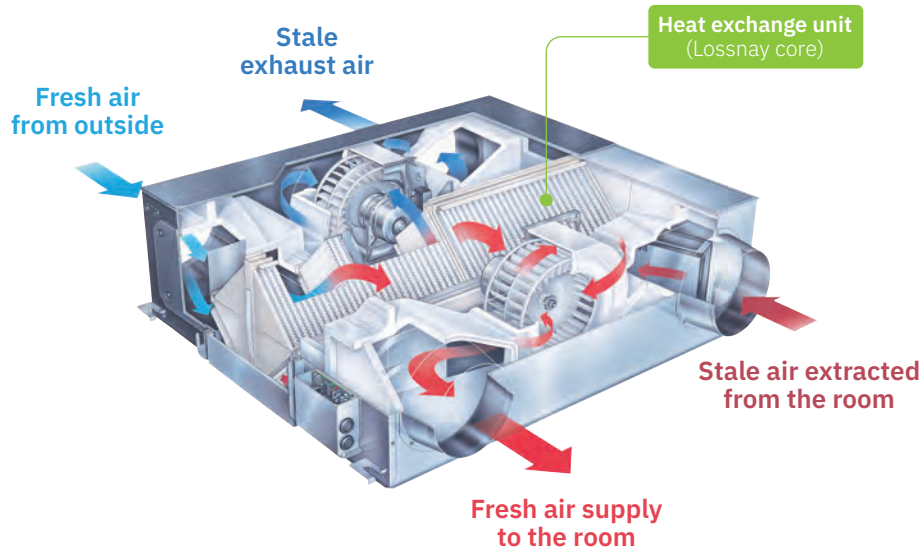
### Excellent Air Quality and Heat Exchange Efficiency

#### How Lossnay Works

Our Lossnay systems have perfected the recovery of energy that would have otherwise been wasted. They do this by either warming or cooling incoming air, a feature which makes Mitsubishi Electric MVHR units extremely energy efficient.

Heat Recovery is made possible via the unique Lossnay ultra-thin paper core technology, which is constructed in a corrugated form and layered in alternative directions.

**This design allows a cross airflow to maximise heat recovery without the supply and exhaust air mixing, ensuring only fresh air is introduced to the building.**



#### How Air Handling Units work

Packaged Air Handling Units (AHUs) are designed to provide a tempered fresh air supply into commercial buildings. They work in conjunction with the building's air conditioning system to provide occupants with a fresh and comfortable environment.

The technology behind the Climaveneta Wizard AHU includes a highly efficient heat recovery thermal wheel to transfer heat between the supply and return air. By capturing and reusing this heat before it leaves the building, substantial energy savings can be made.

**This technology can also provide free cooling and benefits from fully integrated, intelligent controls.**



# LGH-RVX-E

## Commercial Lossnay

The Lossnay **LGH-RVX-E** Mechanical Ventilation Heat Recovery (MVHR) systems are designed to supply clean, fresh air into any commercial building, whilst simultaneously extracting stale air, ensuring good indoor air quality for occupant wellbeing. These units are also able to recover valuable heat energy from inside the building, maximising energy efficiency and reducing running costs.

### Key Features & Benefits

- Lossnay paper core enables total heat exchange (sensible and latent) to achieve higher levels of heat recovery, resulting in both cost and energy savings
- Low specific fan powers for improved energy efficiency
- Lightweight structure, ideal for ceiling installation
- No condensate drain requirement
- Compatible with Mr Slim and City Multi air conditioning systems, creating a complete and highly effective system



MODEL		LGH15RVX-E	LGH25RVX-E	LGH35RVX-E	LGH50RVX-E	LGH65RVX-E	LGH80RVX-E	LGH100RVX-E	LGH150RVX-E	LGH200RVX-E	
ELECTRICAL POWER SUPPLY		220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	
RUNNING CURRENT (A)	SP1	0.10	0.10	0.12	0.13	0.15	0.15	0.17	0.29	0.33	
	SP2	0.15	0.16	0.26	0.26	0.39	0.36	0.50	0.70	0.88	
	SP3	0.24	0.28	0.54	0.59	0.90	0.83	1.20	1.75	2.20	
	SP4	0.40	0.48	0.98	1.15	1.65	1.82	2.50	3.71	4.88	
INPUT POWER (W)	SP1	7	8	11	12	15	18	21	38	42	
	SP2	14	16	31	32	49	60	75	123	153	
	SP3	28	33	70	78	131	151	200	311	400	
	SP4	49	62	140	165	252	335	420	670	850	
AIRFLOW (m <sup>3</sup> /h) <sup>2</sup>	SP1	38	63	88	125	163	200	250	375	500	
	SP2	75	125	175	250	325	400	500	750	1000	
	SP3	113	188	263	375	488	600	750	1125	1500	
	SP4	150	250	350	500	650	800	1000	1500	2000	
AIRFLOW (l/s) <sup>2</sup>	SP1	10	17	24	35	45	56	69	104	139	
	SP2	21	35	49	69	90	111	139	208	278	
	SP3	31	52	73	104	135	167	208	313	417	
	SP4	42	69	97	139	181	222	278	417	556	
SPECIFIC FAN POWER (W/(l/s))	SP1	0.70	0.47	0.46	0.34	0.33	0.32	0.30	0.37	0.30	
	SP2	0.67	0.46	0.63	0.46	0.54	0.54	0.54	0.59	0.55	
	SP3	0.90	0.63	0.96	0.75	0.97	0.90	0.96	0.99	0.96	
	SP4	1.17	0.90	1.44	1.19	1.39	1.51	1.51	1.61	1.53	
EXTERNAL STATIC PRESSURE (Pa)	SP1	6	5	10	8	8	10	11	11	10	
	SP2	24	21	40	30	30	38	43	44	38	
	SP3	54	48	90	68	68	85	96	98	84	
	SP4	95	85	160	120	120	150	170	175	150	
SOUND PRESSURE LEVEL (dBA)	SP1	17	17	17	18	18	18	18	18	18	
	SP2	19	20	20	19	22	23	23	24	28	
	SP3	24	22	28	28	29	30	31	32	36	
	SP4	28	27	32	34	34.5	34.5	37	39	40	
TEMPERATURE EXCHANGE EFFICIENCY (%)	SP1	84	86	88.5	87	86	85	89.5	85	89.5	
	SP2	83	82	86	83.5	84	84	86.5	84	86.5	
	SP3	81	80	82.5	81	81	82.5	83	82.5	83	
	SP4	80	79	80	78	77	79	80	80	80	
ENTHALPY EXCHANGE EFFICIENCY (%)	Heating	SP1	79	83	83.5	82.5	82	81	87	81	87
		SP2	78	76	78.5	75	76	78	78	78	78
		SP3	75.5	72	74	71	71	73.5	74	73.5	74
		SP4	73	69.5	71.5	69	68.5	71	72.5	72	72.5
	Cooling	SP1	79	83	82	82	81	81	85.5	81	85.5
		SP2	78	74.5	78	72.5	74	78	77	78	77
		SP3	74.5	70	73	68	69.5	72.5	73	72.5	73
		SP4	71	68	71	66.5	66	70	71	70.5	71
WEIGHT (kg)		20	23	30	33	38	48	54	98	110	
DIMENSIONS (mm)	Width x Depth x Height	780 x 610 x 289	780 x 735 x 289	888 x 874 x 331	888 x 1016 x 331	908 x 954 x 404	1144 x 1004 x 404	1144 x 1231 x 404	1144 x 1004 x 808	1144 x 1231 x 808	
DUCT SIZE (mm)		100	150	150	200	200	250	250	(SARA)250 (OAEA)270 x 700	(SARA)250 (OAEA)270 x 700	
STANDARD FILTER <sup>1</sup>		EU-G3	EU-G3	EU-G3	EU-G3	EU-G3	EU-G3	EU-G3	EU-G3	EU-G3	
FUSE RATING (BS88) – HRC (A)		6	6	6	6	6	6	6	10	10	

Notes: Running Current, Input Power and Recovery Efficiency are based on the above airflow rate, power supply 240V, 50Hz. Sound Pressure Level measured at 1.5m under the centre of panel.

\*1: EU-F7 filter available as optional parts. \*2: Airflow tested to Japan industrial standard JIS B 8628. SP1, SP2, SP3 & SP4 relate to the fan speeds of the Lossnay RVX units i.e. fanspeed 1, 2, 3 & 4.

## Accessories

### Remote Controllers

#### PZ-62DR-E

Lossnay remote controller for LGH-RVX-E

### Filters

#### PZ-15RF8-E

Replacement Coarse 35% / G3 filter for LGH-15RVX-E

#### PZ-25RF8-E

Replacement Coarse 35% / G3 filter for LGH-25RVX-E

#### PZ-35RF8-E

Replacement Coarse 35% / G3 filter for LGH-35RVX-E

#### PZ-50RF8-E

Replacement Coarse 35% / G3 filter for LGH-50RVX-E

#### PZ-65RF8-E

Replacement Coarse 35% / G3 filter for LGH-65RVX-E

#### PZ-80RF8-E

Replacement Coarse 35% / G3 filter for LGH-80RVX-E / LGH-150RVX-E (2 sets)

#### PZ-100RF8-E

Replacement Coarse 35% / G3 filter for LGH-100RVX-E / LGH-200RVX-E (2 sets)

#### PZ-15RFP2-E

ePM<sub>1</sub> 75% filter for LGH-15RVX-E

#### PZ-25RFP2-E

ePM<sub>1</sub> 75% filter for LGH-25RVX-E

#### PZ-35RFP2-E

ePM<sub>1</sub> 75% filter for LGH-35RVX-E

#### PZ-50RFP2-E

ePM<sub>1</sub> 75% filter for LGH-50RVX-E

#### PZ-65RFP2-E

ePM<sub>1</sub> 75% filter for LGH-65RVX-E

#### PZ-80RFP2-E

ePM<sub>1</sub> 75% filter for LGH-80RVX-E / LGH-150RVX-E (2 sets)

#### PZ-100RFP2-E

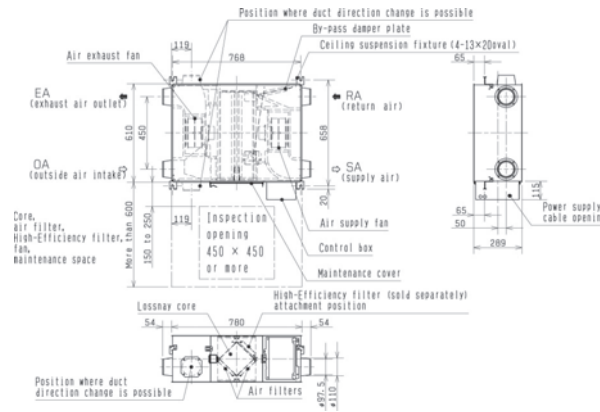
ePM<sub>1</sub> 75% filter for LGH-100RVX-E / LGH-200RVX-E (2 sets)

### Weather Proof Housings

Weather proof housings are also available

## Product Dimensions

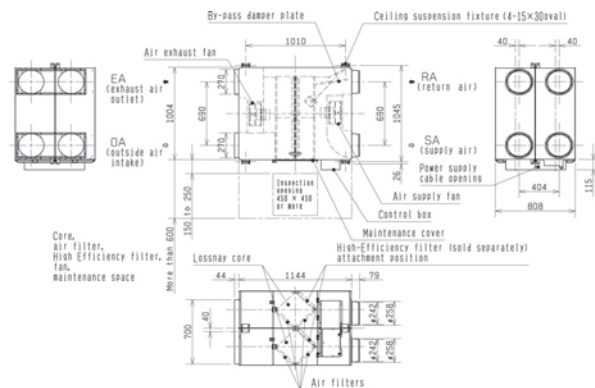
### LGH-15RVX-E



MODEL REFERENCE	DIMENSIONS			CEILING SUSPENSION FIXTURE PITCH		NOMINAL DUCT DIAMETER
	A	B	C	D	E	
LGH-25RVX-E	780	735	289	768	782	150
LGH-35RVX-E	888	874	331	875	921	150
LGH-50RVX-E	888	1016	331	875	1063	200
LGH-65RVX-E	908	954	404	895	1001	200
LGH-80RVX-E	1144	1004	404	1131	1051	250
LGH-100RVX-E	1144	1231	404	1131	1278	250

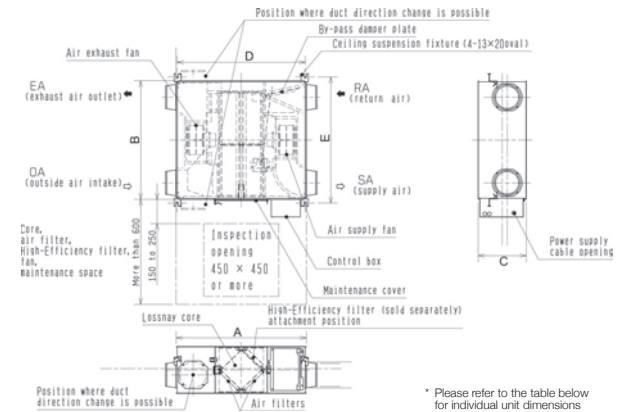
## Product Dimensions

### LGH-150RVX-E



## Product Dimensions

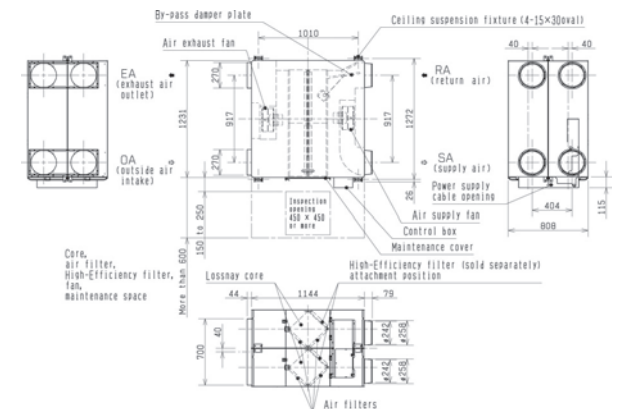
### LGH-25-100RVX-E\*



\* Please refer to the table below for individual unit dimensions

## Product Dimensions

### LGH-200RVX-E



# LGH-RVXT-E

## Commercial Lossnay

Lossnay **LGH-RVXT-E** Mechanical Ventilation Heat Recovery (MVHR) systems are designed to supply clean, fresh air into any commercial building, whilst simultaneously extracting stale air, ensuring good indoor air quality for occupant wellbeing. Offering a significantly reduced height, whilst maintaining a large airflow, these units are designed for installation in ceiling voids within commercial properties.

### Key Features & Benefits

- Lossnay paper core enables total heat exchange (sensible and latent) to achieve higher levels of heat recovery, resulting in both cost and energy savings
- Lightweight structure, ideal for ceiling installation
- No condensate drain requirement
- Unit height of 500mm for ease of application
- Compatible with Mr Slim and City Multi air conditioning systems, creating a complete and highly effective system



MODEL		LGH150RVXT-E	LGH200RVXT-E	LGH250RVXT-E
ELECTRICAL POWER SUPPLY		220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
RUNNING CURRENT (A)	SP1	0.36	0.39	0.57
	SP2	1.10	1.10	1.40
	SP3	2.40	2.70	3.60
	SP4	4.30	5.40	7.60
INPUT POWER (W)	SP1	48	56	82
	SP2	176	197	244
	SP3	421	494	687
	SP4	792	1000	1446
AIRFLOW (m <sup>3</sup> /h) <sup>2</sup>	SP1	375	500	625
	SP2	750	1000	1250
	SP3	1125	1500	1875
	SP4	1500	2000	2500
AIRFLOW (l/s) <sup>2</sup>	SP1	104	139	174
	SP2	208	278	347
	SP3	313	417	521
	SP4	417	556	694
SPECIFIC FAN POWER (W/(l/s))	SP1	0.46	0.40	0.47
	SP2	0.85	0.71	0.70
	SP3	1.35	1.18	1.32
	SP4	1.90	1.80	2.08
EXTERNAL STATIC PRESSURE (Pa)	SP1	11	11	11
	SP2	44	44	44
	SP3	98	98	98
	SP4	175	175	175
SOUND PRESSURE LEVEL (dBA)	SP1	22	22	24
	SP2	29.5	28	32
	SP3	35.5	35.5	39
	SP4	39.5	39.5	43
TEMPERATURE EXCHANGE EFFICIENCY (%)	SP1	81.5	84	82.5
	SP2	81	82.5	80.5
	SP3	80.5	81	79
	SP4	80	80	77
ENTHALPY EXCHANGE EFFICIENCY (%)	Heating SP1	75	83	79
	SP2	73	77	74
	SP3	71	73.5	71.5
	SP4	70	72.5	68
	Cooling SP1	74	80.5	76.5
	SP2	72	74.5	71.5
	SP3	70	71	69
	SP4	69	70	65.5
WEIGHT (kg)		156	159	198
DIMENSIONS (mm)	Width x Depth x Height	1980 x 1500 x 500	1980 x 1500 x 500	1980 x 1500 x 500
DUCT SIZE (mm)		250 x 750	250 x 750	250 x 750
STANDARD FILTER <sup>1</sup>		EU-G3	EU-G3	EU-G3
FUSE RATING (BS88) – HRC (A)		10	10	10

Notes: Running Current, Input Power and Recovery Efficiency are based on the above airflow rate, power supply 240v, 50Hz. Sound Pressure Level measured at 1.5m under the centre of panel.

<sup>1</sup>: M6 medium efficiency filter and F8 high efficiency filter available as optional parts. <sup>2</sup>: Airflow tested to Japan industrial standard JIS B 8628. SP1, SP2, SP3 & SP4 relate to the fan speeds of the Lossnay RVXT units i.e. fanspeed 1, 2, 3 & 4.



## Accessories

### Remote Controllers

#### PZ-62DR-E

Lossnay remote controller for LGH-RVXT-E

### Filters

#### PZ-M6RTFM-E

ePM<sub>10</sub> 75% / M6 filter for LGH-RVXT-E

#### PZ-F8RTFM-E

ePM<sub>1</sub> 65% / F8 filter for LGH-RVXT-E

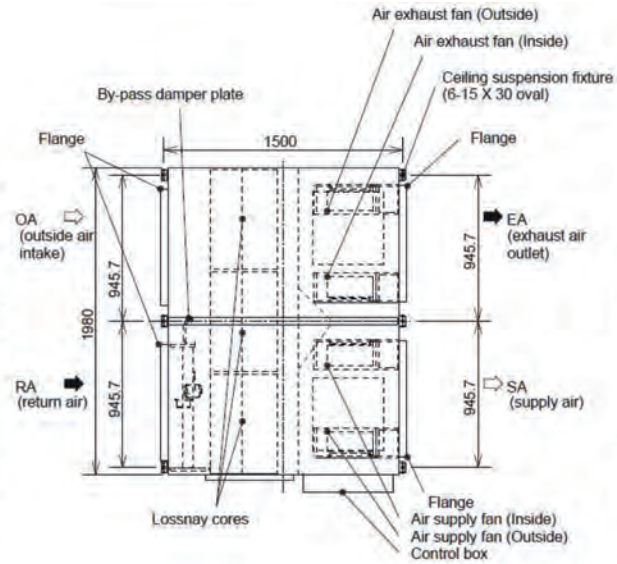
## Product Dimensions

LGH-150/200/250RVXT-E

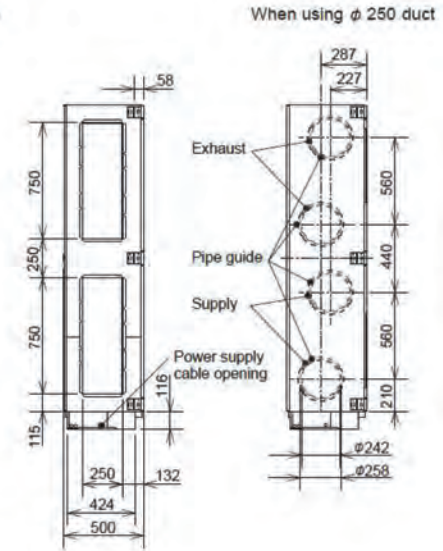
Left Side View



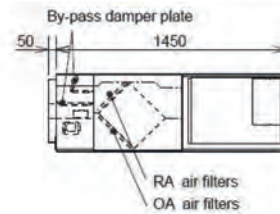
Upper View



Right Side View



Front View



# LGH-RVS-E

## Commercial Lossnay

The **LGH-RVS-E** is designed to simultaneously extract stale air from a commercial building and supply fresh filtered air. Whilst doing this the Lossnay units also recover valuable heat energy for maximum efficiency.

### Key Features & Benefits

- Fresh air ventilation with energy efficient heat recovery
- Plastic heat exchanger - perfect for higher humidity environments
- Optional plug and play CO<sub>2</sub> sensor control including power
- Digital commissioning of fan speed increments
- Easy control interlock with Mr Slim and City Multi air conditioning systems
- M-NET connection for centralised control
- Integrated bypass damper for free cooling
- In-built condensate drainage traps



MODEL			LGH-50RVS-E	LGH-80RVS-E	LGH-100RVS-E
25%	Air Volume	l/s	35	56	69
		m <sup>3</sup> /hr	125	200	250
	External Static Pressure	Pa	9	11	12
	Temperature Exchange Efficiency	%	93	90	90
	Specific Fan Power	W/(l/s)	0.72	0.58	0.5
	Input Power	W	25	32	35
	Sound Pressure Level	dB(a)	18	18	18
50%	Air Volume	l/s	69	111	139
		m <sup>3</sup> /hr	250	400	500
	External Static Pressure	Pa	38	43	48
	Temperature Exchange Efficiency	%	91	86	86
	Specific Fan Power	W/(l/s)	0.86	0.77	0.72
	Input Power	W	60	85	100
	Sound Pressure Level	dB(a)	22	25	24
75%	Air Volume	l/s	104	167	208
		m <sup>3</sup> /hr	375	600	750
	External Static Pressure	Pa	84	96	107
	Temperature Exchange Efficiency	%	89	84	84
	Specific Fan Power	W/(l/s)	1.06	1.05	1.08
	Input Power	W	110	175	225
	Sound Pressure Level	dB(a)	27	30	32
100%	Air Volume	l/s	139	222	278
		m <sup>3</sup> /hr	500	800	1000
	External Static Pressure	Pa	150	170	190
	Temperature Exchange Efficiency	%	87	82	82
	Specific Fan Power	W/(l/s)	1.37	1.46	1.6
	Input Power	W	190	325	445
	Sound Pressure Level	dB(a)	33	36	37
DUCT SIZE		mm	200	250	250
WEIGHT	(with full condensate drain)	kg	55 (67)	63 (77)	73 (89)
DIMENSIONS	Width x Depth x Height	mm	974 x 946 x 465	1185 x 997 x 465	1185 x 1224 x 465
ELECTRICAL POWER SUPPLY			220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
MAXIMUM RUNNING CURRENT		A	2.2	3.7	4.2
FUSE RATING (BS88) - HRC (A)		A	6	6	6
HEAT EXCHANGER			Plastic Counter Flow		
CONDENSATE CONNECTION		mm	32	32	32
STANDARD FILTER		ISO 16890:2016 / EN779:2012	Coarse 35% / G3		
OPTIONAL FILTER(S)		ISO 16890:2016 / EN779:2012	ePM <sub>1</sub> 65%, ePM <sub>2.5</sub> 75%, ePM <sub>10</sub> 90% / F8 ePM <sub>10</sub> 80% / M6		

Notes: Airflow rate, static pressure, power input, running current, and heat exchange efficiency tested to ISO 16494 (winter condition), 230v 50Hz. A-Weighted Sound Pressure Level measured at 1.5m under the centre of the unit in an anechoic chamber.

## Accessories

### Remote Controllers

#### PZ-62DR-E

Lossnay remote controller for LGH-RVS-E

### Filters

#### PZ-S50RF-E

Replacement Coarse 35% / G3 filter for LGH-50RVS-E

#### PZ-S80RF-E

Replacement Coarse 35% / G3 filter for LGH-80RVS-E

#### PZ-S100RF-E

Replacement Coarse 35% / G3 filter for LGH-100RVS-E

#### PZ-S50RFM-E

ePM<sub>10</sub> 80% / M6 filter for LGH-50RVS-E

#### PZ-S80RFM-E

ePM<sub>10</sub> 80% / M6 filter for LGH-80RVS-E

#### PZ-S100RFM-E

ePM<sub>10</sub> 80% / M6 filter for LGH-100RVS-E

#### PZ-S50RFH-E

ePM<sub>1</sub> 65% / F8 filter for LGH-50RVS-E

#### PZ-S80RFH-E

ePM<sub>1</sub> 65% / F8 filter for LGH-80RVS-E

#### PZ-S100RFH-E

ePM<sub>1</sub> 65% / F8 filter for LGH-100RVS-E

### CO<sub>2</sub> Sensors

#### PZ-70CSW-E

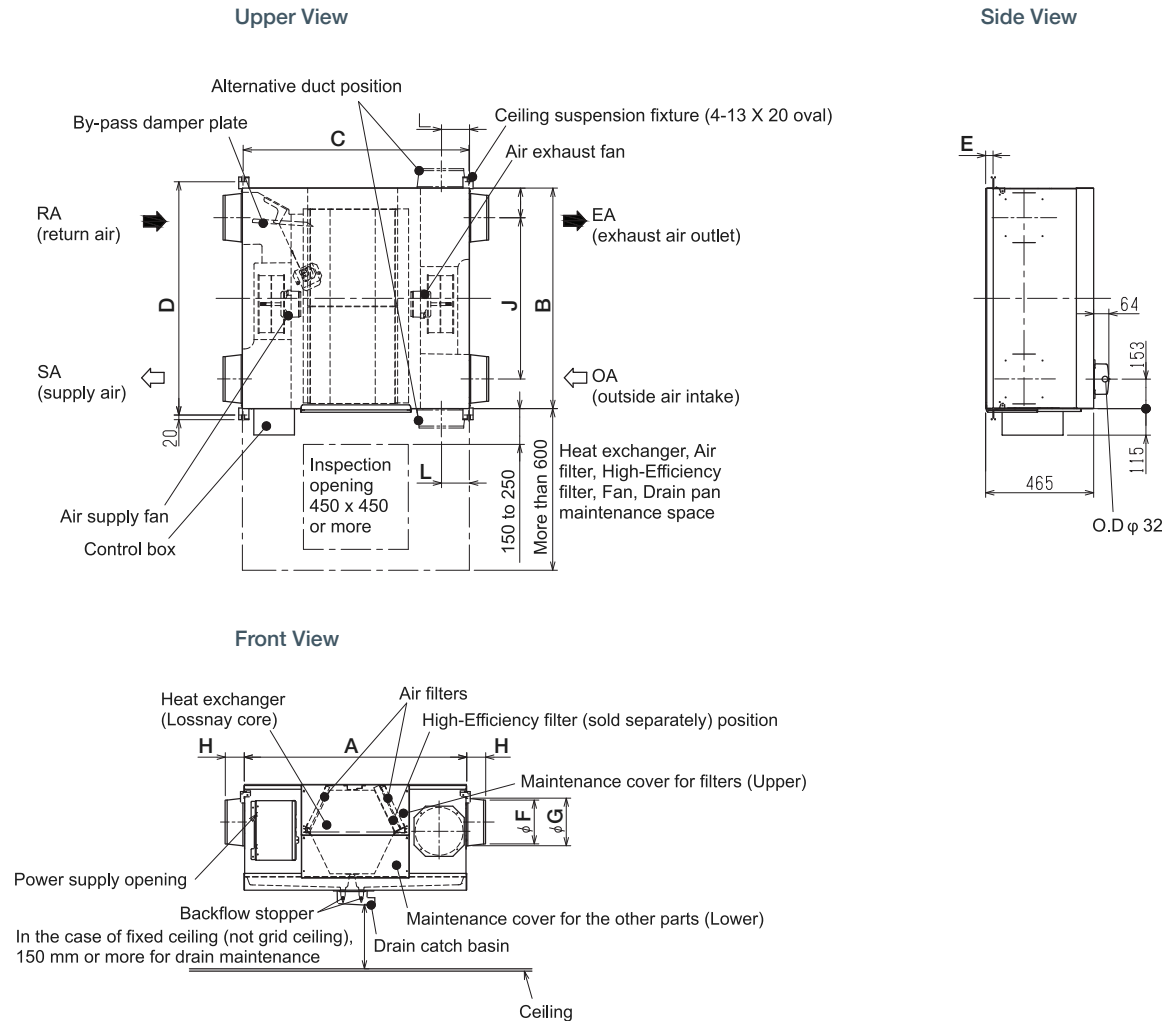
Wall mounted plug and play CO<sub>2</sub> sensor with traffic light signals for LGH-RVS-E

#### PZ-70CSB-E

Unit mounted plug and play CO<sub>2</sub> sensor for LGH-RVS-E

## Product Dimensions

### LGH-50/80/100RVS-E



	A	B	C	D	E	F	G	H	J	L
LGH-50RVS-E	974	946	969	1001	32	192	208	83	692	120
LGH-80RVS-E	1185	997	1179	1051	55	242	258	82	683	161
LGH-100RVS-E	1185	1224	1179	1279	55	242	258	82	910	161

# VL-100(E)U<sub>5</sub>-E

## Wall Mounted Lossnay

The **VL-100** wall mounted Lossnay supplies fresh air into a room, simultaneously extracting stale air in an energy efficient manner. The recovery of both latent heat and sensible heat ensures a comfortable internal environment, minimising heat loss and saving both energy and costs. Easy to install, this compact unit is ideal for single room applications, such as small offices, bedrooms, and spaces where a ducted system is not an option.

