MITSUBISHI ELECTRIC
Changes for the Better

Living Environment Systems

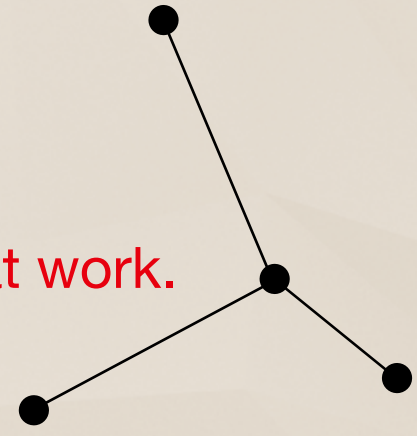
Air conditioning and ventilation range

2021 / 2022 product information for installers and planners

mitsubishi-les.com

Knowledge at work.

Mitsubishi Electric LES
provides specialist knowledge
for shared success:
listening and understanding.
Developing intelligent products.
Providing skilled advice.
Discovering trends.
Shaping the future.
Turning expertise into solutions.



Knowledge at work.

Shared knowledge for shared success.

We aim to shape a better future through sophisticated products – and successful collaboration with you. After all, open dialogue helps secure the crucial input we need to keep moving in the right direction as we develop and hone our products and services. Take advantage of this shared exchange of knowledge and our comprehensive project support, which guides you all the way from initial discussions through to commissioning and far beyond. Thanks to our shared experience and specialist knowledge, as well as our innovative technologies, we can work together to generate the solutions you need for meeting wide-ranging and complex requirements.
Ready to enjoy the benefits of shared success? Get in touch – we're here to help.

The expertise of a global brand

Solutions and advisory services
Mitsubishi Electric has been synonymous with experience and innovation in equal measure for 100 years. Our company consistently sets new standards in air conditioning technology and, with its extensive range of products, has established itself as one of the foremost global manufacturers. Our VRF R2 and Zubadan technologies have both become brands that are now bywords in the industry for highly efficient technology. We provide our customers with first-class, reliable services as well as specific solutions and sophisticated technologies.

First-class services
For instance, we support customers at the design stage with well laid-out design and service manuals, as well as tender documents in a range of file formats. Naturally, everything is available online. Apart from comprehensive planning support, including helpful design software, we also organise a wide range of practical training courses that deliver sound basic knowledge or enlarge upon existing expertise.

Forward-looking air conditioning technology
Mitsubishi Electric air conditioning systems cool, heat and filter the air in a large number of buildings, whether in residential or commercial premises. State-of-the-art inverter technologies and the use of ozone-neutral refrigerants ensure maximum energy efficiency and optimal climate comfort. Made-to-measure solutions can be implemented with ease thanks to the exceptional versatility of our systems, including aspects such as long pipe runs, easy-to-install indoor units and smart controls.

Active environmental protection
Climate protection is an important global issue which will play a crucial role in shaping our future. Mitsubishi Electric has a long history of reducing CO_2 emissions using advanced technology and highly energy-efficient products. This tradition is set to continue into the future as a result of the environmental initiative for 2050. We have committed ourselves to long-term climate protection as part of this initiative, targeting a 80% reduction in global CO_2 emissions by 2050 through the conservation of natural resources in production processes, product usage and recycling. Naturally, though, we wish to go further and will continue to target our efforts in future towards the development of additional innovative products that help preserve the environment.

Overview: explanation of symbols

This section explains the symbols that are used to denote the relevant unit functions on the various product pages.

Functions: comfort

MELCloud

The unit can be equipped with a Wi-Fi adapter and controlled remotely via smartphone, tablet or PC using the control software MELCloud. Further information on mobile control is available on **page 242.**

Econo Cool

Saves additional energy via an automatic 2 °C increase in the set temperature in cooling mode. Cooling capacity is reduced to a minimum, but a special fan programme ensures that this is not noticeable.

	Without Econo Cool	With Econo Cool
Outside temperature	35 °C	35 °C
Configured setpoint	25 °C	27 °C
Apparent temperature	30 °C	29.3 °C

On/off timer

The on/off timer can be used to configure fixed switch-on and switch-off times.

Weekly timer

The weekly timer can configure up to four individual switching points for each day, enabling flexible switch-on and switch-off of the unit. A temperature specification can also be provided for each switching point to ensure demand-oriented and energy-saving control.

Night mode

The new night mode comfort function automatically reduces the noise level of the outdoor unit by 3 dB(A). In addition, the LED on the indoor unit is dimmed and the remote controller mutes the beep tone during operation.

3D i-see sensor

The 3D i-see sensor detects the position of the persons in the room, using the acquired data to direct the air flow such that this does not affect the persons present.

i-save

The i-save function can be used to save the preferred operating mode. This operating mode can then be accessed by pressing the i-save key.

Silent

Whisper mode for particularly low levels of operating noise, e.g. during the night.

Cool-down protection

The minimum temperature that can be configured in heating mode is 10 °C. This ensures economical operation in unused rooms and prevents excess cool-down.

Can be connected to cable remote controller

The unit can be equipped with a cable remote controller.

Functions: air quality

Horizontal swing

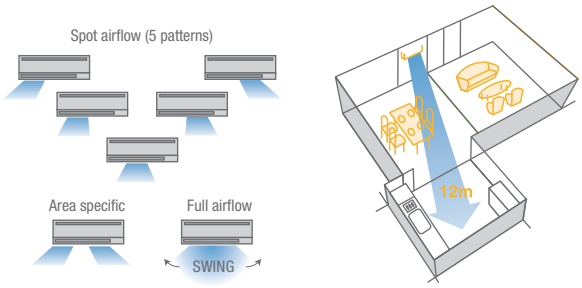
The air outlet flap swings back and forth, thereby ensuring a supply of conditioned air even in larger rooms.

Vertical swing

The air outlet flap moves up and down, thereby ensuring pleasant distribution of the conditioned air throughout all areas of the room.

Wide & long

The unit boasts particularly long throw distances of up to 12 m, thereby ensuring air conditioning even in larger rooms. The vertical air outlet angle can be set to one of seven different directions.



Automatic fan control

Ensures the optimum air volume depending on the output requirements. If a high output is required shortly after switch-on, the unit automatically switches to a high stage. The air volume is automatically reduced once the desired temperature is reached.

Plasma Quad Connect filter

Plasma Quad Plus filter

Plasma Quad Plus filter technology ensures highly effective air purification.

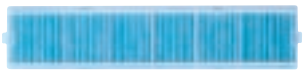
Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM2.5; <2.5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.

Plasma odour filter

Featuring a surface area of approx. 300 m^2, the filter is particularly effective at neutralising and eliminating odours from the room air.

Silver ion air purification filter

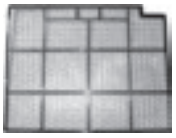
Silver ion technology achieves extremely high air purification, which effectively removes bacteria, pollen and allergens from the room air. The extremely high filter efficiency ensures the capture of particles measuring 1~10 µm and above.



Silver ion air purification filter

Air purification filter

Filters coarse dust (>800 µm) from room air and prevents contamination of the heat exchanger.



Air purification filter

Air purification filter with silver ion coating

Filters coarse dust (>800 µm) from room air and prevents contamination of the heat exchanger. The silver ion coating enables the filter to reliably eliminate odours while separating bacteria and mould from the room air.

Air purification filter with silver ion coating

High-performance oil mist filter

The oil mist filter effectively separates oils and fats from the ambient air while protecting the air conditioning unit against heavy contamination. This disposable filter must be replaced every 2 months.

Functions: technology

Inverter

The outdoor unit is equipped with energy-saving inverter technology.

Standard Inverter

The outdoor unit is equipped with Standard Inverter technology.

Power Inverter

The outdoor unit is equipped with Power Inverter technology.

Zubadan Inverter

The outdoor unit is equipped with patented Zubadan Inverter technology.

For detailed information on inverter technology, please see **pages 276 and 277.**

Replace technology

The inverter outdoor unit is equipped as standard with Replace technology, which enables easy reuse of existing R22 and R407C pipes.[1]

1 See our M-series design documents for information on the compatibility of existing pipe cross-sections with the new units.

Quality seal for split units

The German Building Air Conditioning Association (FGK) has bestowed its quality seal for room air conditioning units on the split air conditioning unit.
Further information is available on **page 15.**

Functions: installation/maintenance

Fresh-air connection

Fresh outside air can be supplied to the room via the standard connection, with the air volume equating to as much as 10 % of the rated air volume of the respective unit. A booster fan is required in order to supply outside air.

Heat pump operation

The heat pump function enables energy-saving heating of the rooms. High efficiency even at low temperatures leads to low energy consumption, and conventional heating systems can be replaced with heat pumps in many cases.

Can be connected to VRF via LEV kit

Makes it possible to connect M-series indoor units to City Multi VRF systems. The LEV kit provides the external electronic expansion valve that indoor units need for operation with City Multi VRF systems.
For more information on connection options, see **page 164.**

Winter regulation

The integrated winter regulation enables cooling mode even at low outside temperatures. The outdoor unit fan speed is automatically reduced in order to maintain stable condensation pressure. If the outdoor unit is exposed to strong winds, then a wind protection panel is required (available as an accessory).

Multi-split

Size permitting, up to four indoor units can be connected to one outdoor unit but the supply can only be provided to one climate zone. Please note the approved combinations.

Switching back on after voltage failure

When the voltage is restored, the units automatically start up with the previously selected settings. This ensures a high level of operational reliability.

Precharged with R410A

To ensure easy installation, the outdoor units are precharged with sufficient refrigerant for a pipe length of up to 30 m[1].

1 Depending on unit type.

Precharged with R32

R32 (difluoromethane [CH2F2]) belongs to the group of HFC refrigerants and has been used as a component of R410A refrigerant for many years. Given its GWP of 675, it already meets the requirements of the F-gas Regulation for the year 2025.

Condensate pump

The units feature an integrated condensate pump as standard for easy condensate removal. The delivery head is determined by the indoor unit type.

Refrigerant charge level check

Checks the system for leaks and can be activated via the cable remote controller PAR-40MAA.

Redundancy function

Implements an operating hours offset and fault switchover. Except for remote controller PAR-40MAA, no accessory parts are required for this function.

Scope of functions[2]

Rotation: automatic operation switchover between the two systems at fixed intervals of 1 to 28 days to offset operating hours.

Back-up: if one system has a fault, the second system starts automatically.

Join-in: if the configured target temperature is exceeded, the second system starts automatically. The second system stops once the target temperature is reached again. This function is only available in cooling mode.

2 These functions are only available for P-series outdoor units up to size 140 and cannot be used in multi-split applications.

M-series

Contents

Benefits and properties

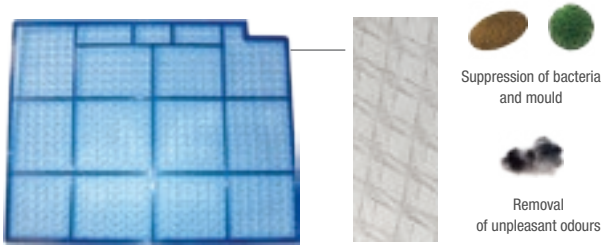
Modern filter technology for tackling air pollutants

To reduce pollutants in the room air, you should ensure thorough ventilation and use effective filters: the latter are largely integrated as standard in our wall-mounted units MSZ-LN, MSZ-EF and MSZ-AP and in our floor-standing unit MFZ-KT. Such filters are also suitable for easy retrofitting. Read on to discover which filters are fitted in the various units and which filters are available for optional retrofitting.

Air purification filters[1]

With its silver-ion coating, the filter not only repels dirt but is also effective at tackling bacteria, mould and odours. The three-dimensional surface expands the draw-in area of the filter and enables optimised dust elimination performance compared with conventional filters.

1 Not compatible with MSZ-LN

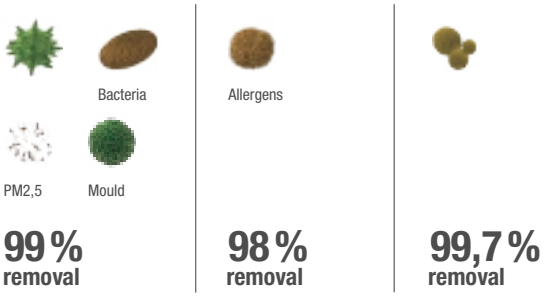


Odour filter

The catalytic converter in the odour filter denatures odour components and eliminates them at the source of the odour. This ensures speedy removal of unpleasant odours from the room air.

Plasma Quad Plus/Plasma Quad Connect

Plasma Quad Plus is a plasma-based filter system for effective removal of six pollutant types. A high-voltage electrode releases plasma through discharge in order to neutralise viruses, bacteria, allergens and mould. The remaining charged PM2.5 (fine dust with an aerodynamic diameter of less than 2.5 micrometres) and dust are absorbed by the filter.



Silver-ion filter

The silver-ion filter is made from non-woven material and can capture smaller particles such as bacteria, mould and allergens. The silver ions and enzymes contained in the filter effectively tackle and neutralise bacteria and allergens.

From dust-free to antibacterial

This table provides a complete overview of the Mitsubishi Electric filter models, their functions and the units in which they are used.

Filter functions and effectiveness Series	Bacteria	Viruses	Mould	Allergens[2]	Fine dust 2.5 µm	Odours	Coarse dust > 800 µm	Finer dust 1~10 µm
MSZ-LN	•	•	•	•	•	•	•	•
MSZ-EF	•	○	•	•	○	•	•	•
MSZ-AP[1]	•	○	•	○	○	•	•	○
MFZ-KT (floor-standing)	•		•	•		•	•	•
MLZ-KP (1-way)	•		•	○		•	•	○
SLZ-M (Euro grid)							•	
SEZ-M (ceiling)	○	○	○	○	○		•	○

1 AP15/20 cannot use any filter due to small chassis
2 Allergens are only rendered harmless with MSZ-LN (Plasma Quad). The silver-ion filter is merely able to capture allergens

• Standard
○ Optional

Certified quality

All our filter elements undergo detailed checks to assess their functionality and filter capacity. This includes a variety of tests performed by the suppliers of the filter components, by our in-house company test laboratories and of course by independent institutes.

Indoor unit name	Pollutants	Test method	Test organisation	Report number	Result
Plasma Quad Plus	Viruses	JEM1467: 2015	vrc.center, SMC	28-002	Neutralises 99% of influenza A virus particles in 72 minutes within a 25 m^3 test area
	Bacteria	JEM1467: 2015	KRCES-Bio.	2016-0118	Neutralises 99% of Staphylococcus aureus bacterium in 162 minutes within a 25 m^3 test area
	PM2.5	JEM1467: 2015	Mitsubishi Electric Corporation[1]	–	Neutralises 90% of PM2.5 particles in 83 minutes and 99% of PM2.5 particles in 166 minutes within a 28 m^3 test area
	Allergens	–	ITEA Inc.	T1606028	Neutralises 98% of cat hair and pollen
	Mould	JEM1467: 2015	Japan Food Research Laboratories	16069353001-0201	Neutralises 99% of Penicillium citrinum fungus in 135 minutes within a 25 m^3 test area
	Dust	–	ITEA Inc.	T1606028	Neutralises 99.7% of dust and mites
Silver-ion filter	Bacteria	JIS L1902 : 2008	Boken Quality Evaluation Institute	40115004166	Neutralises 99.9% of Staphylococcus aureus and E. coli bacteria in 18 hours
	Allergens	–	Shinshu University	–	Confirmed adsorption and decomposition of a manifestation of ticks
Odour filter	Odour	–	In-house inspection performed by supplier	–	Deodorises 80% of tobacco, 80% of methanthiol, 85% of formaldehyde and 90% of acetaldehyde in 30 minutes
Air purification filter	Bacteria	JIS L1902: 1998	In-house inspection performed by supplier	0406NI4-1	Neutralises 99.9% of Staphylococcus aureus, Klebsiella pneumoniae and E. coli bacteria in 18 hours
	Mould	JIS Z2911: 2000	In-house inspection performed by supplier	0406NI4-3	Confirmed: no mould growth
	Odour	JEM1467: 1995	In-house inspection performed by supplier	–	Confirmed deodorising effect of ammonia: 50% or more

1 In-house company inspection
JEM: standards of the Japan Electrical Manufacturers' Association
JIS: Japan Industrial Standards

Benefits and properties

Comfort

Room air conditioning units for optimum ‘feel good’ climate

The M-series air conditioning units from Mitsubishi Electric are the ideal choice for greater living comfort in small to medium-sized spaces – in homes, doctors’ practices, offices and shops alike.

Performance range from 1.5 kW to 18.0 kW for cooling and heating

Hygienic pure air

Depending on the unit type, the filter elements from Mitsubishi Electric not only eliminate dust, odours and pollen but also viruses and bacteria.

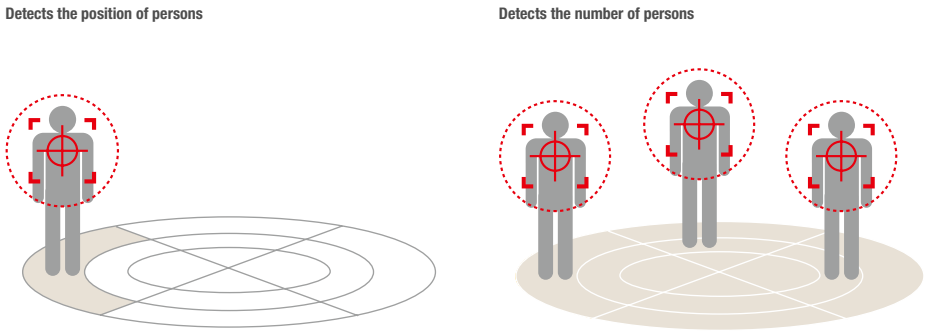
Silver ion filters are available as standard or as option for many units.

Whisper-quiet operation

The quietest room air conditioning units from Mitsubishi Electric emit only 19 dB(A) during operation. They are almost silent and thus ideally suited to cooling bedrooms.

Anti-draught functions

Thanks to technical innovations such as the 3D i-see sensor, the air conditioning units are able to direct the air flow so as to eliminate draughts. The 3D i-see sensor detects the number and position of persons in the room, adapting the heating and cooling output accordingly to ensure that the desired temperature is achieved in the right location.



The Euro grid cassette SLZ-M is optionally equipped with the 3D i-see sensor and features horizontal air flow.

Energy-efficient

Maximum energy efficiency

Mitsubishi Electric air conditioning systems are designed for energy-saving operation. Thanks to the use of inverter technology, the compressor output always adapts to suit the actual cooling and heating demand of the system and thus ensures extremely efficient operation.

ErP Directive and energy efficiency classes

The ErP Directive governs the labelling of products that consume energy (known as 'Energy-related Products'). At a glance, consumers must be able to see just how energy efficient and loud the units featuring the energy efficiency label are. M-series air conditioning units are expert at conserving energy which makes them belong to the highest energy efficiency classes. belong to the highest energy efficiency classes. For further information on related aspects such as the Ecodesign Directive and other important regulations, visit **www.my-ecodesign.com.**

Quality

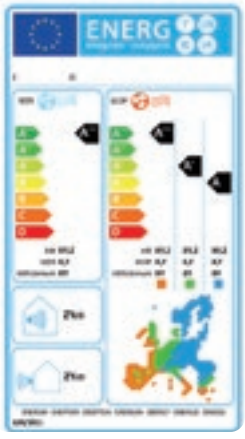
Quality seal for room air conditioning units

The German Building Air Conditioning Association (FGK) has bestowed its quality seal for room air conditioning units on all split units with heat pump function. The key criteria for receipt of this award include:

- Maximum energy efficiency – only inverter units can carry the quality label.
- Guaranteed availability of spare parts within two working days, with availability for a minimum of ten years.
- Comprehensive training programmes, design support and full documentation.
- Guaranteed compliance of the technical data in catalogues with the performance data required by EN 14511 or EN 14825.

Installation and retrofitting made easy

- The development of our products is inspired not only by demanding requirements in terms of efficiency and convenience, but also by aspects such as easy installation and maintenance of the air conditioning systems.
- The compact dimensions of the indoor and outdoor units ensure flexible installation,
- The multisplit inverter systems can be retrofitted and expanded at any time. At least two indoor units are required as the basis, with operators subsequently free to use as many as eight indoor units.



The energy efficiency label helps you choose an air conditioning unit by providing transparent energy efficiency information. The data featured on the label is stipulated by the Energy Labelling Directive, offering an at-a-glance overview of the energy efficiency class of the unit in cooling and heating mode as well as its sound pressure level.

Benefits and properties

Limitless possibilities

Use in technology rooms

Careful planning is essential when using air conditioning units in server rooms or other climate-sensitive technology rooms. Technology rooms largely require the discharging of sensitive output, meaning that the planning of air conditioning units must be based on their sensitive cooling capacity – not the overall cooling capacity. The M-Series MUSY-TP and additional professional solutions in the chapter it/technology room solutions are ideal for ensuring reliable air conditioning of technical applications.

Wired remote controllers PAR-40MAA and PAC-YT52CRA

All units in the M-series can also be operated using cable remote controllers (with a connection adapter required according to the unit model). Operators can choose between two remote controllers, namely the compact remote controller PAC-YT52CRA and the deluxe remote controller PAR-40MAA featuring a convenient weekly timer function. Both remote controllers boast a backlit liquid crystal display and are easy to use.

System variants

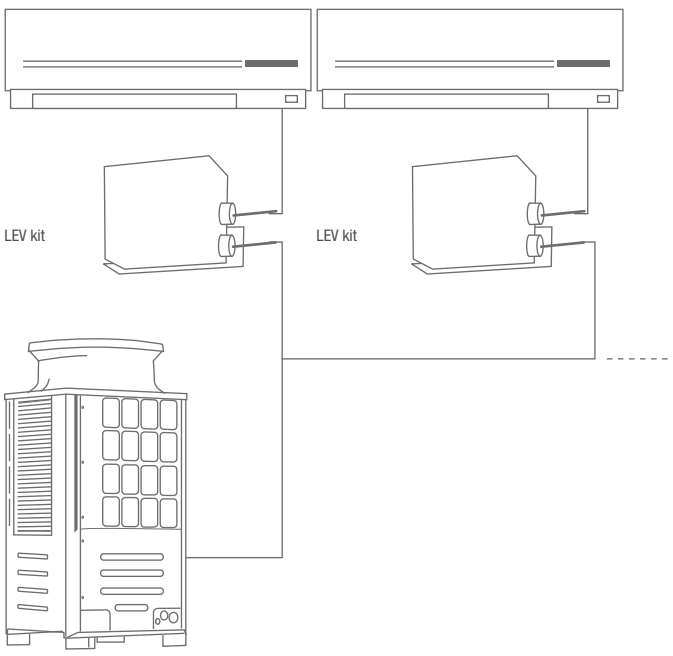
- Easy-to-install indoor units available as ceiling cassettes, ceiling suspended units, ceiling concealed units, wall-mounted units and floor-standing units.
- Voltage supply 230 V, 1 phase, 50 Hz and 380–415 V, 3 phases, 50 Hz.

Combination and expansion as required

If you want to provide air conditioning in a room, boost living comfort or generate a pleasant working atmosphere, look no further than the wide range of air conditioning solutions from Mitsubishi Electric. The A-CONTROL system in all M-series inverters and Mr. Slim units offers a rich variety of combination options beyond the respective series. For example, the outdoor units in the M-series can be connected to the indoor units in the Mr. Slim series. Indoor units in the M-series can also be connected to City Multi VRF outdoor units with the help of connection kits.

All white indoor units are coloured pure white (approximately RAL 9010). The wall-mounted units feature a modern flat panel design.

LEV kit connection to City Multi VRF



Two systems cater to all needs

Every split air conditioning system comprises one outdoor unit and at least one indoor unit, with the outdoor unit always located outside of the apartment or building. Depending on the requirements and the number of rooms requiring air conditioning, you can use your M-series system as either a single-split or multi-split solution.

Single-split: air conditioning of one room

If a single indoor unit is connected to an outdoor unit via a cooling pipe, this constitutes a single-split system. It represents a quick and easy way to equip a room with air conditioning.

Multi-split: air conditioning of multiple rooms

In multi-split systems, multiple indoor units can be connected to an outdoor unit. This space-saving solution ensures individual air conditioning of multiple rooms.

Single-split and multi-split application

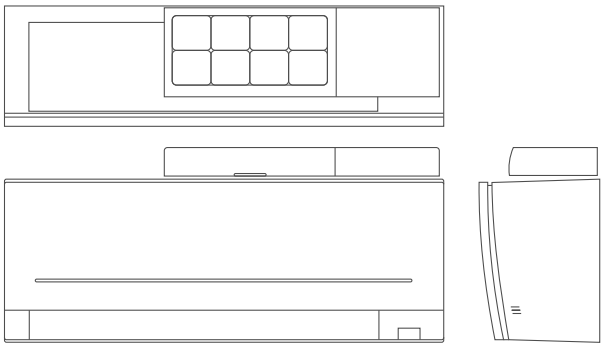
Single-split system

Multi-split system

What's new

Plasma Quad Connect: optional filter kit
The benefits of Plasma Quad Plus technology are now available for many M-series units (compatible with all MSZ, PKA-M and SEZ-M models). Plasma Quad Plus filter technology ensures highly effective air purification. Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM2.5; <2.5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.

Available as of May 2021



Overview of functions

	Technology		Wall-mounted unit MSZ-LN	Wall-mounted units MSZ-EF	Wall-mounted units MSZ-AP(15–50)	Wall-mounted units MSZ-AP60/71
Outdoor units	INVERTER	Inverter	●	●	●	●
	REUSE PIPING	Replace technology	●	●	●	●
	Certified Quality	Seal of quality for room air conditioning	●	●	●	●
	Installation/maintenance					
Outdoor units		Heat pump operation	●	●	●	●
		Winter regulation	●	●	●	●
		Switching back on after voltage failure	●	●	●	●
	R 32	Precharged with R32	●	●	●	●
Indoor units		Fresh-air connection				
		Can be connected to VRF via LEV kit	●	●	●	
		Condensate pump				
	Comfort					
Indoor units		MELCloud	●	●	●	●
		Econo Cool	●	●	●	●
		On/off timer	●	●	●	●
	7	Weekly timer	●	●	●	●
	3D	3D i-see sensor	●			
		i-save	●	●	●	●
		Silent	●	●	●	●
	10 °C	Cool-down protection	●		●	●
		Wired remote controller is connectable	●[3]	●[3]	●[3]	●[3]
		Night mode	●		●	●
	Air quality					
Indoor units		Horizontal swing	●		●[2]	●
		Vertical swing	●	●	●	●
		Wide & Long				●
		Automatic fan control	●	●	●	●
		Plasma Quad Connect filter		●[1]	●[1]	●[1]
		Plasma Quad Plus filter	●			
		Silver ionized air purification filter	●[1]	●	●[1, 2]	●
		Air purification filter	●			
		Air purification filter with silver ion coating		●	●	●
		Plasma odour filter	●			

1 Option.
2 Not available for sizes 15 and 20.
3 MAC-397IF-E




Floor-standing units MFZ-KT	1-way ceiling cassettes MLZ-KP	4-way ceiling cassettes SLZ-M	Ceiling concealed units SEZ-M
•	•	•	•
•	•	•	•
•	•	•	•
•	•	•	•
•	•	•	•
•	•	•	•
•	•	•	•
		•	•
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•[1]	•[1]	•[1]	•[1]
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		•[1]	
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•[3]	•[3]	•	•
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			•[1]
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		•	•
•	•		

For a detailed description of the function symbols, see pages 06 – 09.

Indoor units

Inverter cooling and heating

Page reference

Performance code	15	18	20	25	35	42	50	60	71
Cooling capacity (kW)	1,5	1,8	2,0	2,5	3,5	4,2	5,0	6,0	7,1
Heating capacity (kW)	1,7	2,2	2,5	3,2	4,0	5,4	5,8	7,0	8,1

Wall-mounted units MSZ-LN

24–27

Wall-mounted units MSZ-EF

28–29

reddot award 2018
winner

Wall-mounted units MSZ-AP

30–33

Floor-standing units MFZ-KT

34–35

reddot award 2018
winner

1-way ceiling cassettes MLZ-KP

36–37

4-way ceiling cassettes SLZ-M

38–39

Ceiling concealed units SEZ-M

40–41

Multi-split outdoor units

Max. no. of indoor units	2	2	2	3	3	4	4	4	5	6	8	8	8
Cooling capacity (kW)	3,3	4,2	5,3	5,4	6,8	7,2	8,0	8,3	10,2	12,2	12,5	14,0	15,5
Heating capacity (kW)	4,0	4,5	6,4	7,0	8,6	8,6	8,8	9,3	10,5	14,0	14,0	16,0	18,0

R32 outdoor units

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

46

MXZ-3F54VF3, MXZ-3F68VF3

46

MXZ-4F72VF3, MXZ-4F80VF3

46

MXZ-4F83VF, MXZ-5F102VF

47

MXZ-6F122VF

47

R410A outdoor units

PUMY-P112VKM/YKM
PUMY-P125VKM/YKM
PUMY-P140VKM/YKM
PUMY-SP112VKM/YKM
PUMY-SP125VKM/YKM
PUMY-SP140VKM/YKM

48–49

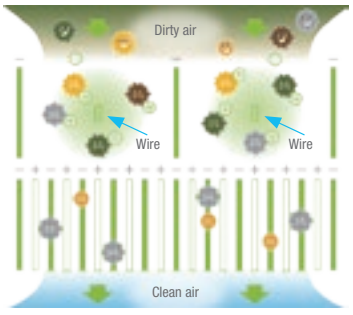
For dimension graphics
open PDF excerpt.
leslink.info/dimensions

Diamond wall-mounted units MSZ-LN

Highlights

- SCOP up to 5.2/SEER up to 10.5
- Energy efficiency class up to A+++/A+++
- Sound pressure level from 19 dB(A)
- Low refrigerant charge quantity (standard single split) 0.80 kg up to max. 1.91 kg

Plasma Quad Plus operating principle



Dust, PM2.5
Viruses
Bacteria
Mould
Allergens

Step 1
- Generation of plasma.
- Mould and allergens are rendered harmless.
- Viruses are suppressed.
- Dust and PM2.5 are statically charged.

Step 2
- Generation of a powerful electric field.
- Absorption of dust and PM2.5 (+).

Natural White

The wall mounted MSZ-LN not only features an extraordinarily eye-catching design, it also combines a host of innovative functions.

3D i-see sensor
- Energy efficiency thanks to person recognition in the room
- Extremely comfortable air distribution as a result of automatic airflow adjustment

Filter
- Air filter
- Plasma Quad Plus
- Plasma odour filter

Odour neutralisation via plasma odour filter
Featuring a surface area of approx. 300 m², the filter is particularly effective at eliminating odours from the room air.

Double vane function
- Two independently operating air outlet vanes ensure particularly efficient air distribution in the room

MELCloud WiFi adapter
- With integrated WiFi adapter as standard

Infrared remote controller with weekly timer function and backlit display included in scope of supply

Accessories

Type designation	Description	Quantity
MAC-2390FT-E	Silver-ionized air purification filter	10
MAC-3010FT-E	Deodorizing filter (replacement filter)	10
MAC-1300RC	Remote controller holder	15

MUZ-LN25/35VG2 | MUZ-LN50VG2 | MUZ-LN60VG | MSZ-LN18–60VG2 W

R32

Diamond wall-mounted units

Split-inverter / Cooling and heating

MSZ-LN inverter wall-mounted units, cooling / heating

Indoor units		MSZ-LN18VG2 W	MSZ-LN25VG2 W	MSZ-LN35VG2 W	MSZ-LN50VG2 W	MSZ-LN60VG2 W
Outdoor units		Multi Split MXZ	MUZ-LN25VG2	MUZ-LN35VG2	MUZ-LN50VG2	MUZ-LN60VG
Cooling	Cooling capacity (kW)	1.8	2.5 (1.0–3.5)	3.5 (0.8–4.0)	5.0 (1.0–6.0)	6.1 (1.4–6.9)
	Power consumption (kW)	–	0.485	0.82	1.38	1.79
	SEER	–	10.5	9.5	8.5	7.5
	Energy efficiency class	–	A+++	A+++	A+++	A++
	Application range (°C)	–	–10~+46	–10~+46	–10~+46	–10~+46
Heating	Heating capacity (kW)	3.3	3.2 (0.7–5.4)	4.0 (0.9–6.3)	6.0 (1.0–8.2)	6.8 (1.8–9.3)
	Power consumption (kW)	–	0.60	0.82	1.48	1.81
	SCOP	–	5.2	5.1	4.6	4.6
	Energy efficiency class	–	A+++	A+++	A++	A++
	Application range (°C)	–	–15~+24	–15~+24	–15~+24	–15~+24

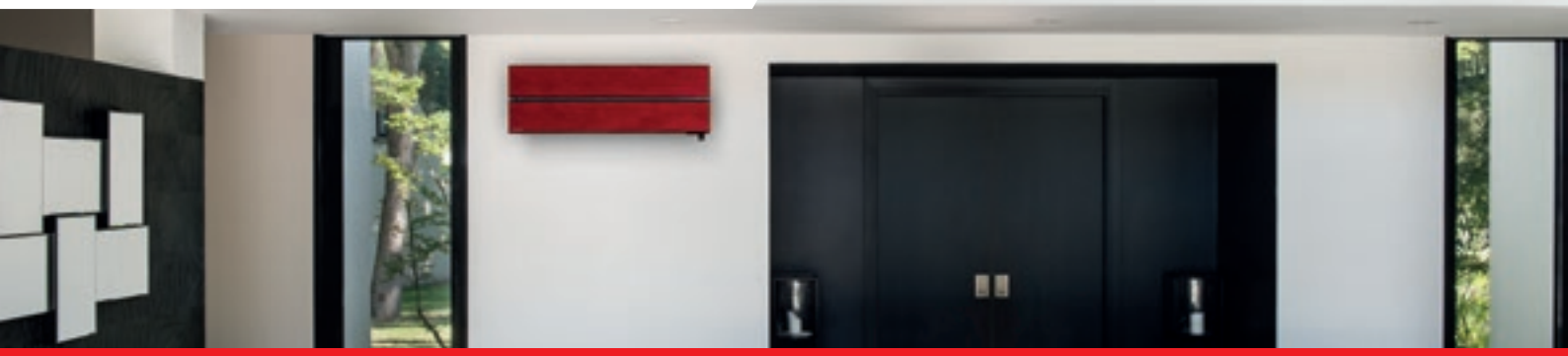
Indoor units		MSZ-LN18VG2 W	MSZ-LN25VG2 W	MSZ-LN35VG2 W	MSZ-LN50VG2 W	MSZ-LN60VG2 W
Air volume (cooling mode) (m³/h)	L/H	258/528	258/528	258/528	342/636	426/762
Sound level (dB(A))	L/H	19/36	19/36	19/36	27/39	29/45
Dimensions (mm)*	W/D/H	890/233/307	890/233/307	890/233/307	890/233/307	890/233/307
Weight (kg)		15.5	15.5	15.5	16.0	16.0
Outdoor units		**Multi Split MXZ**	**MUZ-LN25VG2**	**MUZ-LN35VG2**	**MUZ-LN50VG2**	**MUZ-LN60VG**
Airflow (m³/h)		–	2058	2058	2400	3006
Sound pressure level cooling / heating (dB(A))		–	46/49	49/50	51/54	55/55
Dimensions (mm)	W/D/H	–	800/285/550	800/285/550	800/285/714	840/330/880
Weight (kg)		–	33	34	40	55
Refrigeration data						
Total pipe length (m)		–	20	20	30	30
Max. height difference (m)		–	12	12	15	15
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		–	R32/0.80/1.00	R32/0.85/1.05	R32/1.25/1.55	R32/1.45/1.91
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)			675/0.54/0.68	675/0.54/0.68	675/0.84/1.04	675/0.98/1.3
Refrigerant pre-filling for (m)		–	7	7	7	7
Top-up quantity of refrigerant (g/m)		–	20	20	20	20
Refrigerant pipe size Ø (mm)	fl.	–	6	6	6	6
	s.	–	10	10	10	12
Electrical data						
Voltage supply (V, phase, Hz)		–	220–240, 1, 50	220–240, 1, 50	220–240.1, 50	220–240.1, 50
Operating current (A)	Cooling	–	2.5	3.9	6.3	7.9
	Heating	–	3.0	4.0	6.8	7.9
Recommended cable cross-section - supply cable to outdoor unit (mm²)		–	3 x 1.5	3 x 1.5	3 x 2.5	3 x 2.5
Recommended cable cross-section - indoor unit - outdoor unit (mm²)		–	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Recommended breaker size (A)		–	10	10	16	16

* An additional 100 mm of space below the unit must be included in planning to account for the blow-out plate fins and air flow.

Sound pressure level of the indoor unit measured 1 m in front of and 0.8 m below the unit in cooling mode

Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.



Diamond wall-mounted units MSZ-LN

Highlights

- SCOP up to 5.2/SEER up to 10.5
- Energy efficiency class up to A+++/A+++
- Sound pressure level from 19 dB(A)
- Low refrigerant charge quantity (standard single split) 0.80 kg up to max. 1.91 kg

Ruby Red | Pearl White | Onyx Black

The wall-mounted MSZ-LN with sophisticated hairline look not only features an extraordinarily eye-catching design, it also combines a host of innovative functions.

3D i-see sensor
- Energy efficiency thanks to person recognition in the room
- Extremely comfortable air distribution as a result of automatic airflow adjustment

Filter
- Air filter
- Plasma Quad Plus
- Plasma odour filter

Odour neutralisation via plasma odour filter
Featuring a surface area of approx. 300 m^2, the filter is particularly effective at eliminating odours from the room air.

Double vane function
- Two independently operating air outlet vanes ensure particularly efficient air distribution in the room

MELCloud WiFi adapter
- With integrated WiFi adapter as standard

Range of colours with matching backlit remote controllers

Accessories

Type designation	Description	Quantity
MAC-2390FT-E	Silver-ionized air purification filter	10
MAC-3010FT-E	Deodorizing filter (replacement filter)	10
MAC-286RH	Remote controller holder	10

MUZ-LN25/35VG2 | MUZ-LN50VG2 | MUZ-LN60VG | MSZ-LN18–60VG2 V | MSZ-LN18–60VG2 B | MSZ-LN18–60VG2 R

Diamond wall-mounted units

Split-inverter / Cooling and heating

3D i-see-Sensor | WiFi MELCloud | Wired Remote Control connectable (optional) | Econo Cool | Weekly | I SAVE | Silent | ON/OFF | Low-heating Set Point | Night | Horizontal Swing | Vertical Swing | Auto | Plasma-Quad-Plus | Odor Filter

Standard Filter | Silver Ion (optional) | Low-temperature Cooling | Low-temperature Heating | Auto Restart | Pre-charged | VRF LEV-Kit | Certified Quality | INVERTER | REUSE PIPING

MSZ-LN inverter wall-mounted units, cooling / heating

Indoor units		MSZ-LN18VG2 V / B / R	MSZ-LN25VG2 V / B / R	MSZ-LN35VG2 V / B / R	MSZ-LN50VG2 V / B / R	MSZ-LN60VG2 V / B / R
Outdoor units		**Multi Split MXZ**	**MUZ-LN25VG2**	**MUZ-LN35VG2**	**MUZ-LN50VG2**	**MUZ-LN60VG**
Cooling	Cooling capacity (kW)	1.8	2.5 (1.0–3.5)	3.5 (0.8–4.0)	5.0 (1.0–6.0)	6.1 (1.4–6.9)
	Power consumption (kW)	–	0.485	0.82	1.38	1.79
	SEER	–	10.5	9.5	8.5	7.5
	Energy efficiency class	–	A+++	A+++	A+++	A++
	Application range (°C)	–	–10~+46	–10~+46	–10~+46	–10~+46
Heating	Heating capacity (kW)	3.3	3.2 (0.7–5.4)	4.0 (0.9–6.3)	6.0 (1.0–8.2)	6.8 (1.8–9.3)
	Power consumption (kW)	–	0.60	0.82	1.48	1.81
	SCOP	–	5.2	5.1	4.6	4.6
	Energy efficiency class	–	A+++	A+++	A++	A++
	Application range (°C)	–	–15~+24	–15~+24	–15~+24	–15~+24

Indoor units			MSZ-LN18VG2 V / B / R	MSZ-LN25VG2 V / B / R	MSZ-LN35VG2 V / B / R	MSZ-LN50VG2 V / B / R	MSZ-LN60VG2 V / B / R
Air volume (cooling mode) (m^3/h)		L / H	258 / 528	258 / 528	258 / 528	342 / 636	426 / 762
Sound level (dB(A))		L / H	19 / 36	19 / 36	19 / 36	27 / 39	29 / 45
Dimensions (mm)*		W / D / H	890 / 233 / 307	890 / 233 / 307	890 / 233 / 307	890 / 233 / 307	890 / 233 / 307
Weight (kg)			15.5	15.5	15.5	16.0	16.0
Outdoor units			**Multi Split MXZ**	**MUZ-LN25VG2**	**MUZ-LN35VG2**	**MUZ-LN50VG2**	**MUZ-LN60VG**
Airflow (m^3/h)			–	2058	2058	2400	3006
Sound pressure level cooling / heating (dB(A))			–	46 / 49	49 / 50	51 / 54	55 / 55
Dimensions (mm)		W / D / H	–	800 / 285 / 550	800 / 285 / 550	800 / 285 / 714	840 / 330 / 880
Weight (kg)			–	33	34	40	55
Refrigeration data							
Total pipe length (m)			–	20	20	30	30
Max. height difference (m)			–	12	12	15	15
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)			–	R32 / 0.80 / 1.00	R32 / 0.85 / 1.05	R32 / 1.25 / 1.55	R32 / 1.45 / 1.91
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)				675 / 0.54 / 0.68	675 / 0.54 / 0.68	675 / 0.84 / 1.04	675 / 0.98 / 1.3
Refrigerant pre-filling for (m)			–	7	7	7	7
Top-up quantity of refrigerant (g / m)			–	20	20	20	20
Refrigerant pipe size Ø (mm)		fl.	–	6	6	6	6
		s.	–	10	10	10	12
Electrical data							
Voltage supply (V, phase, Hz)			220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240.1, 50	220–240.1, 50
Operating current (A)		Cooling	–	2.5	3.9	6.3	7.9
		Heating	–	3.0	4.0	6.8	7.9
Recommended cable cross-section - supply cable to outdoor unit (mm^2)			–	3 x 1.5	3 x 1.5	3 x 2.5	3 x 2.5
Recommended cable cross-section - indoor unit - outdoor unit (mm^2)			–	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Recommended breaker size (A)			–	10	10	16	16

* An additional 100 mm of space below the unit must be included in planning to account for the blow-out plate fins and air flow.

Sound pressure level of the indoor unit measured 1 m in front of and 0.8 m below the unit in cooling mode
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Premium Design wall-mounted units MSZ-EF

Highlights

- SCOP up to 4.7/SEER up to 9.1
- Energy efficiency class up to A++/A+++
- Sound pressure level from 19 dB(A)
- Refrigerant filling quantity (standard single split) max. 1.51 kg

closed

open

The MSZ-EF wall-mounted unit combines the ultimate in aesthetic standards with innovative air conditioning technology. It is suitable for almost any interior situation and is available in three colours (gloss white, gloss black and matt silver).

Filter
- Air filter with silver ion coating
- Silver ion air purification filter
- Plasma Quad Connect filter (optional)*

i-save
- Saves the preferred operating state

MELCloud WiFi adapter
- MELCloud WiFi adapter integrated as standard

Infrared remote controller with weekly timer function and backlit display included in scope of supply

* With the Plasma Quad Connect filter, planning must include additional space above the wall-mounted unit (+ approx. 110 mm).

Accessories

Type designation	Description	Quantity
MAC-2370FT	Silver-ionized air purification filter (replacement filter)	10
MAC-100FT-E	Plasma Quad Connect (available from May 2021)	1
MAC-1300RC	Remote controller holder	15

MUZ-EF25–42VG | MUZ-EF50VG | MSZ-EF18–50VGKW | MSZ-EF18–50VGKS | MSZ-EF18–50VGKB

Premium Design wall-mounted units

Split-inverter / Cooling and heating

MSZ-EF inverter wall-mounted units, cooling / heating

Indoor units		MSZ-EF18VGK W / B / S	MSZ-EF25VGK W / B / S	MSZ-EF35VGK W / B / S	MSZ-EF42VGK W / B / S	MSZ-EF50VGK W / B / S
Outdoor units		**Multi Split MXZ**	**MUZ-EF25VG**	**MUZ-EF35VG**	**MUZ-EF42VG**	**MUZ-EF50VG**
Cooling	Cooling capacity (kW)	1.8	2.5 (0.9–3.4)	3.5 (1.1–4.0)	4.2 (0.9–4.6)	5.0 (1.4–5.4)
	Power consumption (kW)	–	0.540	0.910	1.200	1.540
	SEER	–	9.1	8.8	7.9	7.5
	Energy efficiency class	–	A+++	A+++	A++	A++
	Application range (°C)	–	–10~+46	–10~+46	–10~+46	–10~+46
Heating	Heating capacity (kW)	3.3	3.2 (1.0–4.2)	4.0 (1.3–5.1)	5.4 (1.3–6.3)	5.8 (1.4–7.5)
	Power consumption (kW)	–	0.700	0.950	1.455	1.560
	SCOP	–	4.7	4.6	4.6	4.5
	Energy efficiency class	–	A++	A++	A++	A+
	Application range (°C)	–	–15~+24	–15~+24	–15~+24	–15~+24

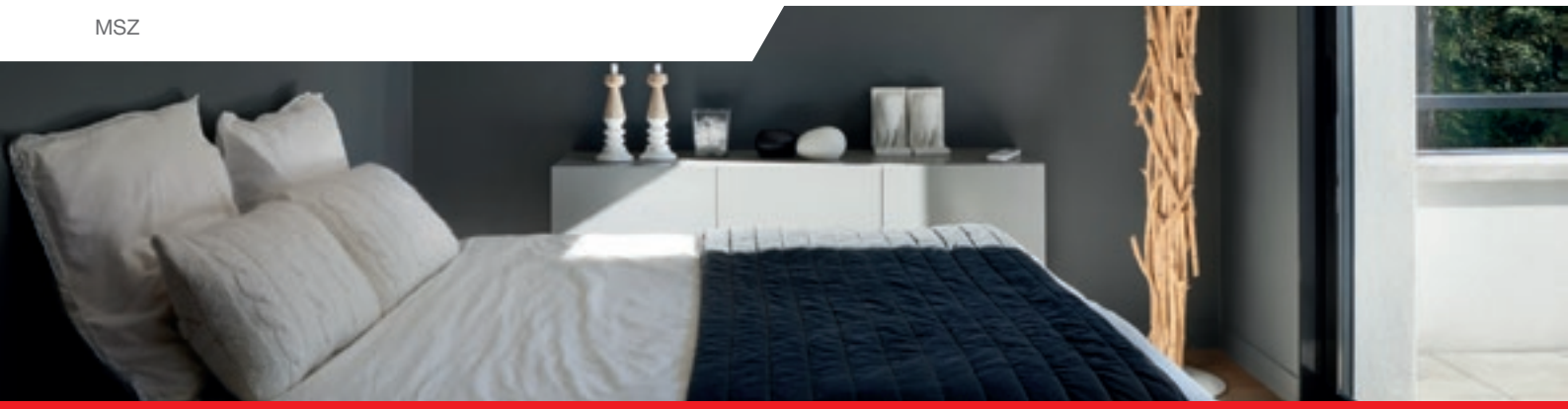
Indoor units		MSZ-EF18VGK W / B / S	MSZ-EF25VGK W / B / S	MSZ-EF35VGK W / B / S	MSZ-EF42VGK W / B / S	MSZ-EF50VGK W / B / S
Air volume (cooling mode) (m^3 / h)	L / H	240 / 498	240 / 498	240 / 498	348 / 534	348 / 558
Sound level (dB(A))	L / H	19 / 36	21 / 36	21 / 36	28 / 39	30 / 40
Dimensions (mm)	W / D / H	885 / 195 / 299	885 / 195 / 299	885 / 195 / 299	885 / 195 / 299	885 / 195 / 299
Weight (kg)		11.5	11.5	11.5	11.5	11.5
Outdoor units		**Multi Split MXZ**	**MUZ-EF25VG**	**MUZ-EF35VG**	**MUZ-EF42VG**	**MUZ-EF50VG**
Airflow (m^3 / h)		–	1668	2082	1920	2412
Sound pressure level cooling / heating (dB(A))		–	47 / 48	49 / 50	50 / 51	52 / 52
Dimensions (mm)*	W / D / H	–	800 / 285 / 550	800 / 285 / 550	800 / 285 / 550	800 / 285 / 714
Weight (kg)		–	31	34	35	40
Refrigeration data						
Total pipe length (m)		–	20	20	20	30
Max. height difference (m)		–	12	12	12	15
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg) GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		–	R32 / 0.62 / 0.88 675 / 0.42 / 0.59	R32 / 0.74 / 1.00 675 / 0.50 / 0.68	R32 / 0.74 / 1.00 675 / 0.50 / 0.68	R32 / 1.05 / 1.51 675 / 0.71 / 1.02
Refrigerant pre-filling for (m)		–	7	7	7	7
Top-up quantity of refrigerant (g / m)		–	20	20	20	30
Refrigerant pipe size Ø (mm)	fl. s.	- –	6 10	6 10	6 10	6 10
Electrical data						
Voltage supply (V, phase, Hz)		–	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		–	2.9	4.2	5.7	6.9
Recommended cable cross-section - supply cable to outdoor unit (mm^2)		–	3 x 1.5	3 x 1.5	3 x 1.5	3 x 2.5
Recommended cable cross-section - indoor unit - outdoor unit (mm^2)		–	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Recommended breaker size (A)		–	10	10	12	16

* An additional 14 mm of space below the unit must be included in planning to account for the blow-out plate fins and air flow.