### Key Features & Benefits

- Effective fresh air ventilation for improved air quality
- Lossnay paper core enables total heat exchange (sensible and latent) to achieve higher levels of heat recovery, resulting in both cost and energy savings
- Simple installation
- Optional extension pipe kit and joint available



MODEL		VL-100U <sub>5</sub> -E	VL-100EU <sub>5</sub> -E
ELECTRICAL POWER SUPPLY		220-240V, 50Hz	220-240V, 50Hz
PHASE		Single	Single
POWER CONSUMPTION (W)	Low	17	17
	High	34	34
AIRFLOW (m <sup>3</sup> /h)	Low	61	61
	High	106	106
SOUND PRESSURE LEVEL (dBA)	Low	27	27
	High	38	38
TEMPERATURE EXCHANGE EFFICIENCY (%)	Low	79	79
	High	72	72
WEIGHT (kg)		7.5	7.5
DIMENSIONS (mm)	Width	620	620
	Depth	200	200
	Height	265	265
DUCT SIZE (mm)		2 x Ø75	2 x Ø75
FUSE RATING (BS88) - HRC (A)		6	6
MAINS CABLE No. Cores		3	3
CONTROL ON/OFF		Pull Cord	Field Supplied

Notes: The VL-100U<sub>5</sub>-E includes a pull cord switch to control the unit. Also available as VL-100EU<sub>5</sub>-E which includes the option to fit a field supplied external wall switch

## Accessories

### Filters

#### P-100HF<sub>5</sub>-E

M6 filter for VL-100(E)U<sub>5</sub>-E

### Extension Pipe Kits

#### P-100P-E

Extension pipe for VL-100(E)U<sub>5</sub>-E (300mm)

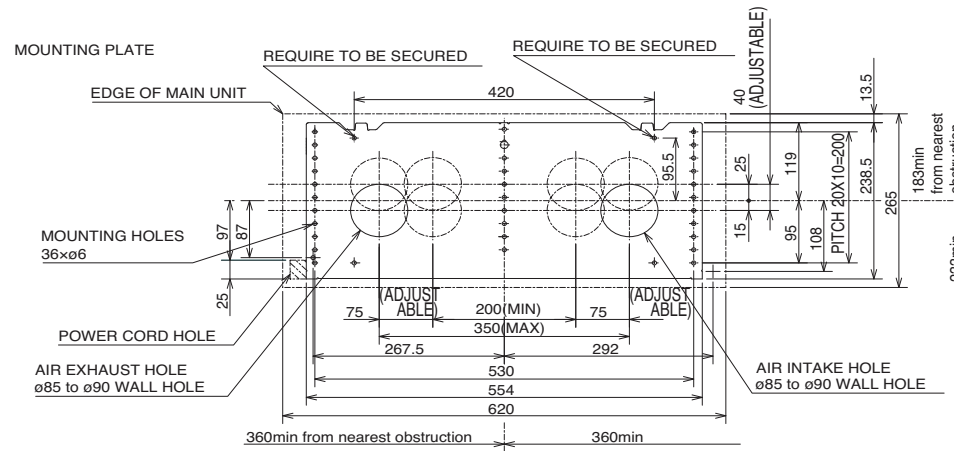
#### P-100PJ-E

Extension pipe joint for VL-100(E)U<sub>5</sub>-E (300mm)

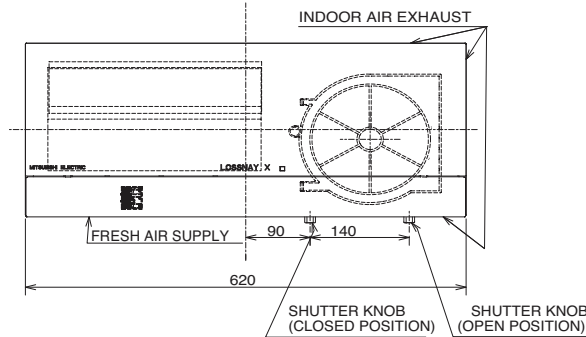
## Product Dimensions

### VL-100(E)U<sub>5</sub>-E

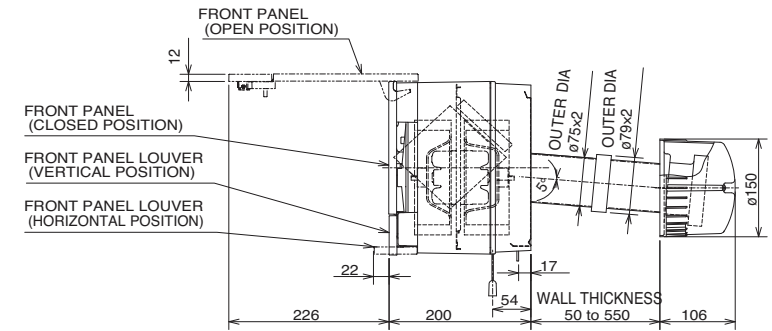
Front View



Upper View



Side View



Unit: mm

# VL-CZPVU-R/L-E

## Residential Lossnay

The **VL-CZPVU-R/L-E** residential Lossnay range of Mechanical Ventilation with Heat Recovery (MVHR) units create an environment of constant clean and healthy air at home. These systems are designed to continuously extract from bathrooms, kitchens, toilets and utility rooms where air can become polluted, whilst supplying a balanced flow of fresh air from outside to spaces such as bedrooms and living rooms. The Lossnay unit minimises the energy lost by recovering the heat from the extracted air, transferring this to the supplied fresh air.

### Key Features & Benefits

- Ultra quiet noise levels
- Optional filters placed within the MVHR unit for particulate matter and NOx
- Full summer bypass function with auto mode and settable temperature parameters
- Digital controller included for ease of commissioning and use
- Boost signal via live switch or volt free contact, with settable delay and overrun timers
- Cloud control
- Suitable for use in individual houses or in multi-residential apartment applications



MODEL		VL-250CZPVU-R/L-E	VL-350CZPVU-R/L-E	VL-500CZPVU-R/L-E
DIMENSIONS (mm)	Width x Depth x Height	595 x 386 x 563	658 x 462 x 623	725 x 586 x 632
WEIGHT (kg)		26	32	39
ELECTRICAL POWER SUPPLY		220-240V 50Hz	220-240V 50Hz	220-240V 50Hz
MAX RUNNING CURRENT (A)		1.0	1.32	2.3
SUMMER BYPASS		Full Bypass	Full Bypass	Full Bypass
SPIGOT DIAMETER (mm)		125	150	160 / 180
STANDARD FILTER (ISO 16890:2016/EN779:2012)	Outside Air	Coarse 55% / G3	Coarse 55% / G3	Coarse 55% / G3
	Return Air	Coarse 55% / G3	Coarse 55% / G3	Coarse 55% / G3
OPTIONAL FILTER(S)	Supply Air	NOx 90%	NOx 90%	NOx 90%
	Outside Air	ePM2.5 50%	ePM2.5 50%	ePM2.5 50%

SAP 2012 PCDB DATA	SFP W/(l/s)	HEAT EXCHANGE EFFICIENCY (%)	SFP W/(l/s)	HEAT EXCHANGE EFFICIENCY (%)	SFP W/(l/s)	HEAT EXCHANGE EFFICIENCY (%)
K + 1 (21 l/s)	0.62	90	0.86	90	0.80	91
K + 2 (29 l/s)	0.67	89	0.80	90	0.72	90
K + 3 (37 l/s)	0.79	88	0.84	89	0.74	90
K + 4 (45 l/s)	1.00	87	0.96	89	0.82	89
K + 5 (53 l/s)	1.19	87	1.08	88	0.91	88
K + 6 (61 l/s)	-	-	1.28	87	1.09	88
K + 7 (69 l/s)	-	-	-	-	1.24	88

## Accessories

### Remote Controllers

#### P-RCC-E

Remote controller cover and 1m cable with noise filter for VL-CZPVU-E

### Filters

#### P-250F-E

Replacement Coarse 55% / G3 filter for VL-250CZPVU-E

#### P-350F-E

Replacement Coarse 55% / G3 filter for VL-350CZPVU-E

#### P-500F-E

Replacement Coarse 55% / G3 filter for VL-500CZPVU-E

#### P-250PF-E

ePM<sub>2.5</sub> 50% / M6 filter for VL-250CZPVU-E

#### P-350PF-E

ePM<sub>2.5</sub> 50% / M6 filter for VL-350CZPVU-E

#### P-500PF-E

ePM<sub>2.5</sub> 50% / M6 filter for VL-500CZPVU-E

#### P-250NF-E

NOx 90% supply air filter for VL-250CZPVU-E

#### P-350NF-E

NOx 90% supply air filter for VL-350CZPVU-E

#### P-500NF-E

NOx 90% supply air filter for VL-500CZPVU-E

### Noise Attenuators

#### P-250SB-E

Acoustic top box for VL-250CZPVU-E

#### P-350SB-E

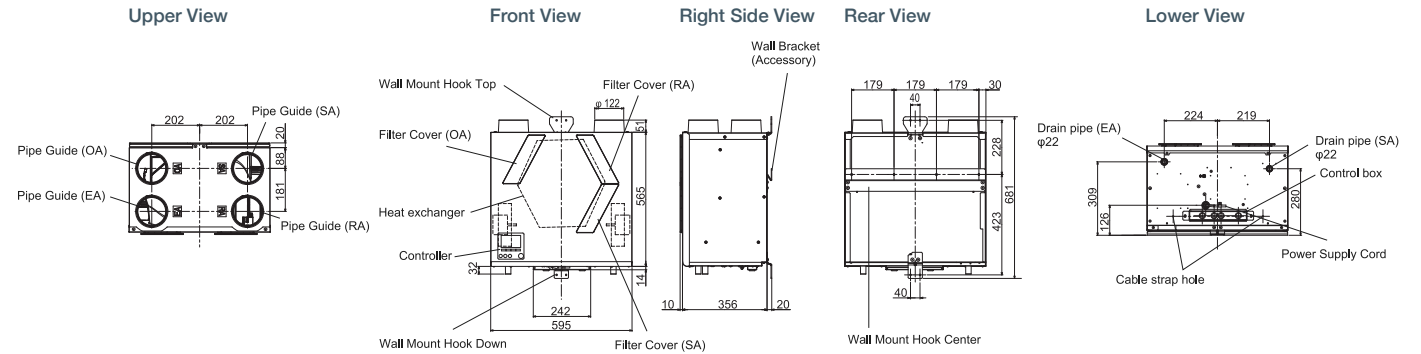
Acoustic top box for VL-350CZPVU-E

#### P-500SB-E

Acoustic top box for VL-500CZPVU-E

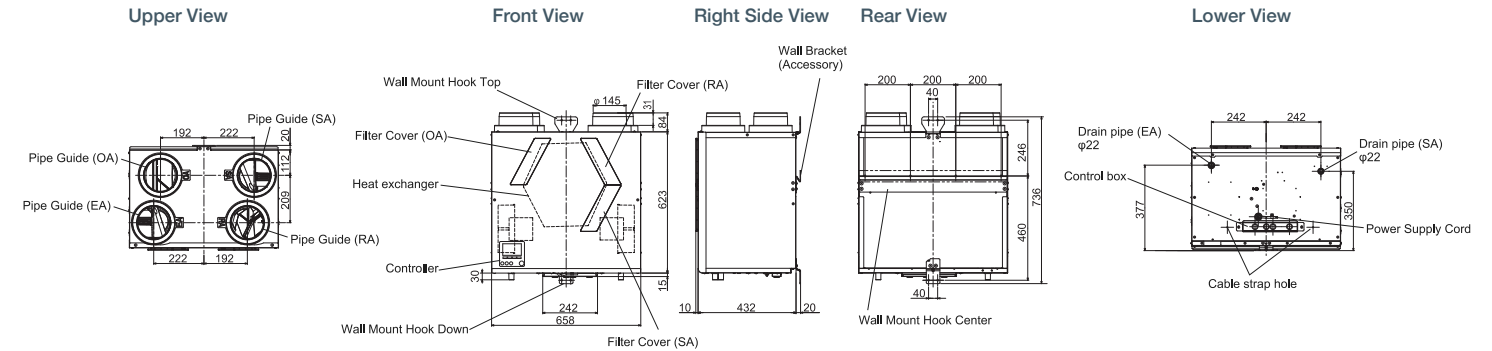
## Product Dimensions

### VL-250CZPVU-R/L-E



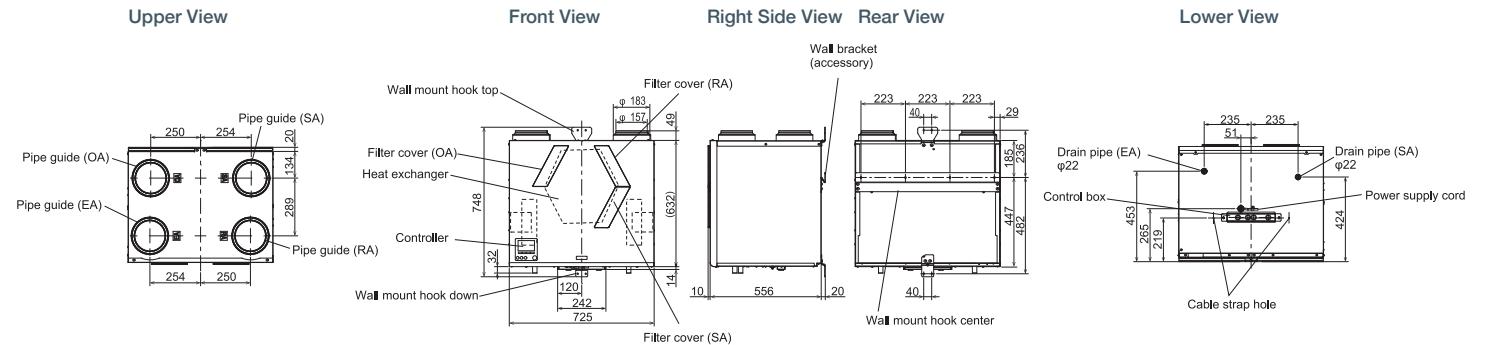
## Product Dimensions

### VL-350CZPVU-R/L-E



## Product Dimensions

### VL-500CZPVU-R/L-E



Notes: The above dimensional drawings are for a left sided unit. For the right sided unit dimensional drawings, please see the databook.

# GUG-SL-E

## Lossnay Air Processing DX Unit

Return Air Temperature Control  
(5.6 to 15.8kW)



The **GUG-SL-E** combines a Lossnay Mechanical Ventilation with Heat Recovery (MVHR) unit with a Mr Slim Power Inverter outdoor heat pump, to heat and cool the supply air delivered to the space. In return-temperature control mode, the combination of these technologies provides both the fresh air and temperature control to a space from a single system, offering an ideal solution for offices, schools & retail.

### Key Features & Benefits

- Effective fresh air ventilation for improved air quality
- Provides heat recovery ventilation and air conditioning from the same system
- Single system reduces installation time, cost and space
- Heating / cooling with no recirculation of extracted air in the space



MODEL		GUG50-56RAV	GUG65-66RAV	GUG80-83RAV	GUG100-113RAV	GUG150-157RAVT	GUG150-157RAYT	GUG150-158RAV
FAN SPEED 3 (75%)	Air Volume (l/s)	104	135	167	208	313	313	313
	External Static Pressure (Pa)	59	53	73	73	84	84	84
FAN SPEED 4 (100%)	Air Volume (l/s)	139	181	222	278	417	417	417
	External Static Pressure (Pa)	105	95	130	130	150	150	150
HEATING CAPACITY <sup>1</sup> (kW)	DX Coil Capacity	4.1	4.5	6.0	8.1	13.0	13.0	13.0
	Heat Recovery Capacity	2.4	3.2	4.0	5.1	7.4	7.4	7.7
	Total Capacity	6.5	7.7	10.0	13.2	20.4	20.4	20.7
COOLING CAPACITY <sup>1</sup> (kW)	DX Coil Capacity	3.6	4.0	5.0	7.1	9.5	9.5	9.5
	Heat Recovery Capacity	2.0	2.6	3.3	4.2	6.2	6.2	6.3
	Total Capacity	5.6	6.6	8.3	11.3	15.7	15.7	15.8
SHF	Nominal	0.66	0.69	0.69	0.66	0.68	0.68	0.68
SYSTEM POWER INPUT (kW)	Heating (nominal)	1.59	1.63	2.17	2.99	5.01	5.01	4.88
	Cooling (nominal)	1.2	1.31	1.75	2.27	3.12	3.12	3
PERFORMANCE INDEX <sup>2</sup>	Heating (nominal)	4.09	4.72	4.62	4.42	4.07	4.07	4.24
	Cooling (nominal)	4.69	5.03	4.76	4.98	5.03	5.03	5.27
MAX PIPE LENGTH (m)		50	50	50	50	75	75	75
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30	30
PIPE SIZE mm(in)	Gas	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
GUG DIMENSIONS (mm)	Width x Depth x Height	812 x 607 x 330	812 x 607 x 330	1034 x 607 x 394	1034 x 607 x 394	1130 x 576 x 404	1130 x 576 x 404	1130 x 576 x 404
GUG WEIGHT (kg)		21	21	26	26	28	28	28
GUG ELECTRICAL SUPPLY (supplied from outdoor unit) <sup>3</sup>		220-240v / 50Hz	220-240v / 50Hz	220-240v / 50Hz	220-240v / 50Hz	220-240v / 50Hz	220-240v / 50Hz	220-240v / 50Hz
GUG UNIT <sup>4</sup>		GUG-01SL-E	GUG-01SL-E	GUG-02SL-E	GUG-02SL-E	GUG-03SL-E	GUG-03SL-E	GUG-03SL-E
MR SLIM OUTDOOR UNIT		PUHZ-ZRP35VKA2	PUHZ-ZRP35VKA2	PUHZ-ZRP50VKA2	PUHZ-ZRP71VHA2	PUHZ-ZRP100VKA3	PUHZ-ZRP100VKA3	PUHZ-ZRP100VKA3
LOSSNAY UNIT		LGH-50RVX-E	LGH-65RVX-E	LGH-80RVX-E	LGH-100RVX-E	LGH-150RVXT-E	LGH-150RVXT-E	LGH-150RVX-E
LOSSNAY CONTROLLER		PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E

#### Notes:

<sup>1</sup> The cooling and heating capacities are based on the rated airflow of fan speed 4 and the following air conditions: Cooling Indoor: 27°CDB/19°CWB Outdoor: 35°CDB/24°CWB. Heating Indoor: 20°CDB/15°CWB Outdoor: 7°CDB/6°CWB

<sup>2</sup> Performance index is the total capacity divided by the total power consumption of the outdoor unit and Lossnay at the conditions above.

<sup>3</sup> For electrical power requirements for Lossnay and Mr Slim outdoor unit, please refer to their respective sections

<sup>4</sup> GUG unit includes a dedicated controller



# GUG-SL-E

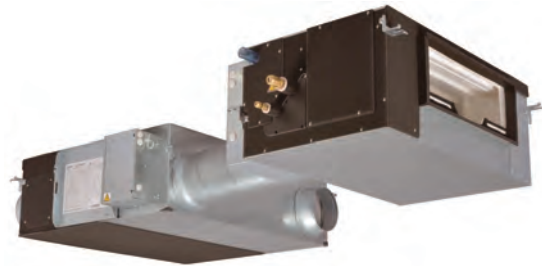
## Lossnay Air Processing DX Unit

Return Air Temperature Control  
(15.8 to 22.3kW)

The **GUG-SL-E** combines a Lossnay Mechanical Ventilation with Heat Recovery (MVHR) unit with a Mr Slim Power Inverter outdoor heat pump, to heat and cool the supply air delivered to the space. In return-temperature control mode, the combination of these technologies provides both the fresh air and temperature control to a space from a single system, offering an ideal solution for offices, schools & retail.

### Key Features & Benefits

- Effective fresh air ventilation for improved air quality
- Provides heat recovery ventilation and air conditioning from the same system
- Single system reduces installation time, cost and space
- Heating / cooling with no recirculation of extracted air in the space



MODEL		GUG150-156RAY	GUG200-184RAV	GUG200-184RAY	GUG200-184RAVT	GUG200-184RAYT	GUG250-223RAVT	GUG250-223RAYT
FAN SPEED 3 (75%)	Air Volume (l/s)	313	417	417	417	417	521	521
	External Static Pressure (Pa)	84	59	59	82	82	79	79
FAN SPEED 4 (100%)	Air Volume (l/s)	417	556	556	556	556	694	694
	External Static Pressure (Pa)	150	105	105	145	145	140	140
HEATING CAPACITY <sup>1</sup> (kW)	DX Coil Capacity	13	13.5	13.5	13.5	13.5	14	14
	Heat Recovery Capacity	7.7	10.3	10.3	10.3	10.3	12.1	12.1
	Total Capacity	20.7	23.8	23.8	23.8	23.8	26.1	26.1
COOLING CAPACITY <sup>1</sup> (kW)	DX Coil Capacity	9.5	10.0	10.0	10.0	10.0	12.5	12.5
	Heat Recovery Capacity	6.3	8.4	8.4	8.4	8.4	9.8	9.8
	Total Capacity	15.8	18.4	18.4	18.4	18.4	22.3	22.3
SHF	Nominal	0.68	0.76	0.76	0.76	0.76	0.87	0.87
SYSTEM POWER INPUT (kW)	Heating (nominal)	4.88	4.74	4.74	4.89	4.89	5.49	5.49
	Cooling (nominal)	3.00	3.14	3.14	3.29	3.29	4.86	4.86
PERFORMANCE INDEX <sup>2</sup>	Heating (nominal)	4.24	5.02	5.02	4.86	4.86	4.75	4.75
	Cooling (nominal)	5.27	5.86	5.86	5.59	5.59	4.59	4.59
MAX PIPE LENGTH (m)		75	75	75	75	75	75	75
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30	30
PIPE SIZE mm(in)	Gas	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
GUG DIMENSIONS (mm)	Width x Depth x Height	1130 x 576 x 404	1130 x 576 x 404	1130 x 576 x 404	1130 x 576 x 404	1130 x 576 x 404	1130 x 576 x 404	1130 x 576 x 404
GUG WEIGHT (kg)		28	28	28	28	28	28	28
GUG ELECTRICAL SUPPLY (supplied from outdoor unit) <sup>3</sup>		220-240V / 50Hz	220-240V / 50Hz	220-240V / 50Hz	220-240V / 50Hz	220-240V / 50Hz	220-240V / 50Hz	220-240V / 50Hz
GUG UNIT <sup>4</sup>		GUG-03SL-E	GUG-03SL-E	GUG-03SL-E	GUG-03SL-E	GUG-03SL-E	GUG-03SL-E	GUG-03SL-E
MR SLIM OUTDOOR UNIT		PUHZ-ZRP100YKA3	PUHZ-ZRP100VKA3	PUHZ-ZRP100YKA3	PUHZ-ZRP100VKA3	PUHZ-ZRP100YKA3	PUHZ-ZRP125VKA3	PUHZ-ZRP125YKA3
LOSSNAY UNIT		LGH-150RVX-E	LGH-200RVX-E	LGH-200RVX-E	LGH-200RVXT-E	LGH-200RVXT-E	LGH-250RVXT-E	LGH-250RVXT-E
LOSSNAY CONTROLLER		PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E

#### Notes:

<sup>1</sup> The cooling and heating capacities are based on the rated airflow of fan speed 4 and the following air conditions: Cooling Indoor: 27°CDB/19°CWB Outdoor: 35°CDB/24°CWB. Heating Indoor: 20°CDB/15°CWB Outdoor: 7°CDB/6°CWB

<sup>2</sup> Performance index is the total capacity divided by the total power consumption of the outdoor unit and Lossnay at the conditions above.

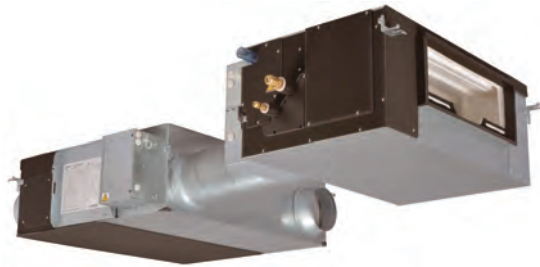
<sup>3</sup> For electrical power requirements for Lossnay and Mr Slim outdoor unit, please refer to their respective sections

<sup>4</sup> GUG unit includes a dedicated controller

# GUG-SL-E

## Lossnay Air Processing DX Unit

Supply Air Temperature Control  
(8.3-17.6kW)



The **GUG-SL-E** combines a Lossnay Mechanical Ventilation with Heat Recovery (MVHR) unit with a Mr Slim Power Inverter outdoor heat pump, to heat and cool the supply air delivered to the space. In supply air temperature control mode, the combination of both technologies provides effective tempering of fresh air entering a space, taking the load off other cooling/heating services, whilst eliminating any chance of draughts.

### Key Features & Benefits

- Effective fresh air ventilation for improved air quality
- Provides heat recovery ventilation and air conditioning from the same system
- Single system reduces installation time, cost and space
- Heating / cooling with no recirculation of extracted air in the space



MODEL		GUG80-83SAV	GUG100-95SAV	GUG150-133SAVT	GUG150-134SAV	GUG200-159SAV	GUG200-159SAVT	GUG250-176SAVT
FAN SPEED 3 (75%)	Air Volume (l/s)	167	208	313	313	417	417	521
	External Static Pressure (Pa)	73	73	84	84	59	82	79
FAN SPEED 4 (100%)	Air Volume (l/s)	222	278	417	417	556	556	694
	External Static Pressure (Pa)	130	130	150	150	105	145	140
HEATING CAPACITY <sup>1</sup> (kW)	DX Coil Capacity	6.0	6.3	8.9	8.9	9.2	9.2	9.5
	Heat Recovery Capacity	4.0	5.1	7.4	7.7	10.3	10.3	12.1
	Total Capacity	10.0	11.4	16.3	16.6	19.5	19.5	21.6
COOLING CAPACITY <sup>1</sup> (kW)	DX Coil Capacity	5.0	5.3	7.1	7.1	7.4	7.4	7.8
	Heat Recovery Capacity	3.3	4.2	6.2	6.3	8.5	8.5	9.8
	Total Capacity	8.3	9.5	13.3	13.4	15.9	15.9	17.6
SHF	Nominal	0.69	0.73	0.86	0.85	0.90	0.90	0.95
SYSTEM POWER INPUT (kW)	Heating (nominal)	2.17	2.24	3.16	3.04	3.10	3.25	3.62
	Cooling (nominal)	1.75	1.75	2.64	2.52	2.72	2.87	3.32
PERFORMANCE INDEX <sup>2</sup>	Heating (nominal)	4.62	5.09	5.16	5.46	6.30	6.01	5.97
	Cooling (nominal)	4.76	5.43	5.03	5.32	5.85	5.54	5.31
MAX PIPE LENGTH (m)		50	50	50	50	50	50	50
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30	30
PIPE SIZE mm(in)	Gas	12.7 (1/2")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
GUG DIMENSIONS (mm)	Width x Depth x Height	1034 x 607 x 394	1034 x 607 x 394	1130 x 576 x 404	1130 x 576 x 404	1130 x 576 x 404	1130 x 576 x 404	1130 x 576 x 404
GUG WEIGHT (kg)		26	26	28	28	28	28	28
GUG ELECTRICAL SUPPLY (supplied from outdoor unit) <sup>3</sup>		220-240V / 50Hz	220-240V / 50Hz	220-240V / 50Hz	220-240V / 50Hz	220-240V / 50Hz	220-240V / 50Hz	220-240V / 50Hz
GUG UNIT <sup>4</sup>		GUG-02SL-E	GUG-02SL-E	GUG-03SL-E	GUG-03SL-E	GUG-03SL-E	GUG-03SL-E	GUG-03SL-E
MR SLIM OUTDOOR UNIT		PUHZ-ZRP50VKA2	PUHZ-ZRP50VKA2	PUHZ-ZRP71VHA2	PUHZ-ZRP71VHA2	PUHZ-ZRP71VHA2	PUHZ-ZRP71VHA2	PUHZ-ZRP71VHA2
LOSSNAY UNIT		LGH-80RVX-E	LGH-100RVX-E	LGH-150RVXT-E	LGH-150RVX-E	LGH-200RVX-E	LGH-200RVXT-E	LGH-250RVXT-E
LOSSNAY CONTROLLER		PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E	PZ-61DR-E

#### Notes:

<sup>1</sup> The cooling and heating capacities are based on the rated airflow of fan speed 4 and the following air conditions: Cooling Indoor: 27°CDB/19°CWB Outdoor: 35°CDB/24°CWB. Heating Indoor: 20°CDB/15°CWB Outdoor: 7°CDB/6°CWB

<sup>2</sup> Performance index is the total capacity divided by the total power consumption of the outdoor unit and Lossnay at the conditions above.