Sound pressure level of the indoor unit measured 1 m in front of and 0.8 m below the unit in cooling mode

Energy efficiency class on a scale from A+++ to D

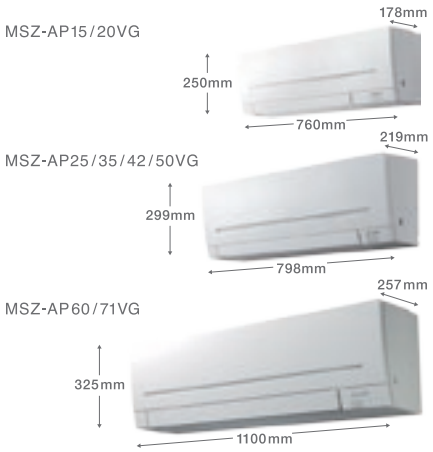
Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.



Compact wall-mounted units MSZ-AP

Highlights

- SCOP up to 4.8/SEER up to 8.6
- Energy efficiency class up to A+++/A++
- Sound pressure level from 19 dB(A)
- Refrigerant filling quantity (standard single split) max. 1.26 kg
- Dimensions (W/D/H) 760/178/250 mm for MSZ-AP15/20VG



This versatile allrounder is full of clever additional features and is effective over a wide performance range.

Compact design
- With the less powerful models AP15/20, the compact dimensions of the wall-mounted unit (just 760 mm x 250 mm x 178 mm) enable it to be installed inconspicuously and discreetly in even the smallest of rooms.

Horizontal air discharge
- Provides very comfortable air distribution, especially in cooling mode

Night mode
- The night mode comfort function automatically adjusts the sound pressure of the outdoor unit down -3dB (A). In addition, the LED on the indoor unit is dimmed and the remote controller mutes the beep tone during operation.

Filter
- Air purification filter with silver ion coating
- Silver ion air purification filter (optional)
- Plasma Quad Connect filter (optional)*

i-save
- Saves the preferred operating mode

MELCloud WiFi adapter
- Integrated as standard

Infrared remote controller with weekly timer function included in scope of supply

* With the Plasma Quad Connect filter, planning must include additional space above the wall-mounted unit (+ approx. 110 mm).

Accessories

Type designation	Description	Quantity
MAC-2370FT	Silver-ionized air purification filter*	10
MAC-1300RC	Remote controller holder	15
MAC-100FT-E	Plasma Quad Connect (available from May 2021)	1

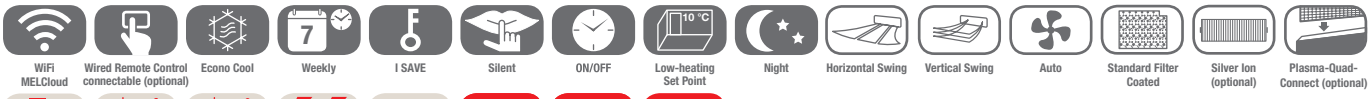
* Only available for MSZ-AP 25-50

MUZ-AP20–42VG | MUZ-AP50VG | MSZ-AP15/20VGK | MSZ-AP25–50VGK

R32

Compact wall-mounted units

Split-inverter / Cooling and heating



MSZ-AP inverter wall-mounted units, cooling / heating

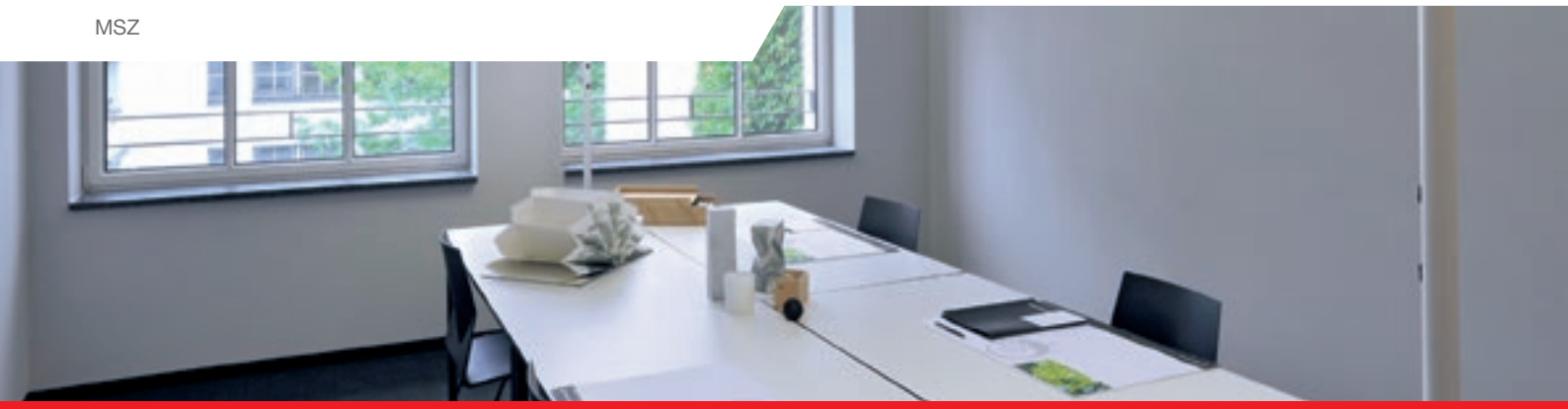
Indoor units		MSZ-AP15VGK	MSZ-AP20VGK	MSZ-AP25VGK	MSZ-AP35VGK	MSZ-AP42VGK	MSZ-AP50VGK
Outdoor units		Multi Split MXZ	MUZ-AP20VG	MUZ-AP25VG	MUZ-AP35VG	MUZ-AP42VG	MUZ-AP50VG
Cooling	Cooling capacity (kW)	1.5 (0.8–2.1)	2.0 (0.6–2.7)	2.5 (0.9–3.4)	3.5 (1.1–3.8)	4.2 (0.9–4.5)	5.0 (1.4–5.4)
	Power consumption (kW)	–	0.46	0.60	0.99	1.30	1.55
	SEER	–	8.6	8.6	8.6	7.8	7.4
	Energy efficiency class	–	A+++	A+++	A+++	A++	A++
	Application range (°C)	–	–10~+46	–10~+46	–10~+46	–10~+46	–10~+46
Heating	Heating capacity (kW)	1.7 (0.9–2.4)	2.5 (0.5–3.5)	3.2 (1.0–4.1)	4.0 (1.3–4.6)	5.4 (1.3–6.0)	5.8 (1.4–7.3)
	Power consumption (kW)	–	0.60	0.78	1.03	1.49	1.60
	SCOP	–	4.2	4.8	4.7	4.7	4.7
	Energy efficiency class	–	A+	A++	A++	A++	A++
	Application range (°C)	–	–15~+24	–15~+24	–15~+24	–15~+24	–15~+24

Indoor units		MSZ-AP15VGK	MSZ-AP20VGK	MSZ-AP25VGK	MSZ-AP35VGK	MSZ-AP42VGK	MSZ-AP50VGK
Air volume (cooling mode) (m³/h)	L/H	210/330	210/330	294/684	294/684	324/684	360/756
Sound level (dB(A))	L/H	21/35	21/35	19/36	19/36	21/36	28/36
Dimensions (mm)	W/D/H	760/178/250	760/178/250	798/219/299	798/219/299	798/219/299	798/219/299
Weight (kg)		8.2	8.2	10.5	10.5	10.5	10.5
Outdoor units		**Multi Split MXZ**	**MUZ-AP20VG**	**MUZ-AP25VG**	**MUZ-AP35VG**	**MUZ-AP42VG**	**MUZ-AP50VG**
Airflow (m³/h)		–	1932	1932	1932	1824	2430
Sound pressure level cooling / heating (dB(A))		–	47/48	47/48	49/50	50/51	52/52
Dimensions (mm)*	W/D/H	–	800/285/550	800/285/550	800/285/550	800/285/550	800/285/714
Weight (kg)		–	31	31	31	35	40
Refrigeration data							
Total pipe length (m)		–	20	20	20	20	20
Max. height difference (m)		–	12	12	12	12	12
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg) GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		–	R32/0.55/0.81 675/0.37/0.55	R32/0.55/0.81 675/0.37/0.55	R32/0.55/0.81 675/0.37/0.55	R32/0.70/0.96 675/0.47/0.65	R32/1.00/1.26 675/0.68/0.86
Refrigerant pre-filling for (m)		–	7	7	7	7	7
Top-up quantity of refrigerant (g/m)		–	20	20	20	20	20
Refrigerant pipe size Ø (mm)	fl.	–	6	6	6	6	6
	s.	–	10	10	10	10	10
Electrical data							
Voltage supply (V, phase, Hz)		–	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current cooling / heating (A)		–	2.6/3.2	3.2/3.9	4.9/4.7	6.0/7.0	7.4/7.6
Recommended cable cross-section - supply cable to outdoor unit (mm²)		–	3 x 1.5	3 x 1.5	3 x 1.5	3 x 1.5	3 x 2.5
Recommended cable cross-section - indoor unit - outdoor unit (mm²)		–	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Recommended breaker size (A)		–	10	10	10	10	16

* An additional 60 mm of space below the unit must be included in planning to account for the blow-out plate fins and air flow.

Sound pressure level measured 1 m in front of and 0.8 m below the unit in cooling mode
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

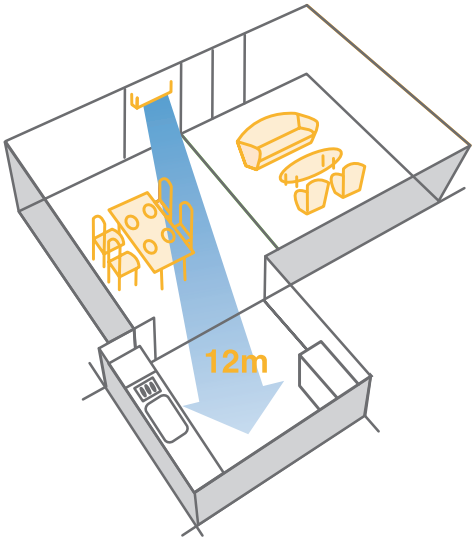


Standard wall-mounted units MSZ-AP

Highlights

- SCOP up to 4.4/SEER up to 7.4
- Energy efficiency class up to A+/A++
- Sound pressure level from 29 dB(A)
- Refrigerant filling quantity (standard single split) max. 1.71 kg

Wide & Long Airflow



This versatile allrounder is full of clever additional features and is effective over a wide performance range.

Ideal for large rooms
- Particularly large range (up to 12 m)
- Adjustable vertical air discharge angle in 7 directions
- Maximum cooling capacity of 8.7 kW

Filter
- Air purification filter with silver ion coating
- Silver ion air purification filter (optional)
- Plasma Quad Connect filter (optional)*

Horizontal air discharge
- Provides very comfortable air distribution, especially in cooling mode

i-save
- Saves the preferred operating mode

MELCloud WiFi adapter
- MELCloud WiFi adapter integrated as standard

Infrared remote controller with weekly timer function included in scope of supply

* With the Plasma Quad Connect filter, planning must include additional space above the wall-mounted unit (+ approx. 110 mm).

Accessories

Type designation	Description	Quantity
MAC-2360FT	Silver-ionized air purification filter	10
MAC-100FT-E	Plasma Quad Connect (available from May 2021)	1
MAC-1300RC	Remote controller holder	15

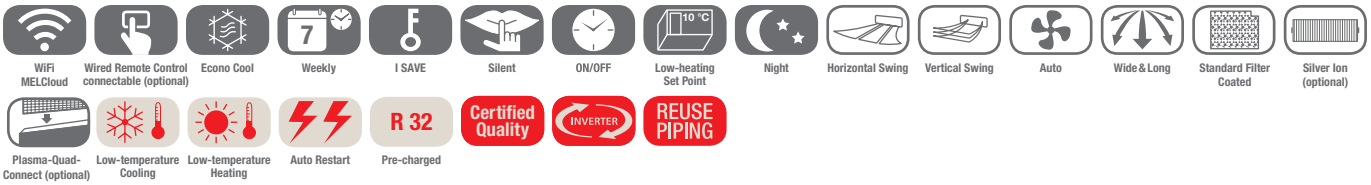
R32

MUZ-AP60/71VG

MSZ-AP60/71VGK

Standard wall-mounted units

Split-inverter/Cooling and heating



WiFi MELCloud · Wired Remote Control connectable (optional) · Econo Cool · Weekly · I SAVE · Silent · ON/OFF · Low-heating Set Point · Night · Horizontal Swing · Vertical Swing · Auto · Wide & Long · Standard Filter Coated · Silver Ion (optional)

Plasma-Quad-Connect (optional) · Low-temperature Cooling · Low-temperature Heating · Auto Restart · Pre-charged

MSZ-AP inverter wall-mounted units, cooling/heating

Indoor units		MSZ-AP60VGK	MSZ-AP71VGK
Outdoor units		MUZ-AP60VG	MUZ-AP71VG
Cooling	Cooling capacity (kW)	6.1 (1.4–7.3)	7.1 (2.0–8.7)
	Power consumption (kW)	1.59	2.01
	SEER	7.4	7.2
	Energy efficiency class	A++	A++
	Application range (°C)	–10~+46	–10~+46
Heating	Heating capacity (kW)	6.8 (2.0–8.6)	8.1 (2.2–10.3)
	Power consumption (kW)	1.67	2.12
	SCOP	4.6	4.4
	Energy efficiency class	A++	A+
	Application range (°C)	–15~+24	–15~+24

Indoor units		MSZ-AP60VGK	MSZ-AP71VGK
Air volume (cooling mode) (m^3/h)	L/H	564/1134	576/1116
Sound level (dB(A))	L/H	29/48	30/49
Dimensions (mm)	W/D/H	1.100/257/325	1.100/257/325
Weight (kg)		16	17
Outdoor units		**MUZ-AP60VG**	**MUZ-AP71VG**
Airflow (m^3/h)		3126	3246
Sound pressure level cooling/heating (dB(A))		56/57	56/55
Dimensions (mm)*	W/D/H	800/285/714	840/330/880
Weight (kg)		40	55
Refrigeration data			
Total pipe length (m)		30	30
Max. height difference (m)		15	15
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R32/1.05/1.35	R32/1.5/1.71
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		675/0.71/0.92	675/1.02/1.22
Refrigerant pre-filling for (m)		15	15
Top-up quantity of refrigerant (g/m)		20	20
Refrigerant pipe size Ø (mm)	fl.	6	6
	s.	12	12
Electrical data			
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50
Operating current (A)		7.1	8.8
Recommended cable cross-section - supply cable to outdoor unit (mm^2)		3 x 2.5	3 x 2.5
Recommended cable cross-section - indoor unit - outdoor unit (mm^2)		4 x 1.5	4 x 1.5
Recommended breaker size (A)		16	20

* An additional 12 mm of space below the unit must be included in planning to account for the blow-out plate fins and air flow.

Sound pressure level of the indoor unit measured 1 m in front of and 0.8 m below the unit in cooling mode

Energy efficiency class on a scale from A+++ to D

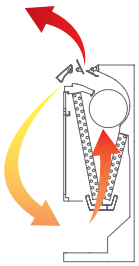
Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Floor-standing unit MFZ-KT

Highlights

- SCOP up to 4.4/SEER up to 6.8
- Energy efficiency class up to A+/A++
- Sound pressure level from 19 dB(A)
- Refrigerant filling quantity (standard single split) max. 1.71 kg

Multiflow vane funktion
With the multiflow vane function, the air flow through two newly designed blow-out plate fins can conveniently be adjusted in line with the needs of the individual user.



Heating mode

Cooling mode

The MFZ-KT floor-standing unit is particularly suitable for applications in which both cooling and heating modes are regularly used. Can be installed like a radiator near the floor.

Multiflow vane function
- Simultaneous distribution of the air upwards and downwards in heating mode to ensure ideal air circulation in the room and rapid heating of the room.
- In cooling mode, the air is discharged solely upwards in order to achieve the best possible efficiency.

Air filter
- Air purification filter with silver ion coating
- Silver ion air purification filter

Flexible installation
- Three possible installation types: standing, mounted, wall-hanging

i-save
- Saves the preferred operating state

Refrigerant detector
- integrated refrigerant detector to ensure early detection of possible leaksn

Infrared remote controller with weekly timer function included in scope of supply

MELCloud Wi-Fi adapter (optional)

Accessories

Type designation	Description	Quantity
MAC-2370FT	Silver-ionized air purification filter (replacement filter)	10
MAC-567IF-E	MELCloud Wi-Fi adapter	1

SUZ-M25 / 35VA | SUZ-M50VA | SUZ-M60VA | MFZ-KT25–60VG

Compact floor-standing units

Split-inverter / Cooling and heating

WiFi MELCloud (optional) | Wired Remote Control connectable (optional) | Econo Cool | Weekly | I SAVE | Silent | ON/OFF | Vertical Swing | Auto | Standard Filter Coated | Silver Ion

Low-temperature Cooling | Low-temperature Heating | VRF LEV-Kit | Auto Restart | Pre-charged | Certified Quality | INVERTER | REUSE PIPING

MFZ-KT inverter floor-standing units, cooling / heating

Indoor units		MFZ-KT25VG	MFZ-KT35VG	MFZ-KT50VG	MFZ-KT60VG
Outdoor units		SUZ-M25VA*	SUZ-M35VA*	SUZ-M50VA*	SUZ-M60VA*
Cooling	Cooling capacity (kW)	2.5 (1.6–3.2)	3.5 (0.9–3.9)	5.0 (1.2–5.6)	6.1 (1.7–6.3)
	Power consumption (kW)	0.62	1.06	1.55	1.84
	SEER	6.5	6.6	6.8	6.2
	Energy efficiency class	A++	A++	A++	A++
	Application range (°C)	–10~+46	–10~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	3.4 (1.3–4.2)	4.3 (1.1–5.0)	6.0 (1.5–7.2)	7.0 (1.6–8.0)
	Power consumption (kW)	0.91	1.26	1.86	2.18
	SCOP	4.2	4.4	4.2	4.1
	Energy efficiency class	A+	A+	A+	A+
	Application range (°C)	–10~+24	–10~+24	–10~+24	–10~+24

Indoor units		MFZ-KT25VG	MFZ-KT35VG	MFZ-KT50VG	MFZ-KT60VG
Air volume (cooling mode) (m³/h)	L/H	234/468	234/468	336/624	336/738
Sound pressure level cooling / heating (dB(A))	low	19/19	19/19	28/29	28/29
	high	37/37	37/37	42/44	46/47
Dimensions (mm)	W/D/H	750/215/600	750/215/600	750/215/600	750/215/600
Weight (kg)		14.5	14.5	14.5	15
Outdoor units		**SUZ-M25VA**	**SUZ-M35VA**	**SUZ-M50VA**	**SUZ-M60VA**
Airflow cooling / heating (m³/h)		2178/2076	2058/1962	2748/2622	3006/3006
Sound pressure level cooling / heating (dB(A))		45/46	48/48	48/49	49/51
Dimensions (mm)	W/D/H	800/285/550	800/285/550	800/285/714	840/330/880
Weight (kg)		30	35	41	54
Refrigeration data					
Total pipe length (m)		20	20	30	30
Max. height difference (m)		12	12	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32/0.65/0.91	R32/0.90/1.16	R32/1.20/1.66	R32/1.25/1.71
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675/0.44/0.61	675/0.61/0.78	675/0.81/1.12	675/0.84/1.15
Refrigerant pre-filling for (m)		7	7	7	7
Top-up quantity of refrigerant (g/m)		20	20	20	20
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6
	s.	10	10	12	16
Electrical data					
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		3.5	4.9	5.58	9.0
Recommended cable cross-section - supply cable to outdoor unit (mm²)		3 x 1.5	3 x 1.5	3 x 2.5	3 x 2.5
Recommended cable cross-section - indoor unit - outdoor unit (mm²)		4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Recommended breaker size (A)		10	10	16	16

* Note: Only SUZ-M25/35/50/60VA-R1 outdoor units are compatible.

Sound pressure level of the indoor unit measured at a height of 1 m and 1 m in front of the unit

Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

1-way ceiling cassettes MLZ-KP

Highlights

- SCOP up to 4.6/SEER up to 7.0
- Energy efficiency class up to A+/A++
- Sound pressure level from 27 dB(A)
- Refrigerant filling quantity (standard single split) max. 1.66 kg
- Installation height 185 mm

Compact design and low installation height
Due to its compact design, the device fits perfectly into a recessed ceiling where space is limited.

Even with extremely low recessed ceilings there is still enough space for the MLZ-KP one-way ceiling cassette.

Integrated condensate pump
- The unit is fitted as standard with a high-grade condensate pump with a head of 50 cm

Rapid installation thanks to compact size and low weight

Air filter
- Air purification filter
- Silver ion air purification filter (optional)

Infrared remote controller with weekly timer function included in scope of supply

Optional connection to cable remote controller

MELCloud Wi-Fi adapter (optional)

Accessories

Type designation	Description	Quantity
PAR-40MAA*	Wired remote control Deluxe	1
PAC-YT52CRA*	Wired remote control compact	1
MAC-2370FT	Silver-ionized air purification filter	10
MAC-567IF-E	MELCloud Wi-Fi adapter	1

* MAC-397IF-E required (see accessory page at end of chapter)

R32

SUZ-M25/35VA SUZ-M50VA MLZ-KP25–50VF

1-way ceiling cassettes

Split-inverter / Cooling and heating

WiFi MELCloud (optional) · Wired Remote Control connectable (optional) · Econo Cool · Weekly · On/Off · Low-heating Set Point · Horizontal Swing · Vertical Swing · Auto · Standard Filter Coated · Silver Ion (optional)

Low-temperature Cooling · Low-temperature Heating · Drain Lift Up · Auto Restart · Pre-charged · R 32 · Certified Quality · INVERTER · REUSE PIPING

MLZ-KP ceiling cassettes, cooling / heating

Indoor units		MLZ-KP25VF	MLZ-KP35VF	MLZ-KP50VF
Grille		MLP-444W	MLP-444W	MLP-444W
Outdoor units		SUZ-M25VA	SUZ-M35VA	SUZ-M50VA
Cooling	Cooling capacity (kW)	2.5 (1.4–3.2)	3.5 (0.8–3.9)	5.0 (1.7–5.6)
	Power consumption (kW)	0.59	0.97	1.38
	EER	4.20	3.70	3.60
	SEER	6.2	7.0	6.7
	Energy efficiency class	A++	A++	A++
	Application range (°C)	–10~+46	–10~+46	–15~+46
Heating	Heating capacity (kW)	3.2 (1.4–4.2)	4.1 (1.1–4.9)	6.0 (1.7–7.2)
	Power consumption (kW)	0.80	1.10	1.86
	COP	4.00	3.71	3.21
	SCOP	4.4	4.6	4.3
	Energy efficiency class	A+	A++	A+
	Application range (°C)	–10~+24	–10~+24	–10~+24

Indoor units		MLZ-KP25VF	MLZ-KP35VF	MLZ-KP50VF
Air volume (cooling mode) (m³/h)	L/H	360/528	360/564	360/684
Sound level (dB(A))	L/H	27/38	27/40	29/47
Dimensions (mm)*	W/D/H	1.102/360/185	1.102/360/185	1.102/360/185
Dimensions (grille) (mm)**	W/D/H	1.200/424/24	1.200/424/24	1.200/424/24
Weight (incl. grille) (kg)		15.5 (19.0)	15.5 (19.0)	15.5 (19.0)
Outdoor units		**SUZ-M25VA**	**SUZ-M35VA**	**SUZ-M50VA**
Airflow cooling/heating (m³/h)		2178/2076	2058/1962	2748/2622
Sound pressure level cooling/heating (dB(A))		45/46	48/48	48/49
Dimensions (mm)	W/D/H	800/285/550	800/285/550	800/285/714
Weight (kg)		30	35	41
Refrigeration data				
Total pipe length (m)		20	20	30
Max. height difference (m)		12	12	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R32/0.65/0.91	R32/0.90/1.16	R32/1.20/1.66
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		675/0.44/0.61	675/0.61/0.78	675/0.81/1.12
Refrigerant pre-filling for (m)		7	7	7
Top-up quantity of refrigerant (g/m)		20	20	20
Refrigerant pipe size Ø (mm)	fl.	6	6	6
	s.	10	10	12
Electrical data				
Voltage supply (V, phase, Hz)		230, 1, 50	230, 1, 50	230, 1, 50
Operating current (A)		3.5	4.9	5.58
Recommended breaker size (A)		10	10	20

* Required installation height

** Visible height of grille

Sound pressure level of the indoor unit measured centrically at a distance of 1.5 m below the unit in cooling mode

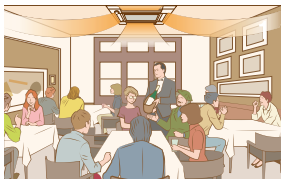
Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

4-way ceiling cassettes SLZ-M

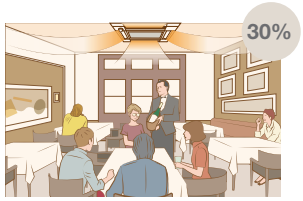
Highlights

- SCOP up to 4.3/SEER up to 6.7
- Energy efficiency class up to A++/A+
- Sound pressure level from 24 dB(A)
- Refrigerant filling quantity (standard single split) max. 1.71 kg
- Installation height 245 mm

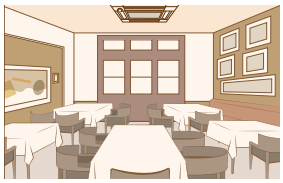
3D i-see sensor



Fully crowded room



Partly crowded room



Empty room

The SLZ-M series of ceiling cassettes offer smart air conditioning systems for suspended ceilings with European grid dimensions.
The intelligent SLZ-M 4-way ceiling cassettes achieve high standards of individual comfort and impressive energy saving targets.

Horizontal airflow
- Six different discharge angles

3D i-see sensor (optional)
- Automatic air discharge on person recognition
- Energy efficiency thanks to presence detection

Easy installation
- Thanks to a special mounting system, the installation of the panel can be carried out by a single person

Air filter
- Air purification filter

Optionally available with wired or infrared remote controller

Fresh air connection possible

MELCloud Wi-Fi adapter (optional)

Integrated condensate pump
- The unit is fitted as standard with a high-grade condensate pump featuring a delivery head of up to 85 cm

Accessories

Type designation	Description	Quantity
PAC-YT-52CRA	Wired remote control compact	1
PAR-40MAA	Wired remote control Deluxe	1
PAC-SF1ME-E	3D i-see sensor	1
SLP-2FA	Panel for wired remote controller	1
MAC-567IF-E	MELCloud Wi-Fi adapter	1

SUZ-M25/35VA | SUZ-M50VA | SUZ-M60VA | PAR-SL100A-E | SLZ-M15–60FA

4-way ceiling cassettes

Split inverters / European ceiling grid dimensions / Cooling and heating

3D i-see-Sensor (optional) | WiFi MELCloud (optional) | Wired Remote Control connectable | On/Off | Weekly | Vertical Swing | AUTO | Standard Filter

Low-temperature Cooling | Low-temperature Heating | Fresh-air intake | Drain Lift Up | Auto Restart | Pre-charged | Certified Quality | INVERTER | REUSE PIPING

SLZ-M ceiling cassettes, cooling / heating

Indoor units		SLZ-M15FA	SLZ-M25FA	SLZ-M35FA	SLZ-M50FA	SLZ-M60FA
Panel including IR remote control		SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM
Outdoor units		R32 MXZ	SUZ-M25VA	SUZ-M35VA	SUZ-M50VA	SUZ-M60VA
Cooling	Cooling capacity (kW)	1.5	2.5 (1.4–3.2)	3.5 (0.7–3.9)	4.6 (1.0–5.2)	5.7 (1.5–6.3)
	Power consumption (kW)	–	0.65	1.09	1.35	1.67
	SEER	–	6.3	6.7	6.3	6.2
	Energy efficiency class	–	A++	A++	A++	A++
	Application range (°C)	–	–10~+46	–10~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	1.7	3.2 (1.3–4.2)	4.0 (1.0–5.0)	5.0 (1.3–5.5)	6.4 (1.6–7.3)
	Power consumption (kW)	–	0.88	1.07	1.56	2.13
	SCOP	–	4.3	4.3	4.2	4.1
	Energy efficiency class	–	A+	A+	A+	A+
	Application range (°C)	–	–10~+24	–10~+24	–10~+24	–10~+24

Indoor units		SLZ-M15FA	SLZ-M25FA	SLZ-M35FA	SLZ-M50FA	SLZ-M60FA
Air volume (cooling mode) (m³/h)	L/H	360/420	360/420	390/510	390/570	420/690
Sound level (dB(A))	L/H	24/28	25/31	25/34	27/39	32/43
Dimensions (mm)*	W/D/H	570/570/245	570/570/245	570/570/245	570/570/245	570/570/245
Dimensions (grille) (mm)**	W/D/H	625/625/10	625/625/10	625/625/10	625/625/10	625/625/10
Weight (incl. grille) (kg)		15.0 (18.0)	15.0 (18.0)	15.0 (18.0)	15.0 (18.0)	15.0 (18.0)
Outdoor units		**R32 MXZ**	**SUZ-M25VA**	**SUZ-M35VA**	**SUZ-M50VA**	**SUZ-M60VA**
Airflow cooling / heating (m³/h)		–	2178/2076	2058/1962	2748/2622	3006/3006
Sound pressure level cooling / heating (dB(A))		–	45/46	48/48	48/49	49/51
Dimensions (mm)	W/D/H	–	800/285/550	800/285/550	800/285/714	840/330/880
Weight (kg)		–	30	35	41	54
Refrigeration data						
Total pipe length (m)		–	20	20	30	30
Max. height difference (m)		–	12	12	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		–	R32/0.65/0.91	R32/0.90/1.16	R32/1.20/1.66	R32/1.25/1.71
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)			675/0.44/0.61	675/0.61/0.78	675/0.81/1.12	675/0.84/1.15
Refrigerant pre-filling for (m)		–	7	7	7	7
Top-up quantity of refrigerant (g / m)		–	20	20	20	20
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6	6
	s.	10	10	10	12	16
Electrical data						
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		–	3.5	4.9	5.58	9.0
Recommended cable cross-section - supply cable to outdoor unit (mm²)		–	3 x 1.5	3 x 1.5	3 x 2.5	3 x 2.5
Recommended cable cross-section - indoor unit - outdoor unit (mm²)		4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Recommended breaker size (A)		–	10	10	20	20

* Required installation height

** Visible height of grille

Sound pressure level of the indoor unit measured centrically at a distance of 1.5 m below the unit in cooling mode

Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Ceiling concealed ducted units SEZ-M

Highlights

- SCOP up to 4.2/SEER up to 6.0
- Energy efficiency class up to A+/A+
- Sound pressure level from 22 dB(A)
- Refrigerant filling quantity (standard single split) max. 2.37 kg
- External static pressure 5–50 Pa
- Installation height 200 mm

Where air conditioning units should neither be seen nor heard, SEZ-M duct mounted units do their job almost silently and invisibly. The units can be installed in the false ceiling and transport the conditioned air into the room via air apertures and ducts.

External static pressure
- Up to 50 Pa
- Choice of four external static pressures: 5–15–35–50 Pa

Easy to integrate in low ceilings
- Low installation height of just 200 mm

Condensate pump (optional)
- Delivery head up to 55 cm

Three blowing speeds
- Low/Medium/High

Optionally available with wired or infrared remote controller

Air filter
- Standard air filter included in scope of supply
- Plasma Quad Connect filter (optional)

MELCloud Wi-Fi adapter (optional)

Accessories

Type designation	Description	Quantity
PAR-40MAA	Wired remote control Deluxe	1
PAC-YT52CRA	Wired remote control compact	1
PAR-SA9CA-E	Infrared remote control (receiver)	1
PAR-SL97A-E	Infrared remote control (transmitter)	1
PAC-KE07DM-E	Drain pump	1
MAC-567IF-E	MELCloud Wi-Fi adapter	1
MAC-100FT-E*	Plasma Quad Connect (available from May 2021)	1

* Additional installation kit required. Please submit a request (available as of July 2021).




SUZ-M25/35VA | SUZ-M50VA | SUZ-M60/71VA | SEZ-M25–71DA

R32

Ceiling concealed ducted units

Split-inverter / Cooling and heating

SEZ-M ducted units, cooling / heating, no remote control included

Indoor units		SEZ-M25DA	SEZ-M35DA	SEZ-M50DA	SEZ-M60DA	SEZ-M71DA
Outdoor units		SUZ-M25VA	SUZ-M35VA	SUZ-M50VA	SUZ-M60VA	SUZ-M71VA
Cooling	Cooling capacity (kW)	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)
	Power consumption (kW)	0.71	1.00	1.54	1.84	2.15
	SEER	5.3	5.9	6.0	5.5	5.5
	Energy efficiency class	A	A+	A+	A	A
	Application range (°C)	–10~+46	–10~+46	–15~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	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)
	Power consumption (kW)	0.80	1.07	1.61	2.04	2.28
	SCOP	3.8	4.1	4.0	4.2	3.9
	Energy efficiency class	A	A+	A+	A+	A
	Application range (°C)	–10~+24	–10~+24	–10~+24	–10~+24	–10~+24

Indoor units		SEZ-M25DA	SEZ-M35DA	SEZ-M50DA	SEZ-M60DA	SEZ-M71DA
Air flow in cooling mode (m³/h)	L/M/H	360/420/540	420/540/660	600/780/900	720/900/1080	720/960/1200
Static pressure (Pa)		5 - 50	5 - 50	5 - 50	5 - 50	5 - 50
Sound level (dB(A))	L/M/H	22/25/29	23/28/33	29/33/36	29/33/37	29/34/39
Dimensions (mm)	W/D/H	790/700/200	990/700/200	990/700/200	1.190/700/200	1.190/700/200
Weight (kg)		18.0	21.0	23.0	27.0	27.0
Outdoor units		**SUZ-M25VA**	**SUZ-M35VA**	**SUZ-M50VA**	**SUZ-M60VA**	**SUZ-M71VA**
Airflow cooling / heating (m³/h)		2178/2076	2058/1962	2748/2622	3006/3006	3006/3006
Sound pressure level cooling / heating (dB(A))		45/46	48/48	48/49	49/51	49/51
Dimensions (mm)	W/D/H	800/285/550	800/285/550	800/285/714	840/330/880	840/330/880
Weight (kg)		30	35	41	54	55
Refrigeration data						
Total pipe length (m)		20	20	30	30	30
Max. height difference (m)		12	12	30	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32/0.65/0.91	R32/0.90/1.16	R32/1.20/1.66	R32/1.25/1.71	R32/1.45/2.37
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675/0.44/0.61	675/0.61/0.78	675/0.81/1.12	675/0.84/1.15	675/0.98/1.60
Refrigerant pre-filling for (m)		7	7	7	7	7
Top-up quantity of refrigerant (g/m)		20	20	20	20	40
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6	10
	s.	10	10	12	16	16
Electrical data						
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		3.5	4.9	5.58	9.0	10.0
Recommended cable cross-section - supply cable to outdoor unit (mm²)		3 x 1.5	3 x 1.5	3 x 2.5	3 x 2.5	3 x 2.5
Recommended cable cross-section - indoor unit - outdoor unit (mm²)		4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Recommended breaker size (A)		10	10	20	20	20

Sound pressure level of the indoor unit measured centrically at a distance of 1.5 m below the unit at static pressure of 15 Pa
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

STEHSATZ

STEHSATZ

Overview of combination options

Multi-split inverter with indoor units
Selecting suitable indoor units involves observing the individual spatial conditions.

The number of indoor units and the required output are used to determine the right multi-split outdoor unit.

Step 1: selecting indoor unit models for each room.

Wall-mounted units

Truhengerät

Ceiling cassettes

Ceiling concealed unit

Ceiling suspended unit

Step 2: selecting the outdoor unit based on the number of indoor units and total output requirement.

Multi-split outdoor units R410A

For 2 to 8 indoor units

PUMY-P112VKM/YKM
PUMY-P125VKM/YKM
PUMY-P140VKM/YKM
PUMY-SP112VKM/YKM
PUMY-SP125VKM/YKM
PUMY-SP140VKM/YKM

Distributor boxes

PAC-MK33BC PAC-MK53BC PAC-LV11M-J

Multi-split outdoor units R32

For 2 indoor units

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

For 2 to 3 indoor units

MXZ-3F54VF3
MXZ-3F68VF3

For 2 to 4 indoor units

MXZ-4F72VF3
MXZ-4F83VF

For 2 to 5 indoor units

MXZ-5F102VF

For 2 to 6 indoor units

MXZ-6F122VF

Please see the 'MXZ combination tables' for the output tables.

R32: connectable multi-split inverter output classes

Outdoor unit / Indoor unit		'Heat pump'-type inverter-controlled models									
		MXZ-2F33VF[3]	MXZ-2F42VF[3]	MXZ-2F53VF[3]	MXZ-3F54VF[3]	MXZ-3F68VF[3]	MXZ-4F72VF[3]	MXZ-4F80VF[3]	MXZ-4F83VF	MXZ-5F102VF	MXZ-6F122VF
Wall-mounted units	MSZ-LN18VG2(W)(V)(R)(B)	•	•	•	•	•	•	•	•	•	•
	MSZ-LN25VG2(W)(V)(R)(B)	•	•	•	•	•	•	•	•	•	•
	MSZ-LN35VG2(W)(V)(R)(B)		•	•	•	•	•	•	•	•	•
	MSZ-LN50VG2(W)(V)(R)(B)				•	•	•	•	•	•	•
	MSZ-LN60VG2(W)(V)(R)(B)										
	MSZ-EF18VGK(W)(B)(S)	•	•	•	•	•	•	•	•	•	•
	MSZ-EF25VGK(W)(B)(S)	•	•	•	•	•	•	•	•	•	•
	MSZ-EF35VGK(W)(B)(S)		•	•	•	•	•	•	•	•	•
	MSZ-EF42VGK(W)(B)(S)			•	•	•	•	•	•	•	•
	MSZ-EF50VGK(W)(B)(S)			•	•	•	•	•	•	•	•
	MSZ-AP15VGK	•	•	•	•	•	•	•	•[3]	•[3]	•[3]
	MSZ-AP20VGK	•	•	•	•	•	•	•	•[3]	•[3]	•[3]
	MSZ-AP25VGK	•	•	•	•	•	•	•	•	•	•
	MSZ-AP35VGK		•	•	•	•	•	•	•	•	•
	MSZ-AP42VGK			•	•	•	•	•	•	•	•
	MSZ-AP50VGK			•	•	•	•	•	•	•	•
	MSZ-AP60VGK					•	•	•	•	•	•
	MSZ-AP71VGK								•	•	•
Floor-standing unit	MFZ-KT50VG				•	•	•	•	•	•	•
	MFZ-KT25VG	•	•	•	•	•	•	•	•	•	•
	MFZ-KT35VG		•	•	•	•	•	•	•	•	•
	MFZ-KT60VG										
1-way ceiling cassette	MLZ-KP25VF	•	•	•	•	•	•	•	•	•	•
	MLZ-KP35VF		•	•	•	•	•	•	•	•	•
	MLZ-KP50VF				•	•	•	•	•	•	•
4-way ceiling cassette	SLZ-M15FA	•	•	•	•	•	•	•	•[3]	•[3]	•[3]
	SLZ-M25FA	•	•	•	•	•	•	•	•	•	•
	SLZ-M35FA			•	•	•	•	•	•	•	•
	SLZ-M50FA				•	•	•	•	•	•	•
Ceiling concealed unit	SEZ-M25DA[2]	•	•	•	•	•	•	•	•	•	•
	SEZ-M35DA		•	•	•	•	•	•	•	•	•
	SEZ-M50DA				•	•	•	•	•	•	•
	SEZ-M60DA					•	•	•	•	•	•
Ceiling suspended unit	PCA-M50KA				•	•	•	•			
	PCA-M60KA					•	•	•			
Ceiling concealed unit	PEAD-M50JA				•[1]	•[1]	•[1]	•[1]			

1 Maximum total current of the indoor units: 3 A or less.

2 SEZ-M25 cannot be connected to MXZ-2F/3F/4F if the total output of the connected indoor units corresponds to the output of the outdoor units (output ratio of 1).

3 Not designed for operation with an individual indoor unit and 1-to-1 piping. Please install at least two indoor units.

MXZ-2F33–53VF3 MXZ-3F54/68VF3 / MXZ-4F72/80VF3

Multi-split inverters

for 2 to 4 indoor units / Cooling and heating

Low-temperature Cooling · Low-temperature Heating · Auto Restart · R 32 Pre-charged · Certified Quality · INVERTER · REUSE PIPING

MXZ multi-split inverter outdoor units, cooling / heating

Outdoor units		MXZ-2F33VF3	MXZ-2F42VF3	MXZ-2F53VF3	MXZ-3F54VF3	MXZ-3F68VF3	MXZ-4F72VF3	MXZ-4F80VF3
Cooling	Cooling capacity (kW)	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)	8,0 (3,7–9,0)
	Power consumption (kW)	0,8	0,98	1,4	1,32	1,84	1,85	2,25
	SEER	6,13	8,69	8,63	8,52	7,96	8,13	7,55
	Energy efficiency class	A++	A+++	A+++	A+++	A++	A++	A++
	Application range (°C)	–10~+46	–10~+46	–10~+46	–10~+46	–10~+46	–10~+46	–10~+46
Heating	Heating capacity (kW)	4,0 (1,0–4,1)	4,5 (1,0–4,8)	6,4 (1,0–7,0)	7,0 (2,6–9,0)	8,6 (2,6–10,6)	8,6 (3,4–10,7)	8,8 (3,4–11,0)
	Power consumption (kW)	0,91	0,88	1,56	1,40	1,91	1,87	2,0
	SCOP	4,16	4,60	4,60	4,61	4,12	4,07	4,07
	Energy efficiency class	A+	A++	A++	A++	A+	A+	A+
	Application range (°C)	–15~+24	–15~+24	–15~+24	–15~+24	–15~+24	–15~+24	–15~+24

Outdoor units		MXZ-2F33VF3	MXZ-2F42VF3	MXZ-2F53VF3	MXZ-3F54VF3	MXZ-3F68VF3	MXZ-4F72VF3	MXZ-4F80VF3
Airflow (m^3/h)		1974	1662	1974	2526	2526	2526	2562
Sound pressure level cooling / heating (dB(A))		49/50	44/50	46/51	46/50	48/53	48/54	50/55
Dimensions (mm)	W / D / H	800/285/550	800/285/550	800/285/550	840/330/710	840/330/710	840/330/710	840/330/710
Weight (kg)		33	37	37	58	58	59	59
Connectable indoor units (number)		2	2	2	2–3	2–3	2–4	2–4
Refrigeration data								
Total pipe length (m)*		20/15**	30/20**	30/20**	50/25**	60/25**	60/25**	60/25**
Max. height difference (m)		10	15/10*	15/10*	15/10*	15/10*	15/10*	15/10*
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32/0.80/0.80	R32/1.0/1.0	R32/1.0/1.0	R32/2.4/2.4	R32/2.4/2.4	R32/2.4/2.4	R32/2.4/2.4
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675/0.54/0.54	675/0.675/0.675	675/0.675/0.675	675/1.62/1.62	675/1.62/1.62	675/1.62/1.62	675/1.62/1.62
Refrigerant pre-filling for (m)		20	30	30	50	60	60	60
Top-up quantity of refrigerant (kg)		–	–	–	–	–	–	–
Refrigerant pipe size Ø (mm)	fl.	2 x 6	2 x 6	2 x 6	3 x 6	3 x 6	4 x 6	4 x 6
	s.	2 x 10	2 x 10	2 x 10	3 x 10	3 x 10	1 x 12/3 x 10	1 x 12/3 x 10
Electrical data								
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current cooling / heating (A)		4.3/4.6	4.9/4.4	6.5/7.5	6.0/6.4	8.4/8.8	8.5/8.6	10.3/9.2
Recommended cable cross-section - supply cable to outdoor unit (mm^2)		3 x 1.5	3 x 2.5	3 x 2.5	3 x 2.5	3 x 2.5	3 x 2.5	3 x 2.5
Recommended cable cross-section - indoor unit - outdoor unit (mm^2)		4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Max. operating current (A)		10.0	12.2	12.2	18.0	18.0	18.0	18.0
Recommended breaker size (A)		16	16	16	25	25	25	25

* 15 m if the outdoor unit is located below; 10 m if the outdoor unit is located above the indoor units

** per connected indoor unit

Energy efficiency class on a scale from A+++ to D

▶ **The multi-split systems of the MXZ series operate in either cooling or heating mode.**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

MXZ-4F83VF | MXZ-5F102VF | MXZ-6F122VF

Multi-split inverters

for 2 to 6 indoor units / Cooling and heating

Low-temperature Cooling | Low-temperature Heating | Auto Restart | R 32 Pre-charged | Certified Quality | INVERTER | REUSE PIPING

MXZ multi-split inverter outdoor units, cooling / heating

Outdoor units		MXZ-4F83VF	MXZ-5F102VF	MXZ-6F122VF
Cooling	Cooling capacity (kW)	8.3 (3.7 – 9.2)	10.2 (3.9 – 11.0)	12.2 (3.5 – 13.5)
	Power consumption (kW)	1.97	2.8	3.66
	SEER	8.51	8.21	7.65
	Energy efficiency class	A+++	A++	–
	Application range (°C)	–10~+46	–10~+46	–10~+46
Heating	Heating capacity (kW)	9.0 (3.4 – 11.6)	10.5 (4.1 – 14.0)	14.0 (3.5 – 16.5)
	Power consumption (kW)	2.00	2.28	3.31
	SCOP	4.72	4.56	4.65
	Energy efficiency class	A++	A++	–
	Application range (°C)	–15~+24	–15~+24	–15~+24

Outdoor units		MXZ-4F83VF	MXZ-5F102VF	MXZ-6F122VF
Airflow (m³/h)		2526	3396	4194
Sound pressure level cooling / heating (dB(A))		49 / 50	53 / 55	55 / 57
Dimensions (mm)	W / D / H	950 / 330 / 796	950 / 330 / 796	950 / 330 / 1.048
Weight (kg)		62	62	87
Connectable indoor units (number)		1 – 4**	1 – 5**	1 – 6**
Refrigeration data				
Total pipe length (m)		70 / 25*	80 / 25*	80 / 25*
Max. height difference (m)		15	15	15
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 2.4 / 2.4	R32 / 2.4 / 2.4	R32 / 2.4 / 2.4
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 1.62 / 1.62	675 / 1.62 / 1.62	675 / 1.62 / 1.62
Refrigerant pre-filling for (m)		70	80	80
Top-up quantity of refrigerant (g / m)		–	–	–
Refrigerant pipe size Ø (mm)	fl.	4 x 6	5 x 6	6 x 6
	s.	1 x 12 / 3 x 10	1 x 12 / 4 x 10	1 x 12 / 5 x 10
Electrical data				
Voltage supply (V, phase, Hz)		220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50
Operating current cooling / heating (A)		8.7 / 8.8	12.3 / 10	16.1 / 14.5
Recommended cable cross-section - supply cable to outdoor unit (mm²)		3 x 2.5	3 x 2.5	3 x 4
Recommended cable cross-section - indoor unit - outdoor unit (mm²)		4 x 1.5	4 x 1.5	4 x 1.5
Max. operating current (A)		21.4	21.4	29.8
Recommended breaker size (A)		25	25	32

* per connected indoor unit
** 1-port connection only possible with sizes >25

Energy efficiency class on a scale from A+++ to D
Supply of MXZ-4F83VF subject to limited stock availability

▶ **The multi-split systems of the MXZ series operate in either cooling or heating mode.**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PUMY-P112–140VKM/YKM

Multi-split inverters

for 2 to 8 indoor units / Cooling and heating

Low-temperature Cooling | Low-temperature Heating | Auto Restart | R 410A Pre-charged | Certified Quality | INVERTER

PUMY multi-split inverter outdoor units, cooling / heating

Outdoor units		PUMY-P112VKM	PUMY-P112YKM	PUMY-P125VKM	PUMY-P125YKM	PUMY-P140VKM	PUMY-P140YKM
Cooling	Cooling capacity (kW)	12.5	12.5	14.0	14.0	15.5	15.5
	Power consumption (kW)	2.79	2.79	3.46	3.46	4.52	4.52
	EER / SEER	4.48 / 6.55	4.48 / 6.55	4.05 / 6.6	4.05 / 6.6	3.43 / 6.25	3.43 / 6.25
Heating	Heating capacity (kW)	14.0	14.0	16.0	16.0	18.0	18.0
	Power consumption (kW)	3.04	3.04	3.74	3.74	4.47	4.47
	COP / SCOP	4.61 / 4.64	4.61 / 4.64	4.28 / 4.63	4.28 / 4.63	4.03 / 4.42	4.03 / 4.42

Outdoor units		PUMY-P112VKM	PUMY-P112YKM	PUMY-P125VKM	PUMY-P125YKM	PUMY-P140VKM	PUMY-P140YKM
Airflow (m^3/h)		6600	6600	6600	6600	6600	6600
Sound pressure level cooling / heating (dB(A))		49 / 51	49 / 51	50 / 52	50 / 52	51 / 53	51 / 53
Dimensions (mm)	W / D / H	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338
Weight (kg)		123	125	123	125	123	125
Refrigeration data							
Maximum cable length with junction box (m)		150	150	150	150	150	150
Max. pipe length distributor / indoor units (m)		95	95	95	95	95	95
Max. height difference indoor units / distributor (m)		15 / 12	15 / 12	15 / 12	15 / 12	15 / 12	15 / 12
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg) GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 4.80 / 18.60 2088 / 10.02 / 38.83
Refrigerant pipe size Ø (mm)	fl.	10	10	10	10	10	10
	s.	16	16	16	16	16	16
Refrigeration connections to indoor units with junction box Ø (mm)	fl.	3 x 6–5 x 6	3 x 6–5 x 6	3 x 6–5 x 6	3 x 6–5 x 6	3 x 6–5 x 6	3 x 6–5 x 6
	s.	3 x 10–4 x 10 + 1 x 12	3 x 10–4 x 10 + 1 x 12	3 x 10–4 x 10 + 1 x 12	3 x 10–4 x 10 + 1 x 12	3 x 10–4 x 10 + 1 x 12	3 x 10–4 x 10 + 1 x 12
Electrical data							
Voltage supply (V, phase, Hz)		220–240, 1, 50	380–415, 3+N, 50	220–240, 1, 50	380–415, 3+N, 50	220–240, 1, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		12.87 / 14.03	4.46 / 4.86	15.97 / 17.26	5.53 / 5.98	20.86 / 20.63	7.23 / 7.15
Recommended breaker size (A)		32	16	32	16	32	16
Connectable indoor units (number / type)		2–8 / 15–100	2–8 / 15–100	2–8 / 15–100	2–8 / 15–100	2–8 / 15–100	2–8 / 15–100

- **The multi-split systems of the PUMY series operate in either cooling or heating mode. At least 2 indoor units need to be connected.**
- **Required branch boxes PAC-MK34 / 54, see page 50**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PUMY-SP112–140VKM / YKM

Multi-split inverters

for 2 to 8 indoor units / Cooling and heating

Low-temperature Cooling | Low-temperature Heating | Auto Restart | R 410A Pre-charged | Certified Quality | INVERTER

PUMY multi-split inverter outdoor units, cooling / heating

Outdoor units		PUMY-SP112VKM	PUMY-SP112YKM	PUMY-SP125VKM	PUMY-SP125YKM	PUMY-SP140VKM	PUMY-SP140YKM
Cooling	Cooling capacity (kW)	12.5	12.5	14.0	14.0	15.5	15.5
	Power consumption (kW)	3.10	3.10	3.84	3.84	4.70	4.70
	EER / SEER	4.03 / 6.61	4.03 / 6.61	3.65 / 6.6	3.65 / 6.6	3.30 / 6.38	3.30 / 6.38
Heating	Heating capacity (kW)	14.0	14.0	16.0	16.0	16.5	16.5
	Power consumption (kW)	3.17	3.17	3.90	3.90	4.02	4.02
	COP / SCOP	4.42 / 3.98	4.42 / 3.98	4.10 / 3.93	4.10 / 3.93	4.10 / 3.90	4.10 / 3.90

Outdoor units		PUMY-SP112VKM	PUMY-SP112YKM	PUMY-SP125VKM	PUMY-SP125YKM	PUMY-SP140VKM	PUMY-SP140YKM
Airflow (m³ / h)		4620	4620	4860	4820	4860	4820
Sound pressure level cooling / heating (dB(A))		52 / 54	52 / 54	53 / 56	53 / 56	54 / 56	54 / 56
Dimensions (mm)	W / D/H	1.050 / 330+40 / 981	1.050 / 330+40 / 981	1.050 / 330+40 / 981	1.050 / 330+40 / 981	1.050 / 330+40 / 981	1.050 / 330+40 / 981
Weight (kg)		93	94	93	94	93	94
Refrigeration data							
Maximum cable length with junction box (m)		120	120	120	120	120	120
Max. pipe length distributor / indoor units (m)		95	95	95	95	95	95
Max. height difference indoor units / distributor (m)		15 / 12	15 / 12	15 / 12	15 / 12	15 / 12	15 / 12
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg) GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		R410A / 3.5 / 12.5 2088 / 7.31 / 26.1	R410A / 3.5 / 12.5 2088 / 7.31 / 26.1	R410A / 3.5 / 12.5 2088 / 7.31 / 26.1	R410A / 3.5 / 12.5 2088 / 7.31 / 26.1	R410A / 3.5 / 12.5 2088 / 7.31 / 26.1	R410A / 3.5 / 12.5 2088 / 7.31 / 26.1
Refrigerant pipe size Ø (mm)	fl.	10	10	10	10	10	10
	s.	16	16	16	16	16	16
Refrigeration connections to indoor units with junction box Ø (mm)	fl.	3 x 6–5 x 6	3 x 6–5 x 6	3 x 6–5 x 6	3 x 6–5 x 6	3 x 6–5 x 6	3 x 6–5 x 6
	s.	3 x 10–4 x 10 + 1 x 12	3 x 10–4 x 10 + 1 x 12	3 x 10–4 x 10 + 1 x 12	3 x 10–4 x 10 + 1 x 12	3 x 10–4 x 10 + 1 x 12	3 x 10–4 x 10 + 1 x 12
Electrical data							
Voltage supply (V, phase, Hz)		220–240, 1, 50	380–415, 3+N, 50	220–240, 1, 50	380–415, 3+N, 50	220–240, 1, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		12.87 / 14.03	4.46 / 4.86	15.97 / 17.26	5.53 / 5.98	20.86 / 20.63	7.23 / 7.15
Recommended breaker size (A)		32	16	32	16	32	16
Connectable indoor units (number / type)		2–8 / 15–100	2–8 / 15–100	2–8 / 15–100	2–8 / 15–100	2–8 / 15–100	2–8 / 15–100

- The multi-split systems of the PUMY series operate in either cooling or heating mode. At least 2 indoor units need to be connected.
- Required branch boxes PAC-MK34 / 54, see page 50

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PAC-LV11M-J

PAC-MK54BC

PAC-MK34BC

Multi-split branch boxes

For City Multi outdoor units

Advantages

- A customary tee can be used to connect the two branch boxes.