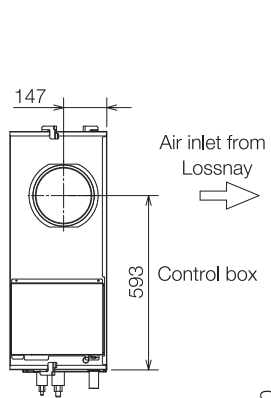
<sup>3</sup> For electrical power requirements for Lossnay and Mr Slim outdoor unit, please refer to their respective sections

<sup>4</sup> GUG unit includes a dedicated controller

**Product Dimensions**

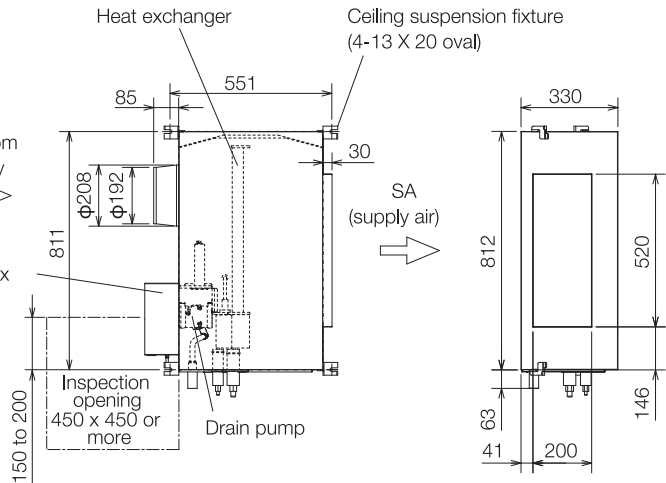
**GUG-01SL-E**

**Left Side View**

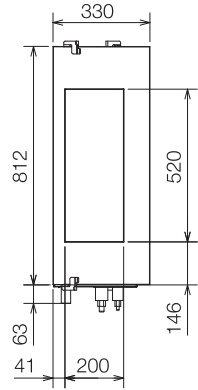


An inspection opening is required for installation and regular maintenance (check) of the drain pump.

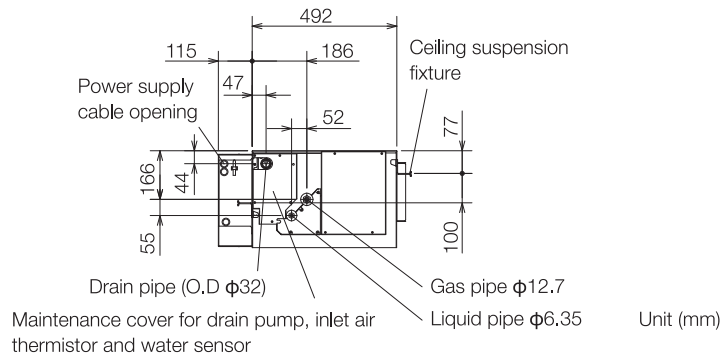
**Upper View**



**Right Side View**



**Front View**

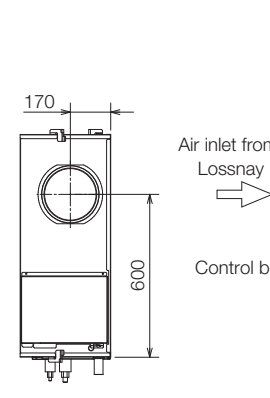


Unit (mm)

**Product Dimensions**

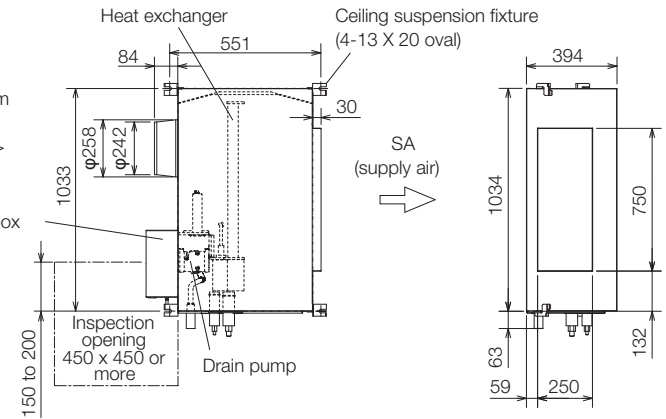
**GUG-02SL-E**

**Left Side View**

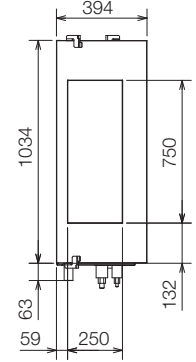


An inspection opening is required for installation and regular maintenance (check) of the drain pump. When SA temp. control is selected, another inspection opening may be required in front of the unit for SA thermistor replacement only when an error occurred on the SA thermistor.

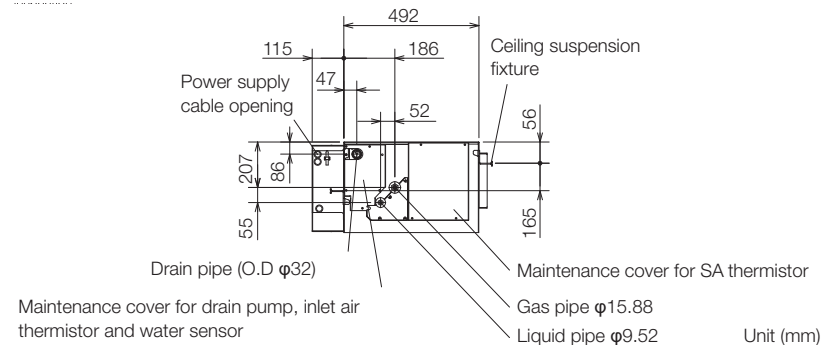
**Upper View**



**Right Side View**

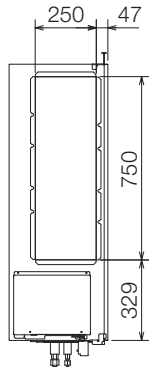


**Front View**



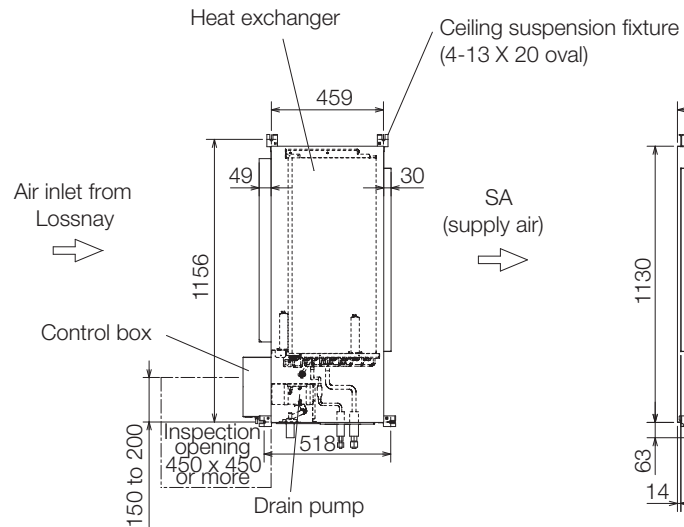
Unit (mm)

Left Side View

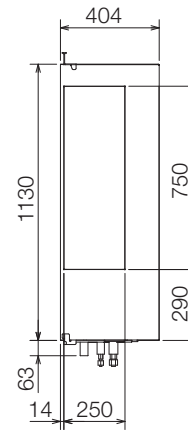


An inspection opening is required for installation and regular maintenance (check) of the drain pump. When SA temp. control is selected, another inspection opening may be required in front of the unit for SA thermistor replacement only when an error occurred on the SA thermistor.

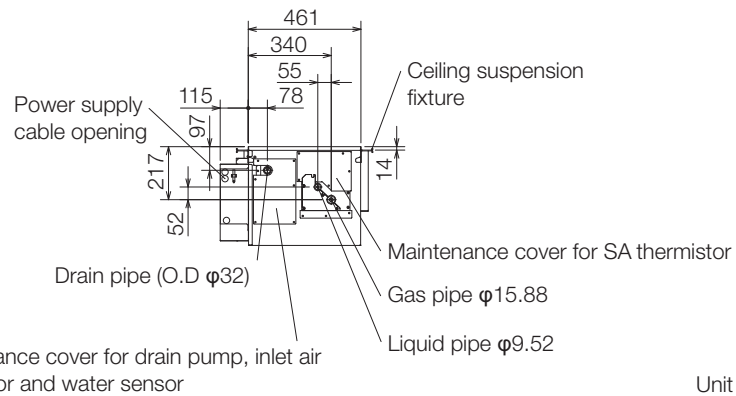
Upper View



Right Side View

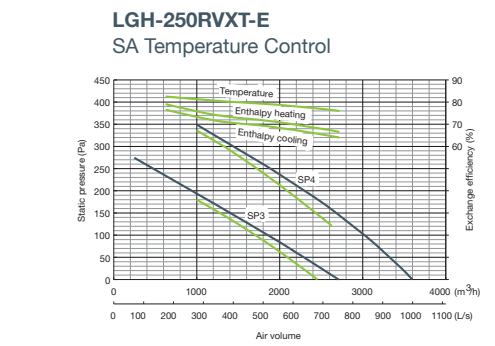
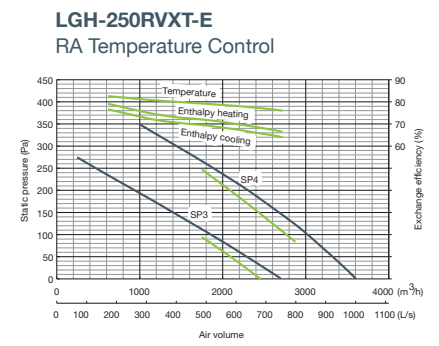
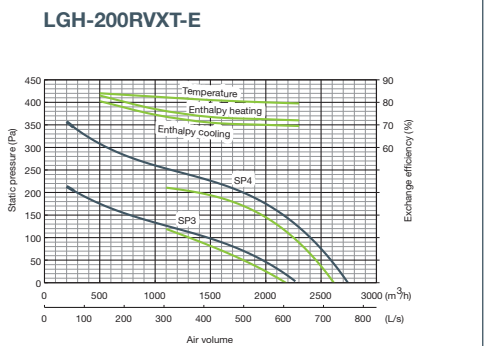
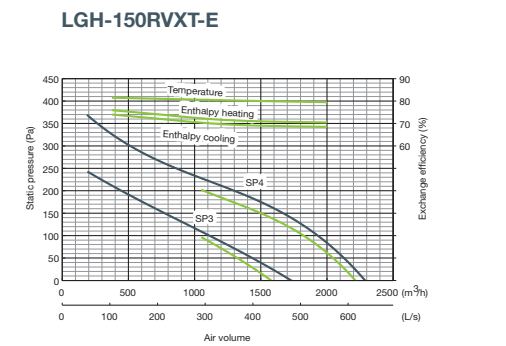
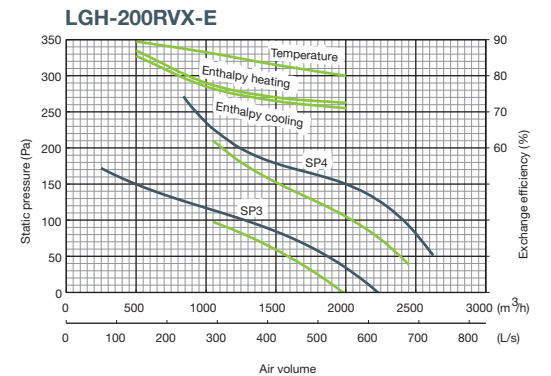
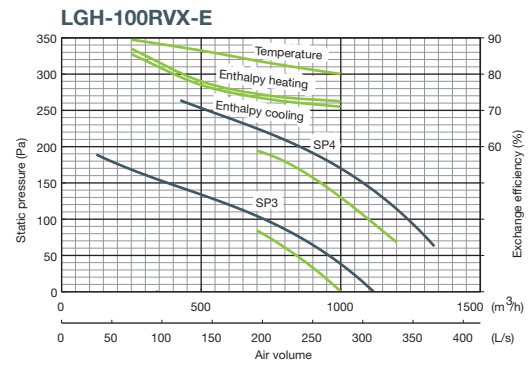
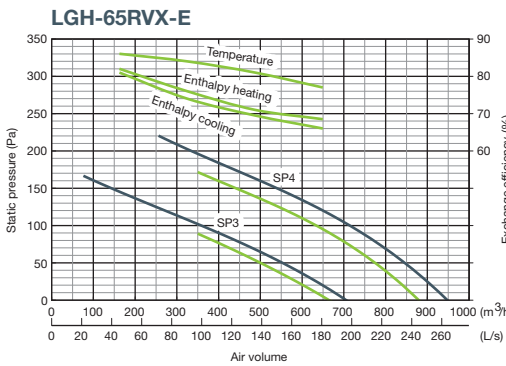
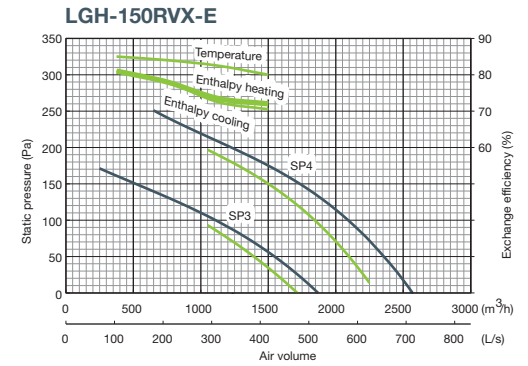
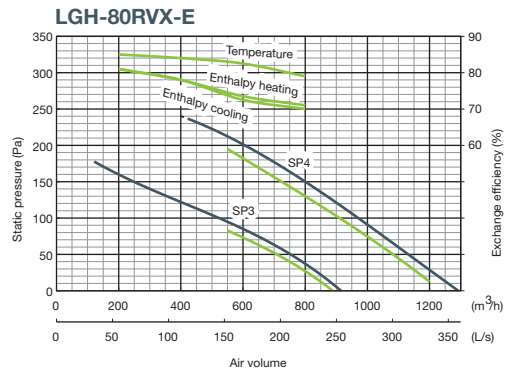
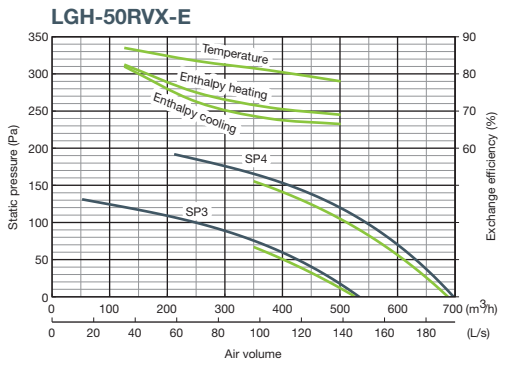


Front View



Unit (mm)

# GUG-SL-E Fan Curve Characteristics



— With GUG-01SLE-E — Without GUG-01SLE-E

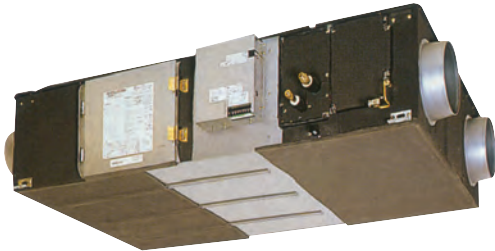
# GUF-RD4

## Lossnay Outdoor Air Processing Unit

The **GUF-RD4** fresh air processing units combine a Lossnay Mechanical Ventilation with Heat Recovery (MVHR) unit with a DX coil connectable to a VRF system, to heat and cool the supply air delivered to the space. The combination of these technologies provides effective tempering of fresh air entering commercial spaces, taking the load off other cooling/heating services, and eliminating any chance of draughts.

### Key Features & Benefits

- Smart combination of a Lossnay & City Multi indoor unit, integrated into one model
- Single unit saves on space and installation costs
- Uses heat recovery technology for maximum energy efficiency
- Heating / cooling with no recirculation of extracted air in the space
- Benefits from free cooling when ambient conditions allow



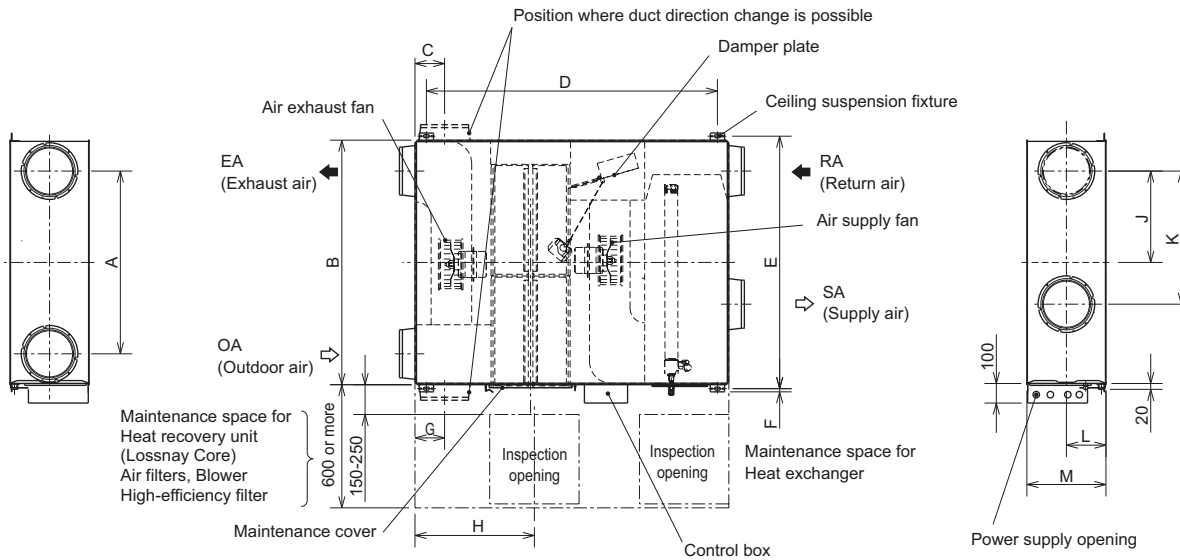
MODEL		GUF-50RD4	GUF-100RD4
CAPACITY (kW)	Heating (nominal)	6.21 (2.04)	12.56 (4.26)
	Cooling (nominal)	5.57 (1.94)	11.44 (4.12)
	UK Heating (High Performance)	6.42 (2.25)	13.00 (4.70)
	UK Heating (COP Priority)	5.93 (2.08)	12.01 (4.34)
	UK Total Cooling	5.03 (1.58)	10.27 (3.32)
POWER INPUT (kW)	Lo-Hi	0.150 / 0.265	0.370 / 0.505
AIRFLOW (m³/h)	Lo-Hi	400-500	800-1000
EXTERNAL STATIC PRESSURE (Pa)	Lo-Hi	90 - 140	90 - 140
TEMPERATURE EXCHANGE EFFICIENCY (%)	Lo-Hi	80 - 77.5	81.5 - 79.5
SOUND PRESSURE LEVEL (dBA)	Lo-Hi	29.5 - 34.5	34 - 39
WEIGHT (kg)		54	92
DIMENSIONS (mm)	Width	1016	1231
	Depth	1288	1580
	Height	317	398
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single
RUNNING CURRENT (A)	Lo-Hi	0.70-1.15	1.73-2.20
FUSE RATING (BS88) - HRC (A)		6	6
MAINS CABLE No. Cores		3	3

Notes: The figures in ( ) indicate the heat recovery at Lossnay core. Total value is capacity of Lossnay core and refrigerant coil. The current and input are based on the above air volume. The sound pressure at the air outlets (45° angle 1.5m ahead) is about 6dBA greater than the indicated value (high speed). Specifications may be subject to change without notice.

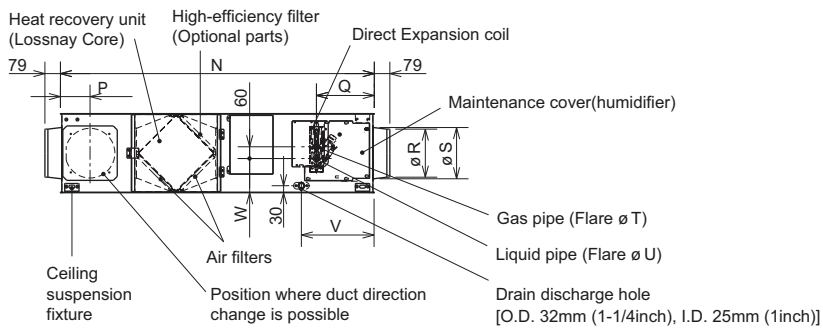
Side View

Upper View

Side View



Front View



Model	A	B	C	D	E	F	G	H	J	K	L
GUF-50RD4	745	1,016	124	1,185	1,048	22	124	450	372.5	435	158.5
GUF-100RD4	920	1,231	149	1,465	1,271	16	149	600	460	670	199
Model	M	N	P	Q	R	S	T	U	V	W	Y
GUF-50RD4	317	1,288	124	266	192	208	12.7	6.35	347	99	135
GUF-100RD4	398	1,580	149	280	242	258	15.88	9.52	361	110	169

# WizardX E-OU

## Air Handling Unit



The **Climaveneta Wizard Air Handling Units (AHUs)** utilise a combination of Mr Slim Power Inverter heat pump technology, efficient thermal wheel heat recovery technology and an integrated controls system. The result is a highly advanced, flexible and efficient ventilation solution, ideal for commercial applications such as offices, where centralised ventilation is required.

### Key Features & Benefits

- Uses energy efficient Mr Slim Power Inverter heat pump technology to heat and cool the supply air
- Thermal wheel with hygroscopic coating enables energy efficient heat recovery
- Fully integrated controls and single point power supply for ease of installation
- Tailored ventilation through easy air flow commissioning with selectable target air volume control
- Constant volume EC plug fans enable effective ventilation with minimum energy use
- Units available in sections with all fixings, wiring and electrical connectors included



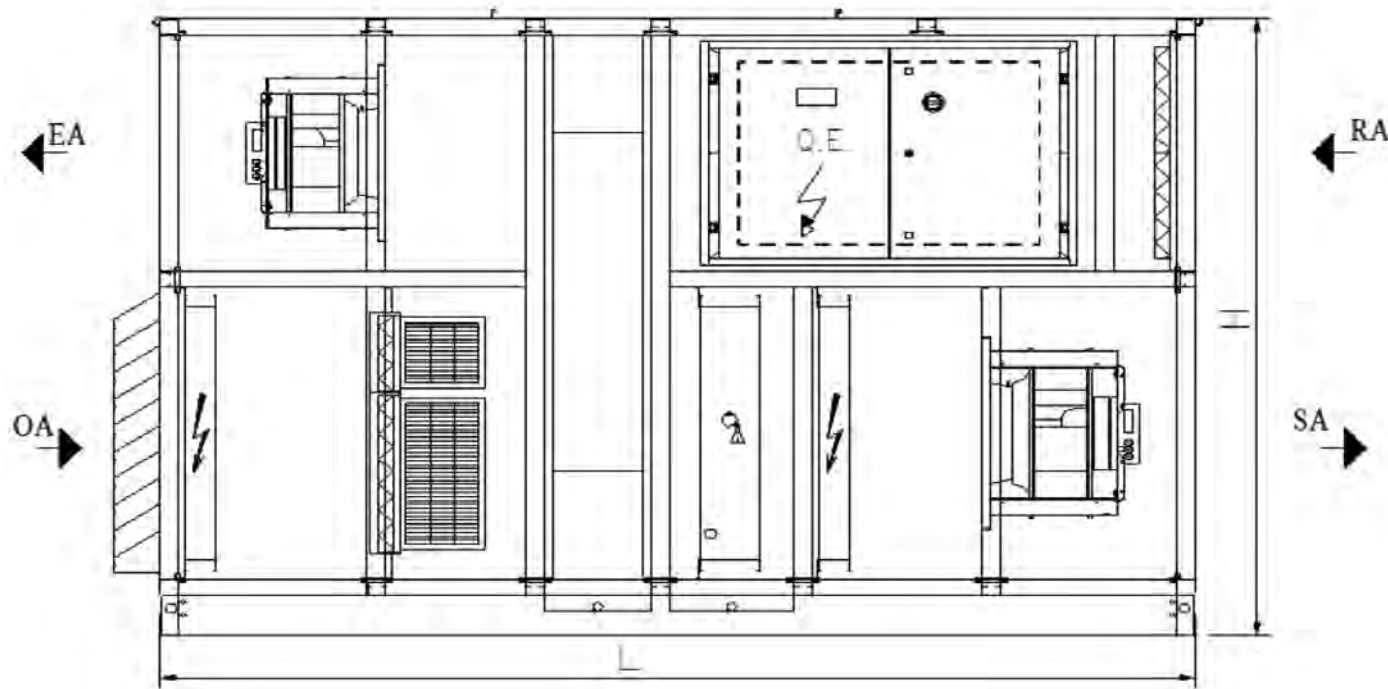
MODEL	WIZARDX E-OU 3000	WIZARDX E-OU 5000	WIZARDX E-OU 7500	WIZARDX E-OU 10000	WIZARDX E-OU 12500	WIZARDX E-OU 15000	WIZARDX E-OU 20000	
RATED AIR VOLUME (m <sup>3</sup> /s)	0.83	1.39	2.08	2.78	3.47	4.17	5.56	
AIR VOLUME RANGE (m <sup>3</sup> /s)	0.56 - 0.83	0.97 - 1.39	1.53 - 2.08	2.22 - 2.78	2.92 - 3.47	3.61 - 4.17	4.31 - 5.56	
EXTERNAL STATIC PRESSURE (Pa)	Standard fans	250	250	250	250	250	250	
	Up-rated fans	400	400	400	400	400	400	
COOLING CAPACITY (kW)	DX Coil Capacity	9.38	18.9	23.6	37.5	39.7	70.6	
	Wheel Recovery Capacity	24	39.4	57.7	77.8	96.2	160	
	Total Capacity	33.38	58.3	81.3	115.3	135.9	230.6	
HEATING CAPACITY (kW)	DX Coil Capacity	8.48	16.8	20.9	33.7	35.9	61	
	Wheel Recovery Capacity	30.9	49.9	73.6	98.9	123	206	
	Total Capacity	39.38	66.7	94.5	132.6	158.9	267	
HEAT RECOVERY EFFICIENCY (%)	79	75.5	74.7	75.1	74.7	74.6	78.9	
SPECIFIC FAN POWER (SFPint) (W/(l/s))	0.96	0.77	0.76	0.75	0.74	0.8	0.91	
SOUND POWER LEVEL (dB(A))	Fresh/Outdoor	71	78	73	77	81	80	
	Supply	78	85	79	83	87	87	
	Return	69	78	71	75	81	79	
	Exhaust	76	85	77	82	87	85	
	Breakout	60	67	63	67	72	71	
UNIT DIMENSIONS (WxDxH) <sup>1</sup> (mm)	3400x1000x1600	3400x1400x1600	3400x1500x2200	3400x1800x2200	3400x2000x2300	3800x2200x2360	3800x2500x2820	
WEIGHT (kg)	850	1000	1150	1350	1600	1950	2300	
STANDARD FILTRATION	Fresh air 1st stage	ISO Coarse 50% / G4						
	Fresh air 2nd stage	ISO ePM1 50% / F7 Bag Filter						
	Return air	ISO Coarse 50% / G4						
CONSTRUCTION	Profiles	60mm aluminium						
	Panels	45mm sandwich panels, galvanised steel sheets with a pre-plastified external finish						
	Insulation	45 kg/m <sup>3</sup> density polyurethane foam						
*EN1886 ACHIEVED CLASSES (Deflection/Leakage/Filter bypass/Thermal transmittance/Thermal bridging)*							D1(M), L3, F9, T3, TB4	
OPERATING RANGES (°C DB)	Target Supply Air Setpoint	17 - 28						
	DX On Coil Cooling	15 - 32						
	DX On Coil Heating	5 - 28						
ELECTRICAL POWER REQUIREMENTS							400VAC / 3ph+Positive Earth / 50Hz	
COMPATIBLE OUTDOOR UNITS	Power Inverter (R410A)	2 x PUHZ-ZRP50	2 x PUHZ-ZRP100	2 x PUHZ-ZRP125	2 x PUHZ-ZRP200	3 x PUHZ-ZRP140	2 x PUHZ-ZRP250	3 x PUHZ-ZRP250
	Standard Inverter (R410A)	Not Compatible	Not Compatible	Not Compatible	2 x PUHZ-P200	Not Compatible	2 x PUHZ-P250	3 x PUHZ-P250

Note: Please refer to Mr Slim section for outdoor unit specification data. The specification data is based on the rated conditions below, at the rated air flows.  
\*1 Units in sections as an option will include extra profiles, increasing the weight and dimensions of the final unit.

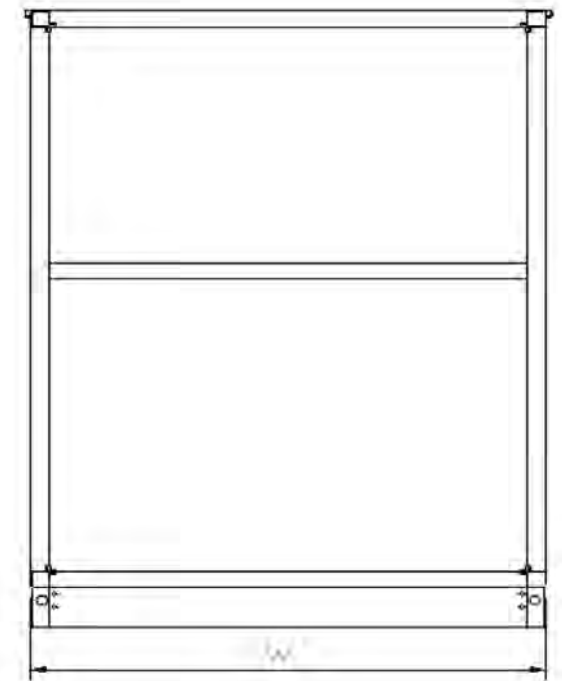
RATED CONDITIONS	SUMMER		WINTER	
INDOOR	23°C DB	50% RH	21°C DB	50% RH
OUTDOOR	35°C DB	50% RH	-5°C DB	85% RH



Front View



Side View



MODEL	Q [m³/h]	W [mm]	H [mm]	L [mm]	STANDARD WEIGHT [kg]
E-OU 3000	3000	1000	1600	3400	850
E-OU 5000	5000	1400	1600	3400	1000
E-OU 7500	7500	1500	2200	3400	1150
E-OU 10000	10000	1800	2200	3400	1350
E-OU 12500	12500	2000	2300	3400	1600
E-OU 15000	15000	2200	2360	3800	1950
E-OU 20000	20000	2500	2820	3800	2300

# Ventilation Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>Remote Controllers</b>	
Lossnay Remote Controller for LGH-RVX(T)-E and LGH-RVS-E	PZ-62DR-E
<b>LGH-RVX-E</b>	
Replacement Coarse 35% / G3 filter for LGH-15RVX-E	PZ-15RF8-E
Replacement Coarse 35% / G3 filter for LGH-25RVX-E	PZ-25RF8-E
Replacement Coarse 35% / G3 filter for LGH-35RVX-E	PZ-35RF8-E
Replacement Coarse 35% / G3 filter for LGH-50RVX-E	PZ-50RF8-E
Replacement Coarse 35% / G3 filter for LGH-65RVX-E	PZ-65RF8-E
Replacement Coarse 35% / G3 filter for LGH-80RVX-E / LGH-150RVX-E (2 sets)	PZ-80RF8-E
Replacement Coarse 35% / G3 filter for LGH-100RVX-E / LGH-200RVX-E (2 sets)	PZ-100RF8-E
ePM <sub>1</sub> 75% filter for LGH-15RVX-E	PZ-15RFP2-E
ePM <sub>1</sub> 75% filter for LGH-25RVX-E	PZ-25RFP2-E
ePM <sub>1</sub> 75% filter for LGH-35RVX-E	PZ-35RFP2-E
ePM <sub>1</sub> 75% filter for LGH-50RVX-E	PZ-50RFP2-E
ePM <sub>1</sub> 75% filter for LGH-65RVX-E	PZ-65RFP2-E
ePM <sub>1</sub> 75% filter for LGH-80RVX-E / LGH-150RVX-E (2 sets)	PZ-80RFP2-E
ePM <sub>1</sub> 75% filter for LGH-100RVX-E / LGH-200RVX-E (2 sets)	PZ-100RFP2-E
<b>LGH-RVXT-E</b>	
ePM <sub>10</sub> 75% / M6 filter for LGH-RVXT-E	PZ-M6RTFM-E
ePM <sub>1</sub> 65% / F8 filter for LGH-RVXT-E	PZ-F8RTFM-E
<b>LGH-RVS-E</b>	
Replacement Coarse 35% / G3 filter for LGH-50RVS-E	PZ-S50RF-E
Replacement Coarse 35% / G3 filter for LGH-80RVS-E	PZ-S80RF-E
Replacement Coarse 35% / G3 filter for LGH-100RVS-E	PZ-S100RF-E
ePM <sub>10</sub> 80% / M6 filter for LGH-50RVS-E	PZ-S50RFM-E
ePM <sub>10</sub> 80% / M6 filter for LGH-80RVS-E	PZ-S80RFM-E
ePM <sub>10</sub> 80% / M6 filter for LGH-100RVS-E	PZ-S100RFM-E
ePM <sub>1</sub> 65% / F8 filter for LGH-50RVS-E	PZ-S50RFH-E
ePM <sub>1</sub> 65% / F8 filter for LGH-80RVS-E	PZ-S80RFH-E
ePM <sub>1</sub> 65% / F8 filter for LGH-100RVS-E	PZ-S100RFH-E
Wall mounted plug and play CO <sub>2</sub> sensor with traffic light signals for LGH-RVS-E	PZ-70CSW-E
Unit mounted plug and play CO <sub>2</sub> sensor for LGH-RVS-E	PZ-70CSB-E
<b>VL-100(E)U<sub>5</sub>-E</b>	
ePM <sub>10</sub> 70% / M6 filter for VL-100(E)U <sub>5</sub> -E	P-100HF5-E
Extension pipe for VL-100(E)U <sub>5</sub> -E	P-100P-E
Extension pipe joint for VL-100(E)U <sub>5</sub> -E	P-100PJ-E
<b>VL-CZPVU-E</b>	
Replacement Coarse 55% / G3 filter for VL-250CZPVU-E	P-250F-E
Replacement Coarse 55% / G3 filter for VL-350CZPVU-E	P-350F-E
Replacement Coarse 55% / G3 filter for VL-500CZPVU-E	P-500F-E
ePM <sub>2.5</sub> 50% / M6 filter for VL-250CZPVU-E	P-250PF-E
ePM <sub>2.5</sub> 50% / M6 filter for VL-350CZPVU-E	P-350PF-E
ePM <sub>2.5</sub> 50% / M6 filter for VL-500CZPVU-E	P-500PF-E
NOx 90% supply air filter for VL-250CZPVU-E	P-250NF-E
NOx 90% supply air filter for VL-350CZPVU-E	P-350NF-E
NOx 90% supply air filter for VL-500CZPVU-E	P-500NF-E
Acoustic top box for VL-250CZPVU-E	P-250SB-E
Acoustic top box for VL-350CZPVU-E	P-350SB-E
Acoustic top box for VL-500CZPVU-E	P-500SB-E
Remote controller cover and 1m cable with noise filter for VL-CZPVU-E	P-RCC-E
<b>Weather Proof Housings</b>	
Lossnay weather proof housings are also available for LGH-RVX-E	

# Ventilation Accessories / Optional Extras

WizardX E-OU Optional Accessories	MODEL						
	E-OU 3000	E-OU 5000	E-OU 7500	E-OU 10000	E-OU 12500	E-OU 15000	E-OU 20000
High static pressure supply fan (400 Pa)	WD-3000 B501	WD-5000 B501	WD-7500 B501	WD-10000 B501	WD-12500 B501	WD-15000 B501	WD-20000 B501
High static pressure exhaust fan (400 Pa)	WD-3000 B511	WD-5000 B511	WD-7500 B511	WD-10000 B511	WD-12500 B511	WD-15000 B511	WD-20000 B511
Pre-heating electric coil	WD-3000 B531	WD-5000 B531	WD-7500 B531	WD-10000 B531	WD-12500 B531	WD-15000 B531	WD-20000 B531
Re-heating electric coil	WD-3000 1333	WD-5000 1333	WD-7500 1333	WD-10000 1333	WD-12500 1333	WD-15000 1333	WD-20000 1333
Pre-heating water coil	WD-3000 B532	WD-5000 B532	WD-7500 B532	WD-10000 B532	WD-12500 B532	WD-15000 B532	WD-20000 B532
Re-heating water coil	WD-3000 1331	WD-5000 1331	WD-7500 1331	WD-10000 1331	WD-12500 1331	WD-15000 1331	WD-20000 1331
Steam humidification system	WD-3000 B591	WD-5000 B591	WD-7500 B591	WD-10000 B591	WD-12500 B591	WD-15000 B591	N/A
Steam humidification system (two sections)	WD-3000 B592	WD-5000 B592	WD-7500 B592	WD-10000 B592	WD-12500 B592	WD-15000 B592	WD-20000 B592
Three-way mixing recirculation box	WD-3000 B601	WD-5000 B601	WD-7500 B601	WD-10000 B601	WD-12500 B601	WD-15000 B601	N/A
Three-way mixing recirculation box (two sections)	WD-3000 B602	WD-5000 B602	WD-7500 B602	WD-10000 B602	WD-12500 B602	WD-15000 B602	WD-20000 B602
CO <sub>2</sub> probe for mixing box	WD-3000 B612	WD-5000 B612	WD-7500 B612	WD-10000 B612	WD-12500 B612	WD-15000 B612	WD-20000 B612
Two speed fan via VFC	WD-3000 B631	WD-5000 B631	WD-7500 B631	WD-10000 B631	WD-12500 B631	WD-15000 B631	WD-20000 B631
Two speed air flow with CO <sub>2</sub> probe	WD-3000 B611	WD-5000 B611	WD-7500 B611	WD-10000 B611	WD-12500 B611	WD-15000 B611	WD-20000 B611
Fresh air damper	WD-3000 B551	WD-5000 B551	WD-7500 B551	WD-10000 B551	WD-12500 B551	WD-15000 B551	WD-20000 B551
Supply air damper	WD-3000 B561	WD-5000 B561	WD-7500 B561	WD-10000 B561	WD-12500 B561	WD-15000 B561	WD-20000 B561
Return air damper	WD-3000 B571	WD-5000 B571	WD-7500 B571	WD-10000 B571	WD-12500 B571	WD-15000 B571	WD-20000 B571
Exhaust air damper	WD-3000 B581	WD-5000 B581	WD-7500 B581	WD-10000 B581	WD-12500 B581	WD-15000 B581	WD-20000 B581
Activated charcoal filters F7	WD-3000 2529	WD-5000 2529	WD-7500 2529	WD-10000 2529	WD-12500 2529	WD-15000 2529	WD-20000 2529
Bag filters F9	WD-3000 2521A	WD-5000 2521A	WD-7500 2521A	WD-10000 2521A	WD-12500 2521A	WD-15000 2521A	WD-20000 2521A
Variable speed thermal wheel	WD-3000 B521	WD-5000 B521	WD-7500 B521	WD-10000 B521	WD-12500 B521	WD-15000 B521	WD-20000 B521
Intake weather protection grille	WD-3000 B621	WD-5000 B621	WD-7500 B621	WD-10000 B621	WD-12500 B621	WD-15000 B621	WD-20000 B621
Canopy - (essential for installation outdoors)	WD-3000 B541	WD-5000 B541	WD-7500 B541	WD-10000 B541	WD-12500 B541	WD-15000 B542	WD-20000 B542
Canopy for units in 3, 5 or 6 sections - (essential for installation outdoors)	WD-3000 B542	WD-5000 B542	WD-7500 B542	WD-10000 B542	WD-12500 B542	WD-15000 B542	WD-20000 B542
Wizard sub-divided into 5 sections	WD-3000 B482	WD-5000 B482	WD-7500 B482	WD-10000 B482	WD-12500 B482	WD-15000 B482 <sup>*1</sup>	N/A <sup>*2</sup>
Modbus connection for BEMS	WD-3000 4181	WD-5000 4181	WD-7500 4181	WD-10000 4181	WD-12500 4181	WD-15000 4181	WD-20000 4181
Bacnet TCP-IP connection for BEMS	WD-3000 4185	WD-5000 4185	WD-7500 4185	WD-10000 4185	WD-12500 4185	WD-15000 4185	WD-20000 4185
Left-handed configuration (no additional charge)	WD-3000 2963	WD-5000 2963	WD-7500 2963	WD-10000 2963	WD-12500 2963	WD-15000 2963	WD-20000 2963
Connection to AE-200E for on/off and general alarm monitoring					PAC-YG66DCA		

Note: \*1 Three sections as standard, \*2 Six sections as standard.



# Controls

Control Solutions





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# The Importance of Controls

## Time to take control

Operating an air conditioning, ventilation or heating system without effective controls can be costly in more ways than one. Not only are you likely to face higher monthly energy bills, it will also lead to an increase in carbon emissions - something that will become ever more important as businesses strive to keep up with tougher environmental legislation.

The right controls take building performance to the next level. With them, building systems become more responsive, easier to automate, monitor and maintain, and less costly to operate in the long-term.

The right controls can deliver a cost-effective solution that helps manage, monitor and report on the performance of all building services systems.

Control technology is now widely available for buildings of all sizes, so it is possible to access the benefits whatever the scale or scope of your project.



## Mitsubishi Electric technology

Mitsubishi Electric has been dedicated to producing energy efficient technology for over ninety years. Controls are an essential part of that. Mitsubishi Electric has long heritage in factory automation where the company leads the field in providing controls that enhance productivity, efficiency and energy use.

We have taken this extensive knowledge and experience and transferred it to the heart of our building services equipment.

We were also one of the first manufactures to provide an open gateway to our products to make integration easier for our customers. This enables direct connection of equipment into many common building energy management system (BEMS) platforms.

Recently, Mitsubishi Electric has developed Internet-based building controls that put information on building performance wherever users need it most and wireless technology that makes retro-fitting into existing buildings so much easier.

**From a simple hand-held controller to a centralised BEMS, Mitsubishi Electric puts its customers in control.**





## The European Standard EN 15232

“Energy Performance of Buildings - Impact of Building Automation, Controls and Building Management” was compiled in conjunction with the Europe-wide implementation of the directive for energy efficiency in buildings (Energy Performance of Buildings Directive EPBD) 2002/91/EG.

The Standard is incorporated into UK law and describes methods for evaluating the influence of building automation and technical building management on the energy consumption of buildings.

Four efficiency classes A to D have been introduced to this purpose. After a building has been equipped with building automation and control systems, it will be assigned one of these classes. The potential savings for thermal and electrical energy can be calculated for each class based on the building type and building purpose. The values of the energy class C are used as the reference for comparing the efficiency.

The diagram on the right, shows the differences in energy consumption for three building types in the energy efficiency classes A, B and D relative to the basis values in rating C. For example, by using class A, 30 % of the thermal energy can be saved in offices.

BS EN 15232: Function list and assignment to energy performance classes

	Heating / Cooling Control	Ventilation / Air Conditioning Control	Lighting	Sun Protection
A	<ul style="list-style-type: none"> <li>Individual room control with communication between controllers</li> <li>Indoor temperature control of distribution network water temperature</li> <li>Total interlock between heating and cooling control</li> </ul>	<ul style="list-style-type: none"> <li>Demand or presence dependent air flow control at room level</li> <li>Variable set point with load dependant compensation of supply temperature control</li> <li>Room or exhaust or supply air humidity control</li> </ul>	<ul style="list-style-type: none"> <li>Automatic daylight control</li> <li>Automatic occupancy detection manual on / auto off</li> <li>Automatic occupancy detection manual on / dimmed</li> <li>Automatic occupancy detection auto on / auto off</li> <li>Automatic occupancy detection auto on / dimmed</li> </ul>	<ul style="list-style-type: none"> <li>Combined light / blind / HVAC control</li> </ul>
B	<ul style="list-style-type: none"> <li>Individual room control with communication between controllers</li> <li>Indoor temperature control of distribution network water temperature</li> <li>Partial interlock between heating and cooling control (dependent on HVAC system)</li> </ul>	<ul style="list-style-type: none"> <li>Time dependent air flow control at room level</li> <li>Variable set point with outdoor temperature compensation of supply temperature control</li> <li>Room or exhaust or supply air humidity control</li> </ul>	<ul style="list-style-type: none"> <li>Manual daylight control</li> <li>Automatic occupancy detection manual on / auto off</li> <li>Automatic occupancy detection manual on / dimmed</li> <li>Automatic occupancy detection auto on / auto off</li> <li>Automatic occupancy detection auto on / dimmed</li> </ul>	<ul style="list-style-type: none"> <li>Motorised operation with automatic blind control</li> </ul>
C	<ul style="list-style-type: none"> <li>Individual room control with communication between controllers</li> <li>Indoor temperature control of distribution network water temperature</li> <li>Partial interlock between heating and cooling control (dependent on HVAC system)</li> </ul>	<ul style="list-style-type: none"> <li>Time dependent air flow control at room level</li> <li>Constant set point of supply temperature control</li> <li>Supply air humidity limitation</li> </ul>	<ul style="list-style-type: none"> <li>Manual daylight control</li> <li>Manual on / off switch + additional sweeping extinction signal</li> <li>Manual on / off switch</li> </ul>	<ul style="list-style-type: none"> <li>Motorised operation with manual blind control</li> </ul>
D	<ul style="list-style-type: none"> <li>No automatic control</li> <li>No control of distribution network water temperature</li> <li>No interlock between heating and cooling control</li> </ul>	<ul style="list-style-type: none"> <li>No air flow control at room level</li> <li>No supply temperature control</li> <li>No air humidity control</li> </ul>	<ul style="list-style-type: none"> <li>Manual daylight control</li> <li>Manual on/off switch + additional sweeping extinction signal</li> <li>Manual on/off switch</li> </ul>	<ul style="list-style-type: none"> <li>Manual operation for blinds</li> </ul>

Section from table 1 of the BSEN 15232:2007 [D]

Building Automation and Control (BAC) efficiency classes to EN 15232

	Efficiency factor for thermal energy			Efficiency factor for electrical energy		
	Office	School	Hotel	Office	School	Hotel
A High energy performance building automation and control system (BACS) and technical building management (TBM)	0.70	0.80	0.68	0.87	0.86	0.90
B Advanced BACS and TBM	0.80	0.88	0.85	0.93	0.93	0.95
C Standard BACS	1	1	1	1	1	1
D Non energy efficient BACS	1.51	1.20	1.31	1.10	1.07	1.07

## Control Solutions

# The Importance of Controls

## The Internet of Things

The Internet of Things (or IoT) describes the revolution already under way, with a growing number of internet-enabled devices that can network and communicate with each other and with other web-enabled devices.

Mitsubishi Electric is at the forefront of this revolution and all our products are now connectable to the internet using the following solutions<sup>\*1</sup>.



Features	MELCloud	MELCloud Commercial
----------	----------	---------------------



Connect to	Wi-Fi	Ethernet or 3G / 4G / 5G
Compatibility	Air Conditioning, Ventilation and Heating	Air Conditioning and Ventilation
Third party control	X	✓ (with option PAC-YG60/63MCA/66DCA)
SIM card provided	X	✓ (eSIM)
Smartphone application	✓	✓
Tablet application	✓	✓
Web portal	✓	✓

\*1 VL-100 is not connectable to the Internet

# Which Controls Product for Which Application?

Good controls will benefit any application. With a wide portfolio of control products, it is important to select the right control solution for each application.



APPLICATION	SIZE	TYPICAL PRODUCT INSTALLED	CONTROL SOLUTIONS	CASE STUDY
OFFICE	SMALL	City Multi VRF Systems Mr Slim Split-Systems Mr Slim IT Room Applications	PAR-41MAA or AE-200E-WEB USER AE-200E or AT-50B PAC-YG66DCA or PAC-YG60MCA MELCloud Commercial MELCOBEMS SIP+	Wholesaler PACAIR uses an AE-200E Centralised Controller to provide complete control of the office air conditioning. The 10.4" touch screen controller and easy to use interface gives PACAIR the ability to set up a weekly time schedule, as well as offering a host of energy saving features.
	LARGE	City Multi VRF Systems City Multi Air Curtains City Multi PWFY Heat Pumps	PAR-41MAA or AE-200E-WEB USER AE-200E or AT-50B MELCloud Commercial MELCOBEMS SIP+	Mitsubishi Electric's Hatfield headquarters has been updated to new AE-200E/EW-50E HTML5 controls to monitor and control all of the air conditioning equipment across 3 floors and 2 wings. This enables the system to operate as efficiently as possible, incorporating easy to use controls and allows for fully programmable scheduling that accommodates flexible working patterns.
HOTEL	SMALL	City Multi VRF Systems	PAR-CT01MAA-S/PB AE-200E MELCloud Commercial MELCOBEMS SIP+	The luxury 4-star Kingsmills Hotel provides a chic and contemporary venue for discerning Highlands travellers and focuses on relaxation, revitalisation and calm. The centralised controller delivers the efficiency and flexibility that both the hotel and its guests need, with air conditioning integrated with the room key card system combined with simple to use room controllers.
	LARGE	City Multi VRF Systems	PAR-CT01MAA-S/PB AE-200E MELCOTEL2™ MELCloud Commercial MELCOBEMS SIP+	The Premier Inn Hotel, Leicester uses the MELCOTEL2™ control interface to efficiently and effectively control air conditioning that provides heating and cooling to 135 bedrooms, the bar, restaurant and back offices. A variety of control strategies were implemented and monitored and analysed, resulting in a 30% decrease in average monthly system running costs and CO <sub>2</sub> emissions.
RETAIL	SMALL	Mr Slim Split-System Mr Slim Air Curtains	MELCORETAIL MINI MELCloud Commercial MELCOBEMS SIP+	Costa Coffee was one of the first to make use of the MELCORETAIL MINI to capitalise on its energy saving feature whilst ensuring that customers and staff were comfortable in the overall coffee shop environment. Across a year of monitoring the MELCORETAIL MINI helped achieve a 20% reduction in energy use, giving it a payback period of less than 2 months.
	LARGE	City Multi VRF Systems City Multi Air Curtains	MELCloud Commercial MELCOBEMS SIP+	A pilot site for a major high street retail chain has demonstrated how connecting MELCloud Commercial to air conditioning can highlight ways of reducing energy or identify unnecessary use. Significant savings throughout the store were made by employing MELCloud Commercial, providing a consistent return on investment on a monthly basis.
LEISURE	SMALL	Mr Slim Split-System Mr Slim Air Curtains	MELCOBEMS MINI MELCloud Commercial MELCOBEMS SIP+	The Castle golf course at St Andrews need a heating and cooling system that was as controllable and efficient as possible. The M2M interface controls and monitors the air conditioning to make sure it maximises energy saving, whilst allowing for continuous fine-tuning according to the golf clubs needs.
	LARGE	Mr Slim Split-System Mr Slim Air Curtains City Multi VRF Systems City Multi Air Curtains	MELCOBEMS MELCloud Commercial MELCOBEMS SIP+	Fitness First uses monitoring BEMS to communicate with the air conditioning using Modbus, across its UK network. Dedicated Modbus Interfaces offer complete monitoring and control of the system and highlights the flexibility and potential for reducing running costs that our control systems have when working in conjunction with third party BEMS.
RESIDENTIAL	SMALL	Ecodan	MELCloud	A WW2 veteran has shown the way to a sustainable future with the installation of a hybrid Ecodan air source heat pump to work alongside his existing gas boiler. The hybrid system is designed specifically to work in conjunction with conventional boilers and the MELCloud Wi-Fi system also allows the heat pump to be monitored and controlled remotely
	LARGE	Ecodan	MELCloud AE-200E	The renewable heating system for St Mungo's in Lewisham needs to cope with different heating loads and deal effectively with regular changes in tenancy and occupied hours. It also had to offer tenants the ability to alter the temperature of their individual flats, whilst allowing the charity full central control of the system.

# Which Controls Product for Which Function?

With a wide portfolio of control products, many functions are available. It is important to select the right control solution for each function.

FUNCTION	SYSTEM SIZE					NOTES
	SMALL OPTION 1	OPTION 2	OPTION 3	OPTION 4	LARGE OPTION 5	
Remote On/Off or fire alarm	PAC-SA89TA	KTR-53B	MELCORETAIL MINI	AT-50B and PAC-YT51HAA	AE-200E and PAC-YG10HA	On/Off remote controller button lock except KTR-53B
Monitor run and faults	PAC-SA88HA	MELCORETAIL MINI	AT-50B and PAC-YT51HAA	AE-200E / EW-50E and PAC-YG10HA	-	Relays or power supply may be required
Window interlocking	PAC-SA89TA	KTR-53B	-	-	-	Controller will be centrally controlled when window opened
Setpoint limit	PAR-41MAA	PAR-U02MEDA	AT-50B	AE-200E / EW-50E	AE-200E	Available in Heat, Cool and Auto modes
Weekly timer	PAR-41MAA PAR-U02MEDA	AT-50B	AE-200E / EW-50E	AE-200E	-	Setpoint, On/Off can be reset
Night set back	KTR-53B	PAR-41MAA PAR-U02MEDA	AE-200E / EW-50E / AT-50B	AE-200E	-	KTR-53B requires thermostat, time switch, 12/24v AC/DC power supply
Energy monitoring	AE-200E / EW-50E Total Energy Measurement	AE-200E / EW-50E PAC-YG60MCA Total Energy Management	AE-200E and EW-50E Energy Apportioning	AE-200E / EW-50E PAC-YG60MCA Energy Apportioning	-	Different options for each choice. Meters required
Load shedding	EW-50E and PAC-YG60MCA	AE-200E and PAC-YG60MCA	-	-	-	Energy meters required
Trend logging	EW-50E and PAC-YG60MCA	AE-200E	-	-	-	CSV data available on a spreadsheet

Notes: The PAC-SA89TA is also known as a 3 wire adaptor and the PAC-SA88HA is also known as a 5 wire adaptor. Disclaimer: These options are for guidance only.

# Which Controls Product for Which Function?

With a wide portfolio of control products, many functions are available. It is important to select the right control solution for each function.

FUNCTION	SYSTEM SIZE			NOTES
	SMALL OPTION 1	OPTION 2	LARGE OPTION 3	
Night mode	PAC-SA89TA	EW-50E	AE-200E	PAC-SA89TA requires a third party timer
Ambient tracking	AE-200E and PAC-YG63MCA	MELCOBEMS MINI	AE-200E	Option 1 is only available in cooling mode
Key card interlock for hotel	AE-200E and PAC-SA89TA	AE-200E / EW-50E, MELCOTEL2™ and PAC-SA89TA	-	Volt free contact for key card normally open
Window sensor interlock for hotel	AE-200E and PAC-SA89TA	AE-200E / EW-50E, MELCOTEL2™ and PAC-SA89TA	-	Volt free contact for window sensor normally closed
2 setpoints (1 for cool and 1 for heat)	-	MELCOMMS MINI	AE-200E	For instance, 19°C heat and 23°C cool. Fan only in between
Duty / Standby	PAR-41MAA	MELCOMMS MINI MELCOBEMS MINI	-	Backup, rotate, join in and high temperature function
A/C faults via Modbus and BACnet	MELCOBEMS MINI	-	-	SIM card not supplied
Optimised start	AE-200E	-	-	-
Mini BEMS	MELCOBEMS MINI	AE-200E	-	-
Occupancy sensor	PAR-U02MEDA	-	-	-

Notes: The PAC-SA89TA is also known as a 3 wire adaptor and the PAC-SA88HA is also known as a 5 wire adaptor. Disclaimer: These options are for guidance only.

# Centralised Controllers

A wide range of centralised controllers are available to monitor and control our equipment efficiently. Some of our centralised controllers can also be used to monitor and control third party equipment.

## Key Features & Benefits

### AT-50B



- 5" basic touch screen
- Centralised controller
- Monitor and control up to 50 indoor units
- Monitor and control general equipment

### AE-200E



- 10.4" full function touch screen
- Centralised controller
- Monitor and control up to 50 indoor units (or up to 200 indoor units with EW-50Es)
- Monitor and control general equipment
- Energy monitoring, load shedding
- Web based controller
- Onboard HTML5 web browser
- Optional direct BACnet connection

### EW-50E



- Extends capability of AE-200E
- Web based controller
- Monitor and control up to 50 indoor units
- Monitor and control general equipment
- Energy monitoring, load shedding
- Onboard HTML5 web browser
- Optional direct BACnet connection

### AE-200E-WEB USER



- Available as an option
- 200 user accounts per PIN CODE
- No installation cost
- Centralised controller required
- Very simple to use

### PAC-SC51KUA



- M-NET power supply




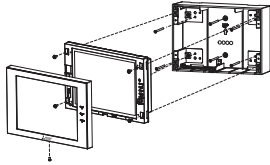
### PAC-SF46EPA



- M-NET transmission booster

# Centralised Controllers

## Technical Specification

CENTRALISED CONTROLLERS	AT-50B	AE-200E	KS10-RFFI	PAC-YG82TB
				
Description	5" Touch Screen Controller	10.4" Touch Screen Controller	AE-200E Interface	AE-200E Plastic Wall Mounted Box
Connect to	M-NET Network	M-NET Network	AE-200E and EW-50E	-
Max Number of Units	50	50 and 4 Pulse Meters	-	-
Compatibility	M Series, Mr Slim, City Multi and Lossnay	M Series, Mr Slim, City Multi, Lossnay, e-Series, MEHITS Chillers <sup>1</sup> and Ecodan QAHV/CAHV/CRHV	-	AE-200E
Power Supply	Via PAC-SC51KJA	220-240v, 50Hz	220-240v, 50Hz	-
Dimensions (mm) (WxDxH)	180 x 30 x 120	283 x 64 x 199	130 x 30 x 80	282 x 77 x 198
Control				
On/Off	✓	✓	-	-
Mode	✓	✓	-	-
Setpoint	✓	✓	-	-
Fan Speed	✓	✓	-	-
Air Direction	✓	✓	-	-
Permit/Prohibit	✓	✓	-	-
Filter Sign	✓	✓	-	-
Monitor				
On/Off	✓	✓	✓	-
Mode	✓	✓	-	-
Setpoint	✓	✓	-	-
Fan Speed	✓	✓	-	-
Air Direction	✓	✓	-	-
Permit/Prohibit	✓	✓	-	-
Filter Sign	✓	✓	-	-
Fault Codes	✓	✓	✓	-
Room Temperature	✓	✓	-	-
Weekly Schedule	✓	✓	-	-
Annual Schedule	x	✓	-	-
Night Set Back	✓	✓	-	-
Web Pages	x	✓	-	-
Optimised Start	x	✓	-	-
Automatic Setpoint Adjustment	x	✓	-	-
Load Shedding	x	✓	-	-
Occupied / Unoccupied Settings Reset	x	x	-	-
Remote Monitoring with M2M	x	✓	-	-
Simple Energy Monitoring	x	✓	-	-
Advanced Energy Monitoring	x	✓	-	-

Notes: <sup>1</sup> MEHITS adaptor required.