LEV-Kit PAC-LV11M-J / PAC-MK34BC / PAC-MK54BC

The connection kits make it possible to connect indoor units from the M series and Mr. Slim series to City Multi VRF units. The advantage for users lies in the significantly larger choice of possible indoor units. In addition to the electronic expansion valve, the LEV kit contains a control board and an address board for the precise addressing of each indoor unit used.

Branch boxes for PUMY outdoor units

Designation of branch boxes		PAC-MK34BC	PAC-MK54BC	PAC-LV11M-J
Dimensions (mm)	W	450	450	180
	D	280	280	210
	H	170	170	140
Weight (kg)		6.7	7.4	1.3
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Connectable indoor units (number)		1–3	1–5	1
Connectable indoor units (power)		15–100*	15–100*	15–50

* per indoor unit

The LEV kit can be mounted on the indoor unit itself or up to 15 m away, e.g. in a false ceiling outside the room that is to be air conditioned. The connection kits require a voltage supply (230 V, 50 Hz, 1 phase) and also supply voltage to the connected indoor unit. The insulated housing is impervious to vapour diffusion and does not require a condensate drain.

Compatibility tables

Via PAC-LV11M-J to PUMY-P

Unit	Type	Indoor unit performance index								
		15	18	20	25	35	42	50	60	71
Wall-mounted units	MSZ-LN-VG2				•	•		•		
Wall-mounted units	MSZ-AP-VGK	•		•	•	•	•	•		
Wall-mounted units	MSZ-EF-VGK		•		•	•	•	•		
Floor-standing units	MFZ-KT-VG				•	•		•		

Via PAC-LV11M-J to PUMY-SP

Unit	Type	Indoor unit performance index								
		15	18	20	25	35	42	50	60	71
Wall-mounted units	MSZ-LN-VG2				•	•		•		
Wall-mounted units	MSZ-AP-VGK	•		•	•	•	•	•		
Wall-mounted units	MSZ-EF-VGK		•		•	•	•	•		
Floor-standing units	MFZ-KT-VG				•	•		•		

Via PAC-LV11M-J to PUHY-P/-EP**YNW, PURY-P/PURY-EP**YNW, PQHY-P**YLMA, PQRY-P**YLMA

Unit	Type	Indoor unit performance index								
		15	18	20	25	35	42	50	60	71
Wall-mounted units	MSZ-LN-VG2				•	•		•		
Wall-mounted units	MSZ-AP-VGK	•		•						

Via PAC-MK33/53BC an PUMY-P

Unit	Type	Indoor unit performance index								
		15	18	20	25	35	42	50	60	71
Wall-mounted units	MSZ-LN-VG2				•	•		•		
Wall-mounted units	MSZ-AP-VGK	•		•	•	•	•	•		
Wall-mounted units	MSZ-EF-VGK		•		•	•	•	•		
Floor-standing units	MFZ-KT-VG				•	•		•		
1-way ceiling cassettes	MLZ-KP-VF				•	•		•		
Concealed ducted units	SEZ-M-DA				•	•		•	•	•
4-way ceiling cassettes	SLZ-M-FA	•			•	•		•		

Via PAC-MK33/53BC to PUMY-SP

Unit	Type	Indoor unit performance index								
		15	18	20	25	35	42	50	60	71
Wall-mounted units	MSZ-LN-VG2				•	•		•		
Wall-mounted units	MSZ-AP-VGK	•		•	•	•	•	•		
Wall-mounted units	MSZ-EF-VGK		•		•	•	•	•		
Floor-standing units	MFZ-KT-VG				•	•		•		
1-way ceiling cassettes	MLZ-KP-VF				•	•		•		
Concealed ducted units	SEZ-M-DA				•	•		•	•	•
4-way ceiling cassettes	SLZ-M-FA	•			•	•		•		

Refrigerant top-up charge quantities
Outdoor units

Refrigerant charge quantities with R32
- The single-split outdoor units are precharged for a pipe length of 7-15 m (single path length).
- The multi-split outdoor units have a refrigerant precharge for up to 20 m or 60 m.
- For greater pipe lengths, refrigerant quantities are required according to the table below.

Singlesplit R32

Outdoor units	Refrigerant charge quantity (one way) in kg					
	7 m	10 m	15 m	20 m	25 m	30 m
MUZ-LN25VG2	–	0,80*	0,90	1,00	–	–
MUZ-LN35VG2	–	0,85*	0,95	1,05	–	–
MUZ-LN50VG2	–	–	1,25*	1,35	–	–
MUZ-LN60VG	1,45*	1,51	1,61	1,71	1,81	1,91
MUZ-AP20VG	0,55*	0,61	0,71	0,81	–	–
MUZ-AP25/35VG	0,55*	0,61	0,71	0,81	–	–
MUZ-AP42VG	0,70*	0,76	0,86	0,96	–	–
MUZ-AP50VG	1,00*	1,06	1,16	1,26	–	–
MUZ-AP60VG	–	–	1,05*	1,15	1,25	1,35
MUZ-AP71VG	–	–	1,50*	1,60	1,70	1,80
MUZ-EF25VG	0,80*	0,89	1,04	1,19	–	–
MUZ-EF35VG	1,15*	1,24	1,39	1,54	–	–
MUZ-EF42VG	1,15*	1,24	1,39	1,54	–	–
MUZ-EF50VG	1,45*	1,51	1,61	1,71	1,81	1,91
SUZ-M25VA	0,65*	0,71	0,81	0,91	–	–
SUZ-M35VA	0,90*	0,96	1,16	1,16	1,16	–
SUZ-M50VA	1,20*	1,26	1,36	1,46	1,56	1,66
SUZ-M60VA	1,25*	1,31	1,41	1,61	1,71	1,71
SUZ-M71VA	1,45*	1,57	1,77	1,97	2,17	2,37

* Refrigerant precharge

PUMY-P112/125/140VKM/YKM / PUMY-SP112/125/140VKM/YKM

Precharge of outdoor units
The outdoor units are factory precharged with the refrigerant quantities listed in the table below. Since the pipe lengths and the number of indoor units are not taken into account in these quantities, refrigerant must be added accordingly when the system is configured.

Outdoor units	Factory charge quantity
PUMY-P112	4,8 kg
PUMY-P125	4,8 kg
PUMY-P140	4,8 kg
PUMY-SP112	3,5 kg
PUMY-SP125	3,5 kg
PUMY-SP140	3,5 kg

Additional charge quantity F	=	Sum of all pipes Dia. 6.0 mm (in m) x 19 g/m	+	Sum of all pipes Dia. 10.0 mm (in m) x 50g/m	+	Total cooling capacity of connected indoor units	Additional quantity for indoor units
						bis 8,0 kW	1,5 kg
						8,1 bis 16,0 kW	2,5 kg
						ab 16,1 kW	3,0 kg

PAR-CT01MAA | PAR-40MAA | ME-AC/KNX1 / ME-AC/MBS1 | MAC-334IF-E | MAC-397IF-E

Optional interfaces

The new generation of M-series inverters is supplied with the new A-Control. The A-Control offers the benefit of expanded communication between the indoor and outdoor unit. This means that fault notifications from the indoor unit can be displayed on the outdoor unit and vice versa. In addition, the indoor units can be equipped with optional interfaces. Three interfaces are available:

1. MAC-334IF-E interface for integrating M-series inverter indoor units into a City Multi bus system (M-Net)
Thanks to this optional interface, the operation and monitoring of the M-series units can also be handled by the City Multi M-Net data bus and its system controllers. This makes it possible for the M-series units to be operated via a City Multi controller without being incorporated into a City Multi bus system. However, an additional power supply (PAC-SC-51KUA) is required to provide the necessary voltage in this context.
The following external actuation options are available:
- Connecting a wired remote controller

2. MAC-397IF-E interface for connecting the M-series inverter indoor units
The following external actuation options are available:
- Remote on/off control
- Output of operation notification or fault notification (only one output is possible)
- Locking of the on/off function on the local remote controller
- Operating mode change, cooling/heating
- Target temperature change

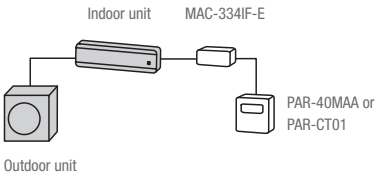
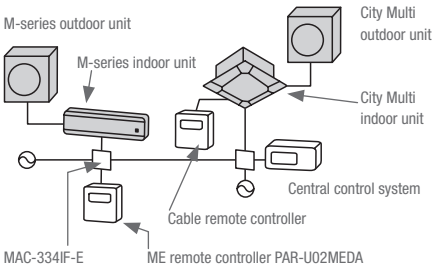
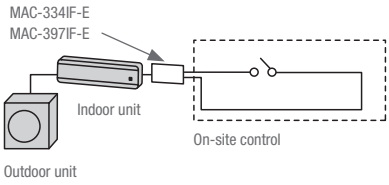
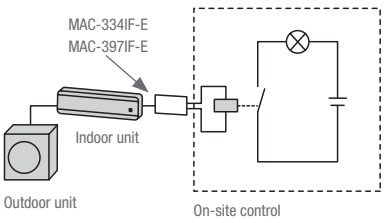
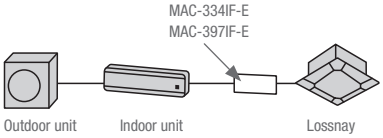
3. ME-AC/KNX1, ME-AC/MBS1 or ME-AC-BAC-1 interface for integrating the M-series inverter indoor units into a building management system based on KNX (TP), Modbus or BACnet
This optional interface also makes it possible to control the M-series inverter directly via KNX (TP), Modbus or BACnet. As the interface voltage supply is handled via the M-series indoor unit, an external voltage source is not required.

The interfaces support the following functions:

- Remote on/off function
- Mode pre-selection, heating/cooling/ventilation
- Setting the target temperature
- Fan stage pre-selection

Depending on the type of KNX (TP), Modbus or BACnet system present on site, it is possible that certain functions may be limited or unavailable..

Overview of control systems
Inverter

System	Example system	Connection	Functions	Accessories required
Cable remote controller Air conditioning unit operated via cable remote controller with integrated weekly timer.		An interface can be used to connect a cable remote controller.	• Mode change • Target temperature setting • Fan stage setting • Blow-out direction • Weekly timer operation	**MAC-334IF-E** Interface PAR-40MAA or PAR-CT01 Deluxe cable remote controller
M-Net centralised remote controller The air conditioning unit can be integrated into M-Net and operated with City Multi control units.		M-Net integration via interface	• Individual switch-on/switch-off and centralised switch-off possible. • Mode, fan stage, temperature, air direction and timer can be controlled individually.	**MAC-334IF-E** M-NET interface **Central control system City Multi**
Remote on/off control via external on-site contact (can be combined with operation notification).		The interface is connected to the air conditioning unit and the external contact is hooked up to the interface.	• Remote on/off switching operation	**MAC-397IF-E or MAC-334IF-E** Interface **Potential-free contact** (implemented on site)
Operation/fault notification The status of the air conditioning unit can be displayed (and combined with remote on/off control).		The interface is connected to the indoor unit and issues a 12 V signal that can be processed externally.	• MAC-397IF-E for external display of operation (on/off) or air conditioning unit fault (only one of the two functions can be selected). • MAC-334IF-E for external display of operation (on/off) and air conditioning unit fault (both functions can be selected).	**MAC-397IF-E** Interface **Component for operating status display** (implemented on site, e.g. 12 V DC relay, signal lamp)
Activation of Lossnay ventilation unit		A Lossnay unit can be connected to the indoor unit via the interface.	• Lossnay is started when the air conditioning unit is switched on.	**MAC-397IF-E or MAC-334IF-E** Interface **Cable connection to Lossnay** (implemented on site)

Further information is provided in the Mitsubishi Electric manuals.

Overview of accessories

	Filter			General accessories		Control accessories							Cable remote controller			Radio remote controller and infrared receiver				
	Plasma odour filter (10x)	Silver-ionized air purification filter (10x)	Plasma-Quad-Connect	3D i-see sensor	Condensate pump	M-Net interface with MXZ/SUZ	Interface for forming groups with SUZ/MXZ	MELCloud Wi-Fi adapter	External temperature sensor	Remote on/off adapter	Remote monitoring adapter	Adapter for remote monitoring (12 V signal output)	Deluxe	Compact	Touch	Set (transmitter + receiver)	Standard transmitter	Deluxe transmitter	Receiver	Remote controller holder[4]
Indoor units	MAC-3010FT-E	MAC-**	MAC-100FT-E	PAC-SF1ME-E	PAC-KE07DM-E	MAC-334IF-E	MAC-397IF-E	MAC-567IF-E	PAC-SE41TS-E	PAC-SE55RA-E	PAC-SF40RM-E	PAC-SA88HA-E	PAR-40MAA	PAC-YT-52CRA	PAR-CT01	PAR-SL94B-E	PAR-SL97A-E	PAR-SL100A-E	PAR-**	MAC-**
Wall-mounted units																				
MSZ-LN18VG2(W)(V)(B)(R)	•	2390FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC[5]/286RH
MSZ-LN25VG2(W)(V)(B)(R)	•	2390FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC[5]/286RH
MSZ-LN35VG2(W)(V)(B)(R)	•	2390FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC[5]/286RH
MSZ-LN50VG2(W)(V)(B)(R)	•	2390FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC[5]/286RH
MSZ-LN60VG2(W)(V)(B)(R)	•	2390FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC[5]/286RH
MSZ-AP15VGK			•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-AP20VGK			•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-AP25VGK		2370-FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-AP35VGK		2370-FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-AP42VGK		2370-FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-AP50VGK		2370-FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-AP60VGK		2360FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-AP71VGK		2360FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-EF18VGK (W)(B)(S)		2370FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-EF25VGK (W)(B)(S)		2370FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-EF35VGK (W)(B)(S)		2370FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-EF42VGK (W)(B)(S)		2370FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
MSZ-EF50VGK (W)(B)(S)		2370FT-E	•			•	•	integrated					•[1]	•[1]	•[1]					1300RC
Floor-standing units																				
MFZ-KT25VG		2370-FT-E				•	•	•					•[1]	•[1]	•[1]					
MFZ-KT35VG		2370-FT-E				•	•	•					•[1]	•[1]	•[1]					
MFZ-KT50VG		2370-FT-E				•	•	•					•[1]	•[1]	•[1]					
MFZ-KT60VG		2370-FT-E				•	•	•					•[1]	•[1]	•[1]					
1-way ceiling cassette																				
MLZ-KP25VF		2370-FT-E				•	•	•					•[1]	•[1]	•[1]					
MLZ-KP35VF		2370-FT-E				•	•	•					•[1]	•[1]	•[1]					
MLZ-KP50VF		2370-FT-E				•	•	•					•[1]	•[1]	•[1]					
4-way ceiling cassette																				
SLZ-M15FA				•		•	•	•	•	•	•[2]	•	•	•	•	•	•	•[3]	SF9FA	
SLZ-M25FA				•		•	•	•	•	•	•[2]	•	•	•	•	•	•	•[3]	SF9FA	
SLZ-M35FA				•		•	•	•	•	•	•[2]	•	•	•	•	•	•	•[3]	SF9FA	
SLZ-M50FA				•		•	•	•	•	•	•[2]	•	•	•	•	•	•	•[3]	SF9FA	
SLZ-M60FA				•		•	•	•	•	•	•[2]	•	•	•	•	•	•	•[3]	SF9FA	
Ceiling concealed units																				
SEZ-M25DA			•[6]		•	•	•	•	•	•	•[2]	•	•	•	•		•		SA9CA-E	
SEZ-M35DA			•[6]		•	•	•	•	•	•	•[2]	•	•	•	•		•		SA9CA-E	
SEZ-M50DA			•[6]		•	•	•	•	•	•	•[2]	•	•	•	•		•		SA9CA-E	
SEZ-M60DA			•[6]		•	•	•	•	•	•	•[2]	•	•	•	•		•		SA9CA-E	
SEZ-M71DA			•[6]		•	•	•	•	•	•	•[2]	•	•	•	•		•		SA9CA-E	

[1] MAC-397IF-E required

[2] Cannot be used with infrared remote controller

[3] Group control cannot be used

[4] MAC1300RC in a pack of 15; MAC-286RH in a pack of 10

[5] 1300RCis only required for MSZ-LN**(W)

[6] Additional installation kit required. Please submit a request

Options / Outdoor units	Air panels	Wind protection panels	Condensate drain set	Condensate tray
	MAC-889SG MAC-886SG-E	PAC-SH95AG-E	PAC-SG61DS-E	PAC-SH-97DP-E
Multi Split Inverter				
PUMY-P112		2x per outdoor unit	•	•
PUMY-P125		2x per outdoor unit	•	•
PUMY-P140		2x per outdoor unit	•	•

Framework conditions
M-series

Measurement conditions for Mitsubishi Electric air conditioning units

Cooling	Indoors:	27 °C	(dry)
		19 °C	(damp)
	Outdoors:	35 °C	(dry)
		24 °C	(damp)
Heating	Indoors:	20 °C	(dry)
	Outdoors:	7 °C	(dry)
		6 °C	(damp)

Refrigerant pipe length (one way) 5 m, ΔH = 0 m. Sound pressure level measured in free field, outdoor unit measuring point 1 m away from and 1 m above the unit. Indoor unit conditions depend on the unit type; see technical data.

Type key

Split indoor unit

M Series
M = M-series, S = S-series
S Model
S = wall-mounted unit, F = floor-standing unit
E = ceiling concealed unit, L = ceiling cassette
Z Inverter heat pump
S Design
G = Standard, F = Deluxe, S = Compact, E = Premium
L = Diamond
F Generation
A = basic model, B, C, D, … = successor models
25 Cooling output = 2.5 kW
V 230 V, 50 Hz
E/A R410A and new A-CONTROL
G R32 and new A-CONTROL

Split outdoor unit

M Series
M = M-series, S = S-series
X X = multi-split, U = single-split
Z Inverter heat pump
3 Max. no. of connectable indoor units
D Generation
A = basic model, B, C, D, … = successor models
54 Cooling output = 5.4 kW
V 230 V, 50 Hz
E/A R410A and new A-CONTROL
F R32 and new A-CONTROL

Mr. Slim

Contents

Benefits and properties

The series for commercial applications
The air conditioning units in the Mr. Slim series are ideal for medium-sized rooms and can be installed as a single-split or multi-split parallel combination. The Mr. Slim series is synonymous with ultra energy-efficient and high-performance air conditioning units for easy integration into difficult environments. Mr. Slim air conditioning systems are used in a variety of settings, including doctors' practices, server rooms, offices, shops and restaurants, where whisper-quiet operation, high reliability and low energy consumption are extremely important.

System variants
- Performance range from 3.5 kW to 28.0 kW for cooling and heating.
- Single-split or multi-split parallel arrangement of two, three and four indoor units.
- Easy-to-install indoor units available as ceiling cassettes, ceiling suspended units, ceiling concealed units, wall-mounted units and standard units.
- Energy-efficient outdoor units with heat pump function are available in your choice of typical Standard Inverter, high-performance Power Inverter or heating-optimised Zubadan Inverter format.
- Voltage supply 230 V, 1 phase, 50 Hz or 400 V, 3 phases, 50 Hz.
- The Mr. Slim air conditioning units can be combined with the Lossnay heat recovery ventilation units to generate an ideal system that combines air conditioning and ventilation.
- Can be connected to third-party ventilation systems via the PAC-IF extension kit.

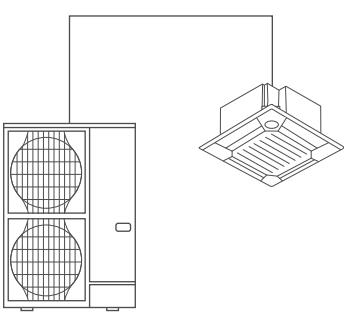
The benefits at a glance

Included as standard
- Durable high-performance filter.
- Condensate pump fitted as standard in all ceiling cassettes.
- R410A/R32 precharged in outdoor units.

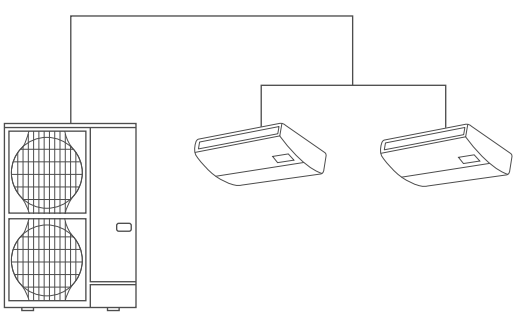
Heating function
High COPs ensure low energy consumption even at low outside temperatures. In many cases, conventional heating units can be completely replaced with heat pump systems. Outdoor units with patented Zubadan technology feature an optimised function for quick defrosting, therefore ensuring particularly stable temperature comfort.

Quality seal for room air conditioning units
The German Building Air Conditioning Association (FGK) has bestowed its quality seal for room air conditioning units on all split units with heat pump function. The key criteria for receipt of this award include:
- Maximum energy efficiency – only inverter units can carry the quality label.
- Guaranteed availability of spare parts within two working days, with availability for a minimum of ten years.
- Comprehensive training programmes, design support and full documentation.
- Guaranteed compliance of the technical data in catalogues with the performance data required by EN 14511 or EN 14825.

Single-split



Parallel multi-split



Whisper-quiet operation
- Noise-optimised indoor units starting at 26 dB(A)
- Quiet-running outdoor units save on additional noise insulation measures, not least with regard to densely built residential and commercial areas. The low-noise function reduces the sound pressure level by 3 dB(A), which corresponds to a halving of the perceived noise level.

High sensitive cooling capacity for technology and server room applications
- Special unit combinations are available for use in technology and server rooms. Thanks to a heat exchanger featuring generous dimensions, a high sensitive output can be achieved even during continuous operation. This also helps ensure reliable air conditioning in the context of low room humidity.

Turn to the IT/technology room solutions chapter **starting on page 258** to view additional professional systems for use in special applications requiring a high sensitive output.

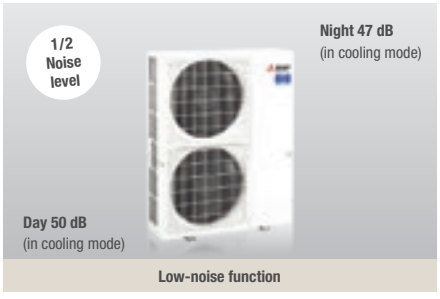
Special functions
- Automatic switchover between cooling and heating mode.
- The winter regulation ensures cooling even at an outside temperature of –15 °C (in the case of wind-protected installations), which is important for facilities such as IT/technology rooms in which heat must be discharged year round.

Installation and maintenance made easy
- Up to size P140, there is no need for a separate supply line to the indoor unit. The voltage supply and data communication are handled by a 4-wire cable from the outdoor unit to the indoor unit.
- The PUZ-ZM200/250YKA outdoor units enable a pipe length of up to 100 m.

A-CONTROL system
The A-CONTROL system enables direct communication between the indoor and outdoor unit. Up to 180 service parameters and fault notifications can conveniently be read on the indoor unit using the remote controller (optional easy-maintenance function).
Supports optional centralised link-up (via LonWorks® or centralised remote controller) to the building management system.

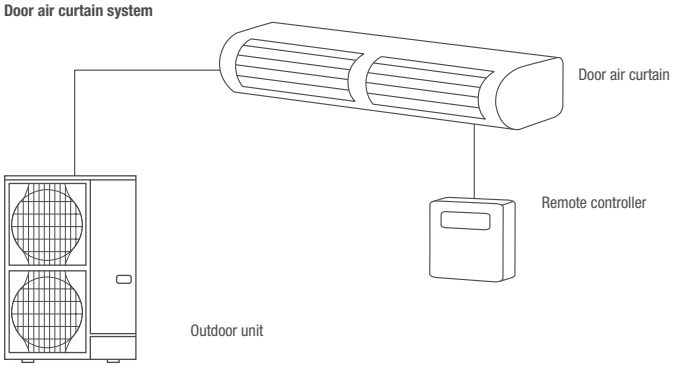
Connection to door air curtain
Power Inverters can also be used to operate door air curtain systems. In this context, the external door air curtain system communicates with the inverter outdoor units via a new interface from Mitsubishi Electric.

Noise-optimised outdoor units



Low-noise function

Door air curtain system



What's new

New ceiling concealed unit with high static pressure
Users can now enjoy all the benefits of a Mr. Slim R32 outdoor unit even in settings requiring the transportation of air over long distances.

The new ceiling concealed unit enables static pressure of up to 200 Pa and an air volume flow of up to 4,320 m³/h, making it particularly suitable for large spaces such as halls and foyers.

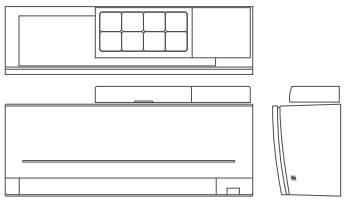
This unit can be installed when fully assembled and features an outside air connection.

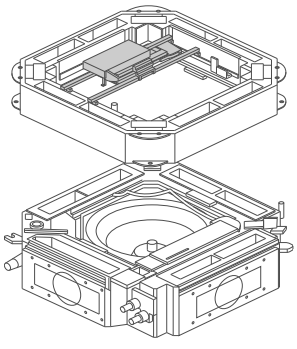
New wall-mounted unit PKA-M LAL
Featuring a newly reworked design and available in output levels 35 and 50, the wall-mounted unit PKA-M is every bit as reliable and powerful as its predecessor.

This wall-mounted unit is easy to install and achieves a high air quality thanks to the long-life filter integrated as standard. Users can configure air flow monitoring via automatic fan-stage control and up to 4 selectable blower speeds. Additional functions such as the weekly timer, automatic restart after power failure and standard redundancy enable a high level of comfort.

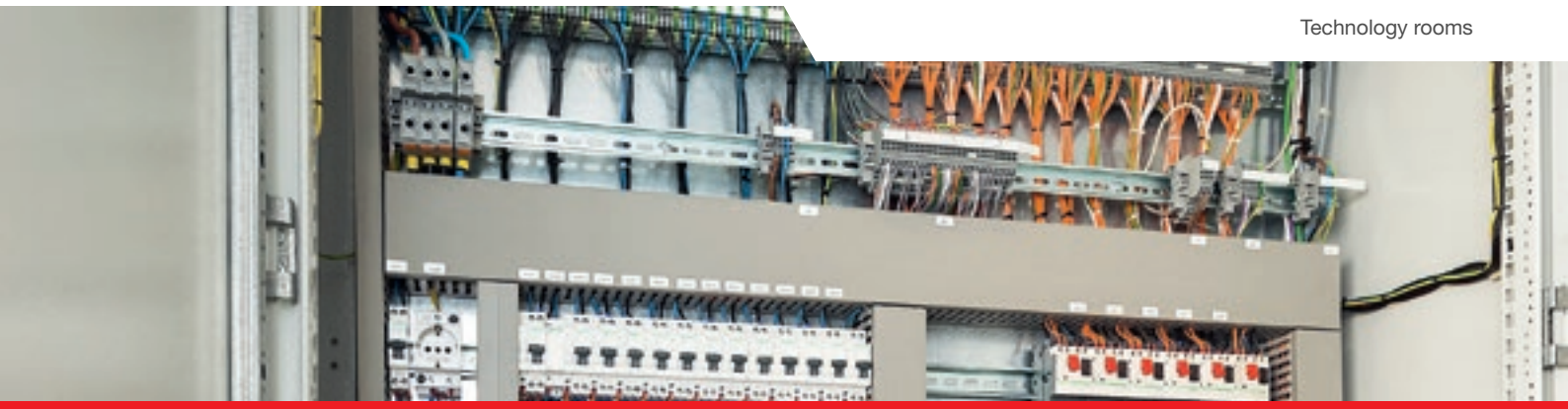
Plasma Quad Connect: optional filter kit[1]
The benefits of Plasma Quad Plus technology are now optionally available for Mr. Slim units (compatible with PLAM/ZM, PKA-M and PEAD-M).

Plasma Quad Plus filter technology ensures highly effective air purification. Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM2.5; <2.5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.





1 available as of May 2021



Use in technology rooms

The units in the Mr. Slim series are ideal for air conditioning in technology rooms.

High sensitive cooling capacity
Large heat exchangers and high air volumes enable the units to achieve excellent sensitive cooling capacities. This also helps ensure reliable air conditioning in the context of low room humidity.

In order to achieve particularly high sensitive cooling capacities, the following combinations of Power Inverter outdoor units and wall-mounted/ceiling suspended units are available:

Rotation back-up function
The rotation bach-up function guarantees reliable air conditioning even if one system fails.

Activation and monitoring
External inputs and outputs can be used to monitor the operating status of the systems at all times. For details on the control options, see **page 92.**

More in-depth information on IT/technology room solutions is available starting on **page 198.**

Ceiling suspended unit combinations

Rated cooling capacity	6.0 kW	7.1 kW	10.0 kW
Indoor unit	PCA-M71KA	PCA-M100KA	PCA-M125KA
Outdoor unit	PUHZ-ZRP60VKA	PUHZ-ZRP71VHA	PUHZ-ZRP100YKA
Sensitive output	98%	100%	100%
Effective sensitive cooling capacity	**5.7 kW**	**6.7 kW**	**8.6 kW**

Measurement conditions: outside temperature 35 °C, room temperature 24 °C, relative humidity 40%.

Wall-mounted unit combinations

Rated cooling capacity	3.5 kW	5.0 kW	6.0 kW
Indoor unit	PKA-M50LAL	PKA-M60KAL	PKA-M71KAL
Outdoor unit	PUHZ-ZRP35VKA	PUHZ-ZRP50VKA	PUHZ-ZRP60VHA
Sensitive output	98%	100%	100%
Effective sensitive cooling capacity	**3.5 kW**	**5.4 kW**	**5.6 kW**

Measurement conditions: outside temperature 35 °C, room temperature 24 °C, relative humidity 40%.

Redundancy function

Overview of functions

	Technology	4-way ceiling cassett PLA-ZM/PLA-M			Ceiling suspended unit PCA-M		Stainless steel ceiling suspended unit PCA-M HA
		Power Inverter	Zubadan Inverter	Standard Inverter	Power Inverter	Standard Inverter	Power Inverter
Outdoor units	Standard Inverter			●		●	
	Power Inverter	●			●		●
	Zubadan Inverter		●				
	Replace technology	●	●	●	●	●	
	Quality seal for split units	●	●	●	●	●	●
Outdoor units	Heat pump operation	●	●	●	●	●	●
	Winter regulation	●	●	●	●	●	●
	Multi-split	●	●	●[1]	●	●[1]	●
	Switching back on after voltage failure	●	●	●	●	●	●
	Precharged with R32	●		●	●	●	●
	Precharged with R410A		●		●[2]		
	Refrigerant charge level check	●	●		●		●
	Redundancy function	●	●	●	●	●	●
Indoor units	Fresh-air connection	●	●	●	●	●	●
	Condensate pump (optional)	Integrated	Integrated	Integrated	●	●	
Indoor units	MELCloud (optional)	●	●	●	●	●	●
	On/off timer	●	●	●	●	●	
	Weekly timer	●	●	●	●	●	●
	Can be connected to cable remote controller	●	●	●	●	●	●
	3D i-see sensor (optional)	●	●	●			
Indoor units	Vertical swing	●	●	●	●	●	
	Automatic fan control	●	●	●	●	●	
	Air purification filter	●	●	●	●	●	
	Plasma Quad Connect filter	●[3]	●[3]	●[3]			
	High-performance oil mist filter						●

1 Only for PUZ.
2 Only for use in technology rooms.
3 Optional.

Wall-mounted unit PKA-M LAL	Wall-mounted unit PKA-M KAL			Floor-mounted unit PSA-RP KA	Ceiling concealed unit PEAD-M JA			Ceiling concealed unit, high pressure, PEA-M LA	
Power Inverter	Power Inverter	Zubadan Inverter	Standard Inverter	Power Inverter	Power Inverter	Zubadan Inverter	Standard Inverter	Power Inverter	Standard Inverter
			•				•		•
•	•			•	•			•	
		•				•			
•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•
•	•	•	•[1]	•	•	•	•[1]		
•	•	•	•	•	•	•	•	•	•
•	•		•		•		•	•	•
•[2]	•[2]	•		•		•			
•	•	•		•	•	•		•	
•	•		•	•	•	•	•		
					•	•	•	•	•
•	•	•	•		Integrated	Integrated	Integrated	•	•
•	•	•	•	•	•	•	•	•	•
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•	•	•	•	Integrated	•	•	•	•	•
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•	•	•	•		•	•	•		
•	•	•	•	•	•	•	•	•[3]	•[3]
•[3]	•[3]	•[3]	•[3]		•[3]	•[3]	•[3]		

For a detailed description of the function symbols, see pages 06–09.

Indoor units

Inverter cooling and heating

Page reference

Performance code	35	50	60	71	100	125	140	200	250
Cooling capacity (kW)	3,5	5,0	6,0	7,1	10,0	12,5	14,0	19,0	22,0
Heating capacity (kW)	4,0	4,5	7,0	8,0	11,0	14,0	16,0	22,4	27,0

4-way ceiling cassette
PLA-ZM/PLA-M

66–69

Ceiling suspended unit
PCA-M KA

70–72

Stainless steel ceiling suspended unit
PCA-M HA

70+73

NEW

Wall-mounted unit
PKA-M LAL

74–75

Wall-mounted unit PKA-M KAL

74–77

Floor-mounted unit
PSA-RP KA

78–79

Ceiling concealed unit PEAD-M JA

80–83

NEW R32

Ceiling concealed unit, high
pressure, PEA-M LA

80–85

Outdoor units

Performance code	35	50	60	71	100	125	140	200	250
Cooling capacity (kW)	3,5	5,0	6,0	7,1	10,0	12,5	14,0	19,0	22,0
Heating capacity (kW)	4,0	4,5	7,0	8,0	11,0	14,0	16,0	22,4	27,0

Standard Inverter R32 SUZ-M, PUZ-M

SUZ-M35VA

SUZ-M50VA

SUZ-M60/71VA

PUZ-M-100VKA/YKA
PUZ-M-125VKA/YKA
PUZ-M-140VKA/YKA

PUZ-M200/250YKA

Power Inverter R32 PUZ-ZM

PUZ-ZM35/50VKA

PUZ-ZM60/71VHA

PUZ-ZM100/125/140/200/250V(Y)KA

Power Inverter R410A PUHZ-ZRP

PUHZ-ZRP35–71VHA

PUHZ-ZRP100/125/140YKA
PUHZ-ZRP200/250YKA

Zubadan Inverter PUHZ-SHW

PUHZ-SHW112VHA-A
PUHZ-SHW112/140YHA-A

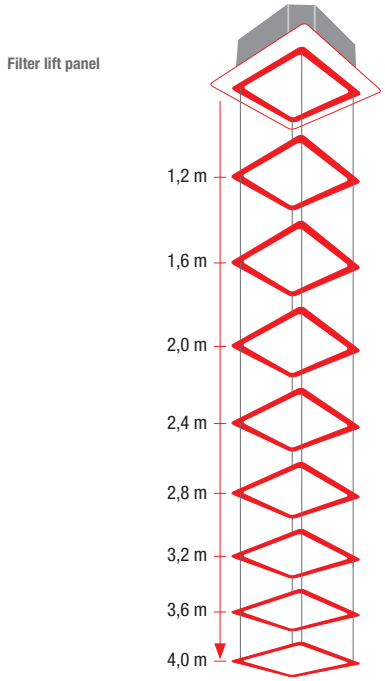
VHA: 230 V, 1 phase, 50 Hz/YHA: 400 V, 3 phases, 50 Hz

Only for combinations with PSA-RP and ventilation connections (PAC-IF combination)

4-way ceiling cassette PLA-ZM/PLA-M

Highlights

- SCOP up to 4.9/SEER up to 7.6
- Energy efficiency class up to A++/A++
- Sound pressure level from 26 dB(A)
- Installation height 258 mm/298 mm



This large square ceiling cassette has four air outlets that enable draught-free air distribution even where there are low ceilings.

Optional 3D i-see sensor
- Automatic air blow-out when the presence of people is detected
- Energy efficiency thanks to presence detection

Coanda effect
- Draught-free air conditioning thanks to air flow directed along the ceiling

Individually adjustable blow-out plate fins

Fresh air connection is possible

Optional automatic filter lift
- Can be lowered by 4 metres via the remote controller enabling easy and time-saving maintenance

Optional high-performance filter
- Additional filtering of fine dust particles from the room air

Filter
- Air purification filter
- High-performance filter for additional filtering of fine dust particles (optional)
- Plasma Quad Connect filter (optional)

Choice of wired or infrared remote controller

MELCloud Wi-Fi adapter (optional)

Condensate pump integrated as standard

Accessories

Type designation	Description	Quantity
PAC-YT52CRA	Wired remote control compact	1
PAR-40MAA	Wired remote control Deluxe	1
PAR-CT01MAA*	Wired remote controller with touchscreen	1
PAC-SE1ME-E	3D i-see sensor	1
PLP-6EAJ	Filter lift panel	1
PAC-SH59KF-E	High-performance filter (requires PAC-SJ41TM-E)	1
MAC-567IF-E	MELCloud Wi-Fi adapter	1
PAC-SJ41TM-E	Outdoor air casement including filter housing	1
PAC-SK51FT-E	Plasma Quad Connect (available from June 2021)	1

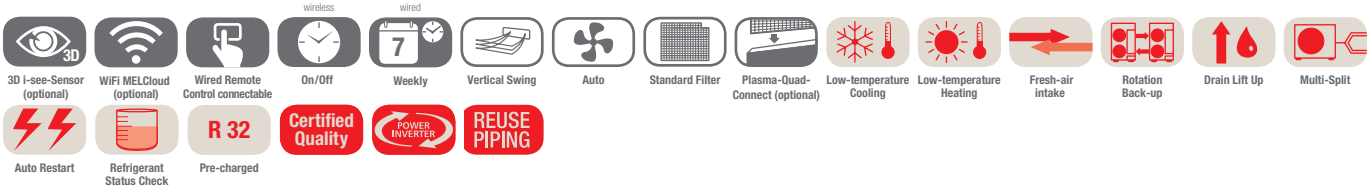
* Available in several versions Further information available in chapter controls

R32

PUZ-ZM35 / 50VKA | PUZ-ZM60 / 71VHA | PUZ-ZM100 – 140VKA / YKA | PLA-ZM

4-way ceiling cassette

Single-split / power inverter / Cooling and heating



PLA-ZM ceiling cassette, cooling / heating, no remote control included

Indoor units		PLA-ZM35EA	PLA-ZM50EA	PLA-ZM60EA	PLA-ZM71EA	PLA-ZM100EA	PLA-ZM125EA	PLA-ZM140EA
Grille for cable remote control		PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
Grille for infrared remote control		PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM
Outdoor units		PUZ-ZM35VKA	PUZ-ZM50VKA	PUZ-ZM60VHA	PUZ-ZM71VHA	PUZ-ZM100YKA	PUZ-ZM125YKA	PUZ-ZM140YKA
Cooling	Cooling capacity (kW)	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)
	Power consumption (kW)	0.71	1.11	1.45	1.65	2.07	3.38	3.72
	SEER	7.5	7.6	7.2	7.6	7.5	7.2	6.9
	Energy efficiency class	A++	A++	A++	A++	A++	–	–
	Application range (°C)	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	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)
	Power consumption (kW)	0.82	1.36	1.71	1.82	2.60	3.67	4.31
	SCOP	4.7	4.9	4.6	4.8	4.8	4.7	4.6
	Energy efficiency class	A++	A++	A++	A++	A++	–	–
	Application range (°C)	–11~+21	–11~+21	–20~+21	–20~+21	–20~+21	–20~+21	–20~+21

Indoor units		PLA-ZM35EA	PLA-ZM50EA	PLA-ZM60EA	PLA-ZM71EA	PLA-ZM100EA	PLA-ZM125EA	PLA-ZM140EA
Air volume (m³ / h)	L / M1 / M2 / H	660 / 780 / 900 / 960	720 / 840 / 960 / 1080	720 / 840 / 960 / 1080	1020 / 1140 / 1260 / 1380	1140 / 1320 / 1500 / 1680	1260 / 1440 / 1560 / 1740	1440 / 1560 / 1740 / 1920
Sound level (dB(A))	L / H	26 / 31	27 / 32	27 / 32	28 / 36	31 / 40	33 / 41	36 / 44
Dimensions (grille) (mm)**	W / D / H	840 (950) / 840 (950) / 258 (40)	840 (950) / 840 (950) / 258 (40)	840 (950) / 840 (950) / 258 (40)	840 (950) / 840 (950) / 258 (40)	840 (950) / 840 (950) / 298 (40)	840 (950) / 840 (950) / 298 (40)	840 (950) / 840 (950) / 298 (40)
Weight (incl. grille) (kg)		21 (26)	21 (26)	21 (26)	24 (29)	26 (31)	26 (31)	26 (31)
Outdoor units		**PUZ-ZM35VKA**	**PUZ-ZM50VKA**	**PUZ-ZM60VHA**	**PUZ-ZM71VHA**	**PUZ-ZM100YKA**	**PUZ-ZM125YKA**	**PUZ-ZM140YKA**
Airflow (m³ / h)		2700	2700	3300	3300	6600	7200	7200
Sound pressure level cooling / heating (dB(A))		44 / 46	44 / 46	47 / 49	47 / 49	49 / 51	50 / 52	50 / 52
Dimensions (mm)	W / D / H	809 / 300 / 630	809 / 300 / 630	950 / 355 / 943	950 / 355 / 943	1.050 / 370 / 1.338	1.050 / 370 / 1.338	1.050 / 370 / 1.338
Weight (kg)		46	46	70	70	123	125	131
Refrigeration data								
Total pipe length (m)		50	50	55	55	100	100	100
Max. height difference (m)		30	30	30	30	30	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg) GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		R32 / 2.0 / 2.3 675 / 1.35 / 1.55	R32 / 2.0 / 2.3 675 / 1.35 / 1.55	R32 / 2.8 / 3.6 675 / 1.89 / 2.43	R32 / 2.8 / 3.6 675 / 1.89 / 2.43	R32 / 4.0 / 6.8 675 / 2.70 / 4.59	R32 / 4.0 / 6.8 675 / 2.70 / 4.59	R32 / 4.0 / 6.8 675 / 2.70 / 4.59
Refrigerant pre-filling for (m)		30	30	30	30	30	30	30
Refrigerant pipe size Ø (mm)	fl. s.	6 12	6 12	10 16	10 16	10 16	10 16	10 16
Electrical data								
Voltage supply (V, phase, Hz)		220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling / heating (A)		3.17 / 3.53	4.8 / 5.85	5.66 / 6.77	6.7 / 7.46	3.08 / 3.74	4.91 / 5.36	5.34 / 6.27
Recommended breaker size (A)		16	16	25	25	16	16	16

* Grille PLP-6EA, remote control not included in scope of delivery

** Visible height of grille

Sound pressure level of the indoor unit measured centrically at a distance of 1.5 m below the unit in cooling mode

Outdoor units 100 / 125 / 140 are also available in 230V / 1Ph versions on request.