AE-200E demonstration website: [http://dl.mitsubishielectric.co.jp/dl/dg/wink/wink\\_doc/contents/doc/acr/menu/ae200/en/](http://dl.mitsubishielectric.co.jp/dl/dg/wink/wink_doc/contents/doc/acr/menu/ae200/en/)

### PIN CODES:





AE-200E-ENERGY

AE-200E-BACNET

AE-200E-WEB USER

# Centralised Controllers

## Technical Specification

CENTRALISED CONTROLLERS	EW-50E	AE-200E-WEB USER	PAC-SC51KUA	PAC-SF46EPA
				
Description	Web Interface and AE-200E expansion controller	AE-200E Web User Pin Code	M-NET Power Supply	M-NET Transmission Booster
Connect to	M-NET Network	AE-200E and EW-50E	M-NET Network	M-NET Network
Max Number of Units	50 and 4 Pulse Meters	200	50	-
Compatibility	M Series, Mr Slim, City Multi, Lossnay, e-Series, MEHITS Chillers <sup>*1</sup> and Ecodan QAHV/CAHV/CRHV	AE-200E and EW-50E	AT-50B, EW-50E and AE-200E	M Series, Mr Slim and City Multi
Power Supply	220-240v, 50Hz	-	220-240v, 50Hz	220-240v, 50Hz
Dimensions (mm) (WxDxH)	172 x 92 x 253	-	271 x 72 x 169	360 x 59 x 340
Control				
On/Off	✓	✓	-	-
Mode	✓	✓	-	-
Setpoint	✓	✓	-	-
Fan Speed	✓	✓	-	-
Air Direction	✓	✓	-	-
Permit/Prohibit	✓	✓	-	-
Filter Sign	✓	x	-	-
Monitor				
On/Off	✓	✓	-	-
Mode	✓	✓	-	-
Setpoint	✓	✓	-	-
Fan Speed	✓	✓	-	-
Air Direction	✓	✓	-	-
Permit/Prohibit	✓	✓	-	-
Filter Sign	✓	✓	-	-
Fault Codes	✓	✓	-	-
Room Temperature	✓	✓	-	-
Weekly Schedule	✓	✓	-	-
Annual Schedule	✓	✓	-	-
Night Set Back	✓	x	-	-
Web Pages	✓	✓	-	-
Optimised Start	✓	x	-	-
Automatic Setpoint Adjustment	✓	x	-	-
Load Shedding	✓	x	-	-
Occupied / Unoccupied Settings Reset	x	x	-	-
Remote Monitoring with M2M	✓	x	-	-
Simple Energy Monitoring	✓	✓	-	-
Advanced Energy Monitoring	✓	✓	-	-

Notes: \*1 MEHITS adaptor required

### PIN CODES:

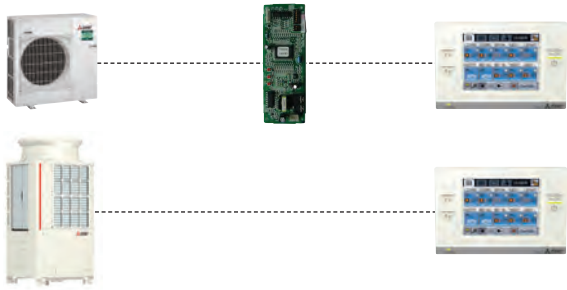
AE-200E-ENERGY

AE-200E-BACNET

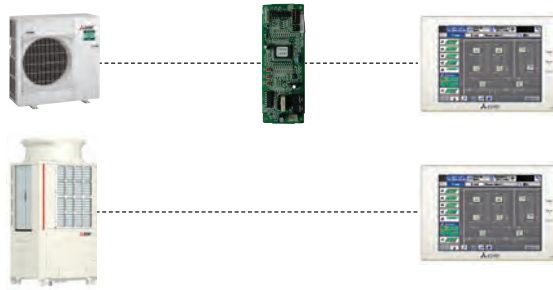
AE-200E-WEB USER



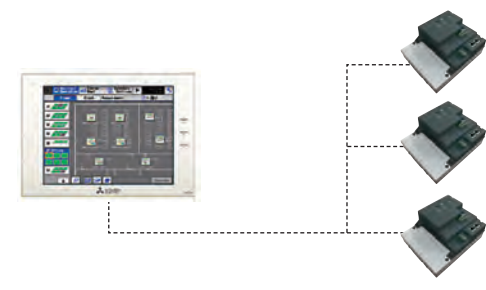
System Diagram AT-50B



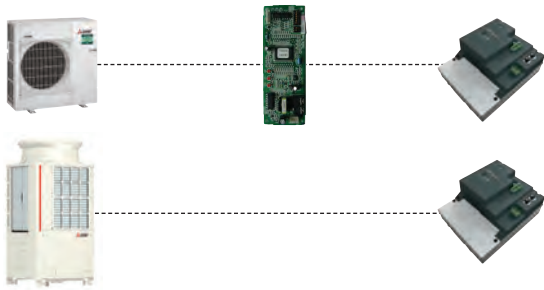
System Diagram AE-200E



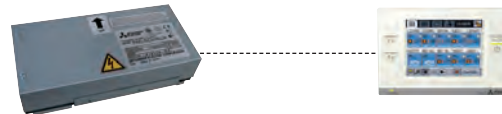
System Diagram EW-50E



System Diagram EW-50E



System Diagram PAC-SC51KUA



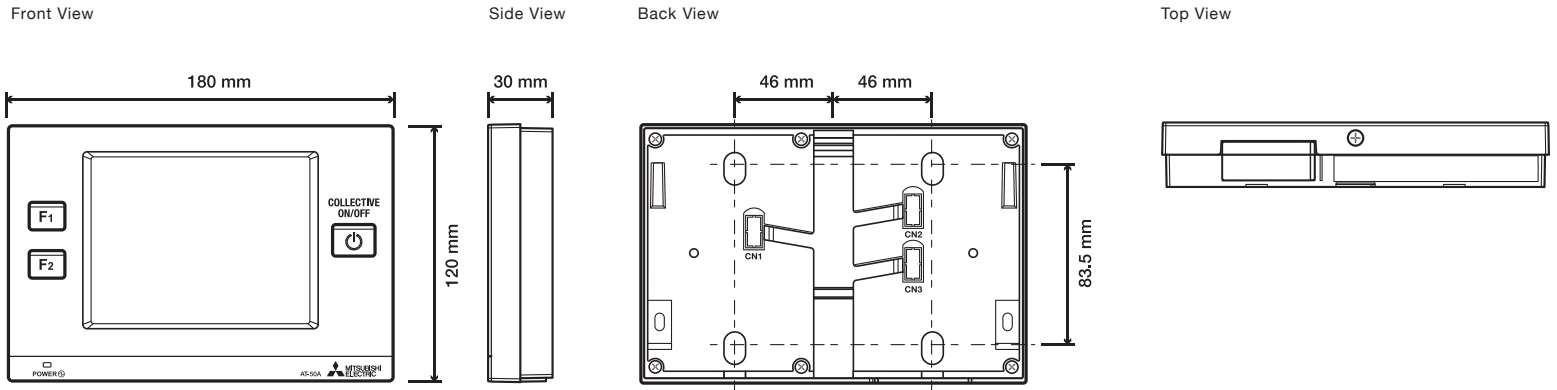
System Diagram PAC-SF46EPA



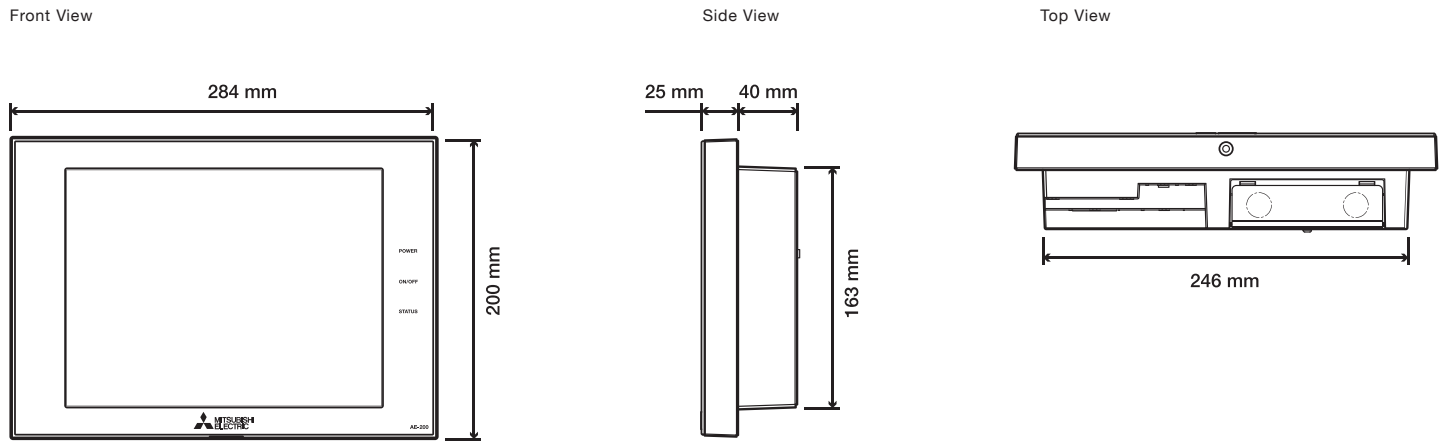
System Diagram AE-200E-WEB USER



Product Dimensions AT-50B



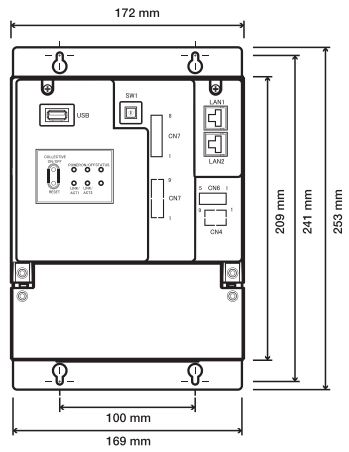
Product Dimensions AE-200E



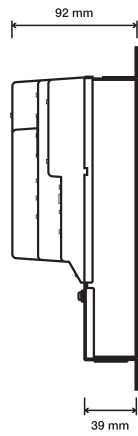
## Product Dimensions

EW-50E

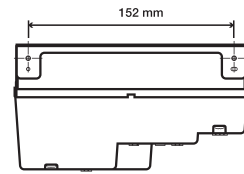
Front View



Side View



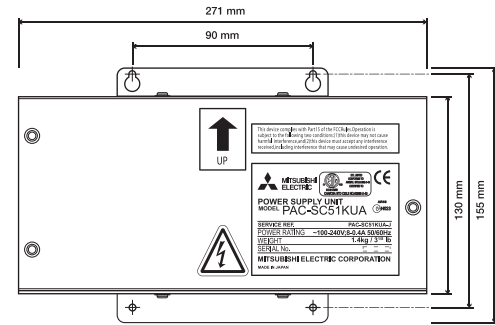
Top View



## Product Dimensions

PAC-SC51KUA

Front View



Side View



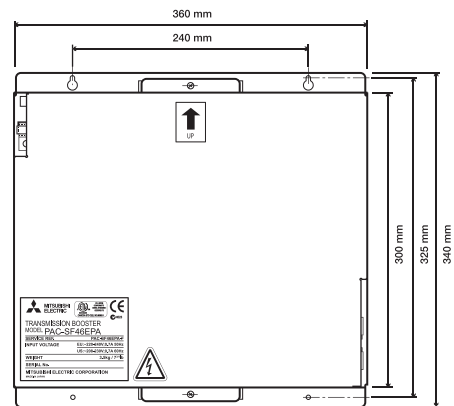
Top View



## Product Dimensions

PAC-SF46EPA

Front View



Side View



Top View



# Remote Controllers

From a simplified controller perfect for hotel applications to a full backlight touch screen controller, we have the right remote controller to choose from.

## Key Features & Benefits

### PAR-CT01MAA-SB / PAR-CT01MAA-PB



- Simple to use
- Touch screen
- 180 colour screen
- 180 colour font display
- Backlight
- Fully configurable via smartphone App
- Customisable display
- Ability to display customer logos

### PAR-U02MEDA



- Touch screen M-Net Controller
- Night set back, scheduling, setpoint limitation
- Built in occupancy/brightness sensor
- Backlight
- 0.5°C Set Point adjustment
- Dual Set Point

### PAR-41MAA



- Displays model name and serial number on Mr Slim
- Night set back, scheduling, setpoint limitation
- 0.5°C Set Point adjustment
- Dual Set Point
- Run/Standby for Mr Slim
- Contact number under fault condition
- Backlight (White / Black options)
- Daylight saving function

### PAR-FL / FA32MA



- Infrared solution
- Controller and receiver
- Controller able to control more than one receiver

### PZ-62DR-E



- Dedicated Lossnay controller
- Night set back, scheduling
- Flexible night purge
- Backlight

### PAR-SL101A-E



- Wireless controller
- Weekly timer
- 3D Total Airflow for PLA-ZM/M
- 14°C cooling
- Individual vane setting for PLA-ZM/M/SM
- Dual Set Point
- Backlight

### PAR-W31MAA / PAR-W21MAA



- Dedicated remote controller (see technical specification on page 6.18)
- Button lock
- Contact number under fault condition
- Fault codes

### PAR-WT50R-E / PAR-WR51R-E



- Ecodan wireless controller
- Ecodan receiver







### PAC-IF072B-E



- Ecodan controller
- Backlight

# Remote Controllers








## Technical Specification

REMOTE CONTROLLERS	PAR-CT01MAA-SB	PAR-CT01MAA-PB	PAR-U02MEDA	PAR-41MAA	PAR-FL32MA	PAR-FA32MA
						
Description	Simplified Touch Screen Wired Remote Controller	Simplified Touch Screen Wired Remote Controller (Premium Finish)	Touch Screen Remote Controller	Standard Wired Remote Controller	Infrared Remote Controller	Infrared Receiver
Connect to	Indoor	Indoor	M-NET Network	Indoor	-	Indoor
Max Number of Units	16	16	16	16	-	16
Compatibility	Mr Slim, City Multi and M Series via MAC-497IF-E	Mr Slim, City Multi and M Series via MAC-497IF-E	City Multi (M Series and Mr Slim via A2M adaptor)*1	Mr Slim, City Multi and M Series via MAC-497IF-E or MAC-334IF-E	Mr Slim, City Multi and M Series via MAC-497IF-E	Mr Slim, City Multi and M Series via MAC-497IF-E
Dimensions (mm) (WxDxH)	120 x 14.1 x 65	120 x 14.1 x 65	140 x 25 x 120	120 x 14.5 x 120	157 x 18 x 57	120 x 18 x 70
Control						
On/Off	✓	✓	✓	✓	✓	-
Mode	✓	✓	✓	✓	✓	-
Setpoint	✓	✓	✓ (0.5°C)	✓ (0.5°C)	✓	-
Fan Speed	✓	✓	✓	✓	✓	-
Air Direction	✓	✓	✓	✓	✓	-
Permit/Prohibit	✓	✓	✓	✓	x	-
Filter Sign	✓	✓	✓	✓	x	-
Monitor						
On/Off	✓	✓	✓	✓	✓	-
Mode	✓	✓	✓	✓	✓	-
Setpoint	✓	✓	✓ (0.5°C)	✓ (0.5°C)	✓	-
Fan Speed	✓	✓	✓	✓	✓	-
Air Direction	✓	✓	✓	✓	✓	-
Permit/Prohibit	✓	✓	✓	✓	✓	-
Filter Sign	✓	✓	✓	✓	x	-
Fault Codes	✓	✓	✓	✓	x	LED
Room Temperature	✓	✓	✓ (0.5°C)	✓ (0.5°C)	x	-
Backlight	✓	✓	✓	✓	x	-
Setpoint Limitation	✓	✓	✓	✓	x	-
Independent Vane Control	x	x	x	✓	x	-
Contact Number under Fault Condition	x	x	x	✓	x	-
Scheduling	✓	✓	Weekly	Weekly	x	-
Night Set Back	x	x	✓	✓	x	-
Button Lock	✓	✓	✓	✓	x	-
Easy Maintenance with Mr Slim	x	x	x	✓	x	-
Run / Standby with Mr Slim	x	x	x	✓	x	-
Silent Mode with Mr Slim	x	x	x	✓	x	-
Energy Saving with Mr Slim	x	x	x	✓	x	-
Occupancy Sensor (PIR)	x	x	✓	x	x	-
3D Total Airflow with Mr Slim	x	x	x	✓	x	-
Model Name and Serial Number Display with Mr Slim	x	x	x	✓	x	-
Energy Consumption Monitoring with Mr Slim	x	x	x	✓	x	-
2+1 Backup Rotation with Mr Slim	x	x	x	✓	x	-
Smart Defrost with Mr Slim	x	x	x	✓	x	-
14°C Cooling with Mr Slim	x	x	x	✓	x	-

Notes: Permit/Prohibit is via Centralised Controllers. ✓ = Yes, x = No, - = Not applicable. \*1 M-NET Power Supply Required via PAC-SC51KUA for M Series & Mr Slim

# Remote Controllers

## Technical Specification

REMOTE CONTROLLERS	PZ-62DR-E	PAR-SL101A-E	PAR-W31MAA	PAR-W21MAA	PAR-WT50R-E	PAR-WR51R-E	PAC-IF072B-E
							
Description	Lossnay Wired Remote Controller	Wireless Remote Controller	Standard Wired Remote Controller	Standard Wired Remote Controller	Wireless Remote Controller Transmitter	Wireless Remote Controller Receiver	Flow Temperature Controller FTC6
Connect to	Indoor	-	e-Series and Ecodan QAHV	PWFY, Mr Slim Air Curtains and Ecodan CAHV / CRHV	Ecodan PUZ / QUHZ	Ecodan PUZ / QUHZ	Ecodan PUZ / QUHZ
Max Number of Units	15	-	6 (depends on unit connected)	16	8	1	1
Compatibility	Lossnay LGH-RVX(T)-E LGH-RVS-E	Mr Slim PLA-ZM/M/SM PKA-M	e-Series and Ecodan QAHV	PWFY, Mr Slim Air Curtains and Ecodan CAHV / CRHV	Ecodan PUZ / QUHZ	Ecodan PUZ / QUHZ	Ecodan PUZ / QUHZ
Dimensions (mm) (WxDxH)	120 x 19 x 120	66 x 22 x 188	120 x 19 x 120	130 x 19 x 120	140 x 18 x 75	100 x 30 x 80	120 x 19 x 120
Control							
On/Off	✓	✓	✓	✓	x	-	✓
Mode	✓	✓	✓	✓	✓	-	✓
Setpoint	-	✓	✓	✓	✓	-	✓
Fan Speed	✓	✓	x	x	x	-	x
Air Direction	-	✓	x	x	x	-	x
Permit/Prohibit	✓	x	x	-	x	-	x
Filter Sign	✓	x	x	x	x	-	x
Monitor							
On/Off	✓	✓	✓	✓	✓	-	✓
Mode	✓	✓	✓	✓	✓	-	✓
Setpoint	x	✓	✓	✓	✓	-	✓
Fan Speed	✓	✓	x	x	x	-	x
Air Direction	-	✓	x	x	x	-	x
Permit/Prohibit	✓	✓	✓	x	x	-	x
Filter Sign	✓	x	x	x	x	-	x
Fault Codes	✓	x	✓	✓	x	-	✓
Room Temperature	-	x	x	x	✓	-	✓
Backlight	✓	✓	✓	x	✓	-	✓
Setpoint Limitation	-	x	x	✓	✓	-	x
Independent Vane Control	-	✓	x	x	x	-	x
Contact Number under Fault Condition	x	x	✓	✓	x	-	x
Scheduling	Weekly	Weekly	Weekly	Weekly	Weekly	-	Weekly
Night Set Back	-	x	x	x	✓	-	✓
Button Lock	✓	x	x	✓	x	-	✓
Easy Maintenance with Mr Slim	-	x	x	x	-	-	-
Run / Standby with Mr Slim	-	x	x	x	-	-	-
Silent Mode with Mr Slim	-	x	x	x	-	-	-
Energy Saving with Mr Slim	-	x	x	x	-	-	-
Occupancy Sensor (PIR)	-	x	x	x	-	-	-
3D Total Airflow with Mr Slim	-	✓	x	x	-	-	-
14°C Cooling with Mr Slim	-	✓	x	x	-	-	-

Notes: Prohibit is via Centralised Controllers. ✓ = Yes, x = No, - = Not applicable.

**System Diagram** PAR-CT01MAA-SB / PAR-CT01MAA-PB



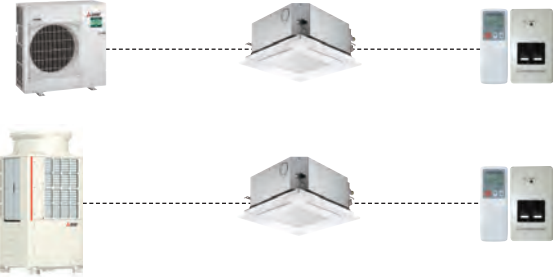
**System Diagram** PAR-U02MEDA



**System Diagram** PAR-41MAA



**System Diagram** PAR-FL / FA32MA



**System Diagram** PZ-62DR-E



**System Diagram** PAR-SL101A-E



**System Diagram** PAR-W31MAA



**System Diagram** PAR-WT50R-E / PAR-WR51R-E



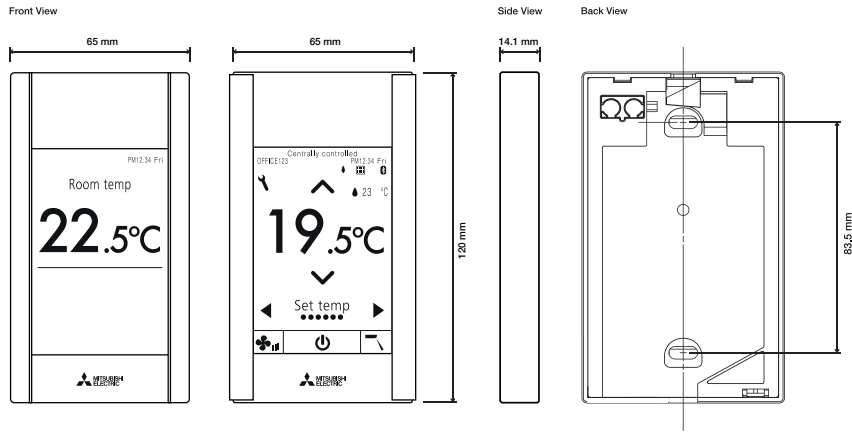
**System Diagram** PAC-IF072B-E



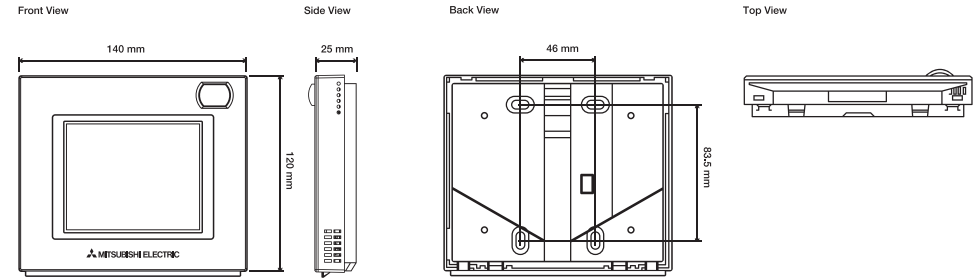
**System Diagram** PAR-W21MAA



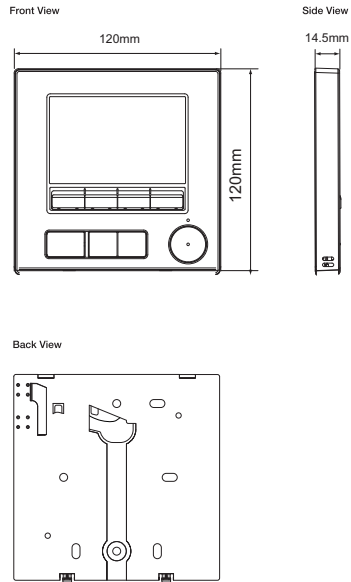
**Product Dimensions** PAR-CT01MAA-SB / PAR-CT01MAA-PB



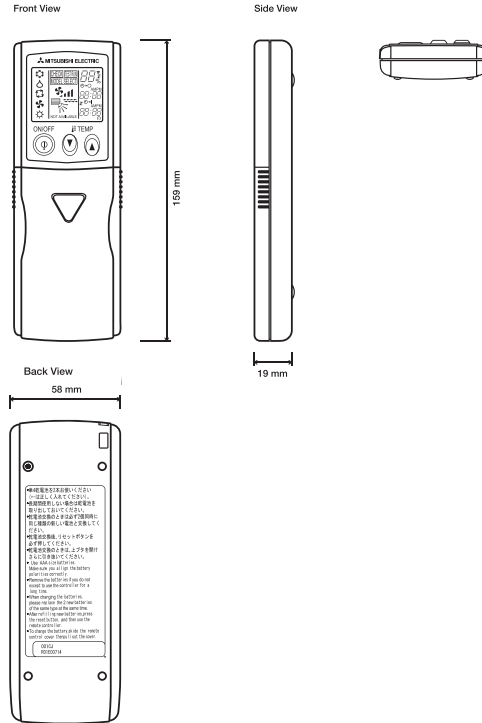
**Product Dimensions** PAR-U02MEDA



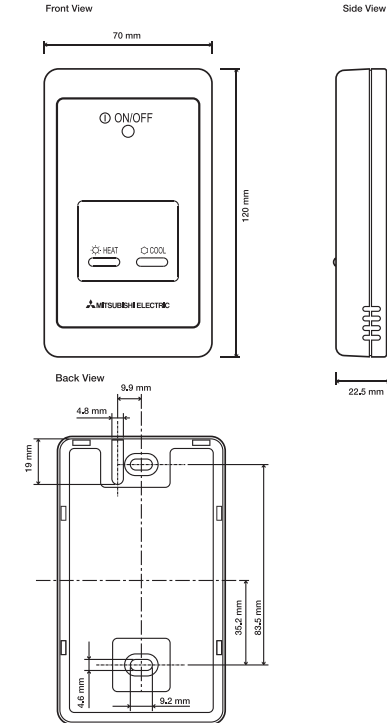
**Product Dimensions** PAR-41MAA



**Product Dimensions** PAR-FL32MA

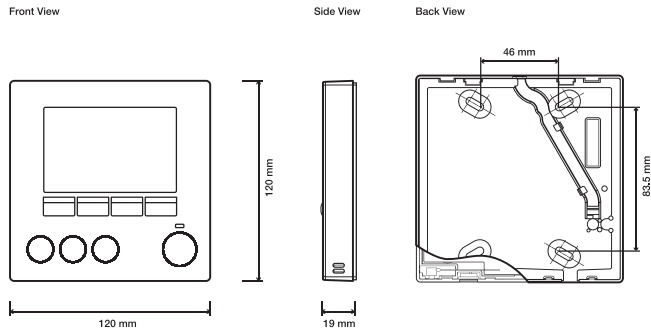


**Product Dimensions** PAR-FA32MA

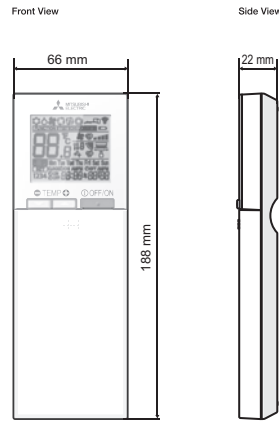




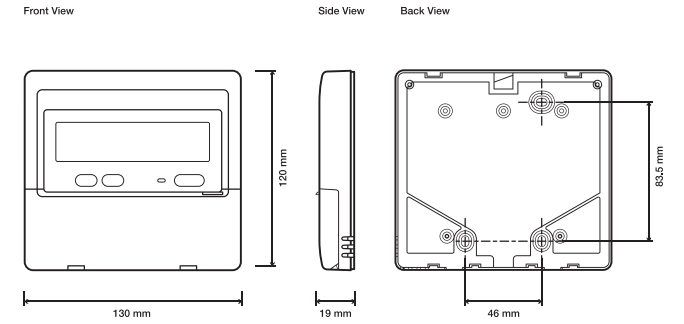
**Product Dimensions** PZ62DR-E / PAR-W31MAA



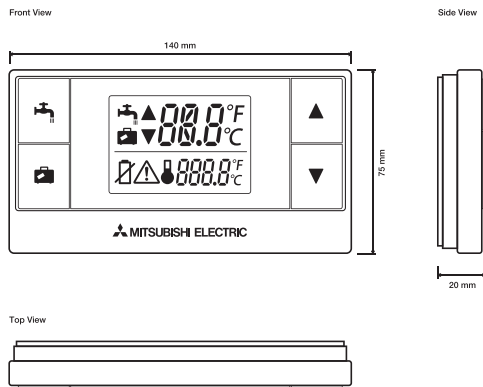
**Product Dimensions** PAR-SL101A-E



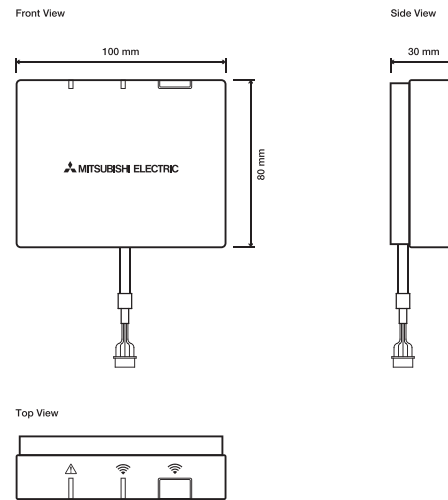
**Product Dimensions** PAR-W21MAA



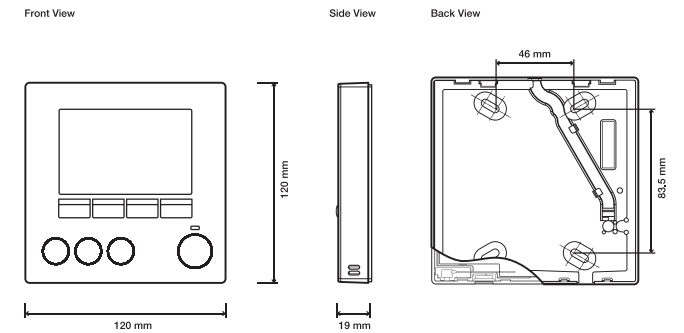
**Product Dimensions** PAR-WT50R-E



**Product Dimensions** PAR-WR51R-E



**Product Dimensions** PAC-IF072B-E



# Solution Interfaces

Our dedicated solution interfaces now include new sector specific products such as our new **MELCloud Commercial** offering.