Energy efficiency class on a scale from A+++ to D

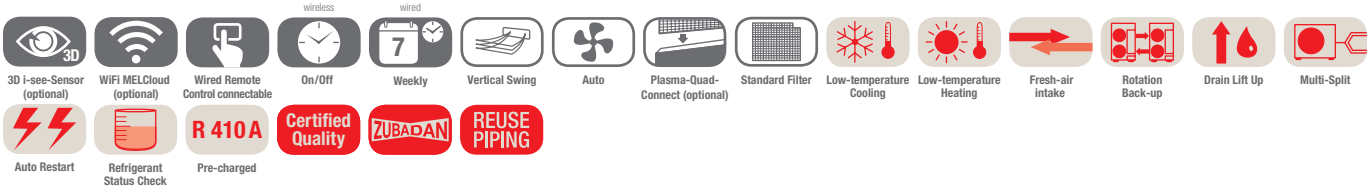
Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PLA-ZM

PUHZ-SHW112–140VHA-A / YHA-A

4-way ceiling cassette

Single-split / Zubadan inverter / Cooling and heating



PLA-ZM ceiling cassette, cooling / heating, no remote control included

Indoor units		PLA-ZM100EA	PLA-ZM100EA	PLA-ZM125EA
Grille for cable remote control		PLP-6EA	PLP-6EA	PLP-6EA
Grille for infrared remote control		PLP-6EALM	PLP-6EALM	PLP-6EALM
Outdoor units		PUHZ-SHW112VHA-A	PUHZ-SHW112YHA-A	PUHZ-SHW140YHA-A
Cooling	Cooling capacity (kW)	10.0 (4.9–11.4)	10.0 (4.9–11.4)	12.5 (5.5–14.0)
	Power consumption (kW)	2.786	2.786	4.449
	SEER	5.5	5.5	5.1
	Energy efficiency class	A	A	–
	Application range (°C)	–15~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	11.2 (4.5–14.0)	11.2 (4.5–14.0)	14.0 (5.0–16.0)
	Heating capacity to -15 °C (kW)	11.2	11.2	14.0
	Power consumption (kW)	2.667	2.667	3.879
	SCOP	4.0	4.0	3.5
	Energy efficiency class	A+	A+	–
	Application range (°C)	–25~+21	–25~+21	–25~+21

Indoor units		PLA-ZM100EA	PLA-ZM100EA	PLA-ZM125EA
Air volume (m³/h)	L / M1 / M2 / H	1140 / 1320 / 1500 / 1680	1140 / 1320 / 1500 / 1680	1260 / 1380 / 1500 / 1680
Sound level (dB(A))	L / H	31 / 40	31 / 40	33 / 41
Dimensions (grille) (mm)*	W / D / H	840 (950) / 840 (950) / 298 (40)	840 (950) / 840 (950) / 298 (40)	840 (950) / 840 (950) / 298 (40)
Weight (incl. grille) (kg)		26 (31)	26 (31)	26 (31)
Outdoor units		PUHZ-SHW112VHA-A	PUHZ-SHW112YHA-A	PUHZ-SHW140YHA-A
Airflow (m³/h)		6000	6000	6000
Sound pressure level cooling / heating (dB(A))		51 / 52	51 / 52	51 / 52
Dimensions (mm)	W / D / H	950 / 330 / 1.350	950 / 330 / 1.350	950 / 330 / 1.350
Weight (kg)		120	134	134
Refrigeration data				
Total pipe length (m)		75	75	75
Max. height difference (m)		30	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 5.5 / 7.9	R410A / 5.5 / 7.9	R410A / 5.5 / 7.9
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 11.49 / 16.51	2088 / 11.49 / 16.51	2088 / 11.49 / 16.51
Refrigerant pre-filling for (m)		30	30	30
Refrigerant pipe size Ø (mm)	fl.	10	10	10
	s.	16	16	16
Electrical data				
Voltage supply (V, phase, Hz)		230, 1, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		11.1 / 11.28	3.69 / 3.74	4.92 / 4.91
Recommended breaker size (A)		40	16	16

* Visible height of grille

** Grille PLP-6EA, remote control not included in scope of delivery

Sound pressure level of the indoor unit measured at a distance of 1.5 m below the unit

Energy efficiency class on a scale from A+++ to D

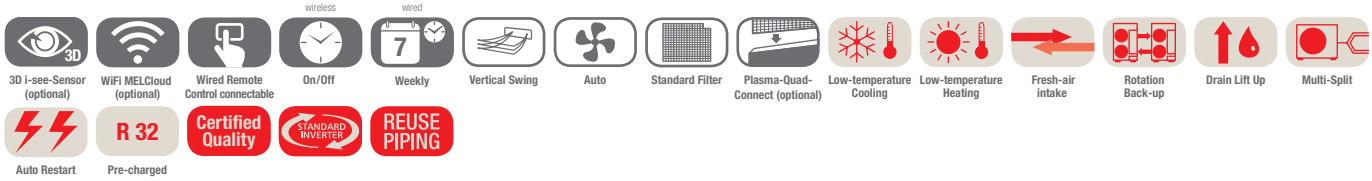
Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

SUZ-M35VA | SUZ-M50VA | SUZ-M60/71VA | PUZ-M100–140VKA/YKA | PLA-M

R32

4-way ceiling cassette

Single-split / standard inverter / Cooling and heating



PLA-M ceiling cassette, cooling / heating, no remote control included

Indoor units		PLA-M35EA	PLA-M50EA	PLA-M60EA	PLA-M71EA	PLA-M100EA	PLA-M125EA	PLA-M140EA
Grille for cable remote control		PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
Grille for infrared remote control		PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM
Designation of outdoor units 230 V		SUZ-M35VA	SUZ-M50VA	SUZ-M60VA	SUZ-M71VA	PUZ-M100VKA	PUZ-M125VKA	PUZ-M140VKA
Designation of outdoor units 400 V		–	–	–	–	PUZ-M100YKA	PUZ-M125YKA	PUZ-M140YKA
Cooling	Cooling capacity (kW)	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)
	Power consumption (kW)	0.90	1.61	1.840	1.91	2.71	4.01	4.96
	SEER	7.4	6.7	6.6	7.5	7.0	–	–
	Energy efficiency class	A++	A++	A++	A++	A++	–	–
	Application range (°C)	–10 ~ +46	–15 ~ +46	–15 ~ +46	–15 ~ +46	–15 ~ +46	–15 ~ +46	–15 ~ +46
Heating	Heating capacity (kW)	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 (4.2–15.8)
	Power consumption (kW)	0.97	1.73	1.84	2.21	3.01	3.63	4.39
	SCOP	4.7	4.1	4.4	4.5	4.6	–	–
	Energy efficiency class	A+	A+	A+	A++	A++	–	–
	Application range (°C)	–10 ~ +24	–10 ~ +24	–10 ~ +24	–10 ~ +24	–15 ~ +21	–15 ~ +21	–15 ~ +21

Indoor units		PLA-M35EA	PLA-M50EA	PLA-M60EA	PLA-M71EA	PLA-M100EA	PLA-M125EA	PLA-M140EA
Air volume (m³/h)	L/M1/M2/H	660/780/900/960	720/840/960/1080	720/840/960/1080	840/1020/1140/1260	1140/1380/1560/1740	1260/1500/1680/1860	1440/1560/1740/1920
Sound level (dB(A))	N/M1/M2/H	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
Dimensions (grille) (mm)*	W/D/H	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/298 (40)	840 (950)/840 (950)/298 (40)	840 (950)/840 (950)/298 (40)
Weight (incl. grille) (kg)		19 (24)	19 (24)	21 (26)	21 (26)	24 (29)	26 (31)	26 (31)
Outdoor units		**SUZ-M35VA**	**SUZ-M50VA**	**SUZ-M60VA**	**SUZ-M71VA**	**PUZ-M100V-KA/YKA**	**PUZ-M125 VKA/YKA**	**PUZ-M140 VKA/YKA**
Airflow cooling/heating (m³/h)		2058/1962	2748/2622	3006/3006	3006/3006	4740/4740	5160/5520	5160/5520
Sound pressure level cooling/heating (dB(A))		48/48	48/49	49/51	49/51	51/54	54/56	55/57
Dimensions (mm)	W/D/H	800/285/550	800/285/714	840/330/880	840/330/880	1.050/330/981	1.050/330/981	1.050/330/981
Weight 230 V/400 V (kg)		35/–	41/–	54/–	55/–	76/78	84/85	84/85
Refrigeration data								
Total pipe length (m)		20	30	30	30	55	65	65
Max. height difference (m)		12	30	30	30	30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R32/0.90/1.16	R32/1.20/1.66	R32/1.25/1.71	R32/1.45/2.37	R32/3.10/4.10	R32/3.60/5.00	R32/3.60/5.00
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		675/0.61/0.78	675/0.81/1.12	675/0.84/1.15	675/0.98/1.60	675/2.09/2.77	675/2.43/3.38	675/2.43/3.38
Refrigerant pre-filling for (m)		7	7	7	7	30	30	30
Refrigerant pipe size Ø (mm)	fl.	6	6	6	10	10	10	10
	s.	10	12	16	16	16	16	16
Electrical data								
Voltage supply 230 V (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Voltage supply 400 V (V, phase, Hz)		–	–	–	–	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current 230 V cooling/heating (A)		4.77/4.97	7.0/6.6	8.71/10.11	10.81/10.41	12.26/12.62	17.37/16.74	22.48/21.31
Operating current 400 V cooling/heating (A)		–	–	–	–	4.78/5.05	6.18/6.09	7.92/7.58
Recommended fuse size 230 V (A)		10	20	20	20	32	32	40
Recommended fuse size 400 V (A)		–	–	–	–	16	16	16

* Visible height of grille

** Grille PLP-6EA, remote control not included in scope of delivery

Sound pressure level of the indoor unit measured centrically at a distance of 1.5 m below the unit

Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PCA-M suspended ceiling unit

Highlights

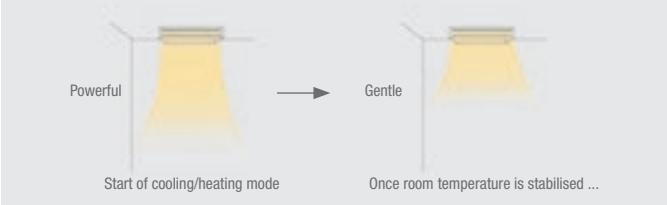
- SCOP up to 4,4/SEER up to 6,7
- Energy efficiency class up to A+/A++
- Sound pressure level from 31 dB(A)

The versatile ceiling suspended unit is ideal for technical rooms with its excellent air distribution and extremely sensitive capacity. Special combinations with up to 100 % sensitive capacity are available.

You will find more detailed information on the subject of technical room applications in the chapter IT/technical room solutions.

Design
- Modern housing in pure white
- Just 23 cm high

Air quality
- Long-life filter
- High-efficiency filter
- Outside air connection



Airflow control
- Automatic fan stage control
- 4 fan speeds
- Mode for high/low ceilings for the ideal upward airflow (up to 4.2 m) or in low rooms

Comfort and control
- Automatic restart after power outage
- Rotation back-up function

Installation and maintenance
- Easy installation
- Optional installation of condensate pump

PCA-M71HA stainless steel suspended ceiling unit
- Size: 71
- Robust stainless steel unit
- High-performance oil mist filter (12 pcs. in scope of supply)
- Easy to clean
- Stainless steel housing and fins

PCA-M suspended ceiling unit
- Rotation back-up function (with PUHZ & PUZ)
- High air throw
- High energy efficiency up to A++
- Highly sensitive cooling performance

Optional high-efficiency filter
- Additional filtration of fine dust particles from the room air for PCA-M**KA units

Choice of wired or infrared remote controller

MELCloud Wi-Fi adapter (optional)

Accessories

Type designation	Description	Quantity
PAC-YT52CRA	Wired remote control compact	1
PAR-40MAA	Wired remote control Deluxe	1
PAR-CT01MAA**	Wired remote controller with touchscreen	1
PAR-SL94B-E	Infrared remote control	1
PAC-SJ_DM-E*	Condensate pump	1
PAC-SH_KF-E*	High-Efficiency Filter	1
PAC-SG38KF-E	High-performance oil mist filter (replacement filter)	12
MAC-567IF-E	MELCloud Wi-Fi adapter	1

* Varies according to the size of the unit. More detailed information can be found at the end of this section on the accessories pages.

** Available in several versions Further information available in chapter controls

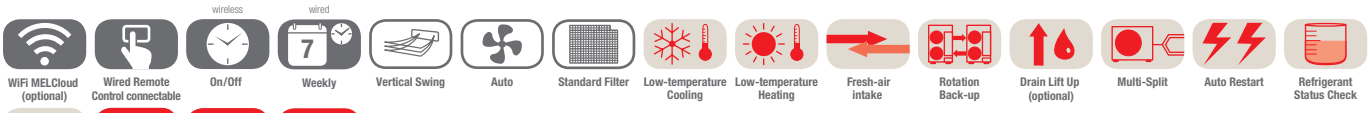



R32

PUZ-ZM35 / 50VKA | PUZ-ZM60 / 71VHA | PUZ-ZM100 – 140VKA / YKA | PCA-M35 – 140KA

Ceiling suspended unit

Single-split / power inverter / Cooling and heating



PCA-M ceiling suspended units, cooling / heating, remote control not included in scope of delivery

Indoor units		PCA-M35KA	PCA-M50KA	PCA-M60KA	PCA-M71KA	PCA-M100KA	PCA-M125KA	PCA-M140KA
Outdoor units		PUZ-ZM35VKA	PUZ-ZM50VKA	PUZ-ZM60VHA	PUZ-ZM71VHA	PUZ-ZM100YKA	PUZ-ZM125YKA	PUZ-ZM140YKA
Cooling	Cooling capacity (kW)	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 – 15.0)
	Power consumption (kW)	0.83	1.25	1.52	1.83	2.32	3.85	3.94
	SEER	6.4	6.7	6.5	6.7	6.3	6.1	6.1
	Energy efficiency class	A++	A++	A++	A++	A++	–	–
	Application range (°C)	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	4.1 (1.6 – 5.2)	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)
	Power consumption (kW)	1.02	1.36	1.75	2.16	3.02	3.95	4.43
	SCOP	4.0	4.2	4.1	4.2	4.3	4.3	4.4
	Energy efficiency class	A+	A+	A+	A+	A+	–	–
	Application range (°C)	–11~+21	–11~+21	–20~+21	–20~+21	–20~+21	–20~+21	–20~+21

Indoor units		PCA-M35KA	PCA-M50KA	PCA-M60KA	PCA-M71KA	PCA-M100KA	PCA-M125KA	PCA-M140KA
Air volume (m³ / h)	L / M1 / M2 / H	600 / 660 / 720 / 840	600 / 660 / 780 / 900	900 / 960 / 1020 / 1140	960 / 1020 / 1080 / 1200	1320 / 1440 / 1560 / 1680	1380 / 1500 / 1620 / 1740	1440 / 1560 / 1750 / 1920
Sound level (dB(A))	L / H	31 / 39	32 / 40	33 / 40	35 / 41	37 / 43	39 / 45	41 / 48
Dimensions (mm)	W / D / H	960 / 680 / 230	960 / 680 / 230	1.280 / 680 / 230	1.280 / 680 / 230	1.600 / 680 / 230	1.600 / 680 / 230	1.600 / 680 / 230
Weight (kg)		25	26	32	32	37	38	40
Outdoor units		**PUZ-ZM35VKA**	**PUZ-ZM50VKA**	**PUZ-ZM60VHA**	**PUZ-ZM71VHA**	**PUZ-ZM100YKA**	**PUZ-ZM125YKA**	**PUZ-ZM140YKA**
Airflow (m³ / h)		2700	2700	3300	3300	6600	7200	7200
Sound pressure level cooling / heating (dB(A))		44 / 46	44 / 46	47 / 49	47 / 49	49 / 51	50 / 52	50 / 52
Dimensions (mm)	W / D / H	809 / 300 / 630	809 / 300 / 630	950 / 355 / 943	950 / 355 / 943	1.050 / 370 / 1.338	1.050 / 370 / 1.338	1.050 / 370 / 1.338
Weight (kg)		46	46	70	70	123	125	131
Refrigeration data								
Total pipe length (m)		50	50	55	55	100	100	100
Max. height difference (m)		30	30	30	30	30	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 2.0 / 2.3	R32 / 2.0 / 2.3	R32 / 2.8 / 3.6	R32 / 2.8 / 3.6	R32 / 4.0 / 6.8	R32 / 4.0 / 6.8	R32 / 4.0 / 6.8
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 1.35 / 1.55	675 / 1.35 / 1.55	675 / 1.89 / 2.43	675 / 1.89 / 2.43	675 / 2.70 / 4.59	675 / 2.70 / 4.59	675 / 2.70 / 4.59
Refrigerant pre-filling for (m)		30	30	30	30	30	30	30
Refrigerant pipe size Ø (mm)	fl.	6	6	10	10	10	10	10
	s.	12	12	16	16	16	16	16
Electrical data								
Voltage supply (V, phase, Hz)		220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling / heating (A)		3.17 / 3.53	4.8 / 5.85	5.66 / 6.77	6.7 / 7.46	3.08 / 3.74	4.91 / 5.36	5.34 / 6.27
Recommended breaker size (A)		16	16	25	25	16	16	16

Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Outdoor units 100 / 125 / 140 are also available in 230V / 1Ph versions on request.
Energy efficiency class on a scale from A+++ to D

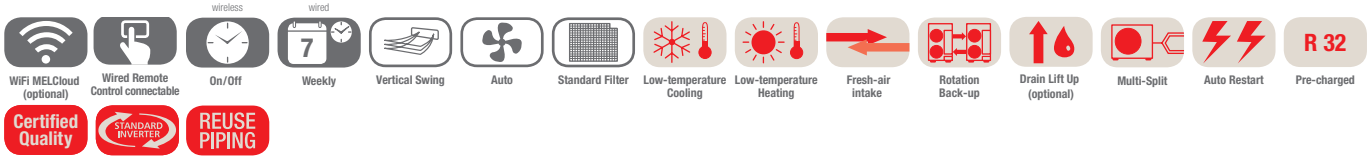
Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

R32

PCA-M | SUZ-M35VA | SUZ-M50VA | SUZ-M60/71VA | PUZ-M100–140VKA/YKA

Ceiling suspended unit

Single-split / standard inverter / Cooling and heating



PCA-M ceiling suspended units, cooling / heating, remote control not included in scope of delivery

Indoor units		PCA-M35KA	PCA-M50KA	PCA-M60KA	PCA-M71KA	PCA-M100KA	PCA-M125KA	PCA-M140KA
Designation of outdoor units 230 V		SUZ-M35VA	SUZ-M50VA	SUZ-M60VA	SUZ-M71VA	PUZ-M100VKA	PUZ-M125VKA	PUZ-M140VKA
Designation of outdoor units 400 V		–	–	–	–	PUZ-M100YKA	PUZ-M125YKA	PUZ-M140YKA
Cooling	Cooling capacity (kW)	3.6 (0.8–3.9)	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)
	Power consumption (kW)	0.90	1.51	1.64	1.97	2.94	4.01	5.36
	SEER	6.3	6.0	6.4	6.5	6.0	–	–
	Energy efficiency class	A++	A+	A++	A++	A+	–	–
	Application range (°C)	–10~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	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)
	Power consumption (kW)	1.02	1.61	1.75	2.21	3.28	3.95	4.28
	SCOP	4.0	4.1	4.1	4.1	4.1	–	–
	Energy efficiency class	A+	A+	A+	A+	A+	–	–
	Application range (°C)	–10~+24	–10~+24	–10~+24	–10~+24	–15~+21	–15~+21	–15~+21

Indoor units		PCA-M35KA	PCA-M50KA	PCA-M60KA	PCA-M71KA	PCA-M100KA	PCA-M125KA	PCA-M140KA
Air volume (m³/h)	L/M1/M2/H	600/660/720/840	600/660/780/900	900/960/1020/1140	960/1020/1080/1200	1320/1440/1560/1680	1380/1500/1620/1740	1440/1560/1740/1920
Sound level (dB(A))	N/M1/M2/H	31/33/36/39	32/34/37/40	33/35/37/40	35/37/39/41	37/39/41/43	39/41/43/45	41/43/45/48
Dimensions (mm)	W/D/H	960/680/230	960/680/230	1.280/680/230	1.280/680/230	1.600/680/230	1.600/680/230	1.600/680/230
Weight (kg)		25	26	32	32	37	38	40
Outdoor units		**SUZ-M35VA**	**SUZ-M50VA**	**SUZ-M60VA**	**SUZ-M71VA**	**PUZ-M100VKA/YKA**	**PUZ-M125VKA/YKA**	**PUZ-M140VKA/YKA**
Airflow cooling/heating (m³/h)		2058/1962	2748/2622	3006/3006	3006/3006	4740/4740	5160/5520	5160/5520
Sound pressure level cooling/heating (dB(A))		48/48	48/49	49/51	49/51	51/54	54/56	55/57
Dimensions (mm)	W/D/H	800/285/550	800/285/714	840/330/880	840/330/880	1.050/330/981	1.050/330/981	1.050/330/981
Weight 230 V/400 V (kg)		35/–	41/–	54/–	55/–	76/78	84/85	84/85
Refrigeration data								
Total pipe length (m)		20	30	30	30	55	65	65
Max. height difference (m)		12	30	30	30	30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R32/0.90/1.16	R32/1.20/1.66	R32/1.25/1.71	R32/1.45/2.37	R32/3.10/4.10	R32/3.60/5.00	R32/3.60/5.00
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		675/0.61/0.78	675/0.81/1.12	675/0.84/1.15	675/0.98/1.60	675/2.09/2.77	675/2.43/3.38	675/2.43/3.38
Refrigerant pre-filling for (m)		7	7	7	7	30	30	30
Refrigerant pipe size Ø (mm)	fl.	6	6	6	10	10	10	10
	s.	10	12	16	16	16	16	16
Electrical data								
Voltage supply 230 V (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Voltage supply 400 V (V, phase, Hz)		–	–	–	–	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current 230 V cooling/heating (A)		4.77/4.97	7.0/6.6	8.71/10.11	10.81/10.41	12.26/12.62	17.37/16.74	22.48/21.31
Operating current 400 V cooling/heating (A)		–	–	–	–	4.78/5.05	6.18/6.09	7.92/7.58
Recommended fuse size 230 V (A)		10	20	20	20	32	32	40
Recommended fuse size 400 V (A)		–	–	–	–	16	16	16

Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

R32

PUZ-ZM71VHA

PCA-M71HA

Stainless steel ceiling suspended unit

Single-split / power inverter / Cooling and heating

WiFi MELCloud (optional) · Wired Remote Control connectable · Weekly · Oil-Mist Filter · Low-temperature Cooling · Low-temperature Heating · Fresh-air intake · Rotation Back-up · Multi-Split · Auto Restart · Refrigerant Status Check · R 32 Pre-charged · Certified Quality · Power Inverter

PCA-M stainless steel ceiling suspended units, cooling / heating, no remote control included

Indoor units		PCA-M71HA
Outdoor units		PUZ-ZM71VHA
Cooling	Cooling capacity (kW)	7.1 (3.3 – 8.1)
	Power consumption (kW)	2.02
	SEER	5.6
	Energy efficiency class	A+
	Application range (°C)	–15~+46
Heating	Heating capacity (kW)	7.6 (3.5 – 10.2)
	Power consumption (kW)	2.17
	SCOP	3.9
	Energy efficiency class	A
	Application range (°C)	–20~+21

Indoor units		PCA-M71HA
Air volume (m³ / h)	L / M1 / M2 / H	900 – 1080
Sound level (dB(A))	L / H	37 / 39
Dimensions (mm)	W / D / H	1.136 / 650 / 280
Weight (kg)		42
Outdoor units		**PUZ-ZM71VHA**
Airflow (m³ / h)		3300
Sound pressure level cooling / heating (dB(A))		47 / 49
Dimensions (mm)	W / D / H	950 / 330 (+25) / 943
Weight (kg)		70
Refrigeration data		
Total pipe length (m)		55
Max. height difference (m)		30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 2.8 / 3.6
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 1.89 / 2.43
Refrigerant pre-filling for (m)		30
Refrigerant pipe size Ø (mm)	fl.	10
	s.	16
Electrical data		
Voltage supply (V, phase, Hz)		220 – 240, 1, 50
Operating current cooling / heating (A)		7.63 / 8.65
Recommended breaker size (A)		25

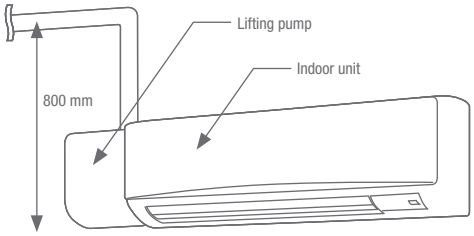
Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Wall mounted unit PKA-M

Highlights

- SCOP up to 4,3/SEER up to 6,5
- Energy efficiency class up to A+/A++
- Sound pressure level from 36 dB(A)



The powerful and reliable wall-mounted unit is easy to install and service.

Airflow control
- Automatic fan stage control
- 2, 3 or 4 fan speeds
- Quiet operation

Filter
- Air purification filter
- Plasma Quad Connect filter (optional)*

Comfort and control
- Optional: Wired remote control with weekly timer
- Automatic restart after power outage
- Rotation back-up function as standard

Installation and maintenance
- Installation up on the wall
- Optional: condensate pump with head of up to 80 cm

Infrared remote controller included in scope of supply

Wired remote controller optional

MELCloud Wi-Fi adapter (optional)

* With the Plasma Quad Connect filter, planning must include additional space above the wall-mounted unit (+ approx. 110 mm).

Accessories

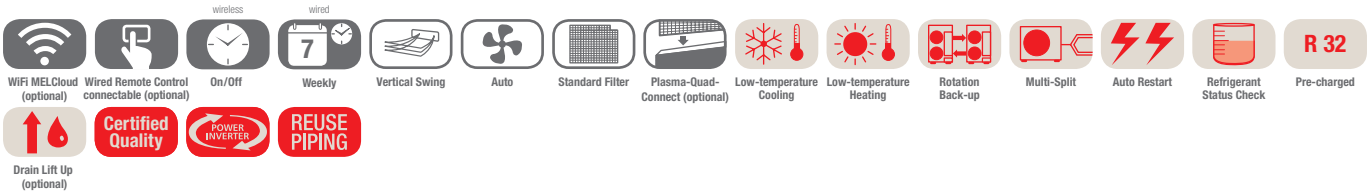
Type designation	Description	Quantity
PAC-SH29TC-E	Connecting plug for cable remote control	1
PAC-YT52CRA	Wired remote control compact	1
PAR-40MAA	Wired remote control Deluxe	1
PAR-CT01MAA*	Wired remote controller with touchscreen	1
MAC-567IF-E	MELCloud Wi-Fi adapter	1
MAC-100FT-E	Plasma Quad Connect (available from May 2021)	1

* Available in several versions. Further information available in chapter controls

PUZ-ZM35 / 50VKA | PUZ-ZM60 / 71VHA | PUZ-ZM100VKA / YKA | PAR-SL97A-E | PKA-M35 / 50LAL | PKA-M60 – 100KAL

Wall mounted units

Single-split / power inverter / Cooling and heating



WiFi MELCloud (optional) | Wired Remote Control connectable (optional) | On/Off | Weekly | Vertical Swing | Auto | Standard Filter | Plasma-Quad-Connect (optional) | Low-temperature Cooling | Low-temperature Heating | Rotation Back-up | Multi-Split | Auto Restart | Refrigerant Status Check | Pre-charged | Drain Lift Up (optional)

PKA-M wall mounted units, cooling / heating, infrared remote control included in scope of delivery

Indoor units		PKA-M35LAL	PKA-M50LAL	PKA-M60KAL	PKA-M71KAL	PKA-M100KAL
Outdoor units		PUZ-ZM35VKA	PUZ-ZM50VKA	PUZ-ZM60VHA	PUZ-ZM71VHA	PUZ-ZM100YKA
Cooling	Cooling capacity (kW)	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)
	Power consumption (kW)	0.87	1.24	1.56	1.86	2.41
	SEER	6.3	6.4	6.8	6.8	6.4
	Energy efficiency class	A++	A++	A++	A++	A++
	Application range (°C)	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	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)
	Power consumption (kW)	1.04	1.35	1.73	2.12	3.10
	SCOP	4.0	4.1	4.2	4.3	4.4
	Energy efficiency class	A+	A+	A+	A+	A+
	Application range (°C)	–11~+21	–11~+21	–20~+21	–20~+21	–20~+21

Indoor units		PKA-M35LAL	PKA-M50LAL	PKA-M60KAL	PKA-M71KAL	PKA-M100KAL
Air volume (m³ / h)	L / M1 / M2 / H	540 / 630 / 720	540 / 630 / 720	1080 / 1200 / 1320	1080 / 1200 / 1320	1200 / 1380 / 1560
Sound level (dB(A))	L / H	36 / 43	36 / 43	39 / 45	39 / 45	41 / 49
Dimensions (mm)	W / D / H	898 / 249 / 295	898 / 249 / 295	1.170 / 295 / 365	1.170 / 295 / 365	1.170 / 295 / 365
Weight (kg)		13	13	21	21	21
Outdoor units		**PUZ-ZM35VKA**	**PUZ-ZM50VKA**	**PUZ-ZM60VHA**	**PUZ-ZM71VHA**	**PUZ-ZM100YKA**
Airflow (m³ / h)		2700	2700	3300	3300	6600
Sound pressure level cooling / heating (dB(A))		44 / 46	44 / 46	47 / 49	47 / 49	49 / 51
Dimensions (mm)	W / D / H	809 / 300 / 630	809 / 300 / 630	950 / 355 / 943	950 / 355 / 943	1.050 / 370 / 1.338
Weight (kg)		46	46	70	70	123
Refrigeration data						
Total pipe length (m)		50	50	55	55	100
Max. height difference (m)		30	30	30	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 2.0 / 2.3	R32 / 2.0 / 2.3	R32 / 2.8 / 3.6	R32 / 2.8 / 3.6	R32 / 4.0 / 6.8
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 1.35 / 1.55	675 / 1.35 / 1.55	675 / 1.89 / 2.43	675 / 1.89 / 2.43	675 / 2.70 / 4.59
Refrigerant pre-filling for (m)		30	30	30	30	30
Refrigerant pipe size Ø (mm)	fl.	6	6	10	10	10
	s.	12	12	16	16	16
Electrical data						
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		3.17 / 3.53	4.8 / 5.85	5.66 / 6.77	6.7 / 7.46	3.08 / 3.74
Recommended breaker size (A)		16	16	25	25	16

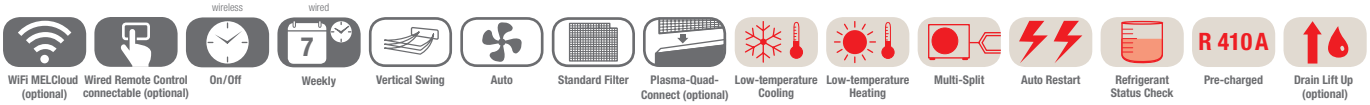
Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Outdoor units 100 / 125 / 140 are also available in 230V / 1Ph versions on request.
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PKA-M KAL PAR-SL97A-E PUHZ-SHW112VHA-A / YHA-A

Wall mounted units

Single-split / Zubadan inverter / Cooling and heating



WiFi MELCloud (optional) · Wired Remote Control connectable (optional) · On/Off · Weekly · Vertical Swing · Auto · Standard Filter · Plasma-Quad-Connect (optional) · Low-temperature Cooling · Low-temperature Heating · Multi-Split · Auto Restart · Refrigerant Status Check · Pre-charged · Drain Lift Up (optional)

Certified Quality · ZUBADAN · REUSE PIPING

PKA-M wall mounted units, cooling / heating, infrared remote control included in scope of delivery

Indoor units		PKA-M100KAL	PKA-M100KAL
Outdoor units		**PUHZ-SHW112VHA-A**	**PUHZ-SHW112YHA-A**
Cooling	Cooling capacity (kW)	10.0 (4.9–11.4)	10.0 (4.9–11.4)
	Power consumption (kW)	2.924	2.924
	SEER	5.3	5.3
	Energy efficiency class	A	A
	Application range (°C)	–15~+46	–15~+46
Heating	Heating capacity (kW)	11.2 (4.5–14.0)	11.2 (4.5–14.0)
	Heating capacity to -15 °C (kW)	11.2 (4.5–14.0)	11.2 (4.5–14.0)
	Power consumption (kW)	3.103	3.103
	SCOP	3.8	3.8
	Energy efficiency class	A	A
	Application range (°C)	–25~+21	–25~+21

Indoor units		PKA-M100KAL	PKA-M100KAL
Air volume (m³/h)	L/M/H	1200/1380/1560	1200/1380/1560
Sound level (dB(A))	L/H	41/49	41/49
Dimensions (mm)	W/D/H	1.170/295/365	1.170/295/365
Weight (kg)		21	21
Outdoor units		**PUHZ-SHW112VHA-A**	**PUHZ-SHW112YHA-A**
Airflow (m³/h)		6000	6000
Sound pressure level cooling / heating (dB(A))		51/52	51/52
Dimensions (mm)	W/D/H	950/330/1.350	950/330/1.350
Weight (kg)		120	134
Refrigeration data			
Total pipe length (m)		75	75
Max. height difference (m)		30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A/5.5/7.9	R410A/5.5/7.9
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088/11.49/16.51	2088/11.49/16.51
Refrigerant pre-filling for (m)		30	30
Refrigerant pipe size Ø (mm)	fl.	10	10
	s.	16	16
Electrical data			
Voltage supply (V, phase, Hz)		230, 1, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		11.1/11.28	3.69/3.74
Recommended breaker size (A)		40	16

Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Energy efficiency class on a scale from A+++ to D

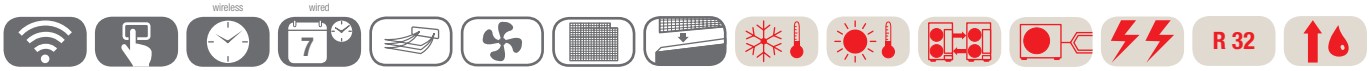
Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

R32

PUZ-M100VKA / YKA | PAR-SL97A-E | PKA-M KAL

Wall mounted units

Single-split / standard inverter / Cooling and heating



WiFi MELCloud (optional) | Wired Remote Control connectable (optional) | On/Off | Weekly | Vertical Swing | Auto | Standard Filter | Plasma-Quad-Connect (optional) | Low-temperature Cooling | Low-temperature Heating | Rotation Back-up | Multi-Split | Auto Restart | Pre-charged | Drain Lift Up (optional)

Certified Quality | STANDARD INVERTER | REUSE PIPING

PKA-M wall mounted units, cooling / heating, infrared remote control included in scope of delivery

Indoor units		PKA-M100KAL
Designation of outdoor units 230 V		PUZ-M100VKA
Designation of outdoor units 400 V		PUZ-M100YKA
Cooling	Cooling capacity (kW)	9.5 (4.0 – 10.6)
	Power consumption (kW)	2.94
	SEER	5.8
	Energy efficiency class	A+
	Application range (°C)	–15~+46
Heating	Heating capacity (kW)	11.2 (2.8 – 12.5)
	Power consumption (kW)	3.28
	SCOP	4.0
	Energy efficiency class	A+
	Application range (°C)	–15~+21

Indoor units		PKA-M100KAL
Air volume (m³ / h)	L / M / H	1200 / 1380 / 1560
Sound level (dB(A))	L / M / H	41 / 45 / 49
Dimensions (mm)	W / D / H	1.170 / 295 / 365
Weight (kg)		21
Outdoor units		**PUZ-M100VKA / YKA**
Airflow cooling / heating (m³ / h)		4740 / 4740
Sound pressure level cooling / heating (dB(A))		51 / 54
Dimensions (mm)	W / D / H	1.050 / 330 / 981
Weight 230 V / 400 V (kg)		76 / 78
Refrigeration data		
Total pipe length (m)		55
Max. height difference (m)		30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 3.10 / 4.10
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 2.09 / 2.77
Refrigerant pre-filling for (m)		30
Refrigerant pipe size Ø (mm)	fl.	10
	s.	16
Electrical data		
Voltage supply 230 V (V, phase, Hz)		220 – 240, 1, 50
Voltage supply 400 V (V, phase, Hz)		380 – 415, 3+N, 50
Operating current 230 V cooling / heating (A)		12.26 / 12.62
Operating current 400 V cooling / heating (A)		4.78 / 5.05
Recommended fuse size 230 V (A)		32
Recommended fuse size 400 V (A)		16

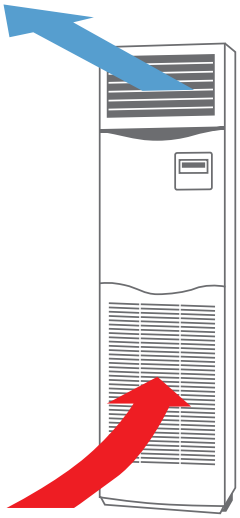
Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Floor mounted unit PSA-RP

Highlights

- SCOP up to 4,4/SEER up to 6,3
- Energy efficiency class up to A+/A++
- Sound pressure level from 40 dB(A)



The unit is free-standing and is placed directly on the floor. No far-reaching changes are required. They are especially suitable for IT and technical facilities.

Air quality
- Long-life filter

Air flow control
- The advanced air guidance can flow both horizontally and vertically and ensures optimal air distribution
- Two fan strengths

Comfort and control
- Automatic restart after power outage
- Rotation back-up function as standard

Installation and maintenance
- Low depth
- Comprehensive self-analysis and fault display
- Easily accessible filter

Wired remote controller with weekly timer integrated

MELCloud Wi-Fi adapter (optional)

Accessories

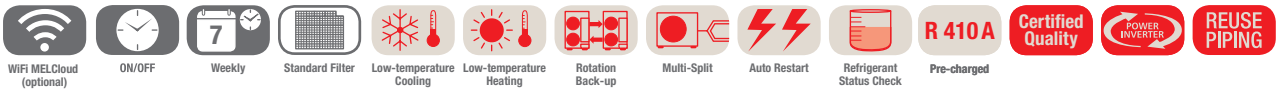
Type designation	Description	Quantity
MAC-567IF-E	MELCloud Wi-Fi adapter	1

Product features a special coating that was applied on site and does not correspond to the standard coating.

PUHZ-ZRP71VHA PUHZ-ZRP100–140VKA/YKA PSA-RP71–140KA

Floor mounted units

Single-split/power inverter/Cooling and heating



PSA-RP floor mounted units, cooling/heating, cable remote control integrated in the unit

Indoor units		PSA-RP71KA	PSA-RP100KA	PSA-RP125KA	PSA-RP140KA
Outdoor units		PUHZ-ZRP71VHA	PUHZ-ZRP100YKA	PUHZ-ZRP125YKA	PUHZ-ZRP140YKA
Cooling	Cooling capacity (kW)	7.1 (3.3–8.1)	9.5 (4.9–11.4)	12.5 (5.5–14.0)	13.4 (6.2–15.0)
	Power consumption (kW)	1.89	2.50	4.09	4.06
	SEER	6.3	5.5	4.9	5.3
	Energy efficiency class	A++	A	–	–
	Application range (°C)	–15~+21	–15~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	7.6 (3.5–10.2)	11.2 (4.5–14.0)	14.0 (5.0–16.0)	16.0 (5.7–18.0)
	Power consumption (kW)	2.21	3.08	4.24	4.79
	SCOP	4.0	4.0	4.0	4.4
	Energy efficiency class	A+	A+	–	–
	Application range (°C)	–20~+21	–20~+21	–20~+21	–20~+21

Indoor units		PSA-RP71KA	PSA-RP100KA	PSA-RP125KA	PSA-RP140KA
Air volume (m^3/h)	L/H	1200/1440	1500/1800	1500/1860	1500/1860
Sound level (dB(A))	L/H	40/44	45/51	45/51	45/51
Dimensions (mm)	W/D/H	600/360/1.900	600/360/1.900	600/360/1.900	600/360/1.900
Weight (kg)		46	46	46	48
Outdoor units		**PUZ-ZM71VHA**	**PUHZ-ZRP100YKA**	**PUHZ-ZRP125YKA**	**PUHZ-ZRP140YKA**
Airflow (m^3/h)		3300	6600	7200	7200
Sound pressure level cooling/heating (dB(A))		47/49	49/51	50/52	50/52
Dimensions (mm)	W/D/H	950/330 (+25)/943	1.050/330 (+40)/1.338	1.050/330 (+40)/1.338	1.050/330 (+40)/1.338
Weight (kg)		70	123	125	131
Refrigeration data					
Total pipe length (m)		55	75	75	75
Max. height difference (m)		30	30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R32/2.8/3.6	R410A/5.0/7.4	R410A/5.0/7.4	R410A/5.0/7.4
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		675/1.89/2.43	2088/10.44/15.45	2088/10.44/15.45	2088/10.44/15.45
Refrigerant pre-filling for (m)		30	30	30	30
Refrigerant pipe size Ø (mm)	fl.	10	10	10	10
	s.	16	16	16	16
Electrical data					
Voltage supply (V, phase, Hz)		220–240, 1, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling/heating (A)		7.63/8.65	3.95/3.98	5.93/5.63	6.67/7.20
Recommended breaker size (A)		25	16	16	16

Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Ceiling concealed ducted unit PEAD-M & PEA-M

Highlights

- SCOP up to 4.3/SEER up to 6.2
- Energy efficiency class up to A+/A+
- Sound level from 23 dB(A) on
- External static pressure up to 200 Pa for PEA-M
- Installation height (PEAD) 250 mm

The duct units are ideal for locations where air has to be transported over large distances or concealed installation is desired.

Design
- Unit can be fully installed

Air quality
- Long-life filter (optional for PEA-M only)
- Fresh air connection possible
- Plasma Quad Connect filter (optional for PEAD)

Airflow control
- Automatic fan stage control
- 3 fan speeds with PEAD units
- Air volume with PEAD units adjustable over 0 - 10 V (accessory equipment required)

Comfort and control
- Automatic restart after power outage
- Rotation back-up function as standard (with PUZ outdoor units)

Installation and maintenance
- Low installation height, just 250 mm with PEAD
- External static pressure of up to 200 Pa (for PEA-M) allows the use of long air ducts

Built-in condensate pump for PEAD units

Large capacities (PEA-M)
- For very large rooms, production halls and open spaces

Choice of wired or infrared remote controller

Optional filter box
- For sideways removal of the filter. Simplifies access for maintenance and cleaning.

MELCloud Wi-Fi adapter (optional)

Accessories

Type designation	Description	Quantity
PAC-YT52CRA	Wired remote control compact	1
PAR-40MAA	Wired remote control Deluxe	1
PAR-CT01MAA*	Wired remote controller with touchscreen	1
PAR-SA9CA-E	Infrared remote control (receiver)	1
PAR-SL97A-E	Infrared remote control (transmitter)	1
MAC-567IF-E	MELCloud Wi-Fi adapter	1
PAC-KE250TB-F	Filter box for PEA-M200/250	1
PAC-KE85LAF**	Optional long-life filter for PEA-M200/250	1
PAC-KE06DM-F1	Condensate pump for PEA-M200/250	1
MAC-100FT-E***	Plasma Quad Connect (available from May 2021)	1

* Available in several versions. Further information available in chapter controls
** Filter frame PAC-KE250TB-E is required for installation.
*** Additional installation kit required. Please submit a request (available as of July 2021).




R32

PUZ-ZM35 / 50VKA | PUZ-ZM60 / 71VHA | PUZ-ZM100 – 140VKA / YKA | PEAD-M

Ceiling concealed ducted units

Single-split / power inverter / Cooling and heating

WiFi MELCloud (optional) | Wired Remote Control connectable | On/Off (wireless) | Weekly (wired) | Auto | Standard Filter | Plasma-Quad-Connect (optional) | Low-temperature Cooling | Low-temperature Heating | Fresh-air intake | Rotation Back-up | Drain Lift Up | Multi-Split | Auto Restart | Refrigerant Status Check

R 32 Pre-charged | Certified Quality | POWER INVERTER | REUSE PIPING

PEAD-M ceiling concealed ducted units, cooling / heating, remote control not included in scope of delivery

Indoor units		PEAD-M35JA	PEAD-M50JA	PEAD-M60JA	PEAD-M71JA	PEAD-M100JA	PEAD-M125JA	PEAD-M140JA
Outdoor units		PUZ-ZM35VKA	PUZ-ZM50VKA	PUZ-ZM60VHA	PUZ-ZM71VHA	PUZ-ZM100YKA	PUZ-ZM125YKA	PUZ-ZM140YKA
Cooling	Cooling capacity (kW)	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)
	Power consumption (kW)	0.84	1.20	1.51	1.86	2.27	3.33	3.63
	SEER	5.8	6.2	6.1	5.8	6.1	5.7	5.6
	Energy efficiency class	A+	A++	A++	A+	A++	–	–
	Application range (°C)	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	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)
	Power consumption (kW)	0.92	1.31	1.62	1.93	2.60	3.35	3.97
	SCOP	3.9	4.3	4.0	3.9	4.1	3.9	4.0
	Energy efficiency class	A	A+	A+	A	A+	–	–
	Application range (°C)	–11~+21	–11~+21	–20~+21	–20~+21	–20~+21	–20~+21	–20~+21

Indoor units		PEAD-M35JA	PEAD-M50JA	PEAD-M60JA	PEAD-M71JA	PEAD-M100JA	PEAD-M125JA	PEAD-M140JA
Air volume (m³ / h)	L / M / H	600 / 720 / 840	720 / 870 / 1020	870 / 1080 / 1260	1050 / 1260 / 1500	1440 / 1740 / 2040	1770 / 2130 / 2520	1920 / 2340 / 2760
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 level (dB(A))	L / H	23 / 30	26 / 35	25 / 33	26 / 34	29 / 38	33 / 40	34 / 43
Dimensions (mm)	W / D / H	900 / 732 / 250	900 / 732 / 250	1.100 / 732 / 250	1.100 / 732 / 250	1.400 / 732 / 250	1.400 / 732 / 250	1.600 / 732 / 250
Weight (kg)		26	28	33	33	41	43	47
Outdoor units		**PUZ-ZM35VKA**	**PUZ-ZM50VKA**	**PUZ-ZM60VHA**	**PUZ-ZM71VHA**	**PUZ-ZM100YKA**	**PUZ-ZM125YKA**	**PUZ-ZM140YKA**
Airflow (m³ / h)		2700	2700	3300	3300	6600	7200	7200
Sound pressure level cooling / heating (dB(A))		44 / 46	44 / 46	47 / 49	47 / 49	49 / 51	50 / 52	50 / 52
Dimensions (mm)	W / D / H	809 / 300 / 630	809 / 300 / 630	950 / 355 / 943	950 / 355 / 943	1.050 / 370 / 1.338	1.050 / 370 / 1.338	1.050 / 370 / 1.338
Weight (kg)		46	46	70	70	123	125	131
Refrigeration data								
Total pipe length (m)		50	50	55	55	100	100	100
Max. height difference (m)		30	30	30	30	30	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 2.0 / 2.3	R32 / 2.0 / 2.3	R32 / 2.8 / 3.6	R32 / 2.8 / 3.6	R32 / 4.0 / 6.8	R32 / 4.0 / 6.8	R32 / 4.0 / 6.8
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 1.35 / 1.55	675 / 1.35 / 1.55	675 / 1.89 / 2.43	675 / 1.89 / 2.43	675 / 2.70 / 4.59	675 / 2.70 / 4.59	675 / 2.70 / 4.59
Refrigerant pre-filling for (m)		30	30	30	30	30	30	30
Refrigerant pipe size Ø (mm)	fl.	6	6	10	10	10	10	10
	s.	12	12	16	16	16	16	16
Electrical data								
Voltage supply (V, phase, Hz)		220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling / heating (A)		3.17 / 3.53	4.8 / 5.85	5.66 / 6.77	6.7 / 7.46	3.08 / 3.74	4.91 / 5.36	5.34 / 6.27
Recommended breaker size (A)		16	16	25	25	16	16	16

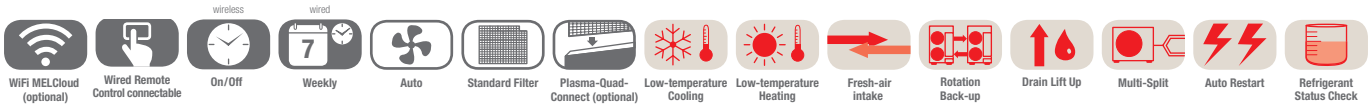
Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Outdoor units 100 / 125 / 140 are also available in 230V / 1Ph versions on request.
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEAD-M **PUHZ-SHW112/140VHA-A/YHA-A**

Ceiling concealed ducted units

Single-split/Zubadan inverter/Cooling and heating



PEAD-M ceiling concealed ducted units, cooling/heating, remote control not included in scope of delivery

Indoor units		PEAD-M100JA	PEAD-M100JA	PEAD-M125JA
Outdoor units		PUHZ-SHW112VHA-A	PUHZ-SHW112YHA-A	PUHZ-SHW140YHA-A
Cooling	Cooling capacity (kW)	10.0 (4.9–11.4)	10.0 (4.9–11.4)	12.5 (5.5–14.0)
	Power consumption (kW)	3.059	3.059	3.895
	SEER	5.0	5.0	5.1
	Energy efficiency class	B	B	–
	Application range (°C)	–15~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	11.2 (4.5–14.0)	11.2 (4.5–14.0)	14.0 (5.0–16.0)
	Heating capacity to -15 °C (kW)	11.2	11.2	14.0
	Power consumption (kW)	3.103	3.103	3.879
	SCOP	3.8	3.8	3.6
	Energy efficiency class	A	A	–
	Application range (°C)	–25~+21	–25~+21	–25~+21

Indoor units		PEAD-M100JA	PEAD-M100JA	PEAD-M125JA
Air volume (m^3/h)	L/H	1440/2040	1440/2040	1770/2520
Static pressure (Pa)		35/50/70/100/150	35/50/70/100/150	35/50/70/100/150
Sound level (dB(A))	L/H	29/38	29/38	33/40
Dimensions (mm)	W/D/H	1.400/732/250	1.400/732/250	1.400/732/250
Weight (kg)		41	41	43
Outdoor units		**PUHZ-SHW112VHA-A**	**PUHZ-SHW112YHA-A**	**PUHZ-SHW140YHA-A**
Airflow (m^3/h)		6000	6000	6000
Sound pressure level cooling/heating (dB(A))		51/52	51/52	51/52
Dimensions (mm)	W/D/H	950/330/1.350	950/330/1.350	950/330/1.350
Weight (kg)		120	134	134
Refrigeration data				
Total pipe length (m)		75	75	75
Max. height difference (m)		30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R410A/5.5/7.9	R410A/5.5/7.9	R410A/5.5/7.9
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		2088/11.49/16.51	2088/11.49/16.51	2088/11.49/16.51
Refrigerant pre-filling for (m)		30	30	30
Refrigerant pipe size Ø (mm)	fl.	10	10	10
	s.	16	16	16
Electrical data				
Voltage supply (V, phase, Hz)		230, 1, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling/heating (A)		11.1/11.28	3.69/3.74	4.92/4.91
Recommended breaker size (A)		40	16	16

Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.


SUZ-M35VA


SUZ-M50VA


SUZ-M60/71VA


PUZ-M100–140VKA/YKA


PEAD-M

R32

Ceiling concealed ducted units

Single-split / standard inverter / Cooling and heating

WiFi MELCloud (optional) · Wired Remote Control connectable · On/Off (wireless) · Weekly (wired) · Auto · Standard Filter · Plasma-Quad-Connect (optional) · Low-temperature Cooling · Low-temperature Heating · Fresh-air intake · Rotation Back-up · Drain Lift Up · Multi-Split · Auto Restart · R 32 Pre-charged

Certified Quality · STANDARD INVERTER · REUSE PIPING

PEAD-M ceiling concealed ducted units, cooling / heating, remote control not included in scope of delivery

Indoor units		PEAD-M35JA	PEAD-M50JA	PEAD-M60JA	PEAD-M71JA	PEAD-M100JA	PEAD-M125JA	PEAD-M140JA
Designation of outdoor units 230 V		SUZ-M35VA	SUZ-M50VA	SUZ-M60VA	SUZ-M71VA	PUZ-M100VKA	PUZ-M125VKA	PUZ-M140VKA
Designation of outdoor units 400 V		–	–	–	–	PUZ-M100YKA	PUZ-M125YKA	PUZ-M140YKA
Cooling	Cooling capacity (kW)	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)
	Power consumption (kW)	0.92	1.35	1.69	2.02	2.87	4.01	4.76
	SEER	5.8	6.1	6.0	5.8	5.4	–	–
	Energy efficiency class	A+	A++	A+	A+	A	–	–
	Application range (°C)	–10~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46
Heating	Heating capacity (kW)	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)
	Power consumption (kW)	1.02	1.46	1.84	2.15	2.94	3.73	4.15
	SCOP	3.9	4.2	4.0	3.9	4.0	–	–
	Energy efficiency class	A	A+	A+	A	A+	–	–
	Application range (°C)	–10~+24	–10~+24	–10~+24	–10~+24	–15~+21	–15~+21	–15~+21

Indoor units		PEAD-M35JA	PEAD-M50JA	PEAD-M60JA	PEAD-M71JA	PEAD–M100JA	PEAD–M125JA	PEAD–M140JA
Air volume (m³/h)	L/M/H	600/720/840	720/870/1020	870/1080/1260	1050/1260/1500	1440/1740/2040	1770/2130/2520	1920/2340/2760
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 level (dB(A))	L/M/H	23/27/30	26/31/35	25/29/33	26/30/34	29/34/38	33/36/40	34/38/43
Dimensions (mm)	W/D/H	900/732/250	900/732/250	1.100/732/250	1.100/732/250	1.400/732/250	1.400/732/250	1.600/732/250
Weight (kg)		26	27	30	30	39	40	44
Outdoor units		**SUZ-M35VA**	**SUZ-M50VA**	**SUZ-M60VA**	**SUZ-M71VA**	**PUZ-M100V-KA/YKA**	**PUZ-M125 VKA/YKA**	**PUZ-M140 VKA/YKA**
Airflow cooling / heating (m³/h)		2058/1962	2748/2622	3006/3006	3006/3006	4740/4740	5160/5520	5160/5520
Sound pressure level cooling / heating (dB(A))		48/48	48/49	49/51	49/51	51/54	54/56	55/57
Dimensions (mm)	W/D/H	800/285/550	800/285/714	840/330/880	840/330/880	1.050/330/981	1.050/330/981	1.050/330/981
Weight 230 V / 400 V (kg)		35/–	41/–	54/–	55/–	76/78	84/85	84/85
Refrigeration data								
Total pipe length (m)		20	30	30	30	55	65	65
Max. height difference (m)		12	30	30	30	30	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32/0.90/1.16	R32/1.20/1.66	R32/1.25/1.71	R32/1.45/2.37	R32/3.10/4.10	R32/3.60/5.00	R32/3.60/5.00
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675/0.61/0.78	675/0.81/1.12	675/0.84/1.15	675/0.98/1.60	675/2.09/2.77	675/2.43/3.38	675/2.43/3.38
Refrigerant pre-filling for (m)		7	7	7	7	30	30	30
Refrigerant pipe size Ø (mm)	fl.	6	6	6	10	10	10	10
	s.	10	12	16	16	16	16	16
Electrical data								
Voltage supply 230 V (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Voltage supply 400 V (V, phase, Hz)		–	–	–	–	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current 230 V cooling / heating (A)		4.77/4.97	7.0/6.6	8.71/10.11	10.81/10.41	12.26/12.62	17.37/16.74	22.48/21.31
Operating current 400 V cooling / heating (A)		–	–	–	–	4.78/5.05	6.18/6.09	7.92/7.58
Recommended fuse size 230 V (A)		10	20	20	20	32	32	40
Recommended fuse size 400 V (A)		–	–	–	–	16	16	16

Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEA-M200/250LA

PUZ-ZM200/250YKA

Ceiling concealed ducted units high pressure

Single-split/power inverter/Cooling and heating

WiFi MELCloud (optional) · Wired Remote Control connectable · On/Off · Weekly · Standard Filter (optional) · Low-temperature Cooling · Low-temperature Heating · Fresh-air intake · Auto Restart · Refrigerant Status Check · Pre-charged · Drain Lift Up (optional)

PEA-M ceiling concealed ducted units, cooling/heating, remote control not included in scope of delivery

Indoor units		PEA-M200LA	PEA-M250LA
Outdoor units		PUZ-ZM200YKA	PUZ-ZM250YKA
Cooling	Cooling capacity (kW)	19.0 (9.2–22.4)	22.0 (9.9–27.0)
	Power consumption (kW)	5.8	7.2
	SEER	–	–
	Energy efficiency class	–	–
	Application range (°C)	–15~+46	–15~+46
Heating	Heating capacity (kW)	22.4 (7.1–25.0)	27.0 (7.3–31.0)
	Power consumption (kW)	6.4	7.9
	SCOP	–	–
	Energy efficiency class	–	–
	Application range (°C)	–20~+21	–20~+21

Indoor units		PEA-M200LA	PEA-M250LA
Air volume (m³/h)	L/M/H	2520/3060/3600 2520/3060/3300 (at 200 Pa)	3000/3660/4320 2700/3300/3900 (at 150 Pa) 2700/3000/3300 (at 200 Pa)
Static pressure (Pa)		60/75/100/150/200	60/75/100/150/200
Sound level (dB(A))	L/H	35/40/43	38/43/47
Sound power level (dB(A))		63/64/64	67/67/68
Dimensions (mm)	W/D/H	1.370/1.120/470	1.370/1.120/470
Weight (kg)		87	87
Outdoor units		**PUZ-ZM200YKA**	**PUZ-ZM250YKA**
Airflow (m³/h)		8400	8400
Sound pressure level cooling/heating (dB(A))		59/62	59/62
Dimensions (mm)	W/D/H	1.050/330/1.338	1.050/330/1.338
Weight (kg)		137	138
Refrigeration data			
Total pipe length (m)		100	100
Max. height difference (m)		30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R32/6.30/9.20	R32/6.80/9.20
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		675/4.25/6.21	675/4.59/6.21
Refrigerant pre-filling for (m)		30	30
Refrigerant pipe size Ø (mm)	fl.	10	12
	s.	22 (28)*	22 (28)*
Electrical data			
Voltage supply (V, phase, Hz)**		380–415, 3+N, 50	380–415, 3+N, 50
Operating current (A)		***	***
Recommended breaker size (A)		32	32

* for cable lengths of over 50 m

** Indoor units have a separate 230V, 1Ph, 50Hz voltage supply

*** Values were not available at the time of printing

Sound pressure level at the indoor unit measured at a distance of 1.5 m below the unit with 150 Pa static pressure

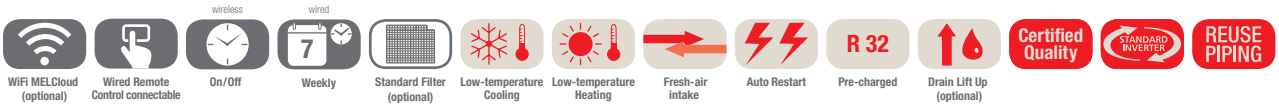
Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PUZ-M200/250YKA

PEA-M200/250LA

Ceiling concealed ducted units high pressure

Single-split/standard inverter/Cooling and heating



WiFi MELCloud (optional) | Wired Remote Control connectable | On/Off | Weekly | Standard Filter (optional) | Low-temperature Cooling | Low-temperature Heating | Fresh-air intake | Auto Restart | Pre-charged | Drain Lift Up (optional)

PEA-M ceiling concealed ducted units, cooling/heating, remote control not included in scope of delivery

Indoor units		PEA-M200LA	PEA-M250LA
Outdoor units		PUZ-M200YKA	PUZ-M250YKA
Cooling	Cooling capacity (kW)	19.0 (9.2–22.4)	22.0 (9.9–27.0)
	Power consumption (kW)	6.0	7.3
	SEER	–	–
	Energy efficiency class	–	–
	Application range (°C)	–15~+46	–15~+46
Heating	Heating capacity (kW)	22.4 (6.8–25.0)	27.0 (7.3–31.0)
	Power consumption (kW)	6.6	8.1
	SCOP	–	–
	Energy efficiency class	–	–
	Application range (°C)	–20~+21	–20~+21

Indoor units		PEA-M200LA	PEA-M250LA
Air volume (m^3/h)	L/M/H	2520/3060/3600 2520/3060/3300 (at 200 Pa)	3000/3660/4320 2700/3300/3900 (at 150 Pa) 2700/3000/3300 (at 200 Pa)
Static pressure (Pa)		60/75/100/150/200	60/75/100/150/200
Sound pressure level dB(A)		35/40/43	38/43/47
Dimensions (mm)	W/D/H	1.370/1.120/470	1.370/1.120/470
Weight (kg)		87	87
Outdoor units		**PUZ-M200YKA**	**PUZ-M250YKA**
Airflow (m^3/h)		8400	8400
Sound pressure level cooling/heating (dB(A))		58/60	59/62
Dimensions (mm)	W/D/H	1.050/330/1.338	1.050/330/1.338
Weight (kg)		129	138
Refrigeration data			
Total pipe length (m)		70	70
Max. height difference (m)		30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R32/5.60/7.20	R32/6.80/9.20
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		675/3.78/4.86	675/4.59/6.21
Refrigerant pre-filling for (m)		30	30
Refrigerant pipe size Ø (mm)	fl.	10	12
	s.	22 (28)*	22 (28)*
Electrical data			
Voltage supply (V, phase, Hz)**		380–415, 3+N, 50	380–415, 3+N, 50
Operating current (A)		***	***
Recommended breaker size (A)		32	32

* For cable lengths of over 50 m

** Indoor units have a separate 230V, 1Ph, 50Hz voltage supply

*** Values were not available at the time of printing

Sound pressure level at the indoor unit measured at a distance of 1.5 m below the unit with 150 Pa static pressure

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Energy saving from the start

Heat pump air curtains perfectly tailored to Mr. Slim and City Multi VRF outdoor units for effective climate separation in entrance areas
Open entrances to sales showrooms and public buildings provide unhindered access for customers, but place high demands on air conditioning and
heating technology. The exchange of heated or air-conditioned room air with air from outside needs to be prevented. Door air curtain technology is particularly effective in this regard, using air jets to separate indoor and outdoor climates. Together with Thermoscreens, one of the leading manufacturers of air curtain systems, Mitsubishi Electric offers a fantastically energy-efficient, reliable and convenient complete system. Unlike conventional air curtains, the HP DXE features special heat exchangers and is heated via a heat pump with R410A (hot gas).
The heat pump (choice of Mr. Slim or City Multi VRF outdoor unit) receives heat directly from the ambient air and delivers up to 4 kW of heating energy with only 1 kW of electrical energy.

Patented air blow-out system
Specially designed air chamber ensures uniform distribution of air across the entire width. The patented 3D blow-out grille smooths the air (according to ISO 27327) by up to 92%, reducing air turbulence and induction.

Fast installation and easy maintenance
The system is ready for quick and easy installation thanks to its plug-and-play technology and is also ideal for retrofitting work. Its maintenance-friendly design ensures ease of maintenance.

Broad range of systems
Available for free suspension or recessed installation in the ceiling, the models feature a range of lengths (1 m, 1.5 m and 2 m) and capacity levels (5 to 25.7 kW). The recessed ceiling units are labelled “R” (to indicate “recessed”).

Application areas
Versatile uses in shops, shopping centres and public buildings. Blow-out height: 2 to 3.8 m.

HX2
The HX2 air curtain features a round metal plenum for an unmistakable design. This combines with the threaded rod cladding (freely suspended units) and the available RAL colours to create the perfect look. The HX2 can be supplied in a length of 1 m, 1.5 m, 2 m or 2.5 m, with capacity levels S and M covering blow-out heights from 2.3 m to 4 m.

The flexibly designed side ends of the blow-out grille make it possible to surround the entire door opening with a separating air jet, enabling even greater door air curtain efficiency. EC fans meet the requirements of the Ecodesign Directive, ensure higher efficiency and reduce the noise level by up to 7 dB(A).

An LED serves to indicate when filter maintenance is required. Sliders located on the bottom of the unit enable quick filter replacement without the need for any tools.

The HX2 features the Mitsubishi Electric PCB as standard – for Mr. Slim or City Multi VRF as desired – and is supplied with a condensate tray for cooling mode as well as an integrated electric heater for defrosting the outdoor unit.

thermoscreens®

HX2 S / M 1000 – 2500 DXE | HP1000 – 2000 DXE | HP1000 – 2000R DXE | PUHZ-ZRP71 – 200VKA / YKA | PUHZ-SHW140YHA-A

Air curtain systems for doors

Single-split / power inverter and Zubadan

DXE air curtain systems for doors, freely suspended

Indoor units		HP1000 DXE	HP1500 DXE	HP2000 DXE	HP2000 DXE
Outdoor unit power inverter 230 V		PUHZ-ZRP71VHA	–	–	–
Outdoor unit power inverter 400 V		–	PUHZ-ZRP140YKA	PUHZ-ZRP140YKA	PUHZ-ZRP200YKA
Outdoor unit Zubadan inverter		–	PUHZ-SHW140YHA-A	PUHZ-SHW140YHA-A	–
Air speed (m / s)		9.0	9.0	9.5	9.5
Airflow (m³ / h)		1310	2070	2590	2590
Dimensions (mm)	W / D / H	1.300 / 468 / 306	1.825 / 468 / 306	2.350 / 468 / 306	2.350 / 468 / 306
Weight (kg)		46	67	84	84
Cooling capacity (kW)		7.4	12.3	14.2	18.7
Heating capacity (kW)	High	8.3	13.8	15.9	21.0
COP	High	2.8	2.5	2.9	2.4
Sound pressure level (dB(A))	High	48 - 58	48 - 58	48 - 58	48 - 58
Max. installation height (m)		3.8	3.8	3.8	3.8
Voltage supply (V, phase, Hz)		380 – 415, 3+N+E, 50	380 – 415, 3+N+E, 50	380 – 415, 3+N+E, 50	380 – 415, 3+N+E, 50
Voltage supply 230 V (V, phase, Hz)		220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50
Operating current (A)		7.3 (0.8)	12.1 (1.2)	14.4 (1.4)	14.4 (1.4)

Prices upon request

The specifications of the City Multi systems can be found on page 159.

DXE air curtain systems for doors, ceiling installation

Indoor units		HP1000R DXE	HP1500R DXE	HP2000R DXE	HP2000R DXE
Outdoor unit power inverter 230 V		PUHZ-ZRP71VHA	–	–	–
Outdoor unit power inverter 400 V		–	PUHZ-ZRP140YKA	PUHZ-ZRP140YKA	PUHZ-ZRP200YKA
Outdoor unit Zubadan inverter		–	PUHZ-SHW140YHA-A	PUHZ-SHW140YHA-A	–
Air speed (m / s)		9.0	9.0	9.0	9.5
Airflow (m³ / h)		1310	2070	2590	2590
Dimensions (mm)	W / D / H	1.250 / 485 / 354	1.750 / 485 / 354	2.340 / 485 / 354	2.340 / 485 / 354
Weight (kg)		52	75	93	93
Cooling capacity (kW)		7.4	12.3	14.2	18.7
Heating capacity (kW)		8.3	13.8	15.9	21.0
COP		2.8	2.5	2.9	2.4
Sound pressure level (dB(A))	High	48 - 58	48 - 58	48 - 58	48 - 58
Max. installation height (m)		3.8	3.8	3.8	3.8
Voltage supply (V, phase, Hz)		380 – 415, 3+N+E, 50	380 – 415, 3+N+E, 50	380 – 415, 3+N+E, 50	380 – 415, 3+N+E, 50
Voltage supply 230 V (V, phase, Hz)		220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50	220 – 240, 1, 50
Operating current (A)		7.3 (0.8)	12.1 (1.2)	14.4 (1.4)	14.4 (1.4)

Prices upon request

The specifications of the City Multi systems can be found on page 159.

▶ **Other combinations possible. Documentation available on request.**

Order the air screen modules directly from the manufacturer Thermoscreens:

Thermoscreens GmbH
In der Loh 6a
40668 Meerbusch
GERMANY

Telephone: 0049 2150 910 4098
Telefax: 0049 2150 910 4097
post@thermoscreens.de · www.thermoscreens.de

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Connection kits for external ventilation systems

Cooling and heating

The connection kits enable the use of Mr. Slim outdoor units as heating or cooling generators in air conditioning systems.

PAC-IF013B-E scope of functions

- Mode setting via potential-free contact
- Compressor on/off via digital contact
- Power setting in 11 (10 + Off) steps from 40 % to 100 % (20 to 100 % for cascade applications) via 0 - 10 V or Modbus protocol
- Modbus interface integrated as standard.
- SD card slot for recording system operating data

Output of all relevant operating data as potential-free contact

- Operation
- Alarm
- Compressor operation
- Defrosting
- Cooling mode
- Heating mode

Cascade control

Up to six circuits (1 x PAC-IF013B-E with up to 5 x PAC-SIF013B-E) can be controlled by one signal. System rotation ensures that all outdoor units achieve the same operating times.

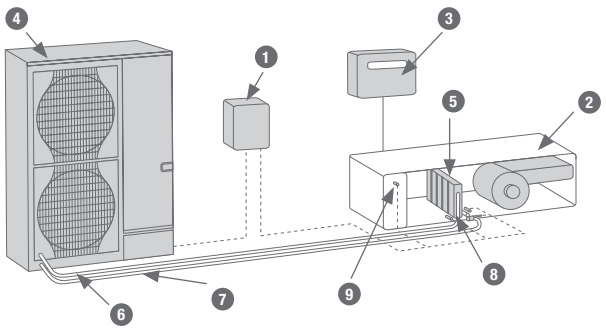
When planning, please observe the relevant planning and installation instructions.

Connection kit

Type designation		PAC-IF013B	PAC-SIF013
Cooling capacity min.–max.* (kW)		3.6–28.0	3.6–28.0
Heating capacity min.–max.* (kW)		4.1–31.5	4.1–31.5
Refrigerant		R410A/R32	R410A/R32
Dimensions Controllerbox (mm)	W	336	336
	H	69	69
	D	278	278
Weight (kg)		2.5	2.5
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50
Temperature setting Remote control °C		14–30	14–30
Protection class		IP24	IP24

* Depending on selected outdoor unit.

Use of connection kit with ventilation system



1 PAC-IF013 connection kit
2 Ventilation unit
3 Ventilation system controller
4 Mr. Slim outdoor unit
5 Heat exchanger (by others)
6 Suction line
7 Fluid line/injection line
8 Temperature sensor for injection line
9 Temperature sensor for return air/room air (optional)

Product sets: Power Inverter with connection kit PAC-IF013B-E/R32

Power Inverter R32	Cooling capacity (kW)			Heating capacity (kW)				Air volume		PUZ-ZM outdoor units									PAC interface	
	Outside temperature 35 °C HE air inlet: 27 °C			Outside temperature 7 °C HE air inlet: 20 °C			Outside temperature -15 °C HE air inlet: 15 °C	min m³/h	max m³/h	35	50	60	71	100	125	140	200	250	IF013	SIF013
	Rated capacity	Min. capacity	Max. capacity	Rated capacity	Min. capacity	Max. capacity														
1-to-1 combination																				
CU-ZM3S	3,5	1,0	4,5	4,1	1,5	4,5	2,5	372	1476	1									1	
CU-ZM5S	5,0	2,0	5,5	6,0	2,0	7,0	3,5	516	2160		1								1	
CU-ZM6S	6,0	2,0	6,5	7,0	2,5	8,0	4,0	630	2520			1							1	
CU-ZM7S	7,1	2,5	8,0	8,0	3,0	10,0	4,5	732	2880				1						1	
CU-ZM10S	10,0	4,0	11,0	11,0	4,0	14,0	6,5	978	4032					1					1	
CU-ZM12S	12,5	5,0	14,0	14,0	5,5	16,0	8,5	1290	5040						1				1	
CU-ZM14S	14,0	5,5	15,0	16,0	6,0	18,0	9,5	1380	5760							1			1	
CU-ZM20S	20,0	8,0	22,0	22,4	8,5	25,0	13,5	1956	8064								1		1	
CU-ZM25S	25,0	10,0	28,0	27,0	10,5	31,5	16,5	2268	9720									1	1	
Cascades																				
CU-ZM7C	7,0	1,0	9,0	8,0	1,5	9,5	5,0	744	3247	2									1	1
CU-ZM10C	10,0	2,0	11,0	12,0	2,0	14,5	7,0	1032	4752		2								1	1
CU-ZM12C	12,0	2,0	13,0	14,0	2,5	16,0	8,5	1260	5544			2							1	1
CU-ZM14C	14,0	2,5	16,0	16,0	3,0	20,0	9,5	1464	6336				2						1	1
CU-ZM18C	18,0	3,5	20,0	21,0	4,0	24,5	13,0	1890	5544			3							1	2
CU-ZM20C	20,0	4,0	22,5	22,0	4,0	28,0	13,5	1956	8870					2					1	1
CU-ZM25C	25,0	5,0	28,0	28,0	5,5	32,0	17,0	2580	11088						2				1	1
CU-ZM28C	28,0	5,5	30,5	32,0	6,0	36,0	19,5	2760	12672							2			1	1
CU-ZM30C	30,0	6,0	34,0	33,0	6,5	42,0	20,0	2934	8870					3					1	2
CU-ZM38C	38,0	7,5	42,0	42,0	8,0	48,0	26,0	3870	11088						3				1	2
CU-ZM40C	40,0	8,0	44,0	45,0	8,5	50,0	27,5	3912	17741								2		1	1
CU-ZM42C	42,0	8,0	45,5	48,0	9,5	54,0	29,5	4140	12672							3			1	2
CU-ZM50C	50,0	10,0	56,0	56,0	11,0	64,0	34,5	5160	11088						4				1	3
CU-ZM50C-2	50,0	10,0	56,0	54,0	10,5	63,0	33,0	4536	21384									2	1	1
CU-ZM56C	56	11,0	61,0	64,0	12,5	72,0	39,5	5520	12672							4			1	3
CU-ZM60C	60,0	12,0	66,0	67,0	13,0	75,0	41,5	5868	17741								3		1	2
CU-ZM62C	63,0	12,5	70,0	70,0	14,0	80,0	43,0	6450	11088						5				1	4
CU-ZM70C	70,0	14,0	76,5	80,0	16,0	90,0	49,5	6900	12672							5			1	4
CU-ZM75C	75,0	15,0	84,0	84,0	16,5	96,0	52,0	7740	13306						6				1	5
CU-ZM75C-2	75,0	15,0	84,0	81,0	16,0	94,5	50,0	6804	21384									3	1	2
CU-ZM80C	80,0	16,0	88,0	90,0	17,5	100,0	55,5	7824	17741								4		1	3
CU-ZM84C	84,0	16,5	91,5	96,0	19,0	108,0	59,5	8280	15206							6			1	5
CU-ZM100C	100,0	20,0	112,0	108,0	21,5	126,0	66,5	9072	21384									4	1	3
CU-ZM125C	125,0	25,0	140,0	135,0	27,0	157,5	83,5	11340	21384									5	1	4
CU-ZM150C	150,0	30,0	168,0	162,0	32,0	189,0	100,0	13608	25661									6	1	5

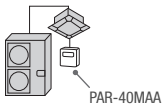
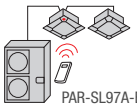
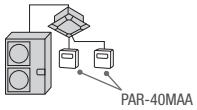
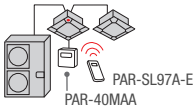
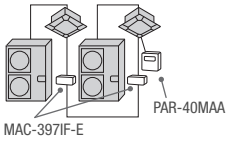
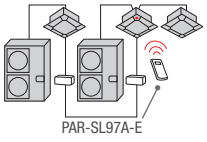
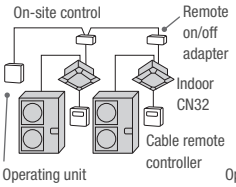
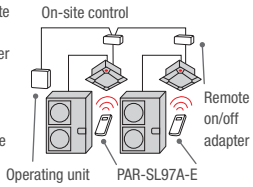
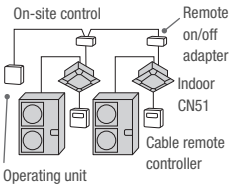
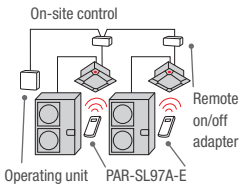
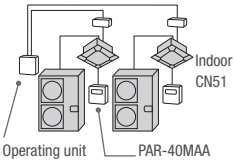
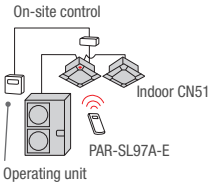
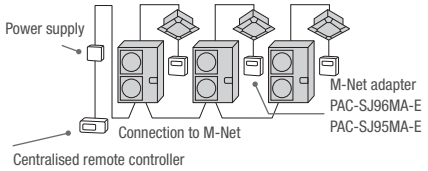
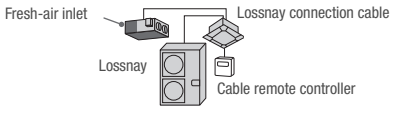
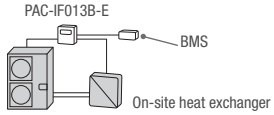
Product sets: Power Inverter with connection kit PAC-IF013B-E/R410A

Power Inverter R410	Cooling capacity (kW)			Heating capacity (kW)				Air volume		PUHZ-ZRP outdoor units								PAC interface	
	Outside temperature 35 °C HE air inlet: 27 °C			Outside temperature 7 °C HE air inlet: 20 °C			Outside temperature -15 °C HE air inlet: 15 °C	min. m³/h	max. m³/h	50	60	71	100	125	140	200	250	IF013	SIF013
	Rated capacity	Min. capacity	Max. capacity	Rated capacity	Min. capacity	Max. capacity													
1-to-1 combination																			
CU-ZRP5S	5,0	2,0	5,5	6,0	7,3	7,0	3,5	516	2160	1								1	
CU-ZRP6S	6,0	2,0	6,5	7,0	8,2	8,0	4,0	630	2520		1							1	
CU-ZRP7S	7,1	2,5	8,0	8,0	10,2	10,0	4,5	732	2880			1						1	
CU-ZRP10S	10,0	4,0	11,0	11,0	14,0	14,0	6,5	978	4032				1					1	
CU-ZRP12S	12,5	5,0	14,0	14,0	16,0	16,0	8,5	1290	5040					1				1	
CU-ZRP14S	14,0	5,5	15,0	16,0	18,0	18,0	9,5	1380	5760						1			1	
CU-ZRP19S	20,0	8,0	22,0	22,0	25,0	25,0	13,5	1956	8064							1		1	
CU-ZRP22S	25,0	10,0	28,0	27,0	31,5	31,5	16,5	2268	9720								1	1	
Cascades																			
CU-ZRP10C	10,0	2,0	11,0	12,0	14,6	14,5	7,0	1032	5400	2								1	1
CU-ZRP14C	14,0	2,5	16,0	16,0	20,4	20,0	9,5	1464	7200			2						1	1
CU-ZRP20C	20,0	4,0	22,5	22,0	28,0	28,0	13,5	1464	10080				2					1	1
CU-ZRP25C	25,0	5,0	28,0	28,0	32,0	32,0	17,0	2580	12600					2				1	1
CU-ZRP28C	28,0	5,5	30,5	32,0	36,0	36,0	19,5	2760	14400						2			1	1
CU-ZRP30C	30,0	6,0	34,0	33,0	42,0	42,0	20,0	2934	10080				3					1	2
CU-ZRP38C	40,0	8,0	44,5	44,0	50,0	50,0	27,0	3912	20160							2		1	1
CU-ZRP44C	50,0	10,0	56,0	54,0	63,0	63,0	33,0	4536	24300								2	1	1
CU-ZRP57C	60,0	12,0	67,0	66,0	75,0	75,0	40,5	5868	20160							3		1	2
CU-ZRP66C	75,0	15,0	84,0	81,0	94,5	94,5	50,0	6804	24300								3	1	2
CU-ZRP76C	80,0	16,0	89,5	88,0	100,0	100,0	54,5	7824	20160							4		1	3
CU-ZRP88C	100,0	20,0	112,0	108,0	126,0	126,0	66,5	9072	24300								4	1	3
CU-ZRP110C	125,0	25,0	140,0	135,0	157,5	157,5	83,5	11340	20160								5	1	4
CU-ZRP132C	150,0	30,0	168,0	162,0	189,0	189,0	100,0	13608	29160								6	1	5

Product sets: Zubadan Inverter with connection kit PAC-IF013B-E

Power Inverter R410	Cooling capacity (kW)			Heating capacity (kW)				Air volume		PUHZ-ZRP outdoor units				PAC interface	
	Outside temperature 35 °C HE air inlet: 27 °C			Outside temperature 7 °C HE air inlet: 20 °C			Outside temperature -15 °C HE air inlet: 15 °C	min. m³/h	max. m³/h	80	112	140	230	IF013	SIF013
	Rated capacity	Min. capacity	Max. capacity	Rated capacity	Min. capacity	Max. capacity									
1:1 Kombination															
CU-SHW7S	7,1	2,5	8,0	8,0	3,0	10,0	8,0	732	2880	1				1	
CU-SHW10S	10,0	4,0	11,0	11,2	4,0	14,0	11,0	978	4032		1			1	
CU-SHW12S	12,5	5,0	14,0	14,0	5,5	16,0	14,0	1290	5040			1		1	
CU-SHW19S	20,0	8,0	22,0	22,4	8,5	25,0	22,0	1956	8064				1	1	
Kaskaden															
CU-SHW14C	14,0	2,5	16,0	16,0	3,0	20,0	16,0	1464	7200	2				1	1
CU-SHW20C	20,0	4,0	22,0	22,4	4,0	28,0	22,0	1956	10080		2			1	1
CU-SHW21C	21,0	4,0	24,0	24,0	4,5	30,0	24,0	2196	7200	3				1	2
CU-SHW25C	25,0	5,0	28,0	28,0	5,5	32,0	28,0	2580	12600			2		1	1
CU-SHW30C	30,0	6,0	33,0	33,6	6,5	42,0	34,0	2934	10080		3			1	2
CU-SHW37C	38,0	15,0	42,0	42,0	16,5	48,0	42,0	3870	12600			3		1	2
CU-SHW38C	40,0	8,0	44,0	44,8	8,5	50,0	45,0	3912	20160				2	1	1
CU-SHW50C	50,0	10,0	56,0	56,0	11,0	64,0	56,0	5160	12600			4		1	3
CU-SHW57C	60,0	12,0	66,0	67,2	13,0	75,0	67,0	5868	20160				3	1	2
CU-SHW76C	80,0	16,0	88,0	89,6	17,5	100,0	90,0	7824	20160				4	1	3
CU-SHW95C	100,0	20,0	110,0	112,0	22,0	125,0	112,0	9780	20160				5	1	4
CU-SHW114C	120,0	24,0	132,0	134,4	26,5	150,0	134,0	11736	20160				6	1	5

Overview of control systems

System	Example system		Functions	Accessories required
	Cable remote controller	Infrared remote controller		
One remote controller (standard)			• Cable or infrared remote controller can be used as desired.	No accessories required.
Two remote controllers The air conditioning unit can be operated using two remote controllers in different locations.			• Up to two remote controllers can be connected to a group. • Cable and infrared remote controllers can be used in combination.	• Cable remote controller: **PAR-40MAA** • Cable remote controller kit: **PAR-40MAA/PAC-SH29TC-E** • Infrared remote controller: **PAR-SL97A-E** • Infrared remote controller kit for PCA: **PAR-SL94B-E**
Group control One remote controller can control multiple systems simultaneously. Different cooling circuit addresses must be configured on the outdoor units.			• One remote controller can control up to 16 cooling circuits. • The outdoor units perform control independently of one another (on/off). • Up to two remote controllers can be connected.	If an outdoor unit of type SUZ or MXZ is used, one **MAC-397IF-E** is required per indoor unit (no accessories required for P-series outdoor units).
Activation via DC 12 V signal System can be switched on/off remotely. The on/off function of the remote controller can also be disabled.			• If a remote controller is disabled, only the on/off function is locked. All other settings can be configured (temperature, fan stages, etc.). • Control possible via external timer.	Adapter cable for remote on/off control: **PAC-SE55RA-E,** on-site activation.
Activation via pulse signal System can be switched on/off remotely.			• All settings can be configured (temperature, fan stages, etc.). • Control possible via external timer.	Adapter cable for remote on/off control: **PAC-SA88HA-E,** on-site activation.
Operation notification Operating status of the air conditioning unit can be displayed.			• Operation and fault notification can be externally reported and processed (BMS activation). • Potential-free contact when using PAC-SF40, C 12 V signal with PAC-SA88HA-E.	• Adapter cable for operation and fault notification: **PAC-SA88HA-E** • Remote on/off adapter: **PAC-SF40RM** (only in combination with cable remote controller), on-site activation.
Centralised control Easy controlling of multiple systems via a central operating unit.			• An M-Net system can be established by installing an adapter in the outdoor unit. • Integration into City Multi systems possible.	M-Net adapter: **PAC-SJ96MA-E, PAC-SJ95MA-A** (for SUZ/MXZ outdoor units, see M-series).
Activation of Lossnay ventilation unit			• Lossnay is started when air conditioning unit is switched on.	Mr. Slim-Lossnay connection cable (included with Lossnay).
Connection of on-site heat exchanger			• Outdoor unit output can be specified externally. Return air control is also possible as an alternative.	• For output control: **PAC-IF013B-E** connection kit.

Further information is provided in the Mitsubishi Electric manuals.

Refrigerant charge quantities

Outdoor units

R32 refrigerant charge quantities, Standard Inverter

Outdoor units	Additional refrigerant charge quantity (one way) in kg					
Pipe length (one way)/m	**7**	**10**	**15**	**20**	**25**	**30**
SUZ-M35VA	–	0.06	0.16	0.26	–	–
SUZ-M50VA	–	0.06	0.16	0.26	0.36	0.46
SUZ-M60VA	–	0.06	0.16	0.26	0.36	0.46
SUZ-M71VA	–	0.12	0.32	0.52	0.72	0.92

The PUZ-M outdoor units are precharged for a pipe length of 30 m (single path length). For greater pipe lengths, additional refrigerant quantities are required according to the table below.

Outdoor units	Additional refrigerant charge quantity (one way) in kg				
Pipe length (one way)/m	**31–40**	**41–50**	**51–55**	**56–60**	**61–65**
PUZ-M100VKA/YKA	0.4	0.8	1.0	–	–
PUZ-M125VKA/YKA	0.4	0.8	1.0	1.2	1.4
PUZ-M140VKA/YKA	0.4	0.8	1.0	1.2	1.4
PUZ-M200YKA	0.4	0.8	1.2	1.2	1.6
PUZ-M250YKA	0.6	1.2	1.8	1.8	2.4

R32 refrigerant charge quantities, Power Inverter

The PUZ-ZM outdoor units are precharged for a pipe length of 30 m (single path length). For greater pipe lengths, additional refrigerant quantities are required according to the table below.

Outdoor units	Additional refrigerant charge quantity (one way) in kg				
Pipe length (one way)/m	**31–40**	**41–50**	**51–60**	**61–75**	**76–100**
PUZ-ZM35VKA	0.15	0.3	–	–	–
PUZ-ZM50VKA	0.15	0.3	–	–	–
PUZ-ZM60VHA	0.4	0.8	0.8	–	–
PUZ-ZM71VHA	0.4	0.8	0.8	–	–
PUZ-ZM100V(Y)KA	0.4	0.8	1.2	1.8	2.8
PUZ-ZM125V(Y)KA	0.4	0.8	1.2	1.8	2.8
PUZ-ZM140V(Y)KA	0.4	0.8	1.2	1.8	2.8
PUZ-ZM200YKA	0.4	0.8	1.2	1.6	2.9
PUZ-ZM250YKA	0.6	1.2	1.8	up to 2.9[1]	up to 2.4[1]

1 See Mr. Slim design manual.

R410A refrigerant charge quantities, Standard Inverter

The PUHZ-P100 outdoor unit is precharged with 2.7 kg for a pipe length of 20 m (single path length). The PUHZ-P125–250 outdoor units are precharged for 30 m. See table for greater pipe lengths.

Outdoor units	Additional refrigerant charge quantity (one way) in kg				
Pipe length (one way)/m	**21–30**	**31–40**	**41–50**	**51–60**	**61–70**
PUHZ-P100VHA/YHA	0.6	1.2	1.8	–	–
PUHZ-P125VHA/YHA	–	0.6	1.2	–	–
PUHZ-P140VHA/YHA	–	0.6	1.2	–	–
PUHZ-P200YKA	–	0.9	1.8	2.7	3.6
PUHZ-P250YKA	–	1.2	2.4	3.6	4.8

R410A refrigerant charge quantities, Power Inverter

The PUHZ-ZRP outdoor units are precharged for a pipe length of 30 m (single path length). For greater pipe lengths, additional refrigerant quantities are required according to the table below.

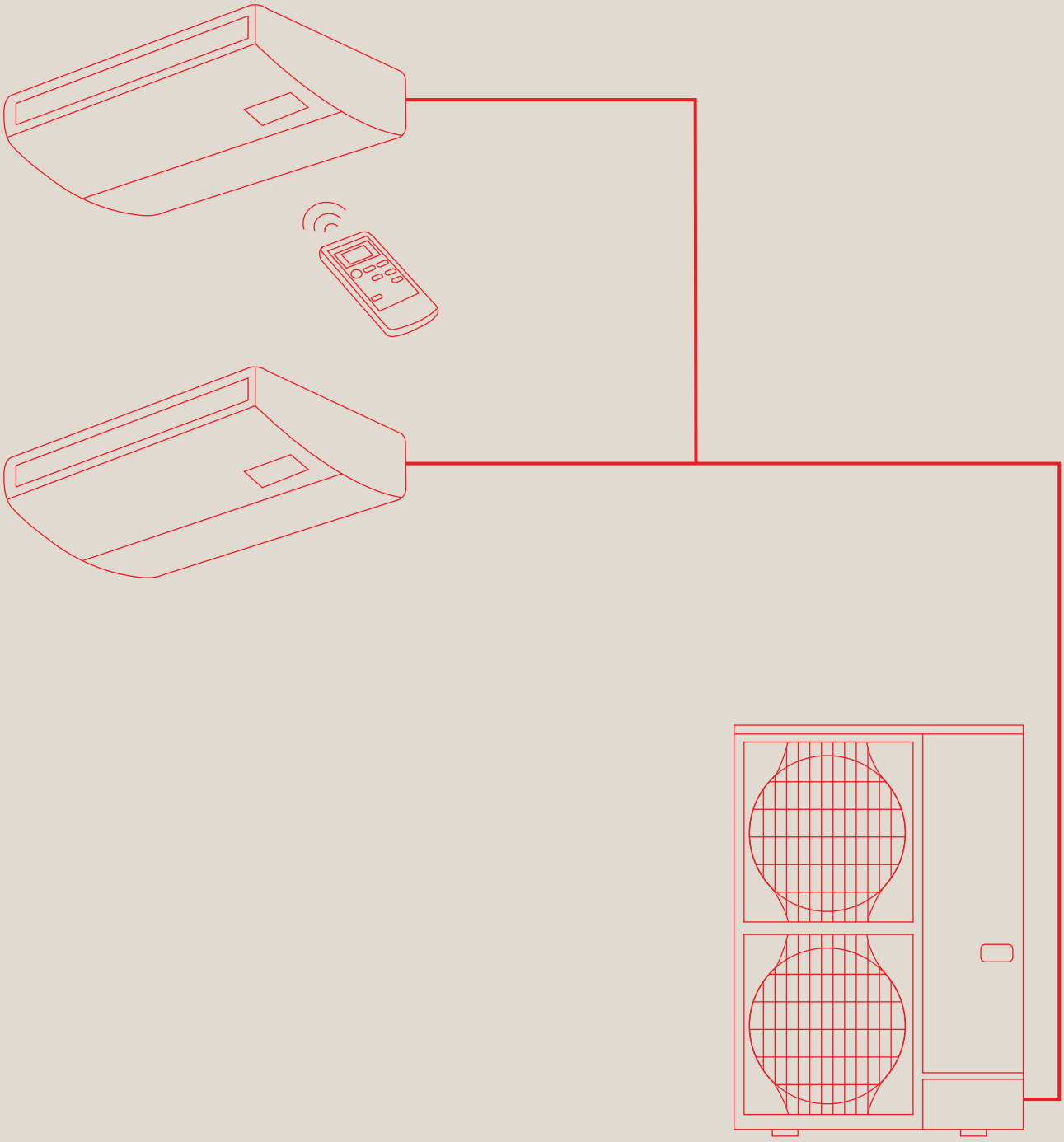
Single-split R410A

Outdoor units	Additional refrigerant charge quantity (one way) in kg				
Pipe length (one way)/m	**31–40**	**41–50**	**51–60**	**61–70**	**71–75**
PUHZ-ZRP35VKA	0.2	0.4	–	–	–
PUHZ-ZRP50VKA	0.2	0.4	–	–	–
PUHZ-ZRP60VHA	0.6	1.2	–	–	–
PUHZ-ZRP71VHA	0.6	1.2	–	–	–
PUHZ-ZRP100V(Y)KA	0.6	1.2	1.8	2.4	2.4
PUHZ-ZRP125V(Y)KA	0.6	1.2	1.8	2.4	2.4
PUHZ-ZRP140V(Y)KA	0.6	1.2	1.8	2.4	2.4
PUHZ-ZRP200YKA	0.9	1.8	2.7	3.6	[1]
PUHZ-ZRP250YKA	1.2	2.4	3.6	4.8	[1]

1 See Mr. Slim design manual.

R410A refrigerant charge quantities, new generation Zubadan Inverter

Outdoor units	Additional refrigerant charge quantity (one way) in kg				
Pipe length (one way)/m	**31–40 m**	**41–50 m**	**51–60 m**	**61–70 m**	**71–75 m**
PUHZ-SHW112-140VHA-A/YHA-A	0.6	1.2	1.8	2.4	2.4



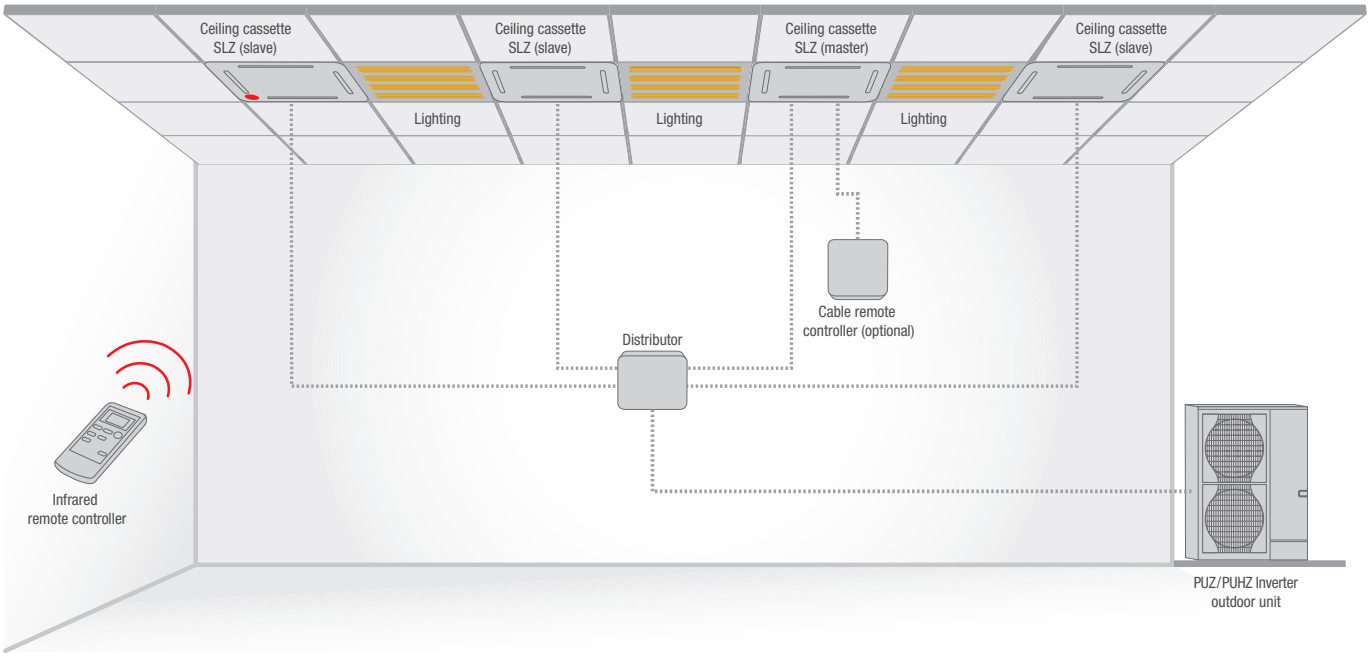
Multi-split operation and accessories

Multi-split simultaneous operation
Refrigerant distributor

Parallel operation for two to four indoor units (for one climate zone)
Depending on the output, two, three or four indoor units can be connected to one Mr. Slim outdoor unit from the PUZ-ZM/M and PUHZ-SHW series for parallel operation. It is also possible to use a combination of different indoor unit models. All you need is a remote controller that is connected to the master unit and operates every other indoor unit.

The Mr. Slim series is particularly suitable for large spaces that form one climate zone, such as open-plan offices and shops. As only the room temperature sensor in the master unit is active, the indoor units must be installed in one room (one climate zone) for multi-split operation.

Using a multi-split distributor



The distributor boxes

PUHZ-P, PUHZ-ZRP, PUHZ-SHW, PUZ-M, PUZ-ZM				
Distributor required	**Duo 50 : 50 (output index 71–140)**	**Duo 50 : 50 (output index 200/250)**	**Trio 33 : 33 : 33**	**Quattro 25 : 25 : 25 : 25**
R32/R410A distributor	MSDD-50TR2-E	MSDD-50WR2-E	MSDT-111R3-E	MSDF-1111R2-E

Multi-split combinations with outdoor units are featured on the next page.