## Key Features & Benefits

### MELCLOUD COMMERCIAL



- Remotely monitor and control M Series, Mr Slim, City Multi and Lossnay
- Remote monitoring and fault diagnosis
- Energy consumption monitoring and multiple site comparison
- Subscribe to a package that meets your requirements
- 4G and LAN connectivity (via MCC-50E gateway)

### MELCOMMS MINI



- Monitor and control up to 8 indoor units
- Run / Standby panel
- Includes 2 x MELCOBEMS MINI Interfaces




### MELCOTEL2



- Monitor and control up to 200 indoor units
- Dedicated hotel interface
- Key card and non key card integration
- Automatic Setpoint adjustment
- Occupied / Unoccupied Settings Reset

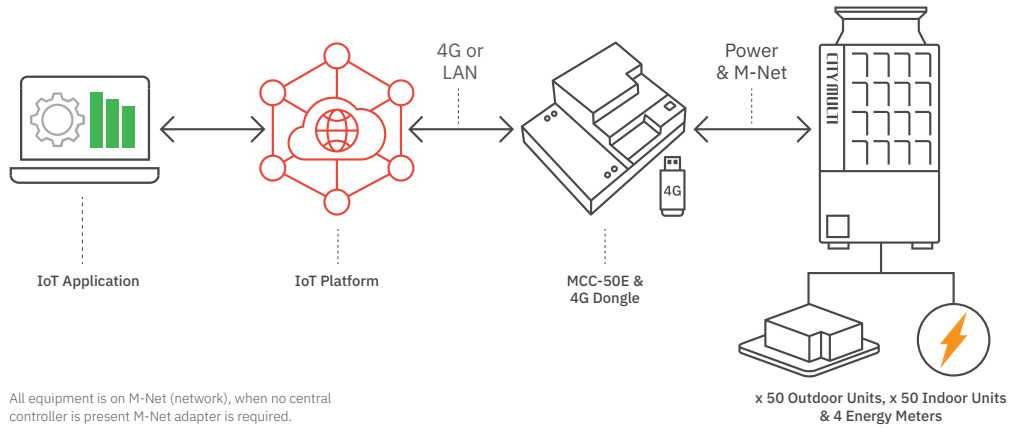
# Solution Interfaces

## Technical Specification

SOLUTION INTERFACES	MELCLOUD COMMERCIAL	MELCOMMS MINI	MELCOTEL2
			
Description	Cloud System Connection Device	Run Standby Panel	AE-200E Hotel Interface and display
Connect to	M-NET Network	MELCOBEMS MINI	AE-200E and EW-50E
Max Number of Units	M Series, Mr Slim, City Multi and Lossnay	8	200
Compatibility	M Series and Mr Slim	M Series and Mr Slim	City Multi
Power Supply	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
Dimensions (mm) (WxDxH)	172 x 100 x 209	253 x 90 x 180	350 x 80 x 400
SMS/GPRS Capabilities	-	x	x
Ethernet Capabilities	✓	x	x
SIM Card Provided	✓	x	x
Inputs	✓ Digital (via PAC-YG66)	x	x
Outputs	✓ Digital (via PAC-YG66)	✓ 1 Digital (Fault)	x
Control			
On/Off	✓	✓	✓
Mode	✓	✓	✓
Setpoint	✓	✓	✓
Fan Speed	✓	x	x
Air Direction	-	x	x
Permit/Prohibit	✓	x	x
Filter Sign	✓	x	x
Monitor			
On/Off	✓	✓	✓
Mode	✓	✓	✓
Setpoint	✓	✓	✓
Fan Speed	✓	x	x
Air Direction	-	x	x
Permit/Prohibit	✓	x	x
Filter Sign	✓	x	x
Fault Codes	✓	✓	x
Room Temperature	✓	✓	✓
Weekly Schedule	✓	x	x
Annual Schedule	✓	x	x
Night Setback	-	x	✓
Web Pages	✓	x	x
Optimised Start	✓	x	x
Automatic Setpoint Adjustment	-	x	✓
Load Shedding	-	x	✓
Occupied / Unoccupied Settings reset	-	x	✓
Simple Energy Monitoring	✓	x	x

System Diagram

MELCLOUD COMMERCIAL



System Diagram

MELCOMMS MINI



System Diagram

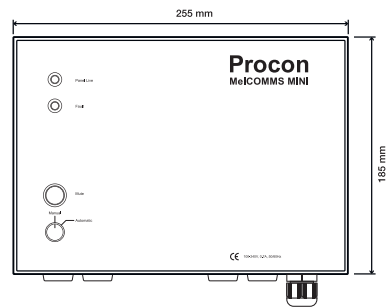
MELCOTEL2



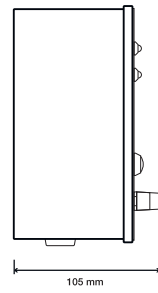
## Product Dimensions

### MELCOMMS MINI

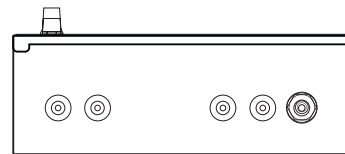
Front View



Side View



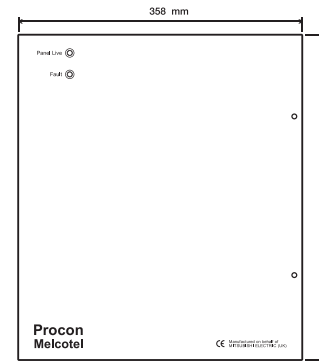
Top View



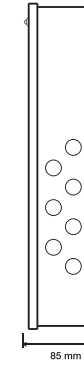
## Product Dimensions

### MELCOTEL2

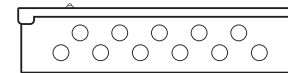
Front View



Side View



Top View



# Simple Interfaces

A wide range of interfaces are available to allow third party equipment to monitor and control our units. Some interfaces are also available to monitor and control third party equipment from our centralised controllers.

## Key Features & Benefits

### PAC-SA89TA



- Also known as 3 wire adaptor
- Remote on/off
- Fire alarm input
- Night mode
- Demand control

### PAC-SA88HA



- Heating and cooling signal
- Run and fault signal

### PAC-YT51HAA



- Remote on/off
- Fire alarm input
- Common run and fault signal

### PAC-YG10HA



- Remote on/off
- Fire alarm input
- Common run and fault signal

### PAC-SJ95MA-E



- Adaptor to connect Mr Slim units to M-NET










### PAC-SK15MA-E



- Adaptor to connect Mr Slim PUZ-ZM35/50 units to M-NET

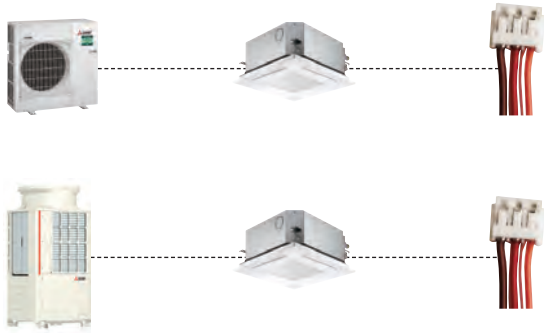
# Simple Interfaces

## Technical Specification

SIMPLE INTERFACES	PAC-SA89TA	PAC-SA89TA	PAC-SA88HA	PAC-SA88HA	PAC-SA88HA	PAC-YT51HAA	PAC-YG10HA	PAC-SJ95MA-E	PAC-SK15MA-E
									
Description	On/Off Adaptor (3 wire adaptor)	Night Mode and Demand Control (3 wire adaptor)	Run and Fault Adaptor (5 wire adaptor)	Heat and Cool Adaptor (5 wire adaptor)	Run and Fault Adaptor (5 wire adaptor)	On/Off Run and Fault Adaptor	On/Off Run and Fault Adaptor (9 wire adaptor)	M-NET Converter	M-NET Converter
Connect to	Indoor	Outdoor	Indoor	Indoor	Outdoor	AT-50B	AE-200E and EW-50E	Outdoor	Outdoor
Max Number of Units	1	1	1	1	1	1	1	1	1
Compatibility	Mr Slim and City Multi	Mr Slim and City Multi	Mr Slim and City Multi	City Multi	City Multi	AT-50B	AE-200E and EW-50E	Mr Slim Outdoor <sup>1</sup>	Mr Slim PUZ-ZM35/50 Outdoor
Dimensions (mm) (WxDxH)	-	-	-	-	-	-	-	140 x 15 x 50	120 x 44 x 321
Control									
On/Off	✓	✓	x	x	x	✓	✓	-	-
Mode	x	x	x	x	x	x	x	-	-
Setpoint	x	x	x	x	x	x	x	-	-
Fan Speed	x	x	x	x	x	x	x	-	-
Air Direction	x	x	x	x	x	x	x	-	-
Permit/Prohibit	x	x	x	x	x	x	x	-	-
Filter Sign	x	x	x	x	x	x	x	-	-
Monitor									
On/Off	x	x	✓	x	✓	✓	✓	-	-
Mode	x	x	x	✓	x	x	x	-	-
Setpoint	x	x	x	x	x	x	x	-	-
Fan Speed	x	x	x	x	x	x	x	-	-
Air Direction	x	x	x	x	x	x	x	-	-
Permit/Prohibit	x	x	x	x	x	x	x	-	-
Filter Sign	x	x	x	x	x	x	x	-	-
Fault Codes	x	x	✓	✓	✓	✓	✓	-	-
Room Temperature	x	x	x	x	x	x	x	-	-
Fire Alarm	✓	✓	x	x	x	✓	✓	-	-
On/Off but Centrally Controlled	VFC	x	x	x	x	VFC	Via 24VDC	-	-
On/Off but NOT Centrally Controlled	x	x	x	x	x	x	x	-	-
Run and Fault Output	x	x	12VDC	x	12VDC	Via 24VDC	Via 24VDC	-	-
Heat and Cool Output	x	x	x	12VDC	x	x	x	-	-
Night Mode and Demand Control	x	VFC	x	x	x	x	x	-	-
Connect Mr Slim to M-NET	-	-	-	-	-	-	-	✓	✓

Notes: VFC: Volt free contact. <sup>1</sup> PAC-SJ95MA-E M-NET adaptor for PUZ-ZM60-250, PUZ-M100-250, PUZ-SM100-140.  
 ✓ = Yes, x = No, - = Not applicable.

System Diagram PAC-SA89TA



System Diagram PAC-SA88HA



System Diagram PAC-YT51HAA



System Diagram PAC-YG10HA



System Diagram PAC-SJ95MA-E

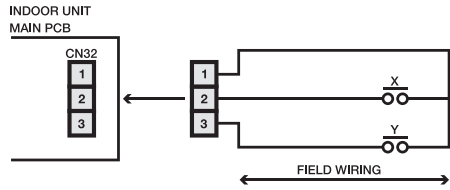


System Diagram PAC-SK15MA-E





## Wiring Diagram PAC-SA89TA



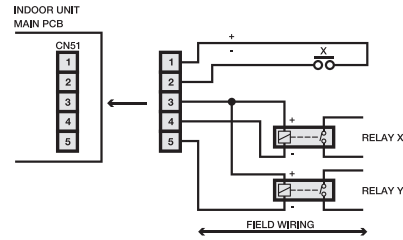
### NOTE

- ON / OFF BUTTON ON THE REMOTE CONTROLLER NOT AVAILABLE
- ADAPTER WIRE COLOURS MAY VARY
- RELAYS NOT SUPPLIED

### OPERATION

- X AND Y CLOSED TO START UNIT

## Wiring Diagram PAC-SA88HA



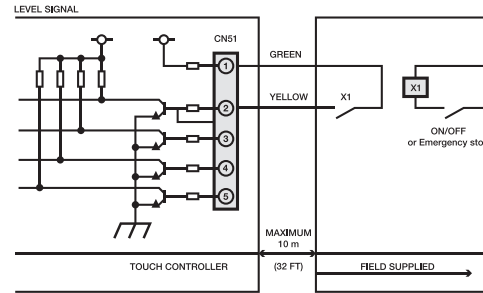
### NOTE

- RELAYS NOT SUPPLIED
- X REQUIRES A PULSE SIGNAL TO START / STOP UNIT

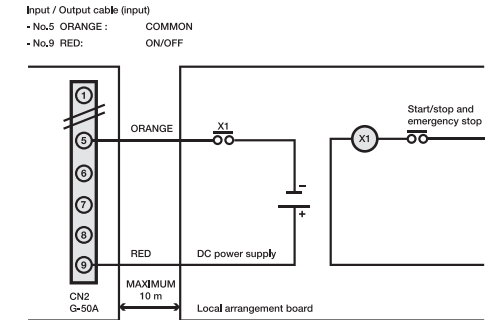
### OPERATION

- RELAY X SUPPLIED WITH 12V DC WHEN UNIT IS ON
- RELAY Y SUPPLIED WITH 12V DC WHEN UNIT IN FAULT

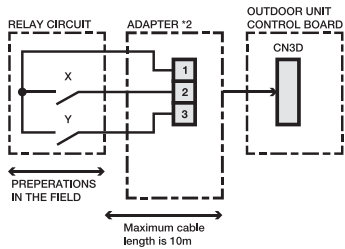
## Wiring Diagram PAC-YT51HAA



## Wiring Diagram PAC-YG10HA



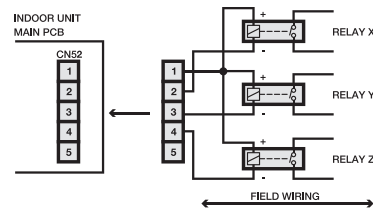
## Wiring Diagram PAC-SA89TA



### NOTE

- X : Low noise mode or demand
- Y : Demand
- X, Y : Relay Contact rating voltage  $\geq 15VDC$   
Contact rating current  $\geq 0.1A$   
Minimum applicable load  $\leq 1mA$  at DC

## Wiring Diagram PAC-SA88HA



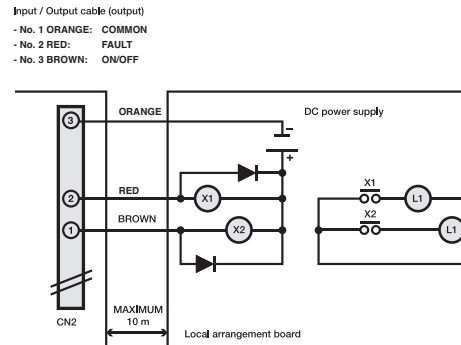
### NOTE

- RELAYS NOT SUPPLIED

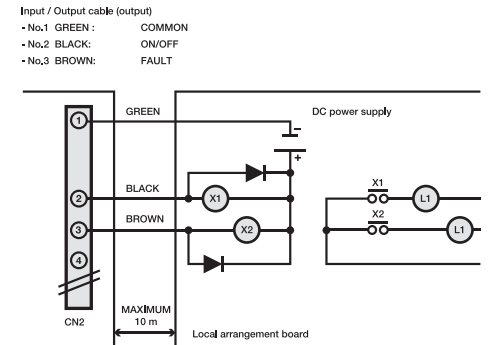
### OPERATION

- RELAY X SUPPLIED WITH 12V DC WHEN FAN IS RUNNING
- RELAY Y SUPPLIED WITH 12V DC WHEN UNIT IS IN COOLING MODE AND THE REMOTE CONTROLLER IS ON OR OFF
- RELAY Z SUPPLIED WITH 12V DC WHEN UNIT IS IN HEATING MODE AND THE REMOTE CONTROLLER IS ON OR OFF

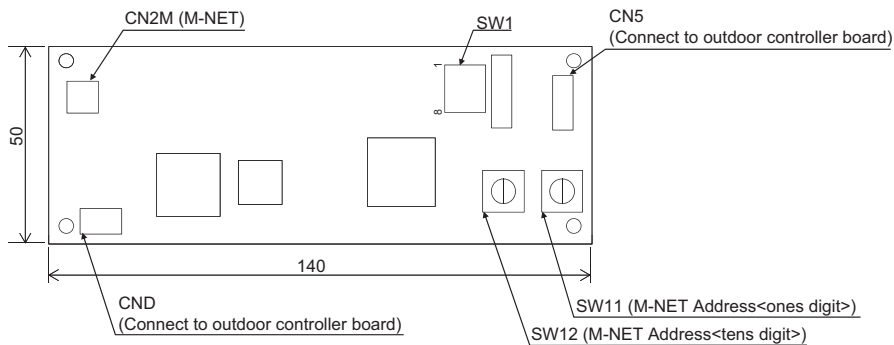
## Wiring Diagram PAC-YT51HAA



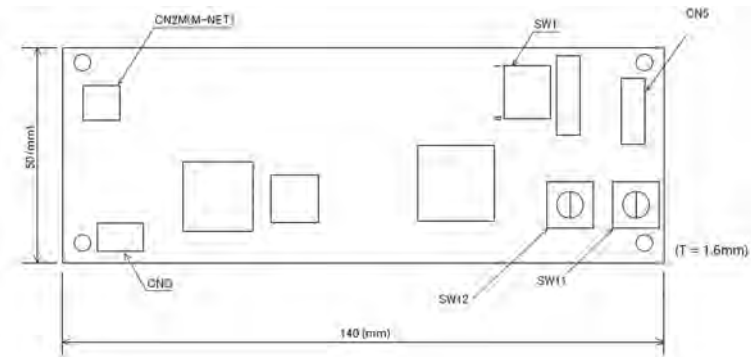
## Wiring Diagram PAC-YG10HA



## Product Dimensions PAC-SJ95MA-E



## Product Dimensions PAC-SK15MA-E



Notes: Dimensional drawing of board, for cover dimensions please see page 6.27

# Advanced Interfaces

A wide range of interfaces are available to allow third party equipment to monitor and control our units. Some interfaces are also available to monitor and control third party equipment from our centralised controllers.

## Key Features & Benefits

### KTR-53B



- Remote on/off
- Run and fault volt free outputs

### MELCORETAIL MINI



- On/off, fire alarm and lock input
- Setpoint and fan speed input
- Run, fault, heat and cool output
- 2 energy saving features

### PAC-YG60MCA



- Monitor up to 4 energy meters

### PAC-YG63MCA



- Monitor up to 2 temperature sensors

### PAC-YG66DCA



- Monitor and control up to 2 pieces of general equipment

### MAC-497IF-E



- Adaptor to connect remote controller to M Series
- Adaptor to connect M Series to M-NET

### MAC-334IF-E



- Adaptor to connect remote controller to M Series
- Adaptor to connect M Series to M-NET
- 3rd party heating interlock

### MAC-587IF-E



- Wi-Fi Interface for MELCloud solution
- ATA, Lossnay and ATW support
- WPS and Wi-Fi pin pairing
- WPS Push mode
- Setting via PAR-41MAA / PAR-SL101A-E

# Advanced Interfaces

## Technical Specification

ADVANCED INTERFACES	KTR-53B	MELCORETAIL MINI	PAC-YG60MCA	PAC-YG63MCA	PAC-YG66DCA
---------------------	---------	------------------	-------------	-------------	-------------






Description	On/Off and Run/Fault Adaptor	Retail Control and Input / Output Interface	Pulse Meter Interface	Temperature and Humidity Interface	Third Party Control and Interface
Connect to	Indoor	Indoor	M-NET Network	M-NET Network	M-NET Network
Max Number of Units	1	1	4 Pulse Meters	1 PT100, 1 Humidity Sensor	2 General Equipment
Compatibility	Mr Slim and City Multi	M Series and Mr Slim	AE-200E and EW-50E	AE-200E and EW-50E	AE-200E and EW-50E
Power Supply	12/24VAC/DC	-	24VDC	24VDC	24VDC
Dimensions (mm) (WxDxH)	80 x 45 x 80	85 x 32 x 138	200 x 45 x 120	200 x 45 x 120	200 x 45 x 120
Control					
On/Off	✓	VFC	-	-	✓
Mode	-	0 to 10VDC	-	-	x
Setpoint	-	0 to 10VDC	-	-	x
Fan Speed	-	0 to 10VDC	-	-	x
Air Direction	-	-	-	-	x
Permit/Prohibit	-	VFC	-	-	x
Filter Sign	-	-	-	-	x
Monitor					
On/Off	✓	VFC	-	-	✓
Mode	-	VFC	-	-	x
Setpoint	-	-	-	-	x
Fan Speed	-	-	-	-	x
Air Direction	-	-	-	-	x
Permit/Prohibit	-	-	-	-	x
Filter Sign	-	-	-	-	x
Fault Codes	✓	VFC	-	-	✓
Room Temperature	-	-	-	-	x
On/Off but Centrally Controlled	Option Lock/Unlock	VFC	x	-	-
On/Off but NOT Centrally Controlled	12/24VAC/DC	VFC	x	-	-
Run Output	x	VFC	x	-	-
Fault Output	x	VFC	x	-	-
Energy Saving	x	VFC	x	-	-
Heat / Cool / Thermo Output	x	VFC	x	-	-
Pulse Weight	x	x	0.1, 1.0 and 10	-	-

Notes: VFC: Volt free contact. ✓ = Yes, x = No, - = Not applicable.

# Advanced Interfaces

## Technical Specification

ADVANCED INTERFACES	MAC-497IF-E	MAC-334IF-E	MAC-587IF-E	
				
Description	Interface for MA Remote Controller, On/Off Input and Run/Fault Output	Interface for M-NET, MA Remote Controller, On/Off Input, Run/Fault Output and 3rd Party Heating Interlock (M Series)	AIR CONDITIONING MELCloud Wi-Fi Interface	ECODAN* MELCloud Wi-Fi Interface
Connect to	Indoor	Indoor	Indoor	Indoor
Max Number of Units	1	1	1	1
Compatibility	M Series and Mr Slim (SUZ)	M Series and Mr Slim (SUZ)	M Series, Mr Slim, City Multi and Lossnay	Ecodan FTC6
Power Supply	-	-	-	-
Dimensions (mm) (WxDxH)	128 x 30 x 76	160 x 55 x 70	73.5 x 18.5 x 41.5	73.5 x 18.5 x 41.5
Control				
On/Off	✓	✓	✓	✓
Mode	x	x	✓	✓
Setpoint	x	x	✓	✓
Fan Speed	x	x	✓	x
Air Direction	x	x	✓	x
Permit/Prohibit	x	x	x	x
Filter Sign	x	x	x	x
Monitor				
On/Off	✓	✓	✓	✓
Mode	x	x	✓	✓
Setpoint	x	x	✓	✓
Fan Speed	x	x	✓	✓
Air Direction	x	x	✓	✓
Permit/Prohibit	x	x	x	x
Filter Sign	x	x	✓	✓
Fault Codes	✓	✓	✓	✓
Room Temperature	x	x	✓	✓
On/Off but Centrally Controlled	x	x	-	-
On/Off but NOT Centrally Controlled	✓	✓	-	-
Run Output	x	x	-	-
Fault Output	x	x	-	-
Energy Saving	x	x	-	-
Heat / Cool / Thermo Output	x	✓	-	-
Pulse Weight	x	x	-	-

Notes: VFC: Volt free contact. ✓ = Yes, x = No, - = Not applicable. \*For further technical specification on the MAC-587IF-E for Ecodan please refer to the Residential Heating Section of the Product Catalogue, pages 4.24 - 4.25.