R32: connectable Power Inverter output classes

Indoor unit	Outdoor unit	Power-Inverter								
		PUZ-ZM71VHA	PUZ-ZM100VKA	PUZ-ZM100YKA	PUZ-ZM125VKA	PUZ-ZM125YKA	PUZ-ZM140VKA	PUZ-ZM140YKA	PUZ-ZM200YKA	PUZ-ZM250YKA
4-way ceiling cassettes	PLA-ZM35EA	x2								
	PLA-ZM50EA		x2	x2			x3	x3	x4	
	PLA-ZM60EA				x2	x2			x3	x4
	PLA-ZM71EA						x2	x2		x3
	PLA-ZM100EA								x2	
	PLA-ZM125EA									x2
	PLA-M35EA	x2								
	PLA-M50EA		x2	x2			x3	x3	x4	
	PLA-M60EA				x2	x2			x3	x4
	PLA-M71EA						x2	x2		x3
	PLA-M100EA								x2	
	PLA-M125EA									x2
	SLZ-M35FA	x2								
	SLZ-M50FA		x2	x2			x3	x3	x4	
	SLZ-M60FA				x2	x2			x3	x4
Wall-mounted unit	PKA-M35LAL	x2								
	PKA-M50LAL		x2	x2			x3	x3	x4	
	PKA-M60KAL				x2	x2			x3	x4
	PKA-M71KAL						x2	x2		x3
	PKA-M100KAL								x2	
Ceiling suspend-ed units	PCA-M35KA	x2								
	PCA-M50KA		x2	x2			x3	x3	x4	
	PCA-M60KA				x2	x2			x3	x4
	PCA-M71KA						x2	x2		x3
	PCA-M100KA								x2	
	PCA-M125KA									x2
	PCA-M71HA									
Ceiling concealed units	PEAD-M35JA	x2								
	PEAD-M50JA		x2	x2			x3	x3	x4	
	PEAD-M60JA				x2	x2			x3	x4
	PEAD-M71JA						x2	x2		x3
	PEAD-M100JA								x2	
	PEAD-M125JA									x2

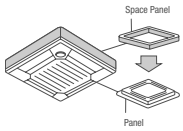
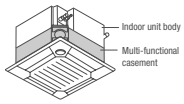
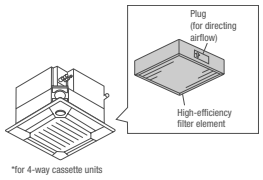
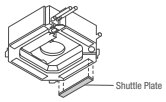
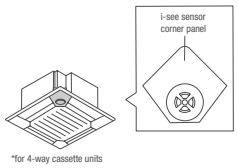
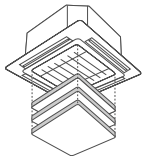
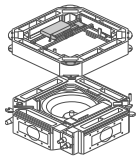
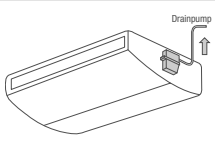
R32: connectable Standard Inverter output classes

Indoor unit	Outdoor unit	Standard-Inverter							
		PUZ-M100VKA	PUZ-M100YKA	PUZ-M125VKA	PUZ-M100YKA	PUZ-M140VKA	PUZ-M140YKA	PUZ-M200YKA	PUZ-M250YKA
4-way ceiling cassettes	PLA-ZM35EA								
	PLA-ZM50EA								
	PLA-ZM60EA								
	PLA-ZM71EA								
	PLA-ZM100EA								
	PLA-ZM125EA								
	PLA-M35EA								
	PLA-M50EA	x2	x2			x3	x3	x4	
	PLA-M60EA			x2	x2			x3	x4
	PLA-M71EA					x2	x2		x3
	PLA-M100EA							x2	
	PLA-M125EA								x2
Wall-mounted unit	PKA-M35LAL								
	PKA-M50LAL	x2	x2			x3	x3	x4	
	PKA-M60KAL			x2	x2			x3	x4
	PKA-M71KAL					x2	x2		x3
	PKA-M100KAL							x2	
Ceiling suspend-ed units	PCA-M35KA								
	PCA-M50KA	x2	x2			x3	x3	x4	
	PCA-M60KA			x2	x2			x3	x4
	PCA-M71KA					x2	x2		x3
	PCA-M100KA							x2	
	PCA-M125KA								x2
	PCA-M71HA								
Ceiling concealed units	PEAD-M35JA								
	PEAD-M50JA	x2	x2			x3	x3	x4	
	PEAD-M60JA			x2	x2			x3	x4
	PEAD-M71JA					x2	x2		x3
	PEAD-M100JA							x2	
	PEAD-M125JA								x2

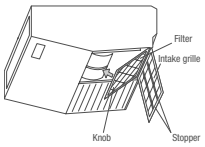
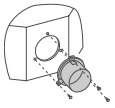
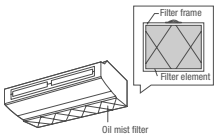
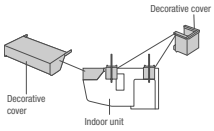
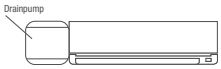
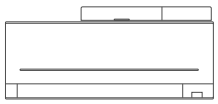
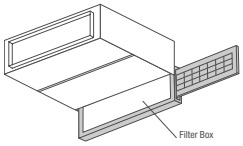
R410A: connectable Zubadan and Power Inverter output classes

Indoor unit / Outdoor unit		Zubadan			Power Inverter	
		PUHZ-SHW112VHA	PUHZ-SHW112YHA	PUHZ-SHW140YHA	PUHZ-ZRP200YKA	PUHZ-ZRP250YKA
4-way ceiling cassettes	PLA-ZM35EA					
	PLA-ZM50EA	x2	x2		x4	
	PLA-ZM60EA			x2	x3	x4
	PLA-ZM71EA					x3
	PLA-ZM100EA				x2	
	PLA-ZM125EA					x2
	PLA-M35EA					
	PLA-M50EA	x2	x2		x4	
	PLA-M60EA			x2	x3	x4
	PLA-M71EA					x3
	PLA-M100EA				x2	
	PLA-M125EA					x2
Wall-mounted unit	PKA-M35LAL					
	PKA-M50LAL	x2	x2		x4	
	PKA-M60KAL			x2	x3	x4
	PKA-M71KAL					x3
	PKA-M100KAL				x2	
Ceiling suspended units	PCA-M35KA					
	PCA-M50KA				x4	
	PCA-M60KA				x3	x4
	PCA-M71KA					x3
	PCA-M100KA				x2	
	PCA-M125KA					x2
	PCA-M71HA					x3
Floor-mounted unit	PSA-RP71KA					x3
	PSA-RP100KA				x2	
	PSA-RP125KA					x2
Ceiling concealed units	PEAD-M35JA					
	PEAD-M50JA	x2	x2		x4	
	PEAD-M60JA			x2	x3	x4
	PEAD-M71JA					x3
	PEAD-M100JA				x2	
	PEAD-M125JA					x2

Indoor unit accessories

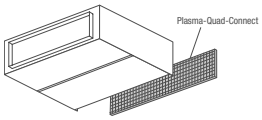
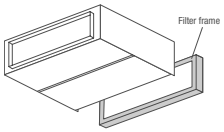
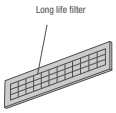
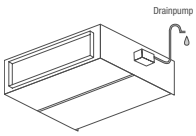
Name	Description
PLA-M EA/ZM EA	**4-way ceiling cassettes**
PAC-SJ65AS-E	for PLA-M EA/ZM35-140EA
	**Plinth panel** Enables installation even with little space available in the ceiling. The required installation height is reduced by 40 mm.
PAC-SJ41TM-E	for PLA-M EA/ZM35-140EA
	**Outside air box incl. filter housing** Supplies fresh air to the ceiling cassette. Fresh air can account for up to 20% of the rated air volume. For installation between unit and panel; installation height 135 mm.
PAC-SH59KF-E	for PLA-M EA/ZM35-140EA with outside air box PAC-SJ41TM-E
	**High-performance filter element** High-performance filter element for use in the PAC-SH53TM-E outside air box. Features a filter efficiency of 65% and a service life of approx. 2,500 operating hours.
PAC-SJ37SP-E	for PLA-M EA/ZM35-140EA
	**Locking panel** The locking panels are installed in the air outlet opening of the indoor units in order to lock a maximum of 2 air outlets.
PAC-SE1ME-E	for PLA-M EA/ZM35-140EA
	**3D i-see sensor** The 3D i-see sensor measures the temperature in the floor area and uses automatic fan control to cut temperature layering to a minimum. Improved temperature distribution reduces the compressor runtime and energy consumption.
PLP-6EAJ	for PLA-M EA/ZM35-140EA
	**Filter lift panel** The filter can be lowered by up to 4 m via remote controller. This makes filter cleaning easier, especially in high rooms.
PAC-SK51FT-E	
	**Plasma Quad Connect**[1] Plasma Quad Plus filter technology as retrofit kit for 4-way ceiling cassettes. Filters PM2.5, pollen, viruses, mould, bacteria and allergens from the ambient air.
PCA-M KA	**Ceiling suspended units**
PAC-SJ92DM-E	for PCA-M35/50KA
PAC-SJ94DM-E	for PCA-M60KA
PAC-SJ93DM-E	for PCA-M71-140KA
	**Condensate pump** The condensate pump is integrated into the unit and conveys the condensate upwards.

1 Available as of June 2021.

Name	Description
PCA-M KA	**4-way ceiling cassettes**
PAC-SH88KF-E	for PCA-M35/50KA
PAC-SH89KF-E	for PCA-M60/71KA
PAC-SH90KF-E	for PCA-M100-140KA
	**High-performance filter element** High-performance filter element as replacement for the standard air filter. The high-performance and standard filter cannot be operated simultaneously.
PCA-M HA	**Stainless steel ceiling suspended units**
PAC-SF280F-E	for PCA-M71HA
	**Circular duct connection** Duct connection for fresh-air supply; 200 mm diameter.
PAC-SG38KF-E	for PCA-M71HA
	**Replacement filters** Replacement filters for oil separation; 12 pack.
PAC-SF81KC-E	for PCA-M71HA
	**Covering panel** For installation between the unit and the ceiling to prevent ingress of dust and dirt.
PKA-M LAL/KAL	**Wall-mounted units**
PAC-SK01DM-E	for PKA-M35/50LAL
PAC-SH94DM-E	for PKA-M60-100KAL
	**Condensate pump** The condensate pump features a dedicated housing and is intended for installation next to the wall-mounted unit on the left-hand side, as this is where the intake manifold of the pump is located. The delivery head is 800 mm.
MAC-100FT-E	
	**Plasma Quad Connect**[1] Plasma Quad Plus filter technology as retrofit kit for wall-mounted units. Filters PM2.5, pollen, viruses, mould, bacteria and allergens from the ambient air.
PEAD-M JA/PEA-M LA	**Ceiling concealed units**
PAC-KE92TB-E	for PEAD-M35/50JA
PAC-KE93TB-E	for PEAD-M60/71JA
PAC-KE94TB-E	for PEAD-M100/125JA
PAC-KE95TB-E	for PEAD-M140JA
	**Filter boxes** The filter boxes enable the removal of the filters towards either the side or the bottom, even when a duct is connected on the suction side. The air filter included in the scope of delivery for the indoor unit is deployed in the filter box.

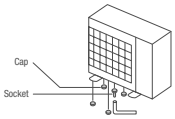
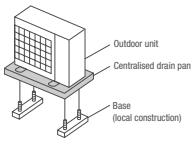
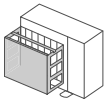
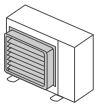
1 Available as of May 2021.

Indoor unit accessories

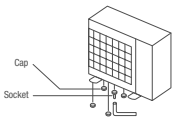
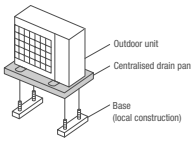
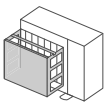
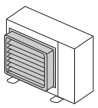
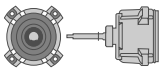
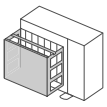
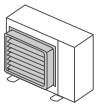
Name	Description
PEAD-M JA/PEA-M WKA	**Ceiling concealed units**
MAC-100FT-E[2]	for PEAD-M35-140JA
	**Plasma Quad Connect[1]** Plasma Quad Plus filter technology as retrofit kit for ceiling concealed units. Filters PM2.5, pollen, viruses, mould, bacteria and allergens from the ambient air.
PAC-KE250TB-F	for PEA-M
	**Filter frame** The filter frame is required in order to use the long-life filters.
PAC-KE85LAF	for PEA-M
	**Long-life filter element** The filter frame PAC-KE250TB-F is required in order to use the filter elements.
PAC-KE06DM-F1	for PEA-M
	**Condensate pump** Condensate pump for installation in the units.

1 Available as of May 2021.
2 Additional installation kit required. Please submit a request. (available as of July 2021)

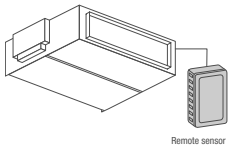
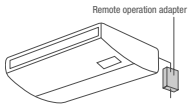
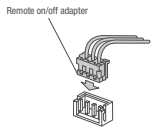
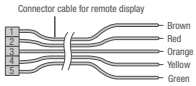
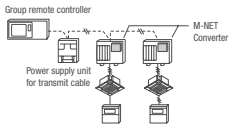
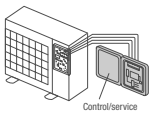
Outdoor unit accessories

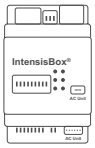
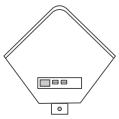
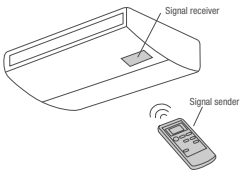
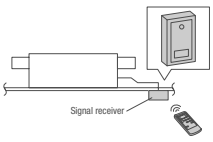
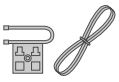
Name	Description
PUZ-M	**Standard Inverter outdoor units**
PAC-SG61DS-E	for PUZ-M100–250
	**Condensate waste plug** The condensate waste plug can be used to drain the accumulated condensate at a central location.
PAC-SH97DP-E	for PUZ-M100–250
	**Condensate tray** The accumulated condensate is captured in the tray for centralised draining. This therefore prevents any dripping onto the floor.
PAC-SH95AG-E	2x required for PUZ-M100–250
	**Wind protection panel** For cooling mode down to –15 °C.
PAC-SH96SG-E	2x required for PUZ-M100–250
	**Air deflector** The air deflector can be used to divert the escaping air flow upwards, downwards or to the side.

Outdoor unit accessories

Name	Description
PUHZ-ZRP/PUZ-ZM	**Power Inverter outdoor units**
PAC-SJ08DS-E	for PUZ-ZM35/50
PAC-SG61DS-E	for PUHZ-ZRP60-250 and PUZ-ZM60-250
	**Condensate waste plug** The condensate waste plug can be used to drain the accumulated condensate at a central location.
PAC-SG63DP-E	for PUZ-ZM35/50
PAC-SG64DP-E	for PUHZ-ZRP60/71 and PUZ-ZM60/71
PAC-SH97DP-E	for PUHZ-ZRP100-250 and PUZ-ZM100-250
	**Condensate tray** The accumulated condensate is captured in the tray for centralised draining. This therefore prevents any dripping onto the floor.
PAC-SJ06AG-E	for PUZ-ZM35/50
PAC-SH63AG-E	for PUHZ-ZRP60/71 and PUZ-ZM60/71
PAC-SH95AG-E	For PUHZ-ZRP100-250 and PUZ-ZM100-250 2x required per outdoor unit
	**Wind protection panel** For cooling mode down to –15 °C.
PAC-SJ07SG-E	for PUZ-ZM35/50
PAC-SG59SG-E	for PUHZ-ZRP60/71 and PUZ-ZM60/71
PAC-SH96SG-E	For PUHZ-ZRP100-250 and PUZ-ZM100-250 2x required per outdoor unit
	**Air deflector** The air deflector can be used to divert the escaping air flow upwards, downwards or to the side.
PAC-SJ71FM-E	2x required per outdoor unit for PUHZ-ZRP100 and PUZ-ZM100/125/140
	**Fan motor with increased compression** The reinforced fan motor enables the outdoor unit to achieve an external static pressure of 30 Pa.
PUHZ-SHW	**Zubadan Inverter outdoor units**
PAC-SH63AG-E	For PUHZ-SHW112-140 2x required per outdoor unit
	**Wind protection panel** For cooling mode down to –15 °C.
PAC-SG59SG-E	For PUHZ-SHW112-140 2x required per outdoor unit
	**Air deflector** The air deflector can be used to divert the escaping air flow upwards, downwards or to the side.

Control accessories

Name	Description
	Control accessories
PAC-SE41TS-E	
	**External temperature sensor** This set comprises a temperature sensor, 2-wire connection cable (12 m long) and fixing material.
PAC-SF40RM-E	
	**Remote monitoring adapter** Can only be operated with units featuring a cable remote controller. Enables a switching operation for remote on/off (max. distance 10 m) and for remote monitoring (fault/operation notification in the form of a potential-free contact, max. distance 100 m). Remote on/off switching operation, display of fault/operation notification and cable material implemented on site.
PAC-SE55RA-E	
	**Remote on/off adapter** The remote on/off adapter comprises a connector with cabling for establishing a remote on/off switching operation (cabling length 2 m, can be extended to max. 10 m). Switch, relay, timer and cabling implemented on site.
PAC-SA88HA-E	
	**Remote monitoring cable** For connection to Mr. Slim indoor units. Fault and operation notification issued in the form of a 12 V DC signal. This 12 V signal can be connected to a relay for further processing. The on-site relay must feature a maximum output of 0.9 W.
PAC-SJ96MA-E	For PUHZ-ZRP35/50, PUZ-ZM35/50
PAC-SJ95MA-E	For PUHZ-P100-250, PUHZ-ZRP60-140, PUZ-ZM60-140, PUHZ-ZRP200/250, PUHZ-SHW112-140
	**A/M-Net converter** For all Mr. Slim outdoor units. The A/M-Net converter enables data to be exchanged between the Mr. Slim series with A-CONTROL and the City Multi series with M-Net data bus. This makes it easy to incorporate Mr. Slim air conditioning units into City Multi systems. One converter is required per Mr. Slim outdoor unit.
PAC-SK52ST	
	**Service display** For outdoor units in the PUHZ and PUZ series. The service display is required in order to show up to 40 items of operating data, such as the operating current, hot gas temperature or compressor operating time.
ME-AC/KNX1	
	**KNX interface** This interface enables direct operation of the Mr. Slim units via the KNX protocol. It is connected to the indoor unit and its range of functions depends on the project in question.
ME-AC-MBS-1	
	**Modbus** Interface for incorporating Mr. Slim systems into a Modbus building management system. It is connected to the indoor unit and its range of functions depends on the project in question.

Name	Description
	Control accessories
ME-AC-BAC-1	
	**BACnet interface** Interface for incorporating Mr. Slim systems into a BACnet building management system. It is connected to the indoor unit and its range of functions depends on the project in question.
PAR-SL100A-E	for PLA-M EA/ZM35-140EA
	**Infrared transmitter** Infrared remote controller for operating the unit. The receiver PAR-SE9FA-E is additionally required.
PAR-SE9FA-E	for PLA-M EA/ZM35-140EA
	**Infrared receiver** The infrared receiver can be integrated into the panel. The remote controller PAR-SL100A-E is required for operation.
PAR-SL94B-E	for PCA-M35-140KA
	**Infrared remote controller (transmitter + receiver)** The infrared remote controller set comprises the infrared remote controller (transmitter), a wall bracket and the receiver element, which is integrated into the label on the bottom of the housing.
PAR-SL97A-E	
	**Infrared transmitter** Infrared remote controller for operating the unit. The receiver PAR-SA9CA-E is additionally required.
PAR-SA9CA-E	for PEAD-M35-140JA
	**Infrared receiver** External infrared receiver for exposed installation.
PAR-40MAA	
	**Deluxe cable remote controller** Deluxe cable remote controller with backlight and weekly timer function.
PAC-SH29TC-E	for PKA-M35/50LAL, PKA-M60-100KAL
	**Connector for cable remote controller** Enables a cable remote controller to be connected to the wall-mounted units. The use of a cable remote controller is a prerequisite for operating the remote monitoring adapter PAC-SF40RM-E.

Overview of accessories

	Filter					Special accessories for 4-way ceiling cassettes					General accessories
	High-performance filter	Filterbox/Filter frame	Plasma-Quad-Connect[6]	Oil mist filter (12 pcs.)	Long-Life-Filter	3D i-see Sensor	Locking panel	Outside air box incl. filter housing	Plinth panel	Filter lift panel	Condensate pump
Indoor units	PAC-SH**KF-E	PAC-KE**		PAC-SG38KF-E	PAC-KE250TB-F	PAC-SE1ME-E	PAC-SJ41TM-E	PAC-SJ41TME	PAC-SJ65AS-E	PLP-6EAJ	PAC-
4-way ceiling cassettes											
PLA-M35EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-M50EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-M60EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-M71EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-M100EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-M125EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-M140EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-ZM35EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-ZM50EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-ZM60EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-ZM71EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-ZM100EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-ZM125EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
PLA-ZM140EA	59[2]		PAC-SK51FT-E			•	•	•	•	•	
Ceiling concealed units											
PEAD-M35JA		92TB-E	MAC-100FT-E[7]								
PEAD-M50JA		92TB-E	MAC-100FT-E[7]								
PEAD-M60JA		93TB-E	MAC-100FT-E[7]								
PEAD-M71JA		93TB-E	MAC-100FT-E[7]								
PEAD-M100JA		94TB-E	MAC-100FT-E[7]								
PEAD-M125JA		94TB-E	MAC-100FT-E[7]								
PEAD-M140JA		95TB-E	MAC-100FT-E[7]								
PEA-M200LA		250TB-F	MAC-100FT-E[7]		•[8]						KE06DM-F1
PEA-M250LA		250TB-F	MAC-100FT-E[7]		•[8]						KE06DM-F1
Wall-mounted units											
PKA-M35LAL			MAC-100FT-E								SK01DM-E
PKA-M50LAL			MAC-100FT-E								SK01DM-E
PKA-M60KAL			MAC-100FT-E								SH94DM-E
PKA-M71KAL			MAC-100FT-E								SH94DM-E
PKA-M100KAL			MAC-100FT-E								SH94DM-E
Ceiling suspended units											
PCA-M35KA	88										SJ92DM-E
PCA-M50KA	88										SJ92DM-E
PCA-M60KA	89										SJ94DM-E
PCA-M71KA	89										SJ93DM-E
PCA-M100KA	90										SJ93DM-E
PCA-M125KA	90										SJ93DM-E
PCA-M140KA	90										SJ93DM-E
PCA-M71HA				•							
Ceiling suspended units											
PSA-RP71KA											
PSA-RP100KA											
PSA-RP125KA											
PSA-RP140KA											

[1] Mr. Slim indoor units in combination with SUZ or MXZ

[2] PAC-SJ41TM-E outside air box required for installation

[3] Cannot be used with the infrared remote controller

[4] PAC-SH29TC-E required

[5] Group control cannot be used

[6] PAC-SK51FT-E available as of June 2021 / MAC-100FT-E available as of May 2021

[7] Additional installation kit required. Please submit a request (available as of July 2021)

[8] Filter frame PAC-KE250TB-E is required for installation.

Options / Outdoor units	Distributor			Air deflector	Wind protection panel	Condensate accessories		M-NET interface	Service display	Fan motor with increased pressure
	Duo	Trio	Quattro			Waste plug	Condensate tray			
	MSDD-50**	MSDT111R3-E	MSDF-1111R2-E	PAC-**	PAC-**	PAC-**	PAC-**	PAC-SJ**	PAC-SK52ST	PAC-SJ71FM-E
Standard Inverter (R32)										
PUZ-M100YKA	TR2-E			SH96SG-E[1]	SH95AG-E[1]	SG61DS-E	SH97DP-E	95MA-E	•	
PUZ-M125YKA	TR2-E			SH96SG-E[1]	SH95AG-E[1]	SG61DS-E	SH97DP-E	95MA-E	•	
PUZ-M140YKA	TR2-E	•		SH96SG-E[1]	SH95AG-E[1]	SG61DS-E	SH97DP-E	95MA-E	•	
PUZ-M200YKA	WR2-E	•	•	SH96SG-E[1]	SH95AG-E[1]	SG61DS-E	SH97DP-E	95MA-E	•	
PUZ-M250YKA	WR2-E	•	•	SH96SG-E[1]	SH95AG-E[1]	SG61DS-E	SH97DP-E	95MA-E	•	
Power Inverter (R32)										
PUZ-ZM50VHA				SJ07SG-E	SJ06AG-E	SJ08DS-E	SG63DP-E	96MA-E	•	
PUZ-ZM60VHA				SG59SG-E	SH63AG-E	SG61DS-E	SG64DP-E	95MA-E	•	
PUZ-ZM100YKA	TR2-E			SH96SG-E[1]	SH95AG-E[1]	SG61DS-E	SH97DP-E	95MA-E	•	•[1]
PUZ-ZM125YKA	TR2-E			SH96SG-E[1]	SH95AG-E[1]	SG61DS-E	SH97DP-E	95MA-E	•	•[1]
PUZ-ZM140YKA	TR2-E	•		SH96SG-E[1]	SH95AG-E[1]	SG61DS-E	SH97DP-E	95MA-E	•	•[1]
PUZ-ZM200YKA	WR2-E	•	•							
PUZ-ZM250YKA	WR2-E	•	•							
Power Inverter (R410A)										
PUHZ-SHW112VHA	TR2-E			SG59SG-E[1]	SH63AG-E[1]			95MA-E	•	
PUHZ-SHW112YHA	TR2-E			SG59SG-E[1]	SH63AG-E[1]			95MA-E	•	
PUHZ-SHW140YHA	TR2-E			SG59SG-E[1]	SH63AG-E[1]			95MA-E	•	

[1] Two components are required for each outdoor unit

Control accessories							Wired remote controller				Funkfernbedienung und Infrarot-Empfänger			
M-Net interface with MXZ/SUZ	Interface for forming groups with SUZ/MXZ	MELCloud Wi-Fi adapter	External temperature sensor	Remote on/off adapter	Remote monitoring adapter	Adapter for remote monitoring (12 V signal output)	Deluxe	Compact	Touch	Connector	Set (transmitter + receiver)	Standard transmitter	Deluxe trans-mitter	Receiver
MAC-334IF-E	MAC-397IF-E	MAC-567IF-E	PAC-SE41TS-E	PAC-SE55RA-E	PAC-SF40RM-E	PAC-SA88HA-E	PAR-40MAA	PAC-YT52CRA	PAR-CT01	PAC-SH29TC-E	PAR-SL94B-E	PAR-SL97A-E	PAR-SL100A-E	PAR-**
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•	•[5]	SE9FA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•		SA9CA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•		SA9CA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•		SA9CA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•		SA9CA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•		SA9CA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•		SA9CA-E
•[1]	•[1]	•	•	•	•[3]	•	•	•	•			•		SA9CA-E
	•[1]	•	•	•	•[3]	•	•	•	•					
	•[1]	•	•	•	•[3]	•	•	•	•					
•[1]	•[1]	•	•	•		•	•[4]	•[4]	•[4]	•		•		
•[1]	•[1]	•	•	•		•	•[4]	•[4]	•[4]	•		•		
•[1]	•[1]	•	•	•		•	•[4]	•[4]	•[4]	•		•		
•[1]	•[1]	•	•	•		•	•[4]	•[4]	•[4]	•		•		
•[1]	•[1]	•	•	•		•	•[4]	•[4]	•[4]	•		•		
•[1]	•[1]	•	•	•	•[3]	•	•	•	•		•	•		
•[1]	•[1]	•	•	•	•[3]	•	•	•	•		•	•		
•[1]	•[1]	•	•	•	•[3]	•	•	•	•		•	•		
•[1]	•[1]	•	•	•	•[3]	•	•	•	•		•	•		
•[1]	•[1]	•	•	•	•[3]	•	•	•	•		•	•		
•[1]	•[1]	•	•	•	•[3]	•	•	•	•		•	•		
•[1]	•[1]	•	•	•	•[3]	•	•	•	•		•	•		
•[1]	•[1]	•	•	•	•[3]	•	•	•	•					
		•	•	•	•[3]	•								
		•	•	•	•[3]	•								
		•	•	•	•[3]	•								
		•	•	•	•[3]	•								

Framework conditions

Mr. Slim series

Measurement conditions for Mitsubishi Electric air conditioning units

Cooling	Indoors:	27 °C	(dry)
		19 °C	(damp)
	Outdoors:	35 °C	(dry)
		24 °C	(damp)
Heating	Indoors:	20 °C	(dry)
	Outdoors:	7 °C	(dry)
		6 °C	(damp)

Refrigerant pipe length (one way) 5 m, ΔH = 0 m. Sound pressure level measured in free field, outdoor unit measuring point 1 m away from and 1.5 m above the unit. Indoor unit conditions depend on the unit type; see technical data.

Type key

P P = P-series, S = S-series
U U = Outdoor unit
K = wall-mounted unit
C = ceiling suspended unit
L = ceiling cassette
E = ceiling concealed unit
S = floor-mounted unit
(H) Heat pump R410A
Z Inverter
RP RP = Power Inverter R410A
ZM = Power Inverter R32
M = Standard Inverter R32
71 Performance code in kilowatts (7.1 kW)
V V = 50 Hz, 230 V, 1 phase
Y = 50 Hz, 400 V, 3 phases
K Generation
A A-CONTROL


ANPROBE
Outdoor kids
Swim kids

City Multi VRF

Contents

Benefits and properties

Next-generation VRF systems
The new series of VRF systems boasts improved basic functions, a state-of-the-art compressor and an optimised fan – in short, all the features you need to save energy!

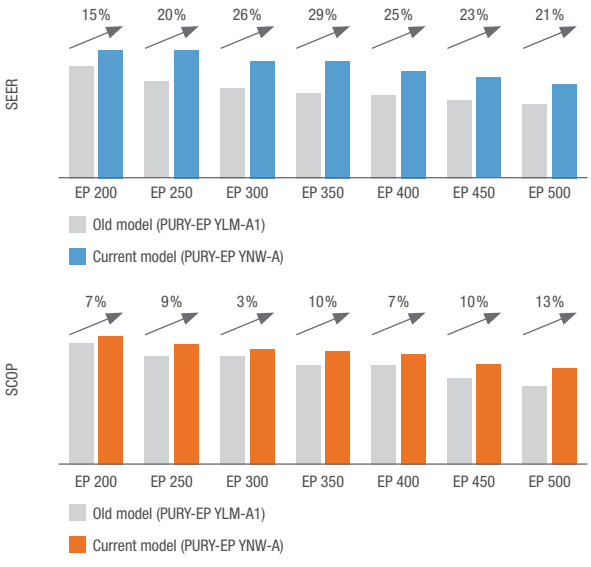
City Multi unit
The structural design works with a four-way air intake system and improved core components (e.g. compressor and fan). This significantly improves the energy-saving performance.

Design
With its elegant design, the unit fits in with any architectural style and blends discreetly into its surroundings.

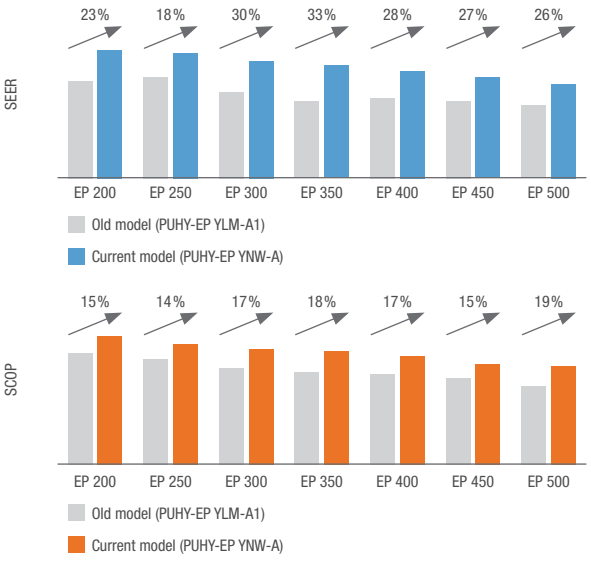
High energy savings
Many of the core components have been redesigned to increase energy-saving performance and meet customer requirements. The results are impressive: not only is it more energy efficient than a conventional (YLM) model, it also achieves top-class energy saving performance. The SEER value (seasonal energy efficiency) of the YNW series has been improved by up to 33 % (Y: EP350; compared to conventional models), while the SCOP has increased by almost 19 %. (Y: EP500). And this means year-round energy savings – both in heating and cooling mode.

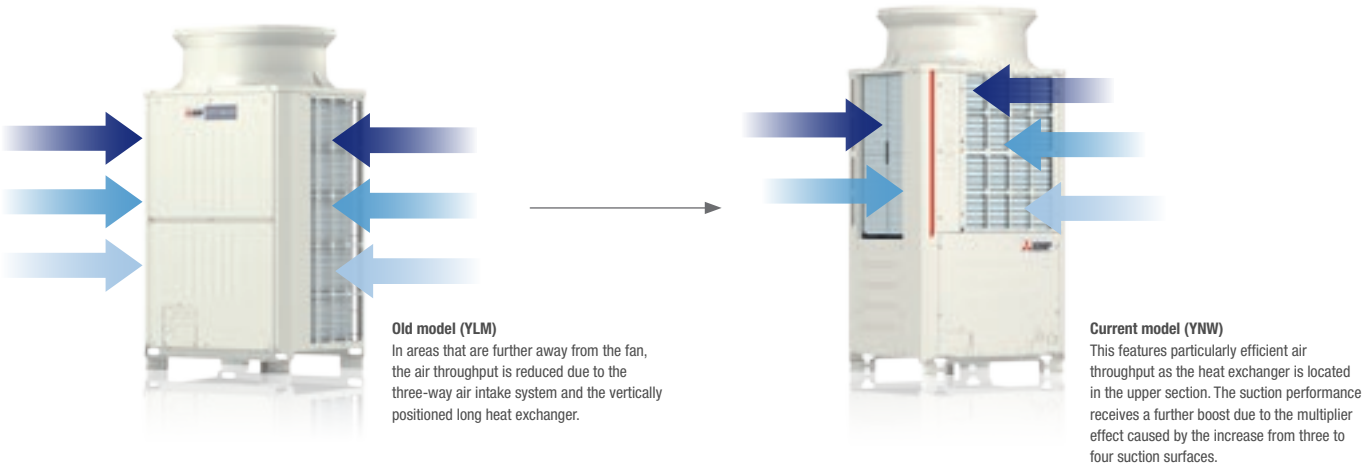
Variable low-noise mode
Low-noise mode is a standard function that previously had only a single setting, but now has four setting options. Including the rated fan speed, this means that five settings can now be selected on the outdoor unit via the DIP switches. Low-noise mode offers four fan speeds: 85 %, 70 %, 60 % and 50 % of the rated speed. When low-noise operation is required, the appropriate level can be selected according to customer requirements.

R2-series



Y-series





Old model (YLM)
In areas that are further away from the fan, the air throughput is reduced due to the three-way air intake system and the vertically positioned long heat exchanger.

Current model (YNW)
This features particularly efficient air throughput as the heat exchanger is located in the upper section. The suction performance receives a further boost due to the multiplier effect caused by the increase from three to four suction surfaces.

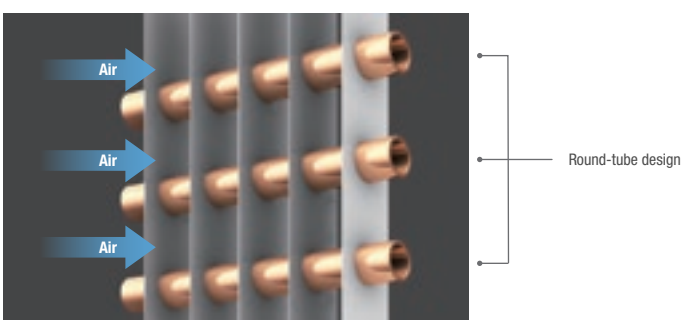
Four-way air intake system

In conventional models, a U-shaped heat exchanger is mounted along the side surface. In the new model, the four-way heat exchanger is located in the upper part of the module, near the fan. This enables the air to be sucked in at a high intake rate, increasing the efficiency of the heat exchanger.

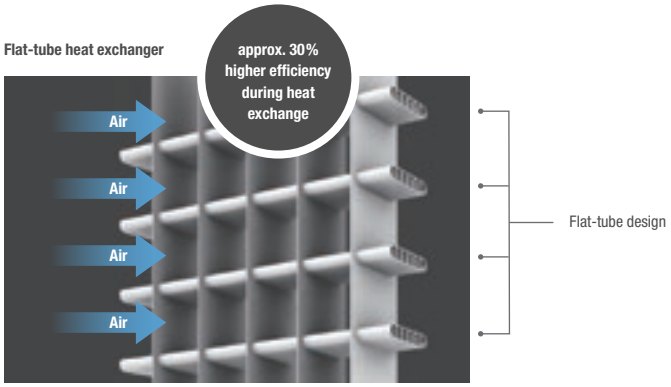
Efficient flat-tube heat exchanger

In addition to conventional round-tube heat exchangers, flat-tube models are now also available. The benefit of using flat tubes is that the number of tube stages can be increased without changing the dimensions of the heat exchanger. Inside the tube are thin-walled chambers, which serve to increase the contact surface between refrigerant and air. This raises the efficiency of the heat exchange process and significantly improves energy-saving performance. Compared to the round-tube model, the flat-tube heat exchanger increases the heat exchange efficiency by approx. 30 %.

Round-tube heat exchanger



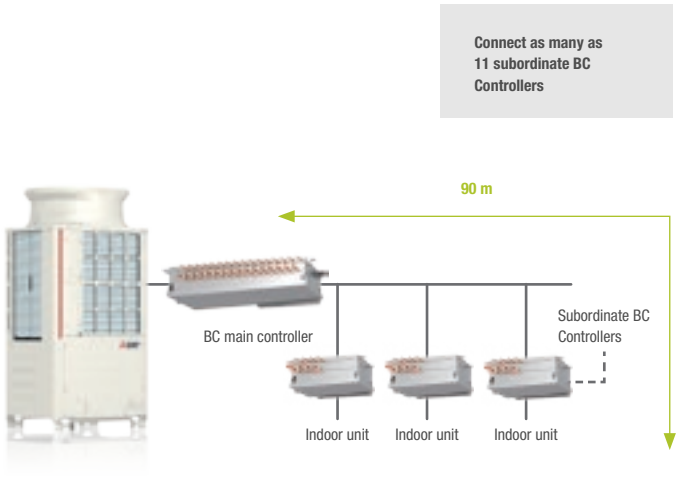
Flat-tube heat exchanger

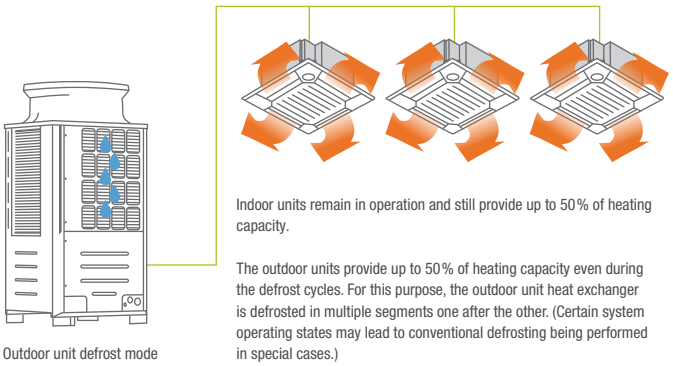


Benefits and properties

BC Controller
Up to 11 subordinate BC Controllers can be connected to the BC main controller. This ensures greater flexibility in terms of system design. In addition, the pipe branch method also makes it possible to implement systems with low refrigerant consumption.

High flexibility
The 90 m pipe length from the BC main controller to the indoor units enables high flexibility in terms of the pipe layout.





Outdoor unit defrost mode

Indoor units remain in operation and still provide up to 50% of heating capacity.

The outdoor units provide up to 50% of heating capacity even during the defrost cycles. For this purpose, the outdoor unit heat exchanger is defrosted in multiple segments one after the other. (Certain system operating states may lead to conventional defrosting being performed in special cases.)

For dimension graphics open PDF excerpt.
leslink.info/dimensions

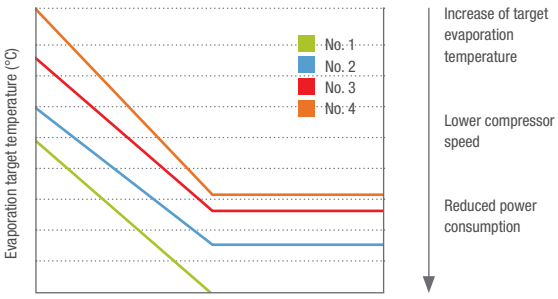
Automatic evaporation temperature adjustment

The evaporation temperature in standard operation has previously been kept constant regardless of the utilisation of the air conditioning system. However, this leads to significant energy losses in periods of low utilisation. In order to counteract this, the new units feature a selection function for the evaporation target temperature[1] depending on the utilisation of the air conditioning system. The compressor speed is reduced in accordance with the room conditions, thereby regulating the evaporation temperature. This restricts excess power consumption and enables energy savings[2].

Convenient defrosting pre-heat function

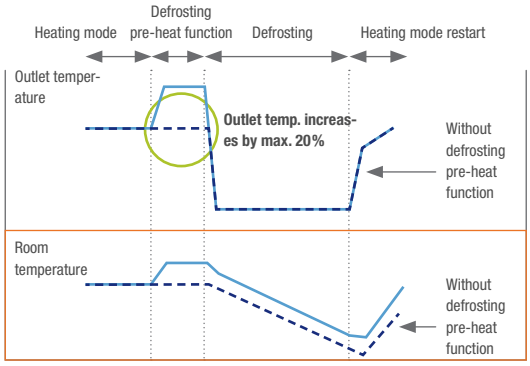
The outdoor unit features a defrosting pre-heat function, which raises the air outlet temperature prior to the start of defrosting. The benefit of this is that the room temperature rises prior to the defrosting process, preventing an unpleasant chilly sensation for the occupants.

Energy-efficient evaporation control



Largest ΔT (temperature difference) between actual and target suction air temperature of indoor unit (°C).

Defrosting pre-heat function ON/OFF



1 Depending on heat load.

Practical USB port

While data could previously only be read using the maintenance tool, the new model enables quick and easy access to the data via USB[3]. Thanks to this innovation, it is no longer necessary to permanently transport the PC on which the maintenance tool is installed. Additional benefits include shortened deployment times and greater user-friendliness. Not only can the software can be overwritten via USB, operating data for up to four days can be saved. If a fault occurs, the data is stored in the USB memory[4] for five minutes.

Individual LED control

If one of the indoor units is taken out of operation for repair or maintenance, the LEV control system of the respective indoor unit can be closed. Operation of the other indoor units can continue.

Standard T-piece

Conventional T-pieces can be used instead of Y distributor pieces for the purpose of pipe distribution to the indoor units. This reduces the space requirement for pipe assembly and cuts the installation costs.

1 The evaporation temperature must be configured via the DIP switches on the outdoor unit.
2 If the temperature difference between the intake air of the indoor unit and the configured temperature setpoint exceeds 1 °C, the air conditioning system switches back to standard operation.
3 In the context of OC-IC maximum configuration.
4 USB storage devices that meet the USB 2.0 specification may be used.

What's new

New R32 air conditioning systems in the City Multi VRF series

The new R32 outdoor units are available in sizes 200, 250 and 300, with an output range of 22.4 kW to 33.5 kW for cooling and 25.0 kW to 37.5 kW for heating. The Y-series (PUHY) and R2-series (PURY) units are available with a choice of either R410A or R32 as refrigerant. As with the R410A outdoor units, the products are marketed as Standard (-M) or High Efficiency (-EM) models. PLFY-M VEM 4-way ceiling cassettes and PEFY-M VMA ceiling concealed units are available as indoor units for connection to the R32 City Multi outdoor units. The City Multi R32 systems are ideal for applications in large rooms, with few or no safety measures required in most cases.

VRF systems with R32
Available in sizes 200, 250 and 300.

Practical tool for refrigerant risk management

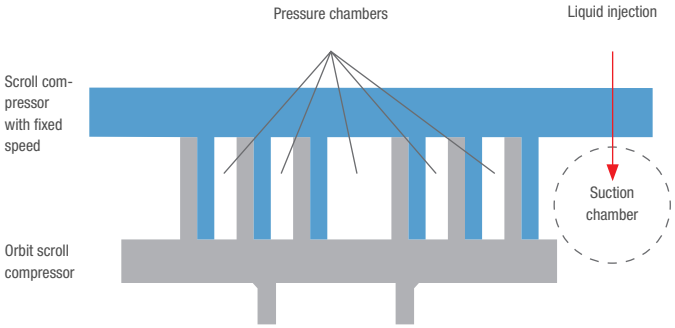
In order to make it even easier to design air conditioning systems with A2L refrigerant, a free and practical risk management tool is now available from Mitsubishi Electric with immediate effect. In just a few steps, this tool can calculate the maximum permissible refrigerant charge quantity and determine potential safety precautions for the respective system in line with generally applicable standards. Additional information and a direct link to the tool can be found on **page 274**.

Development of a compressor for using R32 refrigerant:

In order to prevent increased outlet temperatures, Mitsubishi Electric has developed a compressor featuring a suction chamber injection mechanism. This solves the problem of R32 having a higher outlet temperature than R410A.

The injection mechanism

This mechanism prevents an increase in the outlet gas temperature, thereby enabling operation within a broad temperature range.



Outdoor units

Overview

Cooling or heating

Performance code	P 112	P 125	P 140	P 200	P 250	P 300	P 350	P 400	P 450	P 500	P 550	P 600	P 650	P 700
Cooling capacity (kW)	12,5	14,0	15,5	22,4	28,0	33,5	40,0	45,0	50,0	56,0	63,0	69,0	73,0	80,0
Heating capacity (kW)	14,0	16,0	18,0	25,0	31,5	37,5	45,0	50,0	56,0	63,0	69,0	76,5	81,5	88,0

S S module, width 920 mm
L L module, width 1280 mm
XL XL module, width 1750 mm
Page reference

Compact PUMY-P
116

Compact PUMY-SP
117

Y-series
Excellent seasonal efficiency
PUHY-EP
118–120

Y-series R32
Excellent seasonal efficiency
PUHY-EM
124

Y-series
PUHY-P
121–123

Y-series R32
PUHY-M
124

WY-series PQHY-P
133–135

Cooling and heating

Performance code	P 200	P 250	P 300	P 350	P 400	P 450	P 500	P 550	P 600	P 650	P 700
Cooling capacity (kW)	22,4	28,0	33,5	40,0	45,0	50,0	56,0	63,0	69,0	73,0	80,0
Heating capacity (kW)	25,0	31,5	37,5	45,0	50,0	56,0	63,0	69,0	76,5	81,5	88,0

R2-series
Excellent seasonal efficiency
PURY-EP
126–128

R2-series R32
Excellent seasonal efficiency
PURY-EM
132

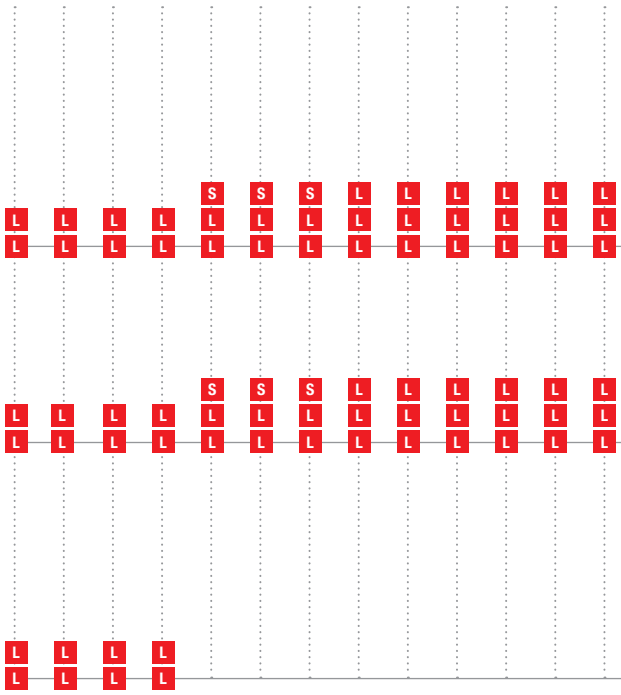
R2-series
PURY-P
129–131

R2-series R32
PURY-M
132

WR2-series
PQRY-P
136–137

Cooling or heating

P 750	P 800	P 850	P 900	P 950	P 1000	P 1050	P 1100	P 1150	P 1200	P 1250	P 1300	P1350	
85,0	90,0	96,0	101,0	108,0	113,0	118,0	124,0	130,0	136,0	140,0	146,0	150,0	Cooling capacity (kW)
95,0	100,0	108,0	113,0	119,5	127,0	132,0	140,0	145,0	150,0	156,5	163,0	168,0	Heating capacity (kW)



Y-series
Excellent seasonal efficiency
PUHY-EP

118–120

Y-series
PUHY-P

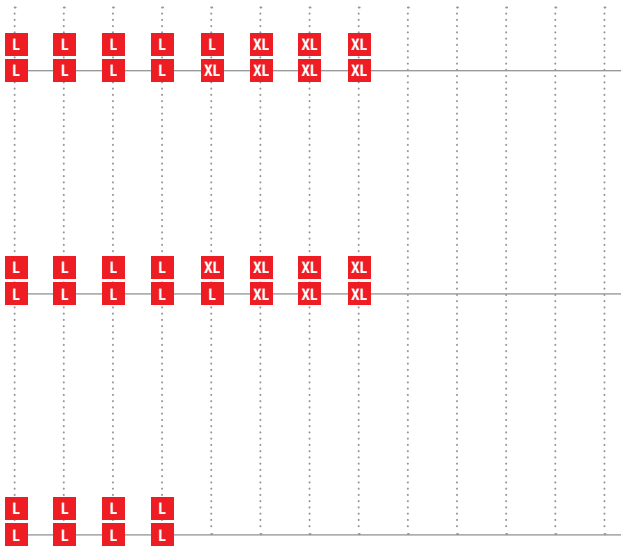
121–123

WY-series
PQHY-P

134–135

Cooling and heating

P 750	P 800	P 850	P 900	P 950	P 1000	P 1050	P 1100	P 1150	P 1200	P 1250	P 1300	P1350	
85,0	90,0	96,0	101,0	108,0	113,0	118,0	124,0	130,0	136,0	140,0	146,0	150,0	Cooling capacity (kW)
95,0	100,0	108,0	113,0	119,5	127,0	132,0	140,0	145,0	150,0	156,5	163,0	168,0	Heating capacity (kW)



R2-series
Excellent seasonal efficiency
PURY-EP

126–128

R2-series
PURY-P

129–131

WR2-series
PQRY-P

136–137

PUMY-P112–200VKM / YKM

City Multi VRF

Y series / cooling or heating

PUMY Outdoor units in compact design, cooling or heating

Device designation		PUMY-P112VKM	PUMY-P112YKM	PUMY-P125VKM	PUMY-P125YKM	PUMY-P140VKM	PUMY-P140YKM	PUMY-P200YKM
Cooling	Cooling capacity (kW)	12.5	12.5	14.0	14.0	15.5	15.5	22.4
	Power consumption (kW)	2.79	2.79	3.46	3.46	4.52	4.52	6.05
	EER / SEER	4.48 / 6.55	4.48 / 6.55	4.05 / 6.6	4.05 / 6.6	3.43 / 6.25	3.43 / 6.25	3.7 / 5.45
	Application range (°C)	–5~+46	–5~+46	–5~+46	–5~+46	–5~+46	–5~+46	–5~+46
Heating	Heating capacity (kW)	14.0	14.0	16.0	16.0	18.0	18.0	25.0
	Power consumption (kW)	3.04	3.04	3.74	3.74	4.47	4.47	5.84
	COP / SCOP	4.61 / 4.64	4.61 / 4.64	4.28 / 4.63	4.28 / 4.63	4.03 / 4.42	4.03 / 4.42	4.28 / 4.21
	Application range (°C)	–20~+15	–20~+15	–20~+15	–20~+15	–20~+15	–20~+15	–20~+15

Device designation		PUMY-P112VKM	PUMY-P112YKM	PUMY-P125VKM	PUMY-P125YKM	PUMY-P140VKM	PUMY-P140YKM	PUMY-P200YKM
Airflow (m³ / h)		6600	6600	6600	6600	6600	6600	8340
Sound pressure level cooling / heating (dB(A))*		49 / 51	49 / 51	50 / 52	50 / 52	51 / 53	51 / 53	56 / 61
Dimensions (mm)	W / D / H	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338	1.050 / 330+30 / 1.338
Weight (kg)		123	125	123	125	123	125	138
Refrigeration data								
Total pipe length (m)		300	300	300	300	300	300	150
Max. height difference (m)**		50 (30)	50 (30)	50 (30)	50 (30)	50 (30)	50 (30)	50 (40)
Max. distance length (m)		150	150	150	150	150	150	80
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg) GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 4.80 / 18.60 2088 / 10.02 / 38.83	R410A / 7.3 / 20.4 2088 / 15.24 / 42.50
Refrigerant pipe size Ø (mm)	fl.	10	10	10	10	10	10	10
	s.	16	16	16	16	16	16	18
Electrical data								
Voltage supply (V, phase, Hz)		220–240, 1, 50	380–415, 3+N, 50	220–240, 1, 50	380–415, 3+N, 50	220–240, 1, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		12.87 / 14.03	5.28 / 5.81	15.97 / 17.26	6.83 / 6.87	20.86 / 20.63	8.51 / 8.51	9.88 / 9.54
Max. power indoor units (kW)		16.2 (130 %)	16.2 (130 %)	18.2 (130 %)	18.2 (130 %)	20.2 (130 %)	20.2 (130 %)	29.12 (130 %)
Recommended breaker size (A)		32	16	32	16	32	16	25
Connectable indoor units (number / type)		1–9 / 10–125	1–9 / 10–125	1–10 / 10–140	1–10 / 10–140	1–12 / 10–140	1–12 / 10–140	1–12 / 10–250

* Sound pressure level measured at a distance of 1 m and at a height of 1.5 m in front of the unit

** 50 m for roof installation, 30/40 m for floor installation

Compressor with Frame Compliance Mechanism (FCM)

The highly efficient scroll compressor with the "Frame Compliance Mechanism" has minimum compression and friction losses. This guarantees a high efficiency over the entire speed range.
This technology received the JSRAE award.

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PUMY-SP112–140VKM / YKM

City Multi VRF

Y series / cooling or heating

PUMY Outdoor units in compact design, cooling or heating

Device designation		PUMY-SP112VKM	PUMY-SP112YKM	PUMY-SP125VKM	PUMY-SP125YKM	PUMY-SP140VKM	PUMY-SP140YKM
Cooling	Cooling capacity (kW)	12.5	12.5	14.0	14.0	15.5	15.5
	Power consumption (kW)	3.10	3.10	3.84	3.84	4.70	4.70
	EER / SEER	4.03 / 6.61	4.03 / 6.61	3.65 / 6.6	3.65 / 6.6	3.30 / 6.38	3.30 / 6.38
	Application range (°C)	–5~+46	–5~+46	–5~+46	–5~+46	–5~+46	–5~+46
Heating	Heating capacity (kW)	14.0	14.0	16.0	16.0	16.5	16.5
	Power consumption (kW)	3.17	3.17	3.90	3.90	4.02	4.02
	COP / SCOP	4.42 / 3.98	4.42 / 3.98	4.1 / 3.93	4.1 / 3.93	4.1 / 3.9	4.1 / 3.9
	Application range (°C)	–20~+15	–20~+15	–20~+15	–20~+15	–20~+15	–20~+15

Device designation		PUMY-SP112VKM	PUMY-SP112YKM	PUMY-SP125VKM	PUMY-SP125YKM	PUMY-SP140VKM	PUMY-SP140YKM
Airflow (m^3 / h)		4620	4620	4860	4820	4860	4820
Sound pressure level cooling / heating (dB(A))*		52 / 54	52 / 54	53 / 56	53 / 56	54 / 56	54 / 56
Dimensions (mm)	W / D / H	1.050 / 330+40 / 981	1.050 / 330+40 / 981	1.050 / 330+40 / 981	1.050 / 330+40 / 981	1.050 / 330+40 / 981	1.050 / 330+40 / 981
Weight (kg)		93	94	93	94	93	94
Refrigeration data							
Total pipe length (m)		120	120	120	120	120	120
Max. height difference (m)**		50 (30)	50 (30)	50 (30)	50 (30)	50 (30)	50 (30)
Max. distance length (m)		70	70	70	70	70	70
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 3.5 / 12.5	R410A / 3.5 / 12.5	R410A / 3.5 / 12.5	R410A / 3.5 / 12.5	R410A / 3.5 / 12.5	R410A / 3.5 / 12.5
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 7.31 / 26.1	2088 / 7.31 / 26.1	2088 / 7.31 / 26.1	2088 / 7.31 / 26.1	2088 / 7.31 / 26.1	2088 / 7.31 / 26.1
Refrigerant pipe size Ø (mm)	fl.	10	10	10	10	10	10
	s.	16	16	16	16	16	16
Electrical data							
Voltage supply (V, phase, Hz)		220–240, 1, 50	380–415, 3+N, 50	220–240, 1, 50	380–415, 3+N, 50	220–240, 1, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		12.87 / 14.03	5.28 / 5.81	15.97 / 17.26	6.83 / 6.87	20.86 / 20.63	8.51 / 8.51
Max. power indoor units (kW)		16.2 (130 %)	16.2 (130 %)	18.2 (130 %)	18.2 (130 %)	20.2 (130 %)	20.2 (130 %)
Recommended breaker size (A)		32	16	32	16	32	16
Connectable indoor units (number / type)		1–9 / 10–125	1–9 / 10–125	1–10 / 10–140	1–10 / 10–140	1–12 / 10–140	1–12 / 10–140

* Sound pressure level measured at a distance of 1 m and at a height of 1.5 m in front of the unit

** 50 m for roof installation, 30 m for floor installation

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For further information please see the corresponding operation manual.

PUHY-EP200–300YNW-A1 PUHY-EP350–450YNW-A1 PUHY-EP500YNW-A1

City Multi VRF

Seasonal efficiency / Y series / cooling or heating

Seasonal efficiency of outdoor units EP 200 to 350, cooling and heating

Device designation		PUHY-EP200YNW-A1	PUHY-EP250YNW-A1	PUHY-EP300YNW-A1	PUHY-EP350YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5	40.0
	Power consumption (kW)	4.47	6.55	7.73	9.97
	EER / SEER	5.01 / 7.76	4.27 / 7.51	4.33 / 7.26	4.01 / 7.03
Heating	Heating capacity (kW)	25.0	31.5	37.5	45.0
	Power consumption (kW)	4.97	7.00	8.06	9.91
	COP / SCOP	5.03 / 4.45	4.50 / 4.31	4.65 / 4.22	4.54 / 4.40

Device designation		PUHY-EP200YNW-A1	PUHY-EP250YNW-A1	PUHY-EP300YNW-A1	PUHY-EP350YNW-A1
Airflow (m³ / h)		10200	11100	14400	16200
Sound pressure level (dB(A))*		58	60	61	62
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858	1.240 / 740 / 1.858
Weight (kg)		228	228	231	282
Refrigeration data					
Total pipe length (m)***		1000	1000	1000	1000
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 6.5 / 22.4	R410A / 6.5 / 29.4	R410A / 6.5 / 29.9	R410A / 9.8 / 34.2
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 13.57 / 46.77	2088 / 13.57 / 61.39	2088 / 13.57 / 62.43	2088 / 20.46 / 71.41
Refrigerant pipe size Ø (mm)	fl.	10	10	10	12
	s.	22	22	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		7.5 / 8.3	11.0 / 11.8	13.0 / 13.6	16.8 / 16.7
Max. power indoor units (kW)****		29.12 (130 %)	36.4 (130 %)	43.55 (130 %)	52.0 (130 %)
Recommended breaker size (A)		25	32	32	40
Connectable indoor units (number / type)		1–20 / 10–250	1–25 / 10–250	1–30 / 10–250	1–35 / 10–250

Seasonal efficiency of outdoor units EP 400 to 500, cooling and heating

Device designation		PUHY-EP400YNW-A1	PUHY-EP450YNW-A1	PUHY-EP500YNW-A1
Cooling	Cooling capacity (kW)	45.0	50.0	56.0
	Power consumption (kW)	12.39	13.85	16.56
	EER / SEER	3.63 / 7.02	3.61 / 7.07	3.38 / 6.55
Heating	Heating capacity (kW)	50.0	56.0	63.0
	Power consumption (kW)	11.90	13.65	15.94
	COP / SCOP	4.20 / 4.28	4.10 / 4.17	3.95 / 4.02

Device designation		PUHY-EP400YNW-A1	PUHY-EP450YNW-A1	PUHY-EP500YNW-A1
Airflow (m³ / h)		16200	18300	21900
Sound pressure level (dB(A))*		65.0	65.5	63.5
Dimensions (mm)**	W / D / H	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.750 / 740 / 1.858
Weight (kg)		303	303	342
Refrigeration data				
Total pipe length (m)***		1000	1000	1000
Max. height difference (m)		50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 10.8 / 36.0	R410A / 10.8 / 43.9	R410A / 10.8 / 44.8
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 22.55 / 75.17	2088 / 22.55 / 91.66	2088 / 22.55 / 93.54
Refrigerant pipe size Ø (mm)	fl.	12	16	16
	s.	28	28	28
Electrical data				
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		20.9 / 20.0	23.3 / 23.0	27.9 / 26.9
Max. power indoor units (kW)****		58.5 (130 %)	65.0 (130 %)	72.8 (130 %)
Recommended breaker size (A)		63	63	63
Connectable indoor units (number / type)		1–40 / 10–250	1–45 / 10–250	1–50 / 10–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

**** Indoor unit capacity of 160 % is also optionally available

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PUHY-EP550 / 600YSNW-A1 | PUHY-EP650YSNW-A1 | PUHY-EP700 – 900YSNW-A1 | PUHY-EP950YSNW-A1

City Multi VRF

Seasonal efficiency / Y series / cooling or heating

Seasonal efficiency of outdoor units EP 550 to 750, cooling and heating

Device designation		PUHY-EP550YSNW-A1	PUHY-EP600YSNW-A1	PUHY-EP650YSNW-A1	PUHY-EP700YSNW-A1	PUHY-EP750YSNW-A1
Cooling	Cooling capacity (kW)	63.0	69.0	73.0	80.0	85.0
	Power consumption (kW)	15.10	16.42	19.46	20.61	23.03
	EER / SEER	4.17 / 7.38	4.20 / 7.24	3.75 / 7.06	3.88 / 6.92	3.69 / 6.91
Heating	Heating capacity (kW)	69.0	76.5	81.5	88.0	95.0
	Power consumption (kW)	15.54	16.96	19.49	20.00	22.88
	COP / SCOP	4.44 / 4.14	4.51 / 4.10	4.18 / 4.16	4.40 / 4.26	4.22 / 4.20

Device designation		PUHY-EP550YSNW-A1	PUHY-EP600YSNW-A1	PUHY-EP650YSNW-A1	PUHY-EP700YSNW-A1	PUHY-EP750YSNW-A1
Single modules		EP250 + EP300	2 x EP300	EP250 + EP400	2 x EP350	EP350 + EP400
Required set of distributors		CMY-Y100VBK3	CMY-Y100VBK3	CMY-Y100VBK3	CMY-Y200VBK2	CMY-Y200VBK2
Airflow (m³ / h)		25500	28800	27300	32400	32400
Sound pressure level (dB(A))*		63.5	64	66.5	65.0	67.0
Dimensions (mm)**	W / D / H	1.840 / 740 / 1.858	1.840 / 740 / 1.858	2.160 / 740 / 1.858	2.480 / 740 / 1.858	2.480 / 740 / 1.858
Weight (kg)		459	462	531	564	585
Refrigeration data						
Total pipe length (m)***		1000	1000	1000	1000	1000
Max. height difference (m)		50	50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 13.0 / 47.7	R410A / 13.0 / 47.7	R410A / 17.3 / 53.3	R410A / 19.6 / 65.3	R410A / 20.6 / 66.6
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 27.14 / 99.60	2088 / 27.14 / 99.60	2088 / 36.12 / 111.29	2088 / 40.92 / 136.35	2088 / 43.01 / 139.06
Refrigerant pipe size Ø (mm)	fl.	16	16	16	18	18
	s.	28	28	28	35	35
Electrical data						
Voltage supply (V, phase, Hz)		380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling / heating (A)		25.4 / 26.2	27.7 / 28.6	32.8 / 32.9	34.7 / 33.7	38.8 / 38.0
Max. power indoor units (kW)****		81.9 (130 %)	89.7 (130 %)	94.9 (130 %)	104.0 (130 %)	110.5 (130 %)
Connectable indoor units (number / type)		2 – 50 / 10 – 250	2 – 50 / 10 – 250	2 – 50 / 10 – 250	2 – 50 / 10 – 250	2 – 50 / 10 – 250

Seasonal efficiency of outdoor units EP 800 to 950, cooling or heating

Device designation		PUHY-EP800YSNW-A1	PUHY-EP850YSNW-A1	PUHY-EP900YSNW-A1	PUHY-EP950YSNW-A1
Cooling	Cooling capacity (kW)	90.0	96.0	101.0	108.0
	Power consumption (kW)	24.52	27.35	28.85	27.34
	EER / SEER	3.67 / 6.94	3.51 / 6.97	3.50 / 6.99	3.95 / 7.09
Heating	Heating capacity (kW)	100.0	108.0	113.0	119.5
	Power consumption (kW)	24.03	26.86	28.46	27.22
	COP / SCOP	4.16 / 4.21	4.02 / 4.16	3.97 / 4.15	4.39 / 4.24

Device designation		PUHY-EP800YSNW-A1	PUHY-EP850YSNW-A1	PUHY-EP900YSNW-A1	PUHY-EP950YSNW-A1
Single modules		EP350 + EP450	EP400 + EP450	2 x EP450	EP250 + 2 x EP350
Required set of distributors		CMY-Y200VBK2	CMY-Y200VBK2	CMY-Y200VBK2	CMY-Y300VBK3
Airflow (m³ / h)		34500	34500	36600	43500
Sound pressure level (dB(A))*		67.5	68.5	68.5	66.0
Dimensions (mm)**	W / D / H	2.480 / 740 / 1.858	2.480 / 740 / 1.858	2.480 / 740 / 1.858	3.400 / 740 / 1.858
Weight (kg)		585	606	606	792
Refrigeration data					
Total pipe length (m)***		1000	1000	1000	1000
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 20.6 / 66.6	R410A / 21.6 / 69.8	R410A / 21.6 / 69.8	R410A / 23.8 / 70.9
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 43.01 / 139.06	2088 / 45.10 / 145.74	2088 / 45.10 / 145.74	2088 / 49.69 / 148.04
Refrigerant pipe size Ø (mm)	fl.	18	18	18	18
	s.	35	42	42	42
Electrical data					
Voltage supply (V, phase, Hz)		380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling / heating (A)		41.3 / 40.5	46.1 / 45.3	48.7 / 48.0	46.1 / 45.9
Max. power indoor units (kW)		117.0 (130 %)	124.8 (130 %)	131.3 (130 %)	131.3 (130 %)
Connectable indoor units (number / type)		2 – 50 / 10 – 250	2 – 50 / 10 – 250	2 – 50 / 10 – 250	2 – 50 / 10 – 250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

**** Indoor unit capacity of 160 % is also optionally available

For the recommended fuse size, please refer to the stated single modules

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PUHY-EP1000/1050YSNW-A1

PUHY-EP1100–1350YSNW-A1

City Multi VRF

Seasonal efficiency / Y series / cooling or heating

Seasonal efficiency of outdoor units EP 1000 to 1150, cooling and heating

Device designation		PUHY-EP1000YSNW-A1	PUHY-EP1050YSNW-A1	PUHY-EP1100YSNW-A1	PUHY-EP1150YSNW-A1
Cooling	Cooling capacity (kW)	113.0	118.0	124.0	130.0
	Power consumption (kW)	29.73	32.24	33.06	35.81
	EER / SEER	3.80 / 7.06	3.66 / 7.04	3.75 / 6.89	3.63 / 6.87
Heating	Heating capacity (kW)	127.0	132.0	140.0	145.0
	Power consumption (kW)	29.81	31.88	32.71	34.77
	COP / SCOP	4.26 / 4.20	4.14 / 4.15	4.28 / 4.22	4.17 / 4.19

Device designation		PUHY-EP1000YSNW-A1	PUHY-EP1050YSNW-A1	PUHY-EP1100YSNW-A1	PUHY-EP1150YSNW-A1
Single modules		EP250 + EP350 + EP400	EP250 + 2 x EP400	2 x EP350 + EP400	EP350 + 2 x EP400
Required set of distributors		CMY-Y300VBK3	CMY-Y300VBK3	CMY-Y300VBK3	CMY-Y300VBK3
Airflow (m³ / h)		43500	43500	48600	48600
Sound pressure level (dB(A))*		68.0	68.5	68.5	69.0
Dimensions (mm)**	W / D / H	3.400 / 740 / 1.858	3.400 / 740 / 1.858	3.720 / 740 / 1.858	3.720 / 740 / 1.858
Weight (kg)		813	888	867	888
Refrigeration data					
Total pipe length (m)***		1000	1000	1000	1000
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 27.1 / 74.3	R410A / 28.1 / 75.6	R410A / 30.4 / 77.7	R410A / 31.4 / 79.1
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 56.58 / 155.14	2088 / 58.67 / 157.85	2088 / 63.48 / 162.24	2088 / 65.56 / 165.16
Refrigerant pipe size Ø (mm)	fl.	18	18	18	18
	s.	42	42	42	42
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		50.1 / 50.3	54.4 / 53.8	55.8 / 55.2	60.4 / 58.6
Max. power indoor units (kW)		146.9 (130 %)	153.4 (130 %)	161.2 (130 %)	169.0 (130 %)
Connectable indoor units (number / type)		2–50 / 10–250	3–50 / 10–250	3–50 / 10–250	3–50 / 10–250

Seasonal efficiency of outdoor units EP 1200 to 1350, cooling or heating

Device designation		PUHY-EP1200YSNW-A1	PUHY-EP1250YSNW-A1	PUHY-EP1300YSNW-A1	PUHY-EP1350YSNW-A1
Cooling	Cooling capacity (kW)	136.0	140.0	146.0	150.0
	Power consumption (kW)	38.63	39.88	41.71	42.85
	EER / SEER	3.52 / 6.87	3.51 / 6.88	3.50 / 6.90	3.50 / 6.91
Heating	Heating capacity (kW)	150.0	156.5	163.0	168.0
	Power consumption (kW)	36.85	38.83	40.75	42.31
	COP / SCOP	4.07 / 4.15	4.03 / 4.16	4.00 / 4.16	3.97 / 4.15

Device designation		PUHY-EP1200YSNW-A1	PUHY-EP1250YSNW-A1	PUHY-EP1300YSNW-A1	PUHY-EP1350YSNW-A1
Single modules		3 x EP400	2 x EP400 + EP450	EP400 + 2 x EP450	3 x EP450
Required set of distributors		CMY-Y300VBK3	CMY-Y300VBK3	CMY-Y300VBK3	CMY-Y300VBK3
Airflow (m³ / h)		48600	50700	52800	54900
Sound pressure level (dB(A))*		70.0	70.0	70.0	70.5
Dimensions (mm)**	W / D / H	3.720 / 740 / 1.858	3.720 / 740 / 1.858	3.720 / 740 / 1.858	3.720 / 740 / 1.858
Weight (kg)		909	909	909	909
Refrigeration data					
Total pipe length (m)***		1000	1000	1000	1000
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 32.4 / 80.4	R410A / 32.4 / 82.2	R410A / 32.4 / 82.2	R410A / 32.4 / 82.2
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 67.65 / 167.88	2088 / 67.65 / 171.63	2088 / 67.65 / 171.63	2088 / 67.65 / 171.63
Refrigerant pipe size Ø (mm)	fl.	18	18	18	18
	s.	42	42	42	42
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		65.2 / 62.2	67.3 / 65.5	70.4 / 68.7	72.3 / 71.4
Max. power indoor units (kW)		176.8 (130 %)	182.0 (130 %)	189.8 (130 %)	195.0 (130 %)
Connectable indoor units (number / type)		3–50 / 10–250	3–50 / 10–250	3–50 / 10–250	3–50 / 10–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

For the recommended fuse size, please refer to the stated single modules

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PUHY-P200–300YNW-A1 PUHY-P350–450YNW-A1 PUHY-P500YNW-A1

City Multi VRF

Y series / cooling or heating

Y-series outdoor units P200 to 300, cooling or heating

Outdoor units		PUHY-P200YNW-A1	PUHY-P250YNW-A1	PUHY-P300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	4.81	7.14	8.79
	EER / SEER	4.65 / 7.50	3.92 / 7.00	3.81 / 6.70
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	5.10	7.20	8.46
	COP / SCOP	4.90 / 4.39	4.37 / 4.65	4.43 / 4.16

Device designation		PUHY-P200YNW-A1	PUHY-P250YNW-A1	PUHY-P300YNW-A1
Airflow (m^3 / h)		10200	11100	14400
Sound pressure level (dB(A))*		58.0	60	61
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858
Weight (kg)		213	213	226
Refrigeration data				
Total pipe length (m)***		1000	1000	1000
Max. height difference (m)		50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 6.5 / 22.4	R410A / 6.5 / 29.4	410A / 6.5 / 29.9
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 13.57 / 46.77	2088 / 13.57 / 61.39	2088 / 13.57 / 62.43
Refrigerant pipe size Ø (mm)	fl.	10	10	10
	s.	22	22	22
Electrical data				
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		8.1 / 8.6	12.0 / 12.1	14.8 / 14.2
Max. power indoor units (kW)****		29.12 (130 %)	36.4 (130 %)	43.55 (130 %)
Recommended breaker size (A)		25	32	32
Connectable indoor units (number / type)		1–20 / 10–250	1–25 / 10–250	1–30 / 10–250

Y-series outdoor units P350 to 500, cooling or heating

Outdoor units		PUHY-P350YNW-A1	PUHY-P400YNW-A1	PUHY-P450YNW-A1	PUHY-P500YNW-A1
Cooling	Cooling capacity (kW)	40.0	45.0	50.0	56.0
	Power consumption (kW)	10.95	14.19	14.57	17.55
	EER / SEER	3.65 / 6.70	3.17 / 6.39	3.43 / 6.48	3.19 / 6.32
Heating	Heating capacity (kW)	45.0	50.0	56.0	63.0
	Power consumption (kW)	10.39	12.37	14.00	15.98
	COP / SCOP	4.33 / 4.24	4.04 / 4.13	4.00 / 4.00	3.94 / 3.91

Device designation		PUHY-P350YNW-A1	PUHY-P400YNW-A1	PUHY-P450YNW-A1	PUHY-P500YNW-A1
Airflow (m^3 / h)		16200	18000	18300	21900
Sound pressure level (dB(A))*		62.0	65	65.5	63.5
Dimensions (mm)**	W / D / H	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.750 / 740 / 1.858
Weight (kg)		277	277	293	334
Refrigeration data					
Total pipe length (m)***		1000	1000	1000	1000
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 9.8 / 34.2	R410A / 9.8 / 34.7	R410A / 10.8 / 43.9	R410A / 10.8 / 44.8
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 20.46 / 71.41	2088 / 20.46 / 72.45	2088 / 22.55 / 91.66	2088 / 22.55 / 93.54
Refrigerant pipe size Ø (mm)	fl.	12	12	16	16
	s.	28	28	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		18.4 / 17.5	23.9 / 20.8	24.5 / 23.6	29.6 / 26.9
Max. power indoor units (kW)****		52.0 (130 %)	58.5 (130 %)	65.0 (130 %)	72.8 (130 %)
Recommended breaker size (A)		40	63	63	63
Connectable indoor units (number / type)		1–35 / 10–250	1–40 / 10–250	1–45 / 10–250	1–50 / 10–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

**** Indoor unit capacity of 200 % is also optionally available

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PUHY-P550/600YSNW-A1

PUHY-P650YSNW-A1

PUHY-P700–900YSNW-A1

City Multi VRF

Y series / cooling or heating

Y-series outdoor units P550 to 700, cooling or heating

Device designation		PUHY-P550YSNW-A1	PUHY-P600YSNW-A1	PUHY-P650YSNW-A1	PUHY-P700YSNW-A1
Cooling	Cooling capacity (kW)	63.0	69.0	73.0	80.0
	Power consumption (kW)	16.84	18.69	21.79	22.59
	EER / SEER	3.74 / 6.76	3.69 / 6.57	3.35 / 6.50	3.54 / 6.63
Heating	Heating capacity (kW)	69.0	76.5	81.5	88.0
	Power consumption (kW)	16.15	17.83	20.17	20.95
	COP / SCOP	4.27 / 4.54	4.29 / 4.03	4.04 / 4.04	4.20 / 4.10

Device designation		PUHY-P550YSNW-A1	PUHY-P600YSNW-A1	PUHY-P650YSNW-A1	PUHY-P700YSNW-A1
Single modules		P250 + P300	2 x P300	P250 + P400	2 x P350
Required set of distributors		CMY-Y100VBK3	CMY-Y100VBK3	CMY-Y100VBK3	CMY-Y200VBK2
Airflow (m³ / h)		25500	28800	29100	32400
Sound pressure level (dB(A))*		63.5	64.0	66.5	65.0
Dimensions (mm)**	W / D / H	1.840 / 740 / 1.858	1.840 / 740 / 1.858	2.160 / 740 / 1.858	2.480 / 740 / 1.858
Weight (kg)		439	452	490	554
Refrigeration data					
Total pipe length (m)***		1000	1000	1000	1000
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 13.0 / 47.7	R410A / 13.0 / 47.7	R410A / 16.3 / 52.0	R410A / 19.6 / 65.3
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 27.14 / 99.60	2088 / 27.14 / 99.60	2088 / 34.03 / 108.58	2088 / 40.92 / 136.35
Refrigerant pipe size Ø (mm)	fl.	16	16	16	18
	s.	28	28	28	35
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		28.4 / 27.2	31.5 / 30.0	36.7 / 34.0	38.1 / 35.3
Max. power indoor units (kW)****		81.9 (130 %)	89.7 (130 %)	94.9 (130 %)	104.0 (130 %)
Connectable indoor units (number / type)		2–50 / 10–250	2–50 / 10–250	2–50 / 10–250	2–50 / 10–250

Y-series outdoor units P750 to 900, cooling or heating

Device designation		PUHY-P750YSNW-A1	PUHY-P800YSNW-A1	PUHY-P850YSNW-A1	PUHY-P900YSNW-A1
Cooling	Cooling capacity (kW)	85.0	90.0	96.0	101.0
	Power consumption (kW)	25.83	26.31	30.00	30.42
	EER / SEER	3.29 / 6.46	3.42 / 6.48	3.20 / 6.38	3.32 / 6.41
Heating	Heating capacity (kW)	95.0	100.0	108.0	113.0
	Power consumption (kW)	23.45	24.87	27.76	29.12
	COP / SCOP	4.05 / 4.05	4.02 / 3.88	3.89 / 3.86	3.88 / 3.71

Device designation		PUHY-P750YSNW-A1	PUHY-P800YSNW-A1	PUHY-P850YSNW-A1	PUHY-P900YSNW-A1
Single modules		P350 + P400	P350 + P450	P400 + P450	2 x P450
Required set of distributors		CMY-Y200VBK2	CMY-Y200VBK2	CMY-Y200VBK2	CMY-Y200VBK2
Airflow (m³ / h)		34200	34500	36300	36600
Sound pressure level (dB(A))*		67.0	67.5	68.5	68.5
Dimensions (mm)**	W / D / H	2.480 / 740 / 1.858	2.480 / 740 / 1.858	2.480 / 740 / 1.858	2.480 / 740 / 1.858
Weight (kg)		554	570	570	586
Refrigeration data					
Total pipe length (m)***		1000	1000	1000	1000
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 19.6 / 65.3	R410A / 20.6 / 66.6	R410A / 20.6 / 68.4	R410A / 21.6 / 69.8
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 40.92 / 136.35	2088 / 43.01 / 139.06	2088 / 43.01 / 142.82	2088 / 45.10 / 145.74
Refrigerant pipe size Ø (mm)	fl.	18	18	18	18
	s.	35	35	42	42
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		43.6 / 39.5	44.4 / 41.9	50.6 / 46.8	51.3 / 49.1
Max. power indoor units (kW)****		110.5 (130 %)	117.0 (130 %)	124.8 (130 %)	131.3 (130 %)
Connectable indoor units (number / type)		2–50 / 10–250	2–50 / 10–250	2–50 / 10–250	2–50 / 10–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

**** Indoor unit capacity of 160 % is also optionally available

For the recommended fuse size, please refer to the stated single modules

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PUHY-P950–1050YSNW-A1

PUHY-P1100–1350YSNW-A1

City Multi VRF

Y series / cooling or heating

Y-series outdoor units P950 to 1100, cooling or heating

Device designation		PUHY-P950YSNW-A1	PUHY-P1000YSNW-A1	PUHY-P1050YSNW-A1	PUHY-P1100YSNW-A1
Cooling	Cooling capacity (kW)	108.0	113.0	118.0	124.0
	Power consumption (kW)	30.00	33.13	36.41	36.79
	EER / SEER	3.60 / 6.72	3.41 / 6.59	3.24 / 6.47	3.37 / 6.49
Heating	Heating capacity (kW)	119.5	127.0	132.0	140.0
	Power consumption (kW)	28.38	31.05	33.08	34.22
	COP / SCOP	4.21 / 4.09	4.09 / 4.36	3.99 / 4.05	4.09 / 4.07

Device designation		PUHY-P950YSNW-A1	PUHY-P1000YSNW-A1	PUHY-P1050YSNW-A1	PUHY-P1100YSNW-A1
Single modules		P250 + 2 x P350	P250 + P350 + P400	P250 + 2 x P400	2 x P350 + P400
Required set of distributors		CMY-Y300VBK3	CMY-Y300VBK3	CMY-Y300VBK3	CMY-Y300VBK3
Airflow (m³ / h)		43500	45300	47100	50400
Sound pressure level (dB(A))*		66.0	68.0	68.5	68.5
Dimensions (mm)**	W / D / H	3.400 / 740 / 1.858	3.400 / 740 / 1.858	3.400 / 740 / 1.858	3.720 / 740 / 1.858
Weight (kg)		767	767	767	831
Refrigeration data					
Total pipe length (m)***		1000	1000	1000	1000
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 23.8 / 70.9	R410A / 26.1 / 72.9	R410A / 26.1 / 72.9	R410A / 29.4 / 76.4
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 49.69 / 148.04	2088 / 54.50 / 152.22	2088 / 54.50 / 152.22	2088 / 61.39 / 159.52
Refrigerant pipe size Ø (mm)	fl.	18	18	18	18
	s.	42	42	42	42
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		50.6 / 47.9	55.9 / 52.4	61.4 / 55.8	62.1 / 57.7
Max. power indoor units (kW)		140.4 (130 %)	146.9 (130 %)	153.4 (130 %)	161.2 (130 %)
Connectable indoor units (number / type)		2–50 / 10–250	2–50 / 10–250	3–50 / 10–250	3–50 / 10–250

Y-series outdoor units P1150 to 1350, cooling or heating

Device designation		PUHY-P1150YSNW-A1	PUHY-P1200YSNW-A1	PUHY-P1250YSNW-A1	PUHY-P1300YSNW-A1	PUHY-P1350YSNW-A1
Cooling	Cooling capacity (kW)	130.0	136.0	140.0	146.0	150.0
	Power consumption (kW)	40.49	44.29	44.30	45.06	45.18
	EER / SEER	3.21 / 6.38	3.07 / 6.29	3.16 / 6.30	3.24 / 6.32	3.32 / 6.34
Heating	Heating capacity (kW)	145.0	150.0	156.5	163.0	168.0
	Power consumption (kW)	36.25	38.36	40.12	41.90	43.29
	COP / SCOP	4.00 / 4.03	3.91 / 4.01	3.90 / 3.91	3.89 / 3.81	3.88 / 3.71

Device designation		PUHY-P1150YSNW-A1	PUHY-P1200YSNW-A1	PUHY-P1250YSNW-A1	PUHY-P1300YSNW-A1	PUHY-P1350YSNW-A1
Single modules		P350 + 2 x P400	3 x P400	2 x P400 + P450	P400 + 2 x P450	3 x P450
Required set of distributors		CMY-Y300VBK3	CMY-Y300VBK3	CMY-Y300VBK3	CMY-Y300VBK3	CMY-Y300VBK3
Airflow (m³ / h)		52200	54000	54300	54600	54900
Sound pressure level (dB(A))*		69.0	70.0	70.0	70.0	70.5
Dimensions (mm)**	W / D / H	3.720 / 740 / 1.858	3.720 / 740 / 1.858	3.720 / 740 / 1.858	3.720 / 740 / 1.858	3.720 / 740 / 1.858
Weight (kg)		831	831	847	863	879
Refrigeration data						
Total pipe length (m)***		1000	1000	1000	1000	1000
Max. height difference (m)		50	50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 29.4 / 76.4	R410A / 29.4 / 76.4	R410A / 30.4 / 79.5	R410A / 31.4 / 80.9	R410A / 32.4 / 82.2
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 61.39 / 159.52	2088 61.39 / 159.52	2088 / 63.48 / 166.00	2088 / 65.56 / 168.92	2088 / 67.65 / 171.63
Refrigerant pipe size Ø (mm)	fl.	18	18	18	18	18
	s.	42	42	42	42	42
Electrical data						
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		68.3 / 61.1	74.7 / 64.7	74.7 / 67.7	76.0 / 70.7	76.2 / 73.0
Max. power indoor units (kW)		169.0 (130 %)	176.8 (130 %)	182.0 (130 %)	189.8 (130 %)	195.0 (130 %)
Connectable indoor units (number / type)		3–50 / 10–250	3–50 / 10–250	3–50 / 10–250	3–50 / 10–250	3–50 / 10–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

For the recommended fuse size, please refer to the stated single modules

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

R32

PUHY-M / EM200 – 300YNW-A1

City Multi R32 VRF

Seasonal efficiency / Y series / cooling or heating

Seasonal efficiency of outdoor units EM 200 to 300, cooling or heating

Device designation		PUHY-EM200YNW-A1	PUHY-EM250YNW-A1	PUHY-EM300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	4.38	6.36	7.44
	EER / SEER	5.11 / 7.84	4.40 / 7.62	4.5 / 7.41
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	4.94	6.92	7.94
	COP / SCOP	5.05 / 4.47	4.55 / 4.33	4.72 / 4.23

Device designation		PUHY-EM200YNW-A1	PUHY-EM250YNW-A1	PUHY-EM300YNW-A1
Airflow (m^3 / h)		10200	11100	14400
Sound pressure level (dB(A))*		58	60	61
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858
Weight (kg)		228	228	229
Refrigeration data				
Total pipe length (m)***		1000	1000	1000
Max. height difference (m)		50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 6.5 / 24.5	R32 / 6.5 / 25	R32 / 6.5 / 25
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 4.39 / 16.54	675 / 4.39 / 16.88	675 / 4.39 / 17.55
Refrigerant pipe size Ø (mm)	fl.	10	10	10
	s.	22	22	28
Electrical data				
Voltage supply (V, phase, Hz)		380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling / heating (A)		7.0 / 6.8	10.1 / 9.3	11.9 / 12.7
Max. power indoor units (kW)		29.12 (130 %)	36.4 (130 %)	43.55 (130 %)
Recommended breaker size (A)		25	32	32
Connectable indoor units (number / type)		1 – 8 / M20 – M140	1 – 10 / M20 – M140	2 – 12 / M20 – M140

City Multi R32 VRF

Y-Serie / cooling or heating

Y-series outdoor units M200 to 300, cooling or heating

Device designation		PUHY-M200YNW-A1	PUHY-M250YNW-A1	PUHY-M300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	4.85	7.1	7.66
	EER / SEER	4.61 / 7.32	3.94 / 7.08	3.86 / 6.73
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	5.27	7.32	9.35
	COP / SCOP	4.74 / 4.41	4.3 / 4.23	3.92 / 4.17

Device designation		PUHY-M200YNW-A1	PUHY-M250YNW-A1	PUHY-M300YNW-A1
Airflow (m^3 / h)		10200	11100	14400
Sound pressure level (dB(A))*		58.0	60	61
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858
Weight (kg)		227	227	227
Refrigeration data				
Total pipe length (m)***		1000	1000	1000
Max. height difference (m)		50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 5.2 / 26.5	R32 / 5.2 / 27.5	R32 / 5.2 / 28
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 3.51 / 17.89	675 / 3.51 / 18.56	675 / 3.51 / 18.90
Refrigerant pipe size Ø (mm)	fl.	10	10	10
	s.	22	22	22
Electrical data				
Voltage supply (V, phase, Hz)		380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling / heating (A)		7.7 / 8.4	11.3 / 11.7	12.9 / 11.3
Max. power indoor units (kW)		29.12 (130 %)	36.4 (130 %)	43.55 (130 %)
Recommended breaker size (A)		25	32	32
Connectable indoor units (number / type)		1 – 8 / M20 – M140	1 – 10 / M20 – M140	1 – 12 / M20 – M140

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

For the recommended fuse size, please refer to the stated single modules

▶ **Attention: In direct evaporation applications, the R32 outdoor units can only be operated with indoor units from the PLFY-M and PEFY-M series.**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PURY-EP200–300YNW-A1 PURY-EP350–450YNW-A1 PURY-EP500/550 YNW-A1

City Multi VRF

Seasonal efficiency / R2-series cooling and heating

Seasonal efficiency of outdoor units EP 200 to 350, cooling and heating

Device designation		PURY-EP200YNW-A1	PURY-EP250YNW-A1	PURY-EP300YNW-A1	PURY-EP350YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5	40.0
	Power consumption (kW)	4.74	6.89	8.17	9.97
	EER / SEER	4.72 / 7.66	4.06 / 7.23	4.10 / 6.77	4.01 / 6.66
Heating	Heating capacity (kW)	25.0	31.5	37.5	45.0
	Power consumption (kW)	5.25	7.37	9.51	11.08
	COP / SCOP	4.76 / 4.00	4.27 / 4.24	3.94 / 4.12	4.06 / 4.12

Device designation		PURY-EP200YNW-A1	PURY-EP250YNW-A1	PURY-EP300YNW-A1	PURY-EP350YNW-A1
Airflow (m³ / h)		10200	11100	14400	15000
Sound pressure level (dB(A))*		59.0	60.5	61.0	62.5
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858	1.240 / 740 / 1.858
Weight (kg)		219	228	230	275
Refrigeration data					
Total pipe length (m)***		550	550	600	600
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 5.2 / 33.5	R410A / 5.2 / 39.5	R410A / 5.2 / 39.5	R410A / 8.0 / 47.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 10.86 / 69.95	2088 / 10.86 / 82.48	2088 / 10.86 / 82.48	2088 / 16.70 / 98.14
Refrigerant pipe size Ø (mm)	fl.	16	18	18	18
	s.	18	22	22	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		8.0 / 8.8	11.6 / 12.4	13.7 / 16.0	16.8 / 18.7
Max. power indoor units (kW)****		33.6 (150 %)	42.0 (150 %)	50.25 (150 %)	60 (150 %)
Recommended breaker size (A)		25	25	32	40
Connectable indoor units (number / type)		1–20 / P10–P250	1–25 / P10–P250	1–30 / P10–P250	1–35 / P10–P250

Seasonal efficiency of outdoor units EP 400 to 550, cooling and heating

Device designation		PURY-EP400YNW-A1	PURY-EP450YNW-A1	PURY-EP500YNW-A1	PURY-EP550YNW-A1
Cooling	Cooling capacity (kW)	45.0	50.0	56.0	63.0
	Power consumption (kW)	13.04	13.85	18.12	22.00
	EER / SEER	3.45 / 6.63	3.61 / 6.61	3.09 / 6.47	2.86 / 6.21
Heating	Heating capacity (kW)	50.0	56.0	63.0	69.0
	Power consumption (kW)	13.58	14.62	17.35	19.71
	COP / SCOP	3.68 / 4.12	3.83 / 4.10	3.63 / 4.09	3.50 / 4.09

Device designation		PURY-EP400YNW-A1	PURY-EP450YNW-A1	PURY-EP500YNW-A1	PURY-EP550YNW-A1
Airflow (m³ / h)		18900	18900	17700	24600
Sound pressure level (dB(A))*		65.0	65.5	63.5	66.0
Dimensions (mm)**	W / D / H	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.750 / 740 / 1.858	1.750 / 740 / 1.858
Weight (kg)		276	301	346	346
Refrigeration data					
Total pipe length (m)***		600	600	600	600
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 8.0 / 47.0	R410A / 10.8 / 55.5	R410A / 10.8 / 56.0	R410A / 10.8 / 56.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 16.70 / 98.14	2088 / 22.55 / 115.88	2088 / 22.50 / 116.93	2088 / 22.50 / 116.93
Refrigerant pipe size Ø (mm)	fl.	22	22	22	22
	s.	28	28	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		22.0 / 22.9	23.3 / 24.6	30.5 / 29.2	37.1 / 33.2
Max. power indoor units (kW)****		67.5 (150 %)	75.0 (150 %)	84.0 (150 %)	84.0 (150 %)
Recommended breaker size (A)		63	63	63	63
Connectable indoor units (number / type)		1–40 / P10–P250	1–45 / P10–P250	1–50 / P10–P250	2–50 / P10–P250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

**** Indoor unit capacity of 200 % is also optionally available

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PURY-EP550/600YSNW-A1 | PURY-EP650YSNW-A1 | PURY-EP700–900YSNW-A1

City Multi VRF

Seasonal efficiency / R2-series cooling and heating

Seasonal efficiency of outdoor units EP 550 to 700, cooling and heating

Device designation		PURY-EP550YSNW-A1	PURY-EP600YSNW-A1	PURY-EP650YSNW-A1	PURY-EP700YSNW-A1
Cooling	Cooling capacity (kW)	63.0	69.0	73.0	80.0
	Power consumption (kW)	15.90	17.33	18.57	20.56
	EER / SEER	3.96 / 6.85	3.98 / 6.61	3.93 / 6.50	3.89 / 6.52
Heating	Heating capacity (kW)	69.0	76.5	81.5	88.0
	Power consumption (kW)	17.33	20.02	21.00	22.33
	COP / SCOP	3.98 / 4.05	3.82 / 3.99	3.88 / 3.99	3.94 / 3.99

Device designation		PURY-EP550YSNW-A1	PURY-EP600YSNW-A1	PURY-EP650YSNW-A1	PURY-EP700YSNW-A1
Single modules		EP250 + EP300	2 x EP300	EP300 + EP350	2 x EP350
Required set of distributors		CMY-R100VBK4	CMY-R100VBK4	CMY-R100VBK4	CMY-R200VBK4
Airflow (m³ / h)		14400	14400	28800	30000
Sound pressure level (dB(A))*		64.50	64.0	65.0	65.5
Dimensions (mm)**	W / D / H	1.840 / 740 / 1.858	1.840 / 740 / 1.858	2.160 / 740 / 1.858	2.480 / 740 / 1.858
Weight (kg)		458	460	505	550
Refrigeration data					
Total pipe length (m)***		750	800	800	950
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 10.4 / 64.0	R410A / 10.4 / 64.0	R410A / 13.2 / 73.0	R410A / 16.0 / 94.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 21.72 / 133.63	2088 / 21.72 / 133.63	2088 / 27.56 / 152.42	2088 / 33.41 / 196.27
Refrigerant pipe size Ø (mm)	fl.	22*****	22*****	28	28
	s.	28	28	28	35
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		26.8 / 29.2	29.2 / 33.7	31.3 / 35.4	34.7 / 37.6
Max. power indoor units (kW)****		94.5 (150 %)	103.5 (150 %)	109.5 (150 %)	120.0 (150 %)
Connectable indoor units (number / type)		2–50 / 10–250	2–50 / 10–250	2–50 / 10–250	2–50 / 10–250

Seasonal efficiency of outdoor units EP 750 to 900, cooling and heating

Device designation		PURY-EP750YSNW-A1	PURY-EP800YSNW-A1	PURY-EP850YSNW-A1	PURY-EP900YSNW-A1
Cooling	Cooling capacity (kW)	85.0	90.0	96.0	101.0
	Power consumption (kW)	23.48	26.86	28.07	28.85
	EER / SEER	3.62 / 6.49	3.35 / 6.44	3.42 / 6.52	3.50 / 6.56
Heating	Heating capacity (kW)	95.0	100.0	108.0	113.0
	Power consumption (kW)	25.33	28.01	29.67	30.37
	COP / SCOP	3.75 / 3.99	3.57 / 3.99	3.64 / 3.98	3.72 / 3.99

Device designation		PURY-EP750YSNW-A1	PURY-EP800YSNW-A1	PURY-EP850YSNW-A1	PURY-EP900YSNW-A1
Single modules		EP350 + EP400	2 x EP400	EP400 + EP450	2 x EP450
Required set of distributors		CMY-R200VBK4	CMY-R200VBK4	CMY-R200VBK4	CMY-R200VBK4
Airflow (m³ / h)		33900	37800	37800	37800
Sound pressure level (dB(A))*		67.0	68.0	68.5	68.5
Dimensions (mm)**	W / D / H	2.480 / 740 / 1.858	2.480 / 740 / 1.858	2.480 / 740 / 1.858	2.480 / 740 / 1.858
Weight (kg)		551	552	577	602
Refrigeration data					
Total pipe length (m)***		950	950	950	950
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 16.0 / 96.5	R410A / 16.0 / 99.0	R410A / 18.8 / 99	R410A / 21.6 / 99.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 33.41 / 201.49	2088 / 33.41 / 206.71	2088 / 39.25 / 206.71	2088 / 45.10 / 206.71
Refrigerant pipe size Ø (mm)	fl.	28	28	28	28
	s.	35	35	42	42
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		39.6 / 42.7	45.3 / 47.2	47.3 / 50.0	48.7 / 51.2
Max. power indoor units (kW)****		127.5 (150 %)	135.0 (150 %)	144.0 (150 %)	151.5 (150 %)
Connectable indoor units (number / type)		2–50 / 10–250	2–50 / 10–250	2–50 / 10–250	2–50 / 10–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

**** Indoor unit capacity of 160 % is also optionally available

***** 28 mm diameter must be selected once a pipe length of 65 m is exceeded

For the recommended fuse size, please refer to the stated single modules

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PURY-EP950YSNW-A1

PURY-EP1000–1100YSNW-A1

City Multi VRF

Seasonal efficiency / R2-series cooling and heating

Seasonal efficiency of outdoor units EP 950 to 1100, cooling and heating

Device designation		PURY-EP950YSNW-A1	PURY-EP1000YSNW-A1	PURY-EP1050YSNW-A1	PURY-EP1100YSNW-A1
Cooling	Cooling capacity (kW)	108.0	113.0	118.0	124.0
	Power consumption (kW)	33.23	37.66	40.83	44.76
	EER / SEER	3.25 / 6.46	3.00 / 6.34	2.89 / 6.19	2.77 / 6.06
Heating	Heating capacity (kW)	119.5	127.0	132	140
	Power consumption (kW)	33.01	36.07	38.15	41.17
	COP / SCOP	3.62 / 3.97	3.52 / 3.96	3.46 / 3.96	3.40 / 3.96

Device designation		PURY-EP950YSNW-A1	PURY-EP1000YSNW-A1	PURY-EP1050YSNW-A1	PURY-EP1100YSNW-A1
Single modules		EP450 + EP500	2 x EP500	EP500 + EP550	2 x EP550
Required set of distributors		CMY-R200VBK4	CMY-R200VBK4	CMY-R200VBK4	CMY-R200VBK4
Airflow (m³ / h)		36600	35400	42300	49200
Sound pressure level (dB(A))*		68.0	66.5	66.0	69.0
Dimensions (mm)**	W / D / H	2.990 / 740 / 1.858	3.500 / 740 / 1.858	3.500 / 740 / 1.858	3.500 / 740 / 1.858
Weight (kg)		647	692	692	692
Refrigeration data					
Total pipe length (m)***		750	800	800	950
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg) GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		R410A / 21.6 / 99.0 2088 / 45.10 / 206.71	R410A / 21.6 / 99.0 2088 / 45.10 / 206.71	R410A / 21.6 / 99.0 2088 / 45.10 / 206.71	R410A / 21.6 / 99.0 2088 / 45.10 / 206.71
Refrigerant pipe size Ø (mm)	fl.	28	28	35	35
	s.	42	42	42	42
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		56.0 / 55.7	63.5 / 60.8	68.9 / 64.4	75.5 / 69.5
Max. power indoor units (kW)****		162.0 (150 %)	169.5 (150 %)	177.0 (150 %)	186.0 (150 %)
Connectable indoor units (number / type)		2–50 / 10–250	2–50 / 10–250	3–50 / 10–250	3–50 / 10–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

For the recommended fuse size, please refer to the stated single modules

** By removing the base, the height can be reduced to 1798 mm

*** One way length

**** Indoor unit capacity of 160 % is also optionally available

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PURY-P200–300YNW-A1 PURY-P350–450YNW-A1 PURY-P500/550 YNW-A1

City Multi VRF

R2-series cooling and heating

R2-series outdoor units P200 to 350, cooling and heating

Device designation		PURY-P200YNW-A1	PURY-P250YNW-A1	PURY-P300YNW-A1	PURY-P350YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5	40.0
	Power consumption (kW)	5.27	7.25	8.98	10.98
	EER / SEER	4.25 / 7.47	3.86 / 6.94	3.73 / 6.62	3.64 / 6.60
Heating	Heating capacity (kW)	25.0	31.5	37.5	45.0
	Power consumption (kW)	5.33	7.42	9.54	11.13
	COP / SCOP	4.69 / 3.96	4.24 / 4.05	3.93 / 3.81	4.04 / 3.72

Device designation		PURY-P200YNW-A1	PURY-P250YNW-A1	PURY-P300YNW-A1	PURY-P350YNW-A1
Airflow (m^3 / h)		10200	11100	14400	15000
Sound pressure level (dB(A))*		59	60.5	61.0	62.5
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858	1.240 / 740 / 1.858
Weight (kg)		214	223	225	269
Refrigeration data					
Total pipe length (m)***		550	550	600	600
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg) GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		R410A / 5.2 / 37.0 2088 / 10.86 / 77.26	R410A / 5.2 / 43.0 2088 / 10.86 / 89.78	R410A / 5.2 / 43.0 2088 / 10.86 / 89.78	R410A / 8.0 / 49.3 2088 / 16.70 / 102.94
Refrigerant pipe size Ø (mm)	fl.	16	18	18	18
	s.	18	22	22	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		8.8 / 8.9	12.2 / 12.5	15.1 / 16.1	18.5 / 18.7
Max. power indoor units (kW)****		33.6 (150 %)	42.0 (150 %)	50.25 (150 %)	60.0 (150 %)
Recommended breaker size (A)		25	32	32	40
Connectable indoor units (number / type)		1–20 / P10–P250	1–25 / P10–P250	1–30 / P10–P250	1–35 / P10–P250

R2-series outdoor units 400 to 550, cooling and heating

Device designation		PURY-P400YNW-A1	PURY-P450YNW-A1	PURY-P500YNW-A1	PURY-P550YNW-A1
Cooling	Cooling capacity (kW)	45.0	50.0	56.0	63.0
	Power consumption (kW)	14.61	14.83	18.54	22.18
	EER / SEER	3.08 / 6.31	3.37 / 6.40	3.02 / 6.32	2.84 / 6.06
Heating	Heating capacity (kW)	50.0	56.0	63.0	69.0
	Power consumption (kW)	13.77	15.42	17.50	20.29
	COP / SCOP	3.63 / 4.10	3.63 / 4.03	3.60 / 4.05	3.40 / 4.05

Device designation		PURY-P400YNW-A1	PURY-P450YNW-A1	PURY-P500YNW-A1	PURY-P550YNW-A1
Airflow (m^3 / h)		18900	18900	17700	24600
Sound pressure level (dB(A))*		65.0	65.5	63.5	66.0
Dimensions (mm)**	W / D / H	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.750 / 740 / 1.858	1.750 / 740 / 1.858
Weight (kg)		269	289	335	335
Refrigeration data					
Total pipe length (m)***		600	600	600	600
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg) GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		R410A / 8.0 / 55.3 2088 / 16.70 / 115.47	R410A / 10.8 / 55.3 2088 / 22.55 / 115.47	R410A / 10.8 / 56.0 2088 / 22.55 / 116.93	R410A / 10.8 / 56.0 2088 / 22.55 / 116.93
Refrigerant pipe size Ø (mm)	fl.	22	22	22	22
	s.	28	28	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		24.6 / 23.2	25.0 / 26.0	31.2 / 29.5	37.4 / 34.2
Max. power indoor units (kW)****		67.5 (150 %)	75.0 (150 %)	84.0 (150 %)	84.0 (150 %)
Recommended breaker size (A)		63	63	63	63
Connectable indoor units (number / type)		1–40 / P10–P250	1–45 / P10–P250	1–50 / P10–P250	2–50 / P10–P250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

**** Indoor unit capacity of 200 % is also optionally available

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PURY-P550/600YSNW-A1 PURY-P650YSNW-A1 PURY-P700–900YSNW-A1

City Multi VRF

R2-series cooling and heating

R2-series outdoor units P550 to 700, cooling and heating

Device designation		PURY-P550YSNW-A1	PURY-P600YSNW-A1	PURY-P650YSNW-A1	PURY-P700YSNW-A1
Cooling	Cooling capacity (kW)	63.0	69.0	73.0	80.0
	Power consumption (kW)	17.11	19.06	20.44	22.66
	EER / SEER	3.68 / 6.58	3.62 / 6.38	3.57 / 6.26	3.53 / 6.27
Heating	Heating capacity (kW)	69.0	76.5	81.5	88.0
	Power consumption (kW)	17.42	20.07	21.05	22.44
	COP / SCOP	3.96 / 3.81	3.81 / 4.04	3.87 / 3.65	3.92 / 3.61

Device designation		PURY-P550YSNW-A1	PURY-P600YSNW-A1	PURY-P650YSNW-A1	PURY-P700YSNW-A1
Single modules		P250 + P300	2 x P300	P300 + P350	2 x P350
Required set of distributors		CMY-R100VBK4	CMY-R100VBK4	CMY-R100VBK4	CMY-R200VBK4
Airflow (m³ / h)		25500	28800	29400	30000
Sound pressure level (dB(A))*		64.0	64.0	65.5	65.5
Dimensions (mm)**	W / D / H	1.840 / 740 / 1.858	1.840 / 740 / 1.858	2.160 / 740 / 1.858	2.480 / 740 / 1.858
Weight (kg)		448	450	494	538
Refrigeration data					
Total pipe length (m)***		750	800	800	950
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 10.4 / 71.0	R410A / 10.4 / 71.0	R410A / 13.2 / 78.8	R410A / 16.0 / 95.6
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 21.72 / 148.25	2088 / 21.72 / 148.25	2088 / 27.56 / 164.53	2088 / 33.41 / 199.61
Refrigerant pipe size Ø (mm)	fl.	22*****	22*****	28	28
	s.	28	28	28	35
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		28.8 / 29.4	32.1 / 33.8	34.5 / 35.5	38.2 / 37.8
Max. power indoor units (kW)****		94.5 (150 %)	103.5 (150 %)	109.5 (150 %)	120.0 (150 %)
Connectable indoor units (number / type)		2–50 / 10–250	2–50 / 10–250	2–50 / 10–250	2–50 / 10–250

R2-series outdoor units P750 to 900, cooling and heating

Device designation		PURY-P750YSNW-A1	PURY-P800YSNW-A1	PURY-P850YSNW-A1	PURY-P900YSNW-A1
Cooling	Cooling capacity (kW)	85.0	90.0	96.0	101.0
	Power consumption (kW)	26.07	30.10	30.67	30.88
	EER / SEER	3.26 / 6.25	2.99 / 6.22	3.13 / 6.30	3.27 / 6.33
Heating	Heating capacity (kW)	90.0	100.0	108.0	113.0
	Power consumption (kW)	25.53	28.40	30.68	32.10
	COP / SCOP	3.72 / 3.61	3.52 / 3.97	3.52 / 3.93	3.52 / 3.90

Device designation		PURY-P750YSNW-A1	PURY-P800YSNW-A1	PURY-P850YSNW-A1	PURY-P900YSNW-A1
Single modules		P350 + P400	2 x P400	P400 + P450	2 x P450
Required set of distributors		CMY-R200VBK4	CMY-R200VBK4	CMY-R200VBK4	CMY-R200VBK4
Airflow (m³ / h)		33900	37800	37800	37800
Sound pressure level (dB(A))*		67.0	68.0	68.5	68.5
Dimensions (mm)**	W / D / H	2.480 / 740 / 1.858	2.480 / 740 / 1.858	2.480 / 740 / 1.858	2.480 / 740 / 1.858
Weight (kg)		538	538	558	578
Refrigeration data					
Total pipe length (m)***		950	950	950	950
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 16.0 / 95.6	R410A / 16.0 / 99.0	R410A / 18.8 / 99.0	R410A / 21.6 / 99.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 33.41 / 199.61	2088 / 33.41 / 206.71	2088 / 39.25 / 206.71	2088 / 45.10 / 206.71
Refrigerant pipe size Ø (mm)	fl.	28	28	28	28
	s.	35	35	42	42
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		44.0 / 43.0	50.8 / 47.9	51.7 / 51.7	52.1 / 54.1
Max. power indoor units (kW)****		127.5 (150 %)	135.0 (150 %)	144.0 (150 %)	151.5 (150 %)
Connectable indoor units (number / type)		2–50 / 10–250	2–50 / 10–250	2–50 / 10–250	2–50 / 10–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

**** Indoor unit capacity of 160 % is also optionally available

***** 28 mm diameter must be selected once a pipe length of 65 m is exceeded

For the recommended fuse size, please refer to the stated single modules

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PURY-P950YSNW-A1 PURY-P1000–1100YSNW-A1

City Multi VRF

R2-series cooling and heating

R2-series outdoor units P950 to 1100, cooling and heating

Device designation		PURY-P950YSNW-A1	PURY-P1000YSNW-A1	PURY-P1050YSNW-A1	PURY-P1100YSNW-A1
Cooling	Cooling capacity (kW)	108.0	113.0	118.0	124.0
	Power consumption (kW)	34.83	38.56	41.54	45.09
	EER / SEER	3.10 / 6.22	2.93 / 6.05	2.84 / 5.90	2.75 / 5.77
Heating	Heating capacity (kW)	119.5	127.0	132	140.0
	Power consumption (kW)	34.04	36.38	38.82	42.42
	COP / SCOP	3.51 / 3.92	3.49 / 3.92	3.40 / 3.92	3.30 / 3.92

Device designation		PURY-P950YSNW-A1	PURY-P1000YSNW-A1	PURY-P1050YSNW-A1	PURY-P1100YSNW-A1
Single modules		P450 + P500	2 x P500	P500 + P550	2 x P550
Required set of distributors		CMY-R200VBK4	CMY-R200VBK4	CMY-R200VBK4	CMY-R200VBK4
Airflow (m³ / h)		36600	35400	42300	49200
Sound pressure level (dB(A))*		68.0	66.5	68.0	69.0
Dimensions (mm)**	W / D / H	2.990 / 740 / 1.858	3.500 / 740 / 1.858	3.500 / 740 / 1.858	3.500 / 740 / 1.858
Weight (kg)		624	670	670	670
Refrigeration data					
Total pipe length (m)***		750	800	800	950
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg) GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		R410A / 21.6 / 99.0 2088 / 45.10 / 206.71	R410A / 21.6 / 99.0 2088 / 45.10 / 206.71	R410A / 21.6 / 99.0 2088 / 45.10 / 206.71	R410A / 21.6 / 99.0 2088 / 45.10 / 206.71
Refrigerant pipe size Ø (mm)	fl.	28	28	35	35
	s.	42	42	42	42
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		58.7 / 57.4	65.0 / 61.4	70.1 / 65.5	76.1 / 71.6
Max. power indoor units (kW)****		162.0 (150 %)	169.5 (150 %)	177.0 (150 %)	186.0 (150 %)
Connectable indoor units (number / type)		2–50 / 10–250	2–50 / 10–250	3–50 / 10–250	3–50 / 10–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

**** Indoor unit capacity of 160 % is also optionally available

For the recommended fuse size, please refer to the stated single modules

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

R32

PURY-M/EM200–300YNW-A1

City Multi R32 VRF

R2-series cooling and heating

R2-series outdoor units M200 to 300, cooling and heating

Device designation		PURY-M200YNW-A1	PURY-M250YNW-A1	PURY-M300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	4.85	7.10	8.67
	EER / SEER	4.61 / 7.54	3.94 / 7.08	3.86 / 6.70
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	5.27	7.32	9.35
	COP / SCOP	4.74 / 4.4	4.30 / 4.17	4.01 / 4.11

Device designation		PURY-M200YNW-A1	PURY-M250YNW-A1	PURY-M300YNW-A1
Airflow (m^3 / h)		10200	11100	14400
Sound pressure level (dB(A))*		59.0	60.5	61.0
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858
Weight (kg)		227	227	227
Refrigeration data				
Total pipe length (m)***		550	550	600
Max. height difference (m)		50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 5.2 / 26.5	R32 / 5.2 / 27.5	R32 / 5.2 / 28
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 3.51 / 17.89	675 / 3.51 / 18.56	675 / 3.51 / 18.9
Refrigerant pipe size Ø (mm)	fl.	16	16	16
	s.	18	22	22
Electrical data				
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		7.7 / 8.4	11.3 / 11.7	13.9 / 14.9
Max. power indoor units (kW)		33.6 (150 %)	42.0 (150 %)	50.25 (150 %)
Recommended breaker size (A)		25	32	32
Connectable indoor units (number / type)		1–8 / M20–M140	1–10 / M20–M140	1–12 / M20–M140

City Multi R32 VRF

Seasonal efficiency / R2-series cooling and heating

Seasonal efficiency of R2-series outdoor units EM200 to 300, cooling and heating

Device designation		PURY-EM200YNW-A1	PURY-EM250YNW-A1	PURY-EM300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	4.43	6.68	7.82
	EER / SEER	5.05 / 7.74	4.19 / 7.37	4.28 / 6.97
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	5.23	7.3	9.37
	COP / SCOP	4.78 / 4.39	4.31 / 4.29	4.0 / 4.15

Device designation		PURY-EM200YNW-A1	PURY-EM250YNW-A1	PURY-EM300YNW-A1
Airflow (m^3 / h)		10200	11100	14400
Sound pressure level (dB(A))*		59.0	60.5	61.0
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858
Weight (kg)		231	231	231
Refrigeration data				
Total pipe length (m)***		550	550	600
Max. height difference (m)		50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 5.2 / 26.5	R32 / 5.2 / 27.5	R32 / 5.2 / 28
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 3.51 / 17.89	675 / 3.51 / 18.56	675 / 3.51 / 18.90
Refrigerant pipe size Ø (mm)	fl.	16	16	16
	s.	18	22	22
Electrical data				
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		7.1 / 8.3	10.7 / 9.7	12.5 / 12.6
Max. power indoor units (kW)		33.6 (150 %)	42.0 (150 %)	50.25 (150 %)
Recommended breaker size (A)		25	25	32
Connectable indoor units (number / type)		1–8 / M20–M140	1–10 / M20–M140	1–12 / M20–M140

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

** By removing the base, the height can be reduced to 1798 mm

*** One way length

For the recommended fuse size, please refer to the stated single modules

▶ **Attention: In direct evaporation applications, the R32 outdoor units can only be operated with indoor units from the PLFY-M and PEFY-M series.**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32. For further information please see the corresponding operation manual.

PQHY-P200/300YLM-A PQHY-P350-600YLM-A

City Multi VRF/WY outdoor units for cooling or heating

Water-cooled systems

Output range

Size	P 200	P 250	P 300	P 350	P 400	P 450	P 500	P 550	P 600	P 700	P 750	P 800	P 850	P 900
Cooling capacity (kW)	22.4	28,0	33,5	40,0	45,0	50,0	56,0	63,0	69,0	80,0	85,0	90,0	96,0	101,0
Heating capacity (kW)	25.0	31,5	37,5	45,0	50,0	56,0	63,0	69,0	76,5	88,0	95,0	100,0	108,0	113,0
Max. no. of indoor units	17	21	26	30	34	39	43	47	50	50	50	50	50	50

Improved efficiency in cooling and heating mode

The COP and EER values in cooling and heating mode have been improved by up to 20 % through the use of cutting-edge compressor and heat exchanger technology.

Cooling water temperature range from 45 °C to –5 °C

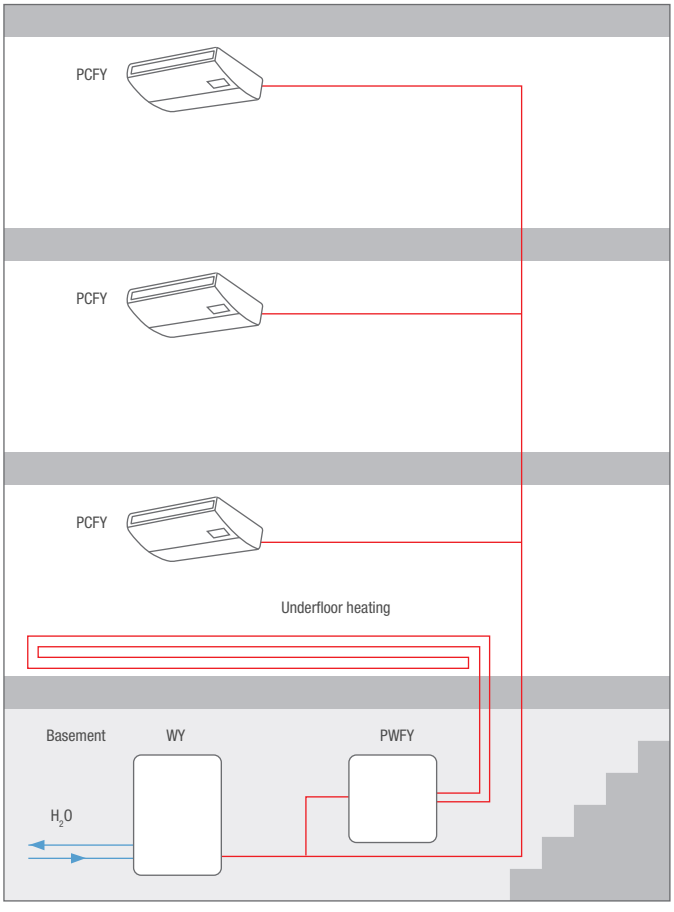
The approved cooling water temperature range has been extended down to –5 °C (special software required). This ensures that the units are also ideal for use as groundwater or brine heat pumps.

Compact design

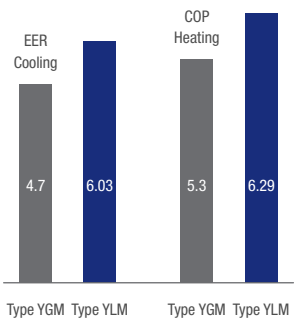
Consistent enhancements have made the units 57 % more compact than the predecessor models.

Hot and cold water preparation

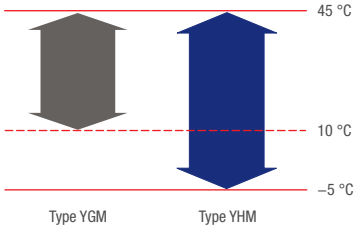
The PWFY water modules can also be connected to the WY-series of the YLM generation. This ensures cold water preparation up to 5 °C and hot water preparation up to 45 °C with the heat exchanger, ideal for connecting to underfloor heating or chilled ceilings.



Efficiency of 22.4 kW compressor unit



Cooling water temperature range



PQHY-P200–300YLM-A

PQHY-P350–600YLM-A

City Multi VRF

Water-cooled systems / WY-series cooling or heating

WY-series units P200 to P350, cooling or heating

Device designation		PQHY-P200YLM-A	PQHY-P250YLM-A	PQHY-P300YLM-A	PQHY-P350YLM-A
Cooling	Cooling capacity (kW)	22.4	28.0	33.5	40.0
	Power consumption (kW)	3.71	4.90	6.04	7.14
	EER	6.03	5.71	5.54	5.60
Heating	Heating capacity (kW)	25.0	31.5	37.5	45.0
	Power consumption (kW)	3.97	5.08	6.25	7.53
	COP	6.29	6.20	6.00	5.97

Device designation		PQHY-P200YLM-A	PQHY-P250YLM-A	PQHY-P300YLM-A	PQHY-P350YLM-A
Cooling water flow (m³ / h)		5.76	5.76	5.76	7.20
Pressure drop (cooling water) (kPa)		24	24	24	44
Sound pressure level dB(A) *		46	48	54	52
Dimensions (mm)	W / D / H	880 / 550 / 1.100	880 / 550 / 1.100	880 / 550 / 1.100	880 / 550 / 1.450
Weight (kg)		174	174	174	217
Refrigeration data					
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 5.0 / 26.0	R410A / 5.0 / 33.0	R410A / 5.0 / 34.5	R410A / 6.0 / 47.5
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 10.44 / 54.29	2088 / 10.44 / 68.90	2088 / 10.44 / 72.04	2088 / 12.53 / 99.18
Refrigerant pipe size Ø (mm)	fl.	10	10	10	12
	s.	18	22	22	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current (A)		6.2	8.2	10.1	12.0
Max. power indoor units (%)		50–130	50–130	50–130	50–130
Recommended breaker size (A)		25	25	25	25
Connectable indoor units (number / type)		1–17 / 15–250	1–21 / 15–250	1–26 / 15–250	1–30 / 15–250

WY-series units P400 to P600, cooling or heating

Device designation		PQHY-P400YLM-A	PQHY-P450YLM-A	PQHY-P500YLM-A	PQHY-P550YLM-A	PQHY-P600YLM-A
Cooling	Cooling capacity (kW)	45.0	50.0	56.0	63.0	69.0
	Power consumption (kW)	8.03	9.29	11.17	12.54	14.49
	EER	5.60	5.38	5.01	5.02	4.76
Heating	Heating capacity (kW)	50.0	56.0	63.0	69.0	76.5
	Power consumption (kW)	8.37	9.79	11.43	12.27	14.51
	COP	5.97	5.72	5.51	5.62	5.27

Device designation		PQHY-P400YLM-A	PQHY-P450YLM-A	PQHY-P500YLM-A	PQHY-P550YLM-A	PQHY-P600YLM-A
Cooling water flow (m³ / h)		7.20	7.20	7.20	11.52	11.52
Pressure drop (cooling water) (kPa)		44	44	44	45	45
Sound pressure level dB(A) *		52	54	54	56.5	56.5
Dimensions (mm)	W / D / H	880 / 550 / 1.450	880 / 550 / 1.450	880 / 550 / 1.450	880 / 550 / 1.450	880 / 550 / 1.450
Weight (kg)		217	217	217	246	246
Refrigeration data						
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 6.0 / 56.0	R410A / 6.0 / 57.5	R410A / 6.0 / 59.5	R410A / 11.7 / 67.2	R410A / 11.7 / 68.7
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 12.53 / 116.93	2088 / 12.53 / 120.06	2088 / 12.53 / 124.24	2088 / 24.43 / 140.31	2088 / 24.43 / 143.45
Refrigerant pipe size Ø (mm)	fl.	16	16	16	16	16
	s.	28	28	28	28	28
Electrical data						
Voltage supply (V, phase, Hz)		380–415, 3, 50	380–415, 3, 50	380–415, 3, 50	380–415, 3, 50	380–415, 3, 50
Operating current (A)		13.5	15.6	18.8	21.1	24.4
Max. power indoor units (%)		50–130	50–130	50–130	50–130	50–130
Recommended breaker size (A)		32	40	40	63	63
Connectable indoor units (number / type)		1–34 / 15–250	1–39 / 15–250	1–43 / 15–250	2–47 / 15–250	2–50 / 15–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

▶ **The units are not suitable for outside installation.**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PQHY-P400–600YSLM-A

PQHY-P700–900YSLM-A

City Multi VRF

Water-cooled systems / WY-series cooling or heating

WY-series units P400 to P600, cooling or heating

Device designation		PQHY-P400YSLM-A	PQHY-P450YSLM-A	PQHY-P500YSLM-A	PQHY-P550YSLM-A	PQHY-P600YSLM-A
Cooling	Cooling capacity (kW)	45.0	50.0	56.0	63.0	69.0
	Power consumption (kW)	7.70	8.78	10.12	11.55	12.84
	EER	5.84	5.69	5.53	5.45	5.37
Heating	Heating capacity (kW)	50.0	56.0	63.0	69.0	76.5
	Power consumption (kW)	7.94	8.97	10.16	11.31	12.75
	COP	6.29	6.24	6.20	6.10	6.00

Device designation		PQHY-P400YSLM-A	PQHY-P450YSLM-A	PQHY-P500YSLM-A	PQHY-P550YSLM-A	PQHY-P600YSLM-A
Single modules		2 x P200	P250 + P200	2 x P250	P250 + P300	2 x P300
Required set of distributors		CMY-Y100VBK3	CMY-Y100VBK3	CMY-Y100VBK3	CMY-Y100VBK3	CMY-Y100VBK3
Cooling water flow (m³/h)		5.76 + 5.76	5.76 + 5.76	5.76 + 5.76	5.76 + 5.76	5.76 + 5.76
Pressure drop (cooling water) (Pa)		24/24	24/24	24/24	24/24	24/24
Sound pressure level dB(A) *		49	50	51	55	57
Dimensions (mm)	W/D/H	1.780/550/1.100	1.780/550/1.100	1.780/550/1.100	1.780/550/1.100	1.780/550/1.100
Weight (kg)		348	348	348	348	348
Refrigeration data						
Total pipe length (m)		500	500	500	500	500
Max. height difference (m)		50	50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A/10.0/60.0	R410A/10.0/61.5	R410A/10.0/63.5	R410A/10.0/64.5	R410A/10.0/65.5
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088/20.88/125.45	2088/20.88/128.41	2088/20.88/132.59	2088/20.88/134.68	2088/20.88/136.76
Refrigerant pipe size Ø (mm)	fl.	16	16	16	16	16
	s.	28	28	28	28	28
Electrical data						
Voltage supply (V, phase, Hz)		380–415, 3, 50	380–415, 3, 50	380–415, 3, 50	380–415, 3, 50	380–415, 3, 50
Operating current cooling / heating		12.9/13.4	14.8/15.1	17.0/17.1	19.4/19.0	21.6/21.5
Max. power indoor units (%)		50–130	50–130	50–130	50–130	50–130
Connectable indoor units (number / type)		1–34/15–250	1–39/15–250	1–43/15–250	2–47/15–250	2–50/15–250

WY-series units P700 to P900, cooling or heating

Device designation		PQHY-P700YSLM-A	PQHY-P750YSLM-A	PQHY-P800YSLM-A	PQHY-P850YSLM-A	PQHY-P900YSLM-A
Cooling	Cooling capacity (kW)	80.0	85.0	90.0	96.0	101.0
	Power consumption (kW)	14.73	15.64	16.57	18.03	19.38
	EER	5.43	5.43	5.43	5.32	5.21
Heating	Heating capacity (kW)	88.0	95.0	100.0	108.0	113.0
	Power consumption (kW)	14.73	15.90	16.75	18.49	19.74
	COP	5.97	5.97	5.97	5.84	5.72

Device designation		PQHY-P700YSLM-A	PQHY-P750YSLM-A	PQHY-P800YSLM-A	PQHY-P850YSLM-A	PQHY-P900YSLM-A
Single modules		2 x P350	P400 + P350	2 x P400	P450 + P400	2 x P450
Required set of distributors		CMY-Y200VBK2	CMY-Y200VBK2	CMY-Y200VBK2	CMY-Y200VBK2	CMY-Y200VBK2
Cooling water flow (m³/h)		7.20 + 7.20	7.20 + 7.20	7.20 + 7.20	7.20 + 7.20	7.20 + 7.20
Pressure drop (cooling water) (Pa)		44/44	44/44	44/44	44/44	44/44
Sound pressure level dB(A) *		55	55	55	56	57
Dimensions (mm)	W/D/H	1.780/550/1.450	1.780/550/1.450	1.780/550/1.450	1.780/550/1.450	1.780/550/1.450
Weight (kg)		434	434	434	434	434
Refrigeration data						
Total pipe length (m)		500	500	500	500	500
Max. height difference (m)		50	50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A/12.0/77.5	R410A/12.0/79.5	R410A/12.0/79.5	R410A/12.0/82.0	R410A/12.0/82.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088/25.06/161.82	2088/25.06/166.00	2088/25.06/166.00	2088/25.06/171.22	2088/25.06/171.22
Refrigerant pipe size Ø (mm)	fl.	18	18	18	18	18
	s.	35	35	35	42	42
Electrical data						
Voltage supply (V, phase, Hz)		380–415, 3, 50	380–415, 3, 50	380–415, 3, 50	380–415, 3, 50	380–415, 3, 50
Operating current cooling / heating		24.8/24.8	26.4/26.8	27.9/28.2	30.4/31.2	32.7/33.3
Max. power indoor units (%)		50–130	50–130	50–130	50–130	50–130
Connectable indoor units (number / type)		2–50/15–250	2–50/15–250	2–50/15–250	2–50/15–250	2–50/15–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

For the recommended fuse size, please refer to the stated single modules

▶ **The units are not suitable for outside installation.**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PQRY-P200–300YLM-A

PQRY-P350–600YLM-A

City Multi VRF

Water-cooled systems / WR2-series cooling and heating

WR2-series units P200 to P350, cooling and heating

Device designation		PQRY-P200YLM-A	PQRY-P250YLM-A	PQRY-P300YLM-A	PQRY-P350YLM-A
Cooling	Cooling capacity (kW)	22.4	28.0	33.5	40
	Power consumption (kW)	3.71	4.90	6.04	7.14
	EER	6.03	5.71	5.54	5.60
Heating	Heating capacity (kW)	25.0	31.5	37.5	45
	Power consumption (kW)	3.97	5.08	6.25	7.53
	COP	6.29	6.20	6.00	5.97

Device designation		PQRY-P200YLM-A	PQRY-P250YLM-A	PQRY-P300YLM-A	PQRY-P350YLM-A
Cooling water flow (m³/h)		5.76	5.76	5.76	7.20
Pressure drop (cooling water) (kPa)		24	24	24	44
Sound pressure level dB(A) *		46	48	54	52
Dimensions (mm)	W/D/H	880/550/1.100	880/550/1.100	880/550/1.100	880/550/1.450
Weight (kg)		172	172	172	216
Refrigeration data					
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A/5.0/32.0	R410A/5.0/37.0	R410A/5.0/38.0	R410A/6.0/58.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088/10.44/66.82	2088/10.44/77.26	2088/10.44/79.34	2088/12.53/121.10
Refrigerant pipe size Ø (mm)	fl.	16	18	18	22
	s.	18	22	22	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current (A)		6.2	8.2	10.1	12.0
Max. power indoor units (%)		50–150	50–150	50–150	50–150
Recommended breaker size (A)		25	25	25	25
Connectable indoor units (number / type)		1–20/15–250	1–25/15–250	1–30/15–250	1–35/15–250

WR2-series units P400 to P600, cooling and heating

Device designation		PQRY-P400YLM-A	PQRY-P450YLM-A	PQRY-P500YLM-A	PQRY-P550YLM-A	PQRY-P600YLM-A
Cooling	Cooling capacity (kW)	45.0	50.0	56.0	63.0	69.0
	Power consumption (kW)	8.03	9.29	11.17	12.54	14.49
	EER	5.60	5.38	5.01	5.02	4.76
Heating	Heating capacity (kW)	50.0	56.0	63.0	69.0	76.5
	Power consumption (kW)	8.37	9.79	11.43	12.27	14.51
	COP	5.97	5.72	5.51	5.62	5.27

Device designation		PQRY-P400YLM-A	PQRY-P450YLM-A	PQRY-P500YLM-A	PQRY-P550YLM-A	PQRY-P600YLM-A
Cooling water flow (m³/h)		7.20	7.20	7.20	11.52	11.52
Pressure drop (cooling water) (kPa)		44	44	44	45	45
Sound pressure level dB(A) *		52	54	54	56.5	56.5
Dimensions (mm)	W/D/H	880/550/1.450	880/550/1.450	880/550/1.450	880/550/1.450	880/550/1.450
Weight (kg)		216	216	216	246	246
Refrigeration data						
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A/6.0/58.0	R410A/6.0/59.0	R410A/6.0/61.0	R410A/11.7/68.7	R410A/11.7/69.7
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088/12.53/121.10	2088/12.53/123.19	2088/12.53/127.37	2088/24.43/143.45	2088/24.43/144.53
Refrigerant pipe size Ø (mm)	fl.	22	22	22	22	22
	s.	28	28	28	28	35
Electrical data						
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current (A)		13.5	15.6	18.8	21.1	24.4
Max. power indoor units (%)		50–150	50–150	50–150	50–150	50–150
Recommended breaker size (A)		32	40	40	63	63
Connectable indoor units (number / type)		1–40/15–250	1–45/15–250	1–50/15–250	2–50/15–250	2–50/15–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

▶ **The units are not suitable for outside installation.**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PQRY-P400–600YSLM-A | PQRY-P700–900YSLM-A

City Multi VRF

Water-cooled systems / WR2-series cooling and heating

WR2-series units P400 to P600, cooling and heating

Device designation		PQRY-P400YSLM-A	PQRY-P450YSLM-A	PQRY-P500YSLM-A	PQRY-P550YSLM-A	PQRY-P600YSLM-A
Cooling	Cooling capacity (kW)	45.0	50	56.0	63.0	69.0
	Power consumption (kW)	7.70	8.78	10.12	11.55	12.84
	EER	5.84	5.69	5.53	5.45	5.37
Heating	Heating capacity (kW)	50	56.0	63.0	69.0	76.5
	Power consumption (kW)	7.94	8.97	10.16	11.31	12.75
	COP	6.29	6.24	6.20	6.10	6.00

Device designation		PQRY-P400YSLM-A	PQRY-P450YSLM-A	PQRY-P500YSLM-A	PQRY-P550YLSM-A	PQRY-P600YSLM-A
Single modules		2 x P200	P250 + P200	2 x P250	P300 + P250	2 x P300
Required set of distributors		CMY-Q100CBK2	CMY-Q100CBK2	CMY-Q100CBK2	CMY-Q100CBK2	CMY-Q100CBK2
Cooling water flow (m³/h)		5.76 + 5.76	5.76 + 5.76	5.76 + 5.76	5.76 + 5.76	5.76 + 5.76
Pressure drop (cooling water) (kPa)		24/24	24/24	24/24	24/24	24/24
Sound pressure level dB(A) *		49	50	51	55	57
Dimensions (mm)	W/D/H	1.780/550/1.100	1.780/550/1.100	1.780/550/1.100	1.780/550/1.100	1.780/550/1.100
Weight (kg)		344	344	344	344	344
Refrigeration data						
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A/10.0/62.0	R410A/10.0/63.0	R410A/10.0/65.0	R410A/10.0/71.5	R410A/10.0/74.5
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088/20.88/129.46	2088/20.88/131.54	2088/20.88/135.72	2088/20.88/149.29	2088/20.88/155.56
Refrigerant pipe size Ø (mm)	fl.	22	22	22	22	22
	s.	28	28	28	28	35
Electrical data						
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current (A)		12.9	14.8	17.0	19.4	21.6
Max. power indoor units (%)		50–150	50–150	50–150	50–150	50–150
Connectable indoor units (number / type)		1–40/15–250	1–45/15–250	1–50/15–250	2–50/15–250	2–50/15–250

WR2-series units P700 to P900, cooling and heating

Device designation		PQRY-P700YSLM-A	PQRY-P750YSLM-A	PQRY-P800YSLM-A	PQRY-P850YSLM-A	PQRY-P900YSLM-A
Cooling	Cooling capacity (kW)	80.0	85.0	90.0	96.0	101.0
	Power consumption (kW)	14.73	15.64	16.57	18.03	19.38
	EER	5.43	5.43	5.43	5.32	5.21
Heating	Heating capacity (kW)	88.0	95.0	100.0	108.0	113.0
	Power consumption (kW)	14.73	15.90	16.75	18.49	19.74
	COP	5.97	5.97	5.97	5.84	5.72

Device designation		PQRY-P700YSLM-A	PQRY-P750YSLM-A	PQRY-P800YSLM-A	PQRY-P850YSLM-A	PQRY-P900YSLM-A
Single modules		2 x P350	P400 + P350	2 x P400	P450 + P400	2 x P450
Required set of distributors		CMY-Q200CBK	CMY-Q200CBK	CMY-Q200CBK	CMY-Q200CBK	CMY-Q200CBK
Cooling water flow (m³/h)		7.20 + 7.20	7.20 + 7.20	7.20 + 7.20	7.20 + 7.20	7.20 + 7.20
Pressure drop (cooling water) (kPa)		44/44	44/44	44/44	44/44	44/44
Sound pressure level dB(A) *		55	55	55	56	57
Dimensions (mm)	W/D/H	1.780/550/1.450	1.780/550/1.450	1.780/550/1.450	1.780/550/1.450	1.780/550/1.450
Weight (kg)		432	432	432	432	432
Refrigeration data						
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A/12.0/84.0	R410A/12.0/86.0	R410A/12.0/86.0	R410A/12.0/88.0	R410A/12.0/88.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088/25.06/175.39	2088/25.06/179.57	2088/25.06/179.57	2088/25.06/183.74	2088/25.06/183.74
Refrigerant pipe size Ø (mm)	fl.	28	28	28	28	28
	s.	35	35	35	42	42
Electrical data						
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current (A)		24.8	26.4	27.9	30.4	32.7
Max. power indoor units (%)		50–150	50–150	50–150	50–150	50–150
Connectable indoor units (number / type)		2–50/15–250	2–50/15–250	2–50/15–250	2–50/15–250	2–50/15–250

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

For the recommended fuse size, please refer to the stated single modules

► **The units are not suitable for outside installation.**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

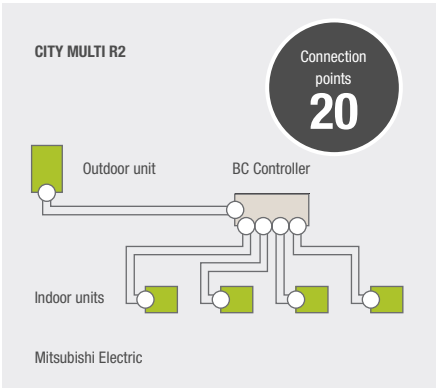
The heart of the R2 systems

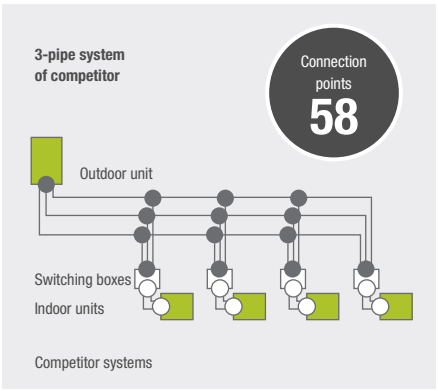
Installation of the BC Controller
The compact BC Controller connects several indoor units to an outdoor unit and distributes the refrigerant efficiently according to heating mode (gaseous refrigerant) and cooling mode (liquid refrigerant). As all indoor units are directly connected to the BC Controller, the R2-series does not require any refrigerant distributors for the indoor units. Installation is highly simplified, with potential leaks all but eliminated.

Simultaneous heating and cooling with 50 indoor units
Up to 12 BC Controllers (1x master, 11x slave) can be integrated into a cooling circuit. This means that up to 50 indoor units can be integrated into one refrigerant system.

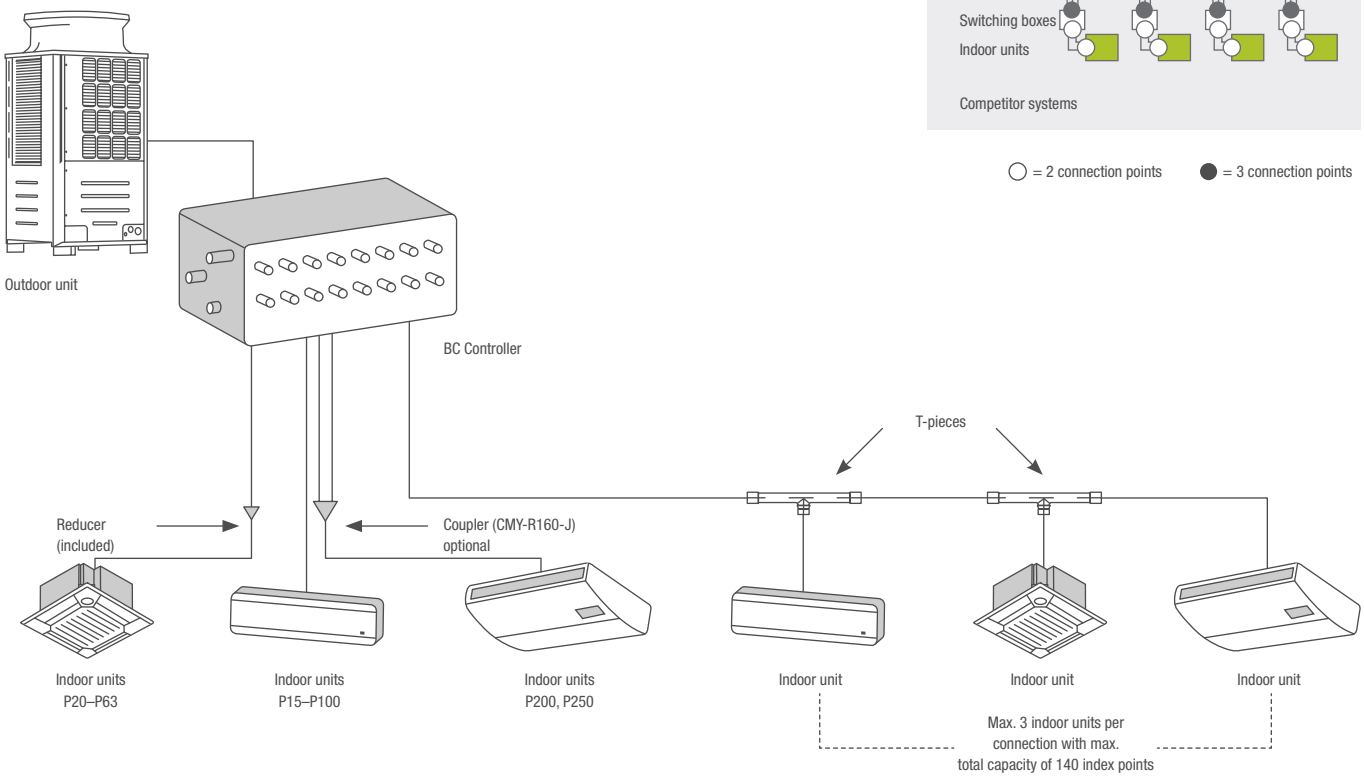
For more information on the R2 system, please see **page 279.**

Comparison of the connection points required in the system

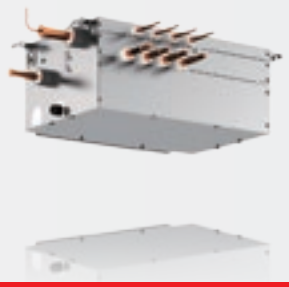




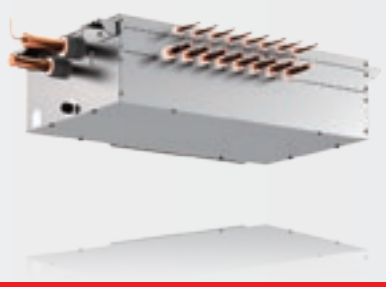
○ = 2 connection points ● = 3 connection points



BC-Slave-Controller



BC-Controller



BC-Master-Controller

City Multi VRF

R2-series cooling and heating

BC controller R2-series

Device designation		CMB-M104V-J1**	CMB-M106V-J1**	CMB-M108V-J1**	CMB-M1012V-J1**	CMB-M1016V-J1**
Dimensions (mm)	W/D/H	596/476/250	596/476/250	x/x/x	911/622/252	1.135/622/252
Weight (kg)		26	29	33	49	59
External refrigerant pipe size from	fl.	18	18	18	18	18
BC controller to outdoor unit Ø (mm	s.	22	22	22	22	22
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Max. power consumption (kW)		0.076	0.110	0.144	0.228	0.279
Operating current (A)		0.34	0.48	0.63	1.00	1.22
Connectable indoor units (number/type) *		max. 4/15–250	max. 6/15–250	max. 8/15–250	max. 12/15–250	max. 16/15–250

Refrigerant distributor for simultaneous cooling and heating operation with heat recovery

* for indoor units with a capacity of 140, one connection is sufficient, if 140 is exceeded, two connections are to be used

** Only for outdoor units in the unit sizes 200-350

BC master controller R2-series

Device designation		CMB-M108V-JA1***	CMB-M1012V-JA1***	CMB-M1016V-JA1***	CMB-P1016V-KA1**
Dimensions (mm)	W/D/H	911/622/252	1.135/622/250	1.135/622/250	1.135/622/250
Weight (kg)		48	60	68	69
External refrigerant pipe size from	fl.	22	22	22	22
BC controller to outdoor unit Ø (mm	s.	28	28	28	28
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Max. power consumption (kW)		0.144	0.228	0.279	0.312
Operating current (A)		0.63	1.00	1.22	1.30
Connectable indoor units (number/type) *		max. 8/15–250	max. 12/15–250	max. 16/15–250	max. 16/15–250

* for indoor units with a capacity of 140, one connection is sufficient, if 140 is exceeded, two connections are to be used

** Only for outdoor units in the unit sizes 950-1100

*** Only for outdoor units in the unit sizes 200-900

BC slave-controller R2-series

Device designation		CMB-M104V-KB1	CMB-M108V-KB1
Dimensions (mm)	W/D/H	596/476/250	596/476/250
Weight (kg)		23	31
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50
Max. power consumption (kW)		0.068	0.135
Operating current (A)		0.30	0.59
Connectable indoor units (number/type) *		max. 4/15–250	max. 8/15–250

Slave controller cannot be operated alone. It is used to extend the number of connections of the master controller. A maximum of eleven slave controllers can be connected to a master controller.

* for indoor units with a capacity of 140, one connection is sufficient, if 140 is exceeded, two connections are to be used

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Indoor units

Overview of functions




Technology	1-way ceiling cassette PMFY-VBM-E	2-way ceiling cassette PLFY-VLMD-E	4-way ceiling cassette with Euro grid dimensions PLFY-VFM-E	4-way ceiling cassette with Coanda effect PLFY-VEM-E	Wall-mounted unit PKFY-VLM-E, PKFY-VKM-E
Dehumidification function	●	●	●	●	●
Infrared receiver	opt.	opt.	opt.	opt.	●
Individual air flap settings			●	●	
Condensate pump	●	●	●	●	opt.
High pressure					
DC fan motor			●	●	●
Comfort					
Panel optionally with infrared receiver			●	●	
Optional 3D i-see sensor			●	●	
Optional filter lift				●	
Automatic fan stage control			●	●	●[1]
Air quality					
Coanda effect		●	●	●	
Fresh-air connection	●	●	●	●	
Automatic blow-out plate fin for even air distribution			●	●	●[1]
Variable air flow					

1 Only VLM series.






Ceiling suspended unit PCFY-VKM-E	Floor-standing unit design PFFY-VKM-E	Floor-standing unit without casing PFFY-VCM-E	Ceiling concealed unit PEFY-VMHS-E	Ceiling concealed unit PEFY-VMA-E	Ceiling concealed unit PEFY-VMS1-E
•	•	•	•	•	•
opt.	opt.	opt.	opt.	opt.	opt.
opt.			opt.	•	•
		•			
•	•	•			
•	•				
•			•	•	•
				•	

Overview of indoor units

VRF indoor units

Page reference

A wide selection of indoor units boasting quality technical and visual features enables easy integration into any room. The City Multi indoor units can be connected to both the Y-series and the R2-series.

Performance code	P 10	P 15	P 20	P 25	P 32	P 40	P 50	P 63	P 80	P 100	P 125
Cooling capacity (kW)	1,2	1,7	2,2	2,8	3,6	4,5	5,6	7,1	9,0	11,2	14,0
Heating capacity (kW)	1,4	1,9	2,5	3,2	4,0	5,0	6,3	8,0	10,0	12,5	16,0

1-way ceiling cassette
PMFY-VBM-E
146

2-way ceiling cassette
PLFY-VLMD-E
147

4-way ceiling cassette in
Euro grid dimensions
PLFY-VFM-E
148

4-way ceiling cassette
with Coanda effect
PLFY-VEM-E
149

Wall-mounted unit
PKFY-P VLM-E, PKFY-VKM-E[1]
150

Ceiling suspended unit
PCFY-VKM-E
151

Floor-standing unit design
PFFY-VKM-E
152

Floor-standing unit with static pressure
PFFY-P-VCM-E
153

Performance code	P 15	P 20	P 25	P 32	P 40	P 50	P 63	P 80	P 100	P 125	P 140	P 200	P 250
Cooling capacity (kW)	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
Heating capacity (kW)	1,9	2,5	3,2	4,0	5,0	6,3	8,0	10,0	12,5	16,0	18,0	25,0	31,5

Ceiling concealed unit,
horizontal throughflow,
high static pressure
PEFY-VMHS-E

154

Ceiling concealed unit,
horizontal throughflow,
medium static pressure
PEFY-VMA(2)-A

155 – 156

Ceiling concealed unit,
extra flat design
PEFY-VMS1-E

157

Booster unit
PWFY-VM-E-BU

160

Water heat exchanger
PWFY-VM-E-AU

161

For dimension graphics
open PDF excerpt.
leslink.info/dimensions

PMFY-P20–40VBM-E

1-way ceiling cassettes

Advantages

Easy installation and fast service
All unit types have the same compact dimensions. With a weight of only 14 kg for the unit and 3 kg for the grille, the 1-way ceiling cassette is one of the lightest of its kind.

Quiet operation
The optimised airflow control system with four fan levels provides a sound pressure level of only 27 dB(A) for the smallest unit.

Drain pump
The fitted drain pump provides a delivery height of 600 mm.

Fresh air opening
The unit is provided with two pre-stamped fresh air openings.

Limited stock availability
Only limited quantities of this series are kept in stock – please get in touch with your Mitsubishi Electric contact during the planning phase to check delivery times

PMFY 1-way ceiling cassettes

Device designation		PMFY-P20VBM-E	PMFY-P25VBM-E	PMFY-P32VBM-E	PMFY-P40VBM-E
Grille		PMP-40BMW	PMP-40BMW	PMP-40BMW	PMP-40BMW
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5
	Power consumption (kW)	0.042	0.044	0.044	0.054
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0
	Power consumption (kW)	0.042	0.044	0.044	0.054

Device designation		PMFY-P20VBM-E	PMFY-P25VBM-E	PMFY-P32VBM-E	PMFY-P40VBM-E
Grille		PMP-40BMW	PMP-40BMW	PMP-40BMW	PMP-40BMW
Air volume (m³/h)	L/M1/M2/H	390/432/480/522	438/480/516/558	438/480/516/558	462/522/582/642
Sound level (dB(A))*	L/H	27/35	32/37	33/37	32/39
Dimensions (grille) (mm)**	W/D/H	812 (1.000)/395 (470)/230 (30)	812 (1.000)/395 (470)/230 (30)	812 (1.000)/395 (470)/230 (30)	812 (1.000)/395 (470)/230 (30)
Weight (grille) (kg)		14 (3)	14 (3)	14 (3)	14 (3)
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6
	s.	12	12	12	12
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.20	0.21	0.21	0.26

* Sound pressure level measured centrically at a distance of 1.5 m below the grille

** Required installation height, value given in the brackets refers to the visible height of the grille

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

2-way ceiling cassettes

Advantages

Compact dimensions
The ceiling cassette is ideal for use in suspended ceilings.

Drain pump
All units are equipped with a drain pump for a delivery height of 600 mm as standard.

Lightweight unit - easy mounting
The extremely low weight of 23 kg only (PLFY-P20-25VLMD-E) considerably simplifies mounting. A terminal strip on the outside of the casing simplifies installation.

Quiet operation
The optimised airflow system reduces the sound pressure level to only 28 dB(A) for the types P20 to 32.

Fresh air openings
The ceiling cassette is provided with a pre-stamped fresh air opening. A supply air channel opening is also available.

Limited stock availability
Only limited quantities of this series are kept in stock – please get in touch with your Mitsubishi Electric contact during the planning phase to check delivery times

Accessories
See page 166 onwards

PLFY 2-way ceiling cassettes

Device designation		PLFY-P20VLMD-E	PLFY-P25VLMD-E	PLFY-P32VLMD-E	PLFY-P40VLMD-E	PLFY-P50VLMD