System Diagram KTR-53B



System Diagram MELCORETAIL MINI



System Diagram PAC-YG60MCA



System Diagram PAC-YG63MCA



System Diagram PAC-YG66DCA



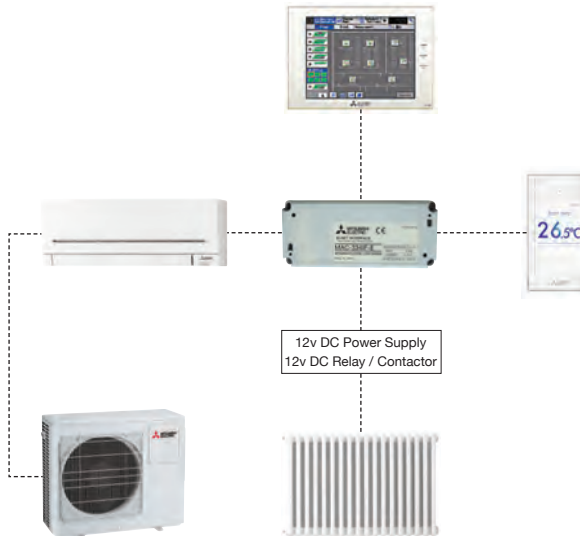
System Diagram MAC-497IF-E



System Diagram MAC-334IF-E



System Diagram MAC-334IF-E Heating Interlock

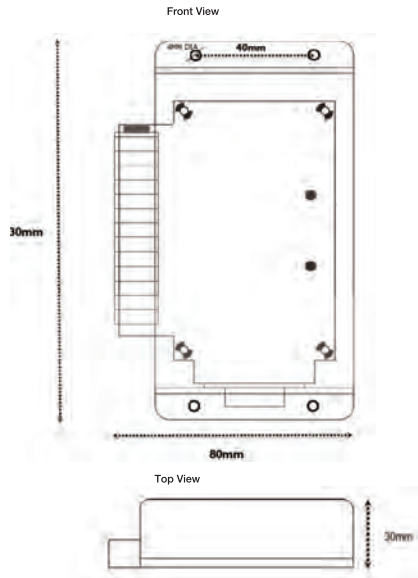


System Diagram MAC-587IF-E



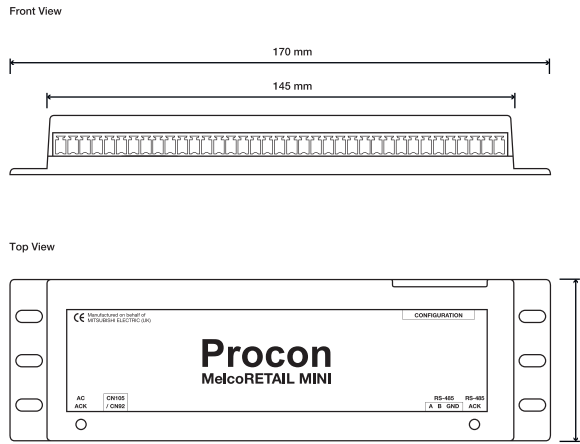
Product Dimensions

KTR-53B



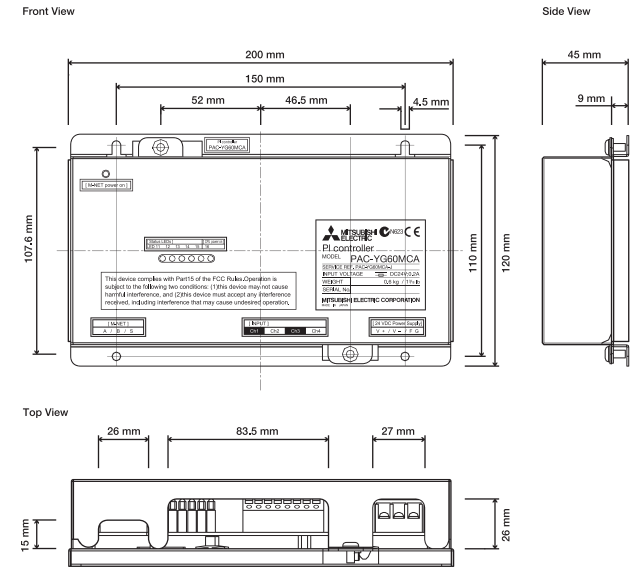
Product Dimensions

MELCORETAIL MINI



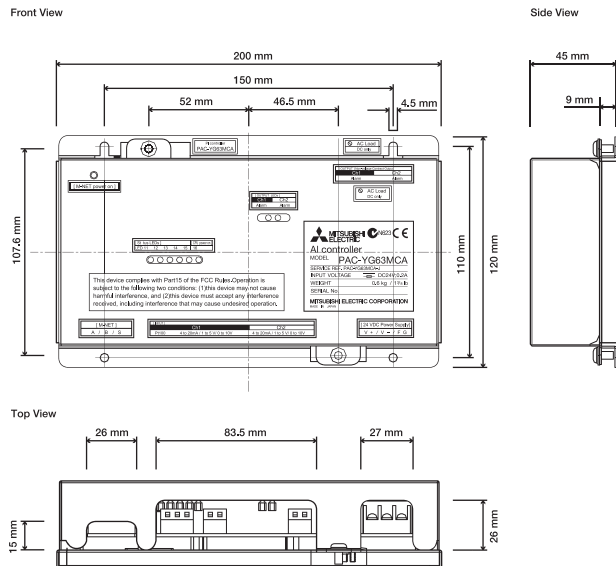
Product Dimensions

PAC-YG60MCA



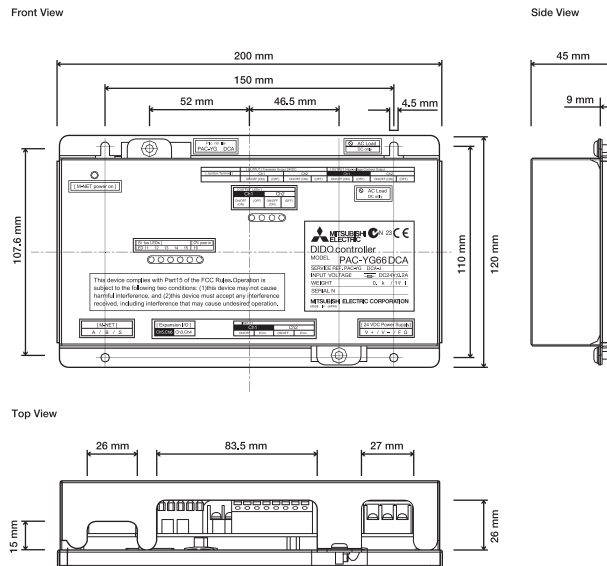
Product Dimensions

PAC-YG63MCA



Product Dimensions

PAC-YG66DCA



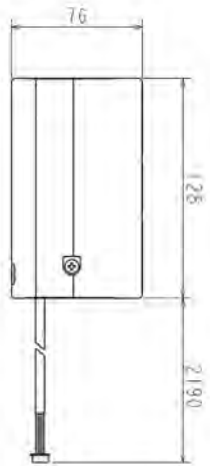
Product Dimensions

MAC-4971F-E

Top View



Front View



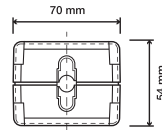
Side View



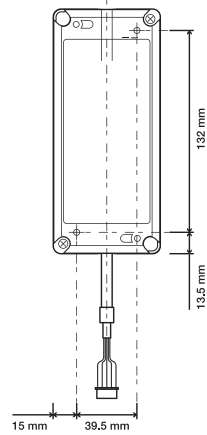
Product Dimensions

MAC-3341F-E

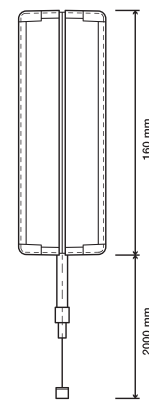
Top View



Front View



Side View



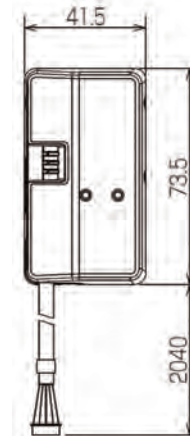
Product Dimensions

MAC-5871F-E

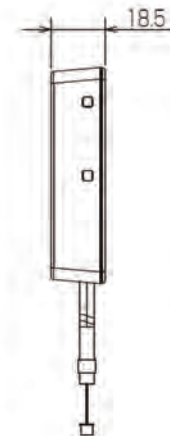
Top View



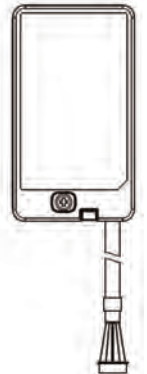
Front View



Side View



Rear View



# BEMS Interfaces

Building Energy Management Systems (BEMS) will allow a building to run efficiently. A wide range of interfaces are available to connect our systems simply to a BEMS.

## Key Features & Benefits

### MELCOBEMS MINI



- Monitor and control up to 1 indoor unit
- Modbus and BACnet interface

### MELCOBEMS



- Monitor and control up to 50 indoor units
- Modbus and BACnet interface
- Energy monitoring

### MELCOBEMS SIP+



- Control and Monitor up to 50 indoor units (up to 200 with EW-50E)
- Multiprotocol, allowing data to be disseminated to one or many BMS, EMS & IoT systems
- Energy Monitoring

### MCC-50E



- Cloud system connection device - MELCloud Commercial IoT platform
- 4G or LAN connection
- Remote access to control, monitor and provide service & maintenance for up to 50 indoor units

### IQ4 XNC



- Monitor and control up to 50 indoor units
- Trend interface

### MELCOJACE-8000






- Monitor and control up to 50 / 100 / 200 indoor units
- Tridium Niagara 4 compatible
- Built in HTML5 web page for plug & play
- On-board library Modbus & BACnet MSTP for Procon MELCOBEMS MINI
- No additional interface required, direct plug & play to centralised controllers
- On-board Wi-Fi application to allow commissioning by PC, tablet or smartphone
- BACnet
- Modbus



# BEMS Interfaces

## Technical Specification

BEMS INTERFACES	MELCOBEMS MINI	MELCOBEMS	MELCOBEMS SIP+	
				
Description	Air to Air Splits Modbus/BACnet Interface. Air (Water) to Water Modbus Interface, Lossnay Modbus Interface	AE-200E, EW-50E Modbus BACnet Interface	Multiprotocol Gateway	
Connect to	Indoor or Ecodan PCB	AE-200E and EW-50E	AE-200E and EW-50E	
Max Number of Units	1	50	200	
Compatibility	M Series, Mr Slim, City Multi, Ecodan FTC6/5/4, e-Series, Ecodan QAHV/CAHV/CRHV and Lossnay (LGH models)	M Series, Mr Slim and City Multi	M Series, Mr Slim, City Multi, e-Series, Lossnay and Ecodan	
Power Supply	-	24VDC	24VDC	
Dimensions (mm) (WxDxH)	70 x 19 x 50	102 x 32 x 180	108 x 60 x 90	
Network	Modbus / BACnet RS485 <sup>1</sup>	Modbus / BACnet RS485 and TCP/IP	Bacnet IP / Modbus Slave TCP/IP and Serial / MQTT and REST (IoT protocols)	
BEMS Compatibility	Cylon, Satchwell, Crestron, Invensys, Interactive Homes, North BT, Andover, Siemens, WEMS, RDM	Cylon, Satchwell, Crestron, Invensys, Interactive Homes, North BT, Andover, Siemens, WEMS, Andover Controls, York BMS, Siemens, Priva Building Intelligence, Delta Controls, RDM	Trend, Cylon, Satchwell, Crestron, Invensys, Interactive Homes, North BT, Andover, Siemens, WEMS, Andover Controls, York BMS, Siemens, Priva Building Intelligence, Delta Controls, RDM	
Control		Air to Air Splits and Lossnay	Air (Water) to Water	
	On/Off	DI	AI	DI
	Mode	AI	AI	AI
	Setpoint	AI	AI	AI
	Fan Speed	AI	-	AI
	Air Direction	AI	-	AI
	Permit/Prohibit	x	AI	DI
	Filter Sign	DI	-	DI
Monitor	On/Off	DO	DO	DO
	Mode	AO	AO	AO
	Setpoint	AO	AO	AO
	Fan Speed	AO	-	AO
	Air Direction	AO	-	AO
	Permit/Prohibit	x	AO	DO
	Filter Sign	DO	-	DO
	Fault Codes	AO	AO	AO
	Room Temperature	AO	AO	AO
	Daily kW Energy	-	AO	With EW-50E
	Monthly kW Energy	-	AO	With EW-50E




Key: DI = Digital Input. DO = Digital Output. AI = Analogue Input. AO = Analogue Output.

Notes: <sup>1</sup> Function only available on M Series, Mr Slim and City Multi.

The MELCOBEMS can monitor indoor daily and monthly kWh when used in conjunction with AE-200E, EW-50E, PAC-YG60MCA on third party energy meters.

# BEMS Interfaces

## Technical Specification

BEMS INTERFACES	MCC-50E	IQ4 XNC	MELCOJACE-8000
			
Description	Cloud System Connection Device	AE-200E and EW-50E Trend Interface <sup>1</sup>	AE-200E & EW-50E Tridium Niagara Interface <sup>2</sup>
Connect to	M-NET Network	AE-200E and EW-50E	AE-200E, EW-50E
Max Number of Units	50 Indoor / 50 Outdoor / 4 Energy Meters	50	50 / 100 / 200
Compatibility	M Series, Mr Slim, and City Multi	M Series, Mr Slim, City Multi and Lossnay	M Series, Mr Slim, City Multi and Lossnay
Power Supply	220-240v, 50Hz	220-240v, 50Hz	24v, AC/DC
Dimensions (mm) (WxDxH)	172 x 100 x 209	263 x 46 x 150	171 x 61 x 110
Network	IoT (MELCloud Commercial) / LAN / 4G	Trend	Niagara
BEMS Compatibility	-	Trend	Any Niagara compatible BEMS
Control	On/Off Mode Setpoint Fan Speed Air Direction Permit/Prohibit Schedule Filter Sign	DI DI DI DI - DI DI DI	✓ ✓ ✓ ✓ ✓ ✓ - ✓
Monitor	On/Off Mode Setpoint Fan Speed Air Direction Permit/Prohibit Cloud Communication Filter Sign Fault Codes Room Temperature Daily kWh Energy Monthly kWh Energy Comfort Data	DO DO DO DO - DO DO DO DO DO DO DO DO DO	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ <sup>3</sup> ✓ <sup>3</sup> -

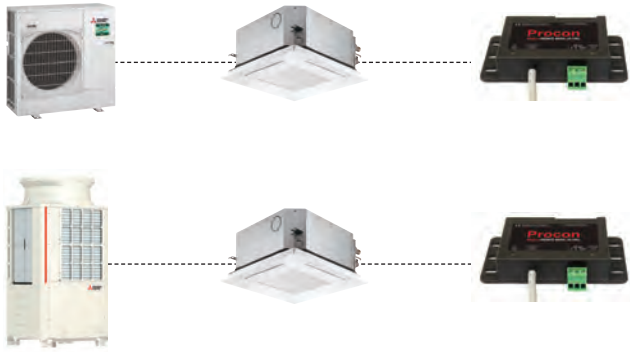
Notes: The PAC-YG\*\*\*CA are not compatible with MELCOBEMS and IQ4 XNC.

<sup>1</sup> Synapsys Solutions Ltd, 1 Woodlands Court, Albert Drive, Burgess Hill, West Sussex, RH15 9TN, Telephone 0845 680 0303

<sup>2</sup> The MELCOJACE-8000 range is only available from Forest Rock Systems Ltd, Charmwood Building, Holywell Park, Ashby Road, Loughborough, LE11 3AQ. Telephone: 0845 5197958

<sup>3</sup> The MELCOJACE-8000 can monitor indoor daily and monthly kWh when used in conjunction with AE-200E, EW-50E, PAC-YG60MCA on third party energy meters.

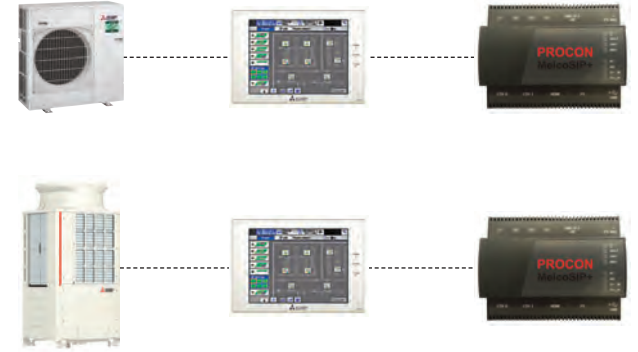
**System Diagram** MELCOBEMS MINI



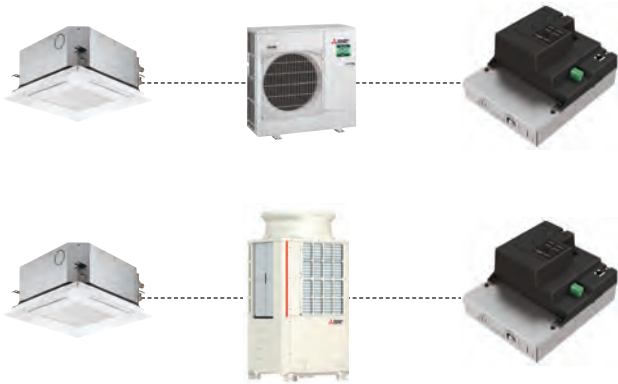
**System Diagram** MELCOBEMS



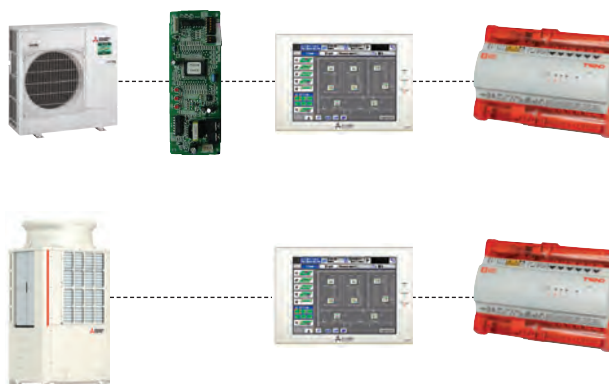
**System Diagram** MELCOBEMS SIP+



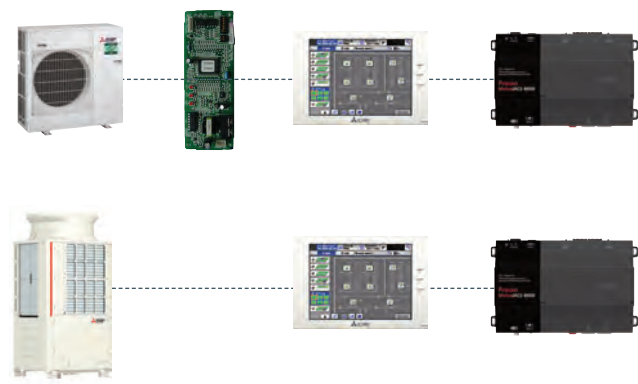
**System Diagram** MCC-50E



**System Diagram** IQ4 XNC

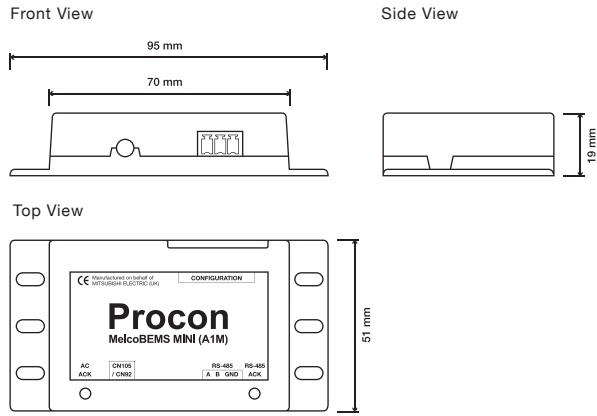


**System Diagram** MELCOJACE-8000



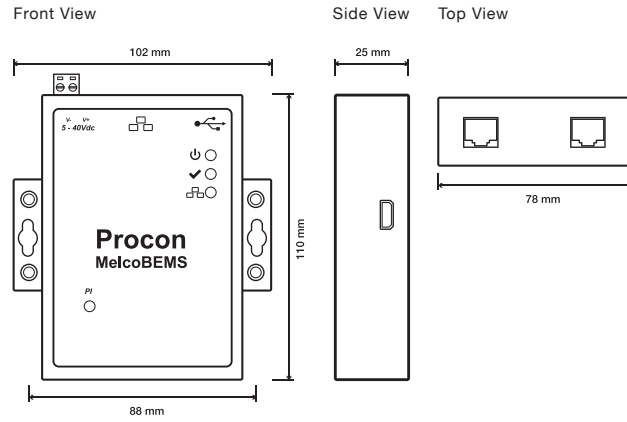
Product Dimensions

MELCOBEMS MINI



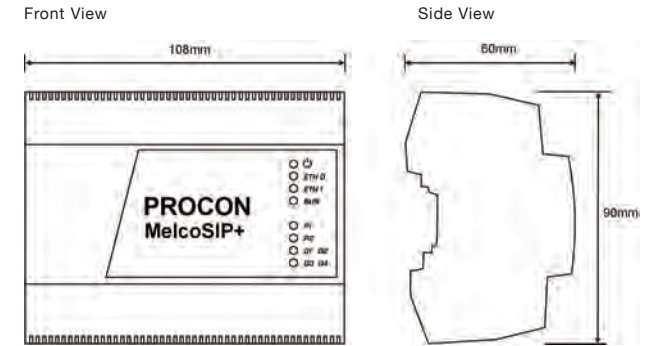
Product Dimensions

MELCOBEMS



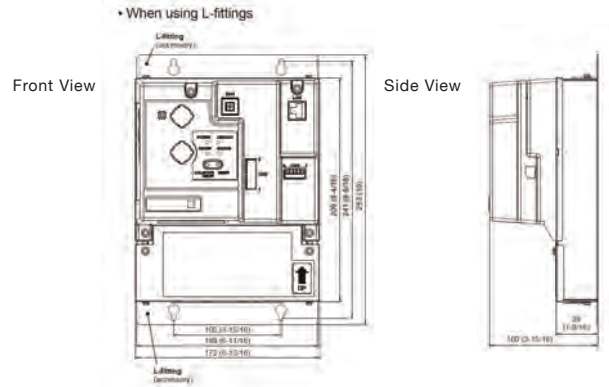
Product Dimensions

MELCOBEMS SIP+



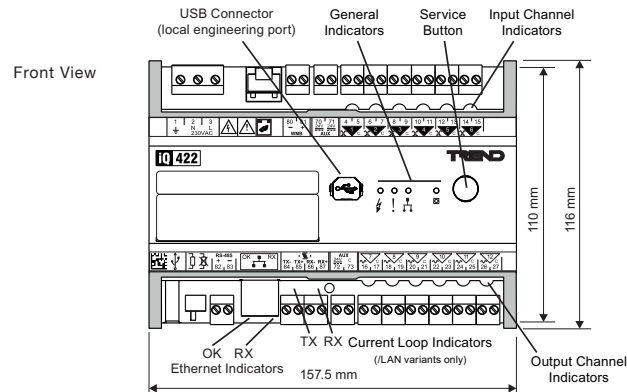
Product Dimensions

MCC-50E



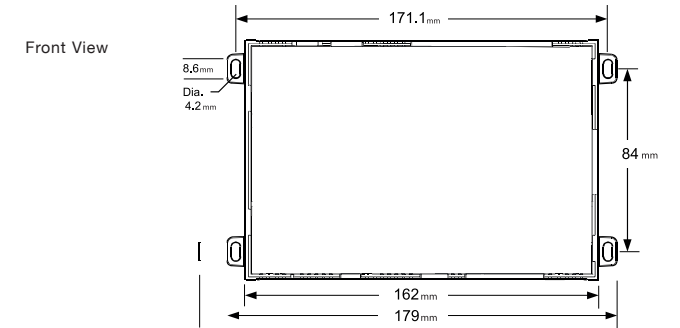
Product Dimensions

IQ4 XNC



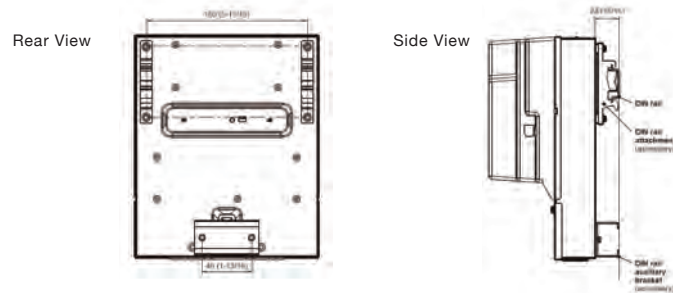
Product Dimensions

MELCOJACE-8000



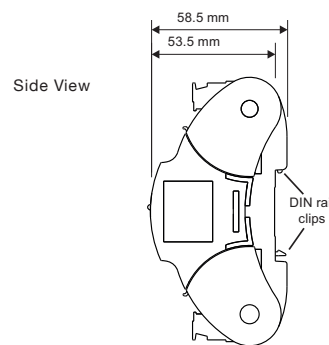
Product Dimensions

MCC-50E



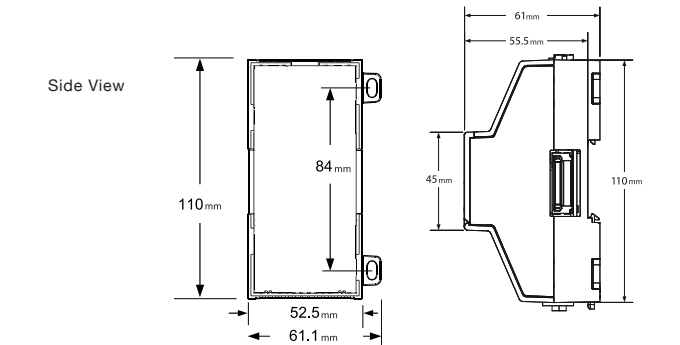
Product Dimensions

IQ4 XNC



Product Dimensions

MELCOJACE-8000



# AT-50B Screen Examples

AT-50B Home Screen 1



AT-50B Home Screen 2



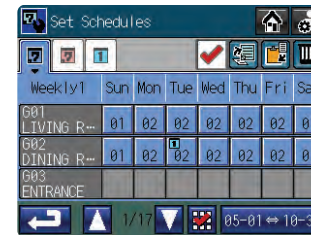
AT-50B Home Screen 3



AT-50B Indoor Unit Settings



AT-50B Scheduling



# AE-200E Screen Examples

AE-200E Home Screen 1



AE-200E Home Screen 2



AE-200E Home Screen 3



AE-200E Indoor Unit Settings



AE-200E Monitoring



AE-200E Energy Monitoring



# AE-200E HTML5 Web Page Examples

Home Screen



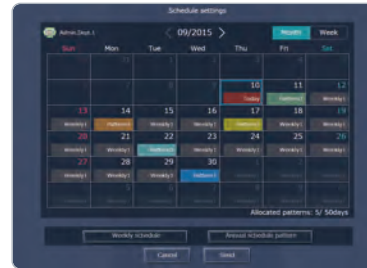
Group Screen



Floor Layout



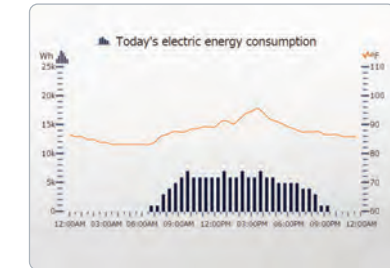
Scheduling



Energy Display



Energy Graph



# AE-200E HTML5 Mobile Examples

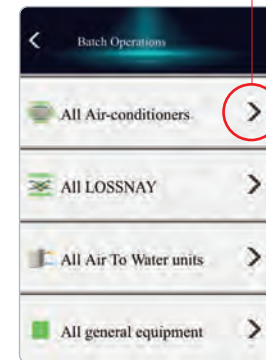
Home Screen

Batch operation  
Click to operate all groups at once



Batch Control

Advanced settings



Individual Control

Cancel

Send



Detailed Control

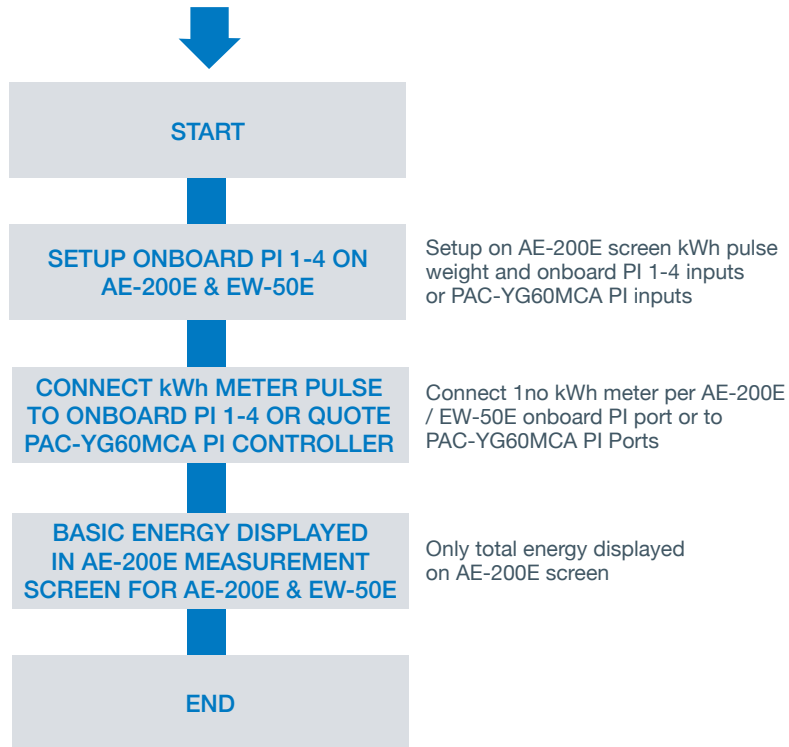
Advanced settings



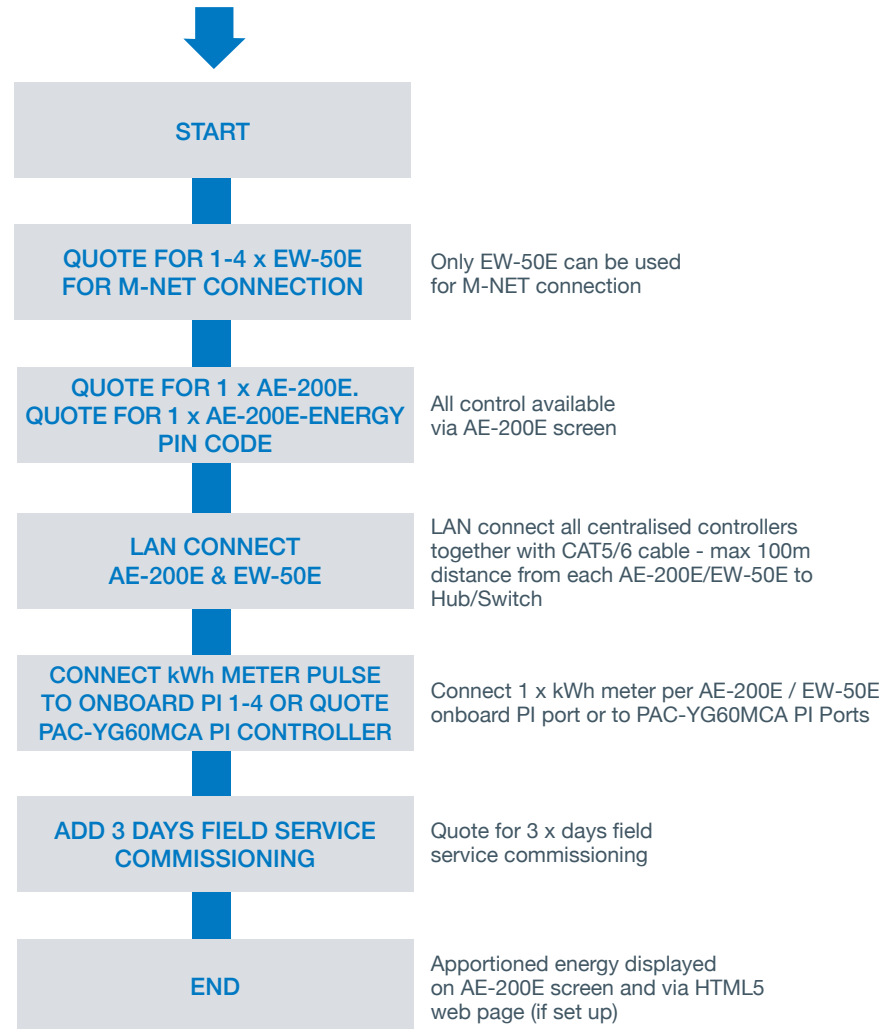
# How to Quote

## How to quote an AE-200E System Controller with Energy Monitoring

### How to quote Basic Energy Measurement

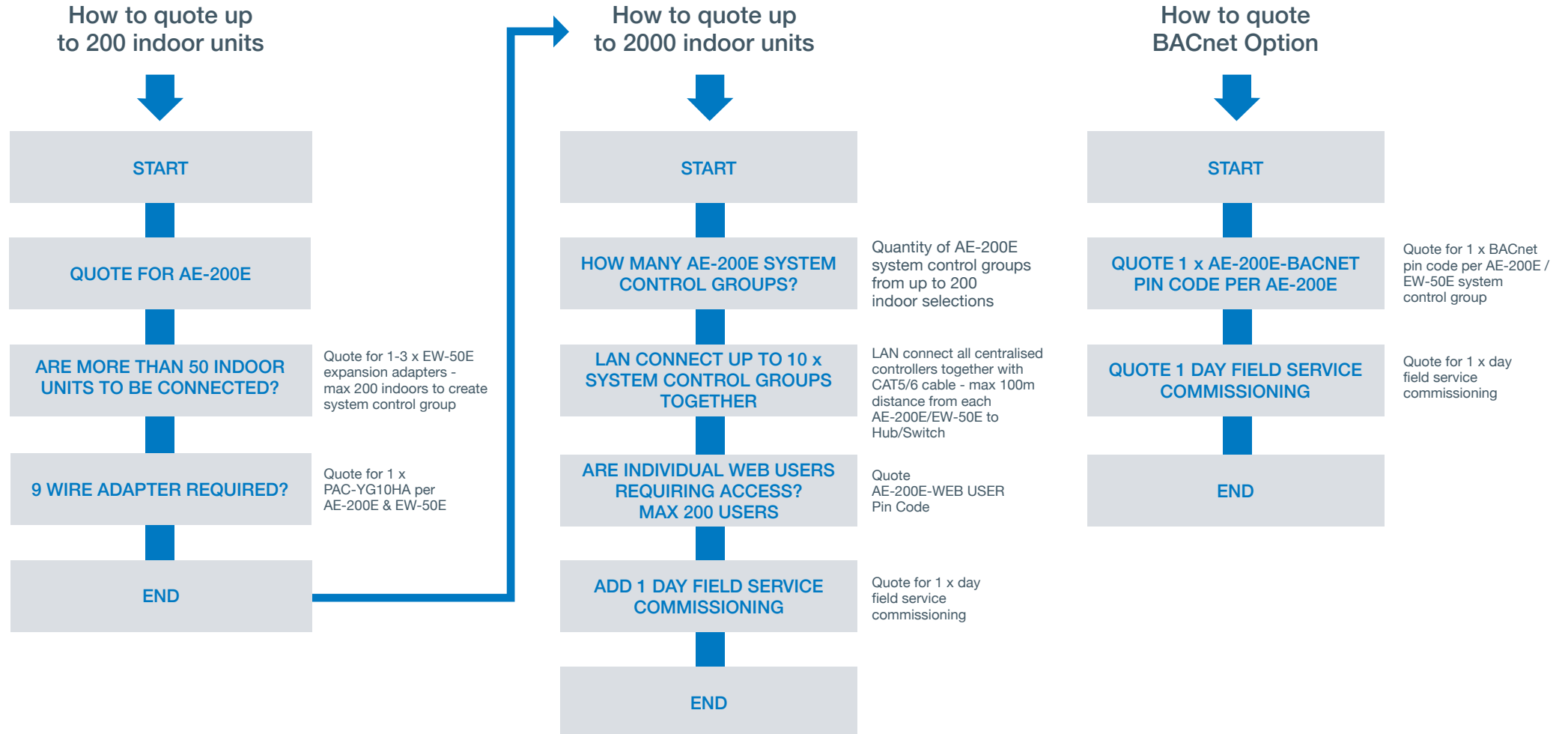


### How to quote Energy Apportioning



# How to Quote

## How to quote an AE-200E System Controller & BACnet Option





# Services

Support at every step of the way





## Support at every step of the way

At Mitsubishi Electric, we have not only developed an innovative range of cooling, heating, ventilation and control solutions, we have also examined how we support the market throughout the complete lifecycle of our products - from cradle to grave.

Whether in pre-sales design and specification, installation, or service and maintenance support, right through to our recycling programme, we can offer solutions that deliver the quality and excellence you would expect to make a world of difference.

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# MELSmart Technical Services

## Advanced, reliable technical support at every step of the way

Meeting today's energy challenges for our commercial premises demands more integrated thinking from everyone involved in the design, supply, installation, commissioning and maintenance of essential building services - whether it is for an individual property or a national estate.

Ever increasing energy bills, the need to reduce carbon emissions and a raft of challenging legislation are driving the demand for increased energy efficiency and control in the cooling, heating, ventilation and associated technologies that we use.

As a manufacturer, we realise that product development alone is not enough. To keep our products working at their optimum, we have developed the MELSmart approach to ensure our customers are able to maximise the energy efficiency of their building's services right from the start.

MELSmart offers a range of support that includes:

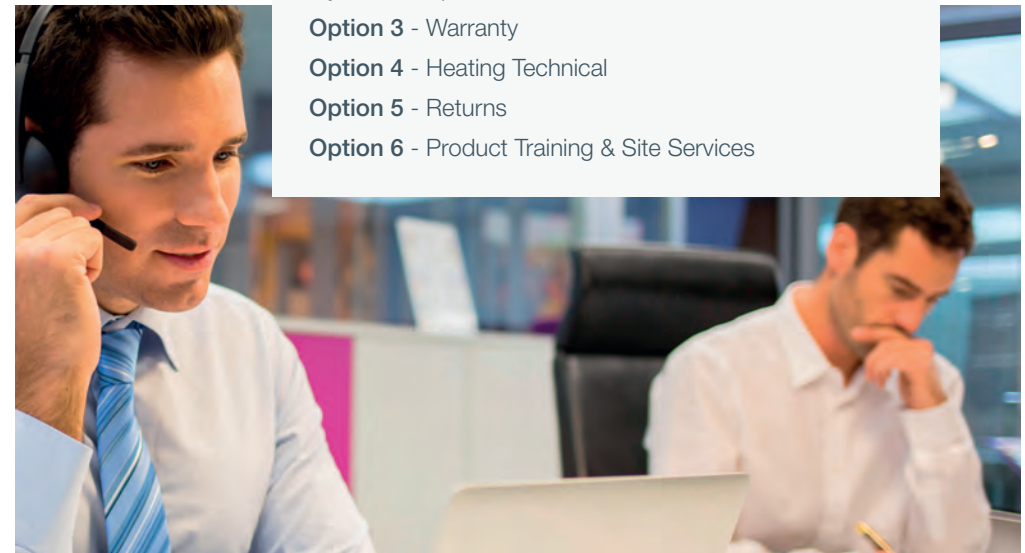
- Site Services
- 24/7/365 Technical Help Desk
- Spare Parts, Warranty & Returns
- CPD Accredited Technical Product Training

**Whatever the challenge, we're here to help you meet it.**

### MELSmart Customer Services & Support

**Telephone: 0161 866 6089**

- Option 1 - Air Conditioning Technical
- Option 2 - Spares
- Option 3 - Warranty
- Option 4 - Heating Technical
- Option 5 - Returns
- Option 6 - Product Training & Site Services



## Fault Finding

Our Fault Finding service is carried out on new and existing installations to identify problems and offer resolutions to ensure the system is returned to a fully operational condition in the shortest possible timeframe.

Our Fault Finding service is available across our entire product range. During the Fault Finding process, our engineers will carry out assessments of the following to determine a resolution:

- System design, application and specification
- Standard of installation
- Operational performance of equipment
- Current and historic fault codes

Product	Detail
<b>Air Conditioning</b>	One day per reported fault
<b>Controls</b>	One day per reported fault
<b>Hybrid VRF</b>	One day per reported fault
<b>e-Series Chillers</b>	One day per reported fault
<b>Commercial Heating</b>	One day per reported fault

**Note:** Whilst our engineers will carry out a thorough assessment of the system and provide recommendations to rectify any issues, they do not carry spare parts and cannot provide a same day resolution in the event of part failure. If equipment failure due to manufacturing is discovered, no cost will be raised and the visit will be carried out F.O.C. It is the responsibility of the customer to provide access to all of the affected equipment on site. Whilst our engineer will identify any installation and setup issues that are affecting performance, it is the responsibility of the contractor to rectify any problems.



## Services and Support

**MELSMART**  
TECHNICAL SERVICES

### Commissioning

Our assisted commissioning service is aimed at both new and existing customers; the objective is to demonstrate how to commission our systems effectively, so that customers can carry out these tasks unassisted in the future.

Our commissioning service is available across our full product range including: **Air Conditioning, Controls, Hybrid VRF, e-Series Chillers and Commercial Heating products.**

#### During the commissioning process, our engineers will carry out the following tasks:

- Comprehensive inspection of the installed system to ensure the system meets Mitsubishi Electric specification
- Check the system addressing and advise on any incorrect settings
- For systems other than controls we will operate in both cooling and heating modes where applicable and record temperatures, pressures and water flow rates for the system
- Supervise the completion of commissioning logbooks



Type of Commissioning	Detail	Control System	Commissioning Days	Charge Pin Codes	Bacnet Pin Code
<b>Air Conditioning</b>	Max 3 City Multi systems per day	<b>1 x AE-200E + 1-4 EW-50E</b>	1 day	1 - 5	1 - 5
<b>Controls</b>	1 x AE-200 and up to 4 x EW-50E per day	<b>2 x AE-200E + 1-4 EW-50E</b>	2 days	1 - 10	1 - 10
<b>Hybrid VRF</b>	½ day pre installation visit ½ day mid installation visit 2 day commissioning visit	<b>3 x AE-200E + 1-4 EW-50E</b>	3 days	1 - 15	1 - 15
<b>e-Series</b>	Max 4 chillers per day	<b>4 x AE-200E + 1-4 EW-50E</b>	4 days	1 - 20	1 - 20
<b>Commercial Heating</b>	Max 3 units per day*	<b>5 x AE-200E + 1-4 EW-50E</b>	5 days	1 - 25	1 - 25

Whilst our engineer will supervise the successful completion of all tasks and address any questions or skill gaps that present themselves, it is the responsibility of the installing contractor under supervision to carry out all of the listed tasks. Whilst our engineer will supervise the successful completion of the commissioning logbooks, it is the responsibility of the customer to complete and submit the commissioning logbooks to Mitsubishi Electric unless specified.

\*Transit bolts must be removed before we arrive on site. If transit bolts are not removed additional time and cost may be incurred.

## Health Checks

Our Health Check service is carried out on existing installations to ensure that the system is operating within our design parameters. The service is available to both new and existing customers and the objective is to establish a fully operational system.

Our Health Check service is available for the following product ranges: Air Conditioning including Hybrid VRF, e-Series Chillers and Commercial Heating products. During the Health Check process, our engineers will carry out the following tasks:

- Comprehensive visual inspection of the installed system to ensure the system meets Mitsubishi Electric specification
- Check the system addressing and advise on any incorrect settings
- Full operation in both cooling and heating modes where applicable
- Record operating data including temperatures, pressures and water flow rates of outdoor units, BC Boxes and indoor units to determine the correct operation



Product	Detail
Air Conditioning	Up to 3 systems per day
Hybrid VRF	Up to 2 systems per day
e-Series Chillers	Up to 4 systems per day
Commercial Heating	Up to 3 systems per day

**Note:** Whilst our engineer will ensure the successful completion of all tasks and address any questions or skill gaps that present themselves, it is the responsibility of the contractor to provide access to all equipment. Whilst our engineer will identify any installation and setup issues that are affecting performance, it is the responsibility of the contractor to rectify any problems.



## Services and Support



### Product Training

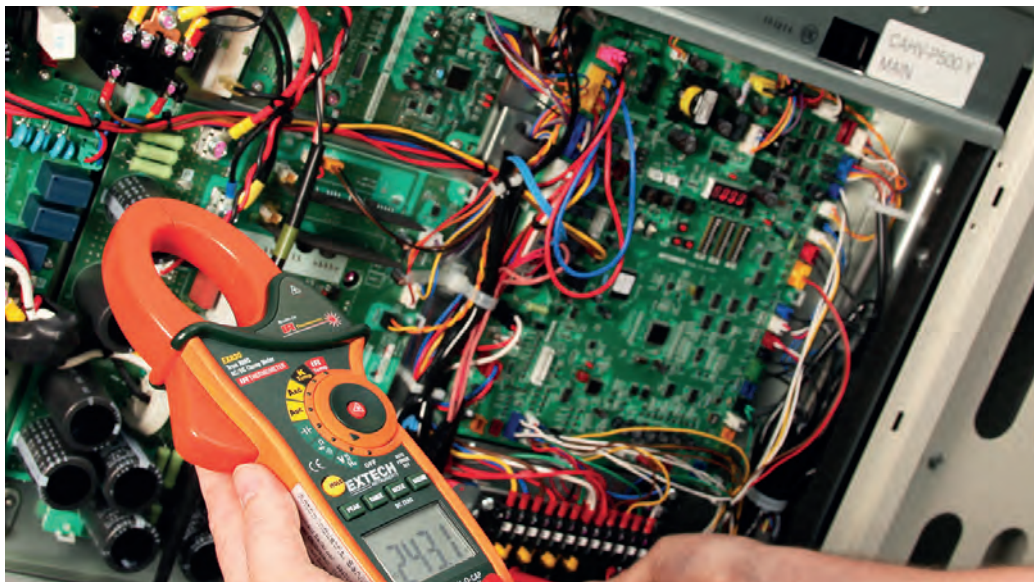
Mitsubishi Electric has six state-of-the-art training suites based at Hatfield, Birmingham, Bristol, Manchester, Scotland and Reigate for your convenience.

Providing product training for all levels of expertise, our courses are taught by experienced engineers, with a wealth of knowledge and are all CPD accredited.



For bookings please telephone  
**0161 866 6089** (Option 6, Option 1)






Product Range	Course	Reference
City Multi (VRF)	Design and Application	CMDA
City Multi (Hybrid VRF)	Hybrid VRF Design, Application, Installation and Commissioning	HVRF
City Multi	Installation and Commissioning	CMPT1
City Multi	Service and Fault Finding	CMPT2
City Multi	Monitor Tool	MT
M Series and Mr Slim	Installation, Service and Fault Finding	MPISF
Ecodan	Design and Application Part 1	ED&A
Ecodan	Installation and Commissioning Part 2	EI&C
Ecodan	Service and Fault Finding Part 3	ES&FF
Lossnay	Design, Application, Installation and Commissioning	LOSSNAY





## City Multi / Chiller Stripdown

For installations where the City Multi / Chiller outdoor unit(s) cannot be moved to the final location, Mitsubishi Electric offer a City Multi / Chiller strip down service.

Product Range	Model Reference	Product Range	Model Reference
	<p>PURY-EM/EP YNW-A1                      PURY-M/P YNW-A1 <small>Small Module</small>                      PUHY-M/P YNW-A1</p>		<p>PQRY-P YLM-A1                      PQHY-P YLM-A1</p>
	<p>PURY-EM/EP YNW-A1                      PURY-M/P YNW-A1 <small>Large Module</small>                      PUHY-P YNW-A1</p>		<p>EACV                      EAHV                      Climaveneta Chillers</p>
	<p>PURY-EM/EP YNW-A1                      PURY-M/P YNW-A1 <small>Extra Large Module</small>                      PUHY-P YNW-A1</p>		

## Chiller Service and Maintenance for Central Plant and I.T. Cooling

We are now able to bring Mitsubishi Electric quality to your service and maintenance contract, using the very latest technology for in-field reporting and diagnostics. Our highly trained and qualified chiller service and maintenance engineers are based nationwide, operating from our network of service offices. Our engineers are experienced in the servicing, maintenance and repair of chiller systems across the industry.

### What we do:

- Comprehensive service and maintenance plans
- National coverage (four dedicated service centres)
- Fast response times
- Reactive-response and call-out service
- Spare parts
- F-Gas and REFCOM Elite accredited engineers
- 24/7 365 emergency call out service
- Service and maintenance for all manufacturers' applied products
- Commissioning / Start-up
- System checks
- Fault finding
- Extended warranties
- Strip-downs (model / application specific)



### For further information and Service & Maintenance enquiries:

Hatfield: 01707 278683

Birmingham: 0121 607 2375

Manchester: 0161 866 6070

Scotland: 01786 450348

National Spares: 0161 866 6089 (option 2)

Email:

[melsmartservicelondon@meuk.mee.com](mailto:melsmartservicelondon@meuk.mee.com)

[melsmartservicebirmingham@meuk.mee.com](mailto:melsmartservicebirmingham@meuk.mee.com)

[melsmartservicemanchester@meuk.mee.com](mailto:melsmartservicemanchester@meuk.mee.com)

[melsmartservicestirling@meuk.mee.com](mailto:melsmartservicestirling@meuk.mee.com)

### Design and Consulting Services

As part of the Mitsubishi Electric commitment to supporting robust application of our leading technologies, a team of consultant sales professionals work nationally with mechanical building services specifiers and consultants to achieve early engagement in project design.

Clients are able to apply cooling, heating, ventilation and controls confidently within their individual projects, with the emphasis on a solution-based philosophy to support 'as-designed' performance and efficiencies.

This approach helps projects realise 'as-specified' performance and efficiency levels - all designed to achieve the most efficient and cost-effective outcome for the building operator, whilst reducing the overall environmental impact.

As initial designs move from the drawing board through planning, procurement, installation and commissioning, to on-going operation and use, we work closely with our customers to balance capital expenditure, system efficiencies, installation costs, control strategies and running costs.



### Working in the real world

Recognising the commercial and delivery pressures of projects in the real world Mitsubishi Electric has in place a number of technically focused Business Development Managers.

Our team support the M&E roll out and tackle the challenges associated with change of building use or layout (design evolution) from original design, supporting this through robust value engineering that does not compromise the original design or performance criteria.

We understand the link between effective design and achieving the best outcomes for built environment owners, operators and users. The goal of our team is therefore to ensure robust design and to support an equally robust implementation.

Getting the right balance between capital cost, system efficiencies, installation costs, control systems and ultimately operating costs all need to be considered at an early stage to ensure a positive outcome.

The market-leading service we offer our clients is framed by on-going professional and personal development of our employees to meet ever increasing customer needs in product knowledge, industry practice and legislation.



## Services and Support

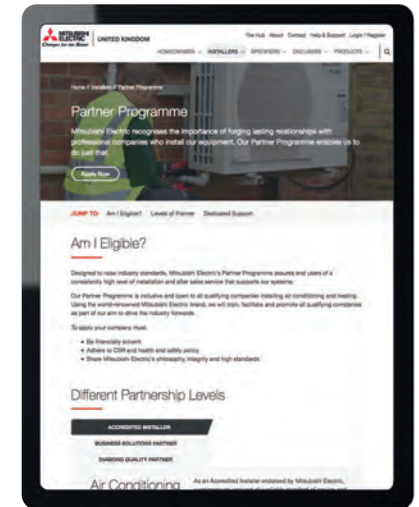
### Mitsubishi Electric Partner Programme

The Mitsubishi Electric Partner Programme is inclusive and open to all qualifying air conditioning and heating installation companies, large or small.

Using the world-renowned Mitsubishi Electric brand, we will train, support and promote all qualifying companies as part of our aim to drive the industry forwards. Mitsubishi Electric recognises the importance of forging lasting relationships with professional companies who install our equipment. Our Partner Programme enables us to do just that.

Established in 2005 and designed to raise industry standards, our Partner Programme assures end users of a consistently high level of installation and after sales service that supports our systems. To be eligible to join our scheme in the first instance, prospective installation partners must comply with the necessary building regulations and meet specific industry, programme and CSR standards.

All partners are reviewed on a regular basis to ensure they continue to meet the required standards that makes them eligible to be part of the Mitsubishi Electric Partner Programme.



#### How to apply for the Partner Programme:

Speak to your Mitsubishi Electric Representative or email [partner@meuk.mee.com](mailto:partner@meuk.mee.com)



## Partner Programme Benefits

### ■ Dedicated Partner Programme Team

Our dedicated Partner Programme Team are on hand to give Partners the support they need.

### ■ Mitsubishi Electric Customer Portal

We have developed our Customer Portal to help our Partners grow their business by enhancing their online presence on channels such as social media and via their own website.

Product images, social media copy, easy to follow strategy guides and marketing training videos are just a few examples of free content that can be downloaded.

Take a look today and see how you can use this to grow your business:  
[les.mitsubishielectric.co.uk/customer-portal](https://les.mitsubishielectric.co.uk/customer-portal)

### ■ Joint Marketing / Relationship Development Fund (RDF)

We will work with Partners to promote our relationship and generate awareness of the unique business benefits of the Partner Programme to end-users.

We operate a Partner Programme Relationship Development Fund (RDF) allocated in relation to their commercial activities with Mitsubishi Electric.

You can submit your claims forms online at:  
[les.mitsubishielectric.co.uk/customer-portal/make-a-claim](https://les.mitsubishielectric.co.uk/customer-portal/make-a-claim)

### ■ Online Workwear and Promotional Goods Portal

Partners can take advantage of their RDF to enhance their company image with dual branded work wear and promotional items.

[les.mitsubishielectric.co.uk/customer-portal/promotional-goods](https://les.mitsubishielectric.co.uk/customer-portal/promotional-goods)

### ■ Product and Industry Training

Our Partners receive a free allocation of training courses and additional courses can be funded from the Relationship Development Fund.

### ■ 24hr Technical Support

To assist our Partners in the maintenance of our equipment, we have a dedicated technical support team who will endeavour to speedily diagnose faults and offer solutions to the problems our Partners may encounter.

### ■ Extended Warranty

We will offer all Partners who adhere to our standards exclusive extended product warranties.

### ■ Business Support Tools

We have made it easier to do business with Mitsubishi Electric through the introduction of new technologies and our business tools available to Partners.

### ■ Factory Visits & Events

Our Partners and their clients will have the opportunity to witness first-hand the manufacture of air conditioning and Ecodan units at our manufacturing facility in Scotland. We organise regular factory visits to our manufacturing facility in Scotland, along with other events designed to develop our Partners expertise and support them in growing their business.



## Services and Support

### Mitsubishi Electric Deliveries

At Mitsubishi Electric, we realise that our customers' businesses can depend on getting the right equipment on site at the right time.

That's why we have developed a comprehensive and flexible delivery programme with one of the longest delivery windows in the industry. With the ability to offer timed, weekend and Public Holiday deliveries, coupled with free 'Text Ahead' and 'Ring Ahead' functions, we aim to keep our customers informed every step of the way.

#### Delivery Notes

- Cut off for next day deliveries is 1.00pm on the working day prior to delivery, or 2.30pm for orders placed via e-shop
- Standard weekday delivery is between 8.00am and 5.30pm for pallet deliveries, and 7.00am and 7.00pm for parcel deliveries
- AM / PM / Timed / Weekend / Public Holiday deliveries are all available (additional notice needed and charges will apply - please refer to full delivery guidelines for further details)
- Standard delivery will normally be made on an 18T rigid lorry equipped with a tail lift and a single driver with a pump truck
- Other vehicle types will be utilised dependant on any site access issues and delivery size
- If there are access restrictions at your nominated delivery point and a vehicle other than an 18T lorry is required, this will need to be booked in advance and a charge may apply
- Our 'Text Ahead' and 'Ring Ahead' functions are available on all deliveries with the exception of parcel providers, which will offer 'Text Ahead' only
- Deliveries available via HIAB (Flatbed vehicle with crane) / with chapter 8 signage - require 48 hours' notice and extra charges may apply
- We offer a 2-man delivery service, removal of packaging and a stair walker - these require 48 hours' notice and extra charges will apply
- Mitsubishi Electric is an Associate Member of the Fleet Operator Recognition Scheme (FORS) and all of our vehicles are FORS accredited to Bronze level
- Collection is also available from our Milton Keynes warehouse - this must be pre-arranged and require at least 3 hours' notice
- Returns to be notified within 30 working days - Terms and Conditions apply
- MEHITS product deliveries are subject to alternate delivery arrangements - Terms and Conditions apply
- Please ensure shortages or damages are marked on the delivery note and notified within 3 working days

### Mitsubishi Electric Website, Document Library and The Hub

#### Website

For further information on any of our products and services please visit our website: [les.mitsubishielectric.co.uk](http://les.mitsubishielectric.co.uk) which has been designed to provide a detailed overview of the energy saving solutions we can provide you.

#### Document Library

Our website: [library.mitsubishielectric.co.uk](http://library.mitsubishielectric.co.uk) features all current operating and installation manuals, as well as product literature, case studies, CPD guides and more. There is no requirement for visitors to login to our sites to download the latest product and technical information. A document library app is also available allowing visitors to access this information simply from their tablet or smart phone.



#### The Hub - online content portal

The Hub is a new approach from Mitsubishi Electric which offers useful and informative comments and articles from both leading independent editors and technical experts on the issues affecting the built environment, please visit: [thehub.mitsubishielectric.co.uk](http://thehub.mitsubishielectric.co.uk)

#### CPD Information Guides

Mitsubishi Electric is accredited by the Construction CPD Certification Service in many different areas, aimed at enhancing the knowledge of its customers and providing a view of the key issues facing our industry today.



We have produced a number of Industry Information Guides that are available to download from our Document Library. We also run a number of CPD seminars and training courses across the UK. **To find out more, simply contact your local Mitsubishi Electric sales office.**







# Sales Contacts



## Head Office

Delta House, Fairway, Bridgtown, Cannock, Staffordshire WS11 0DJ

Telephone: 01543 437 010

Email: [sales@fsw.uk.com](mailto:sales@fsw.uk.com)

[www.fsw.uk.com](http://www.fsw.uk.com)

### AC Assist

Tel: 0118 930 5110 Fax: 0118 932 3111

### Belfast

Tel: 028 9066 5999 Fax: 028 9066 5888

### Birmingham

Tel: 0121 328 8388 Fax: 0121 327 7266

### Bradford

Tel: 01274 664900 Fax: 01274 666071

### Bristol

Tel: 0117 906 1300 Fax: 0117 906 1301

### Cannock

Tel: 01543 437 010 Fax: 01543 437 029

### Cardiff

Tel: 02920 794 573 Fax: 02920 770 635

### Chelmsford

Tel: 01245 468 836 Fax: 01245 462 416

### Dartford

Tel: 01322 275 559 Fax: 01322 274 446

### Edinburgh

Tel: 0131 440 9515 Fax: 0131 448 1597

### Glasgow

Tel: 0141 332 7060 Fax: 0141 331 2030

### Gloucester

Tel: 01452 521 263 Fax: 01452 413 881

### Hull

Tel: 01482 219 888 Fax: 01482 320 043

### Isleworth

Tel: 0208 758 1363 Fax: 0208 560 8549

### Leicester

Tel: 01162 769 613 Fax: 01162 763 199

### Manchester

Tel: 0161 876 4926 Fax: 0161 876 4913

### Newcastle

Tel: 0191 487 7982 Fax: 0191 491 5252

### Northampton

Tel: 01604 671 366 Fax: 01604 643 571

### Norwich

Tel: 01603 487 961 Fax: 01603 486 591

### Nottingham

Tel: 01159 708 943 Fax: 01159 782 644

### Preston

Tel: 01772 697 855 Fax: 01772 697 854

### Reading

Tel: 0118 932 3000 Fax: 0118 932 3111

### Shrewsbury

Tel: 01743 235 341 Fax: 01743 235 341

### Southampton

Tel: 02380 252 245 Fax: 02380 275 744

### Stoke

Tel: 01782 565 566 Fax: 01782 564 065



Telephone: 01707 282880

MELSmart Customer Services & Support: 0161 866 6089

Option 1 - Air Conditioning Technical

Option 2 - Spares

Option 3 - Warranty

Option 4 - Heating Technical

Option 5 - Returns

Option 6 - Product Training & Site Services

email: [livingenvironmentalsystems@meuk.mee.com](mailto:livingenvironmentalsystems@meuk.mee.com)

website: [les.mitsubishielectric.co.uk](http://les.mitsubishielectric.co.uk)

UNITED KINGDOM Mitsubishi Electric Europe Living Environment Systems Division

Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, England

General Enquiries Telephone: 01707 282880 Fax: 01707 278881

IRELAND Mitsubishi Electric Europe Westgate Business Park, Ballymount, Dublin 24, Ireland

Telephone: Dublin (01) 419 8800 Fax: Dublin (01) 419 8890 International code: (003531)

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**Note:** The fuse rating is for guidance only. Please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2088), R32 (GWP:675), R407C (GWP:1774), R134a (GWP:1430), R513A (GWP:631), R454B (GWP:466), R1234ze (GWP:7) or R1234yf (GWP:4). \*These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).



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[thehub.mitsubishielectric.co.uk](http://thehub.mitsubishielectric.co.uk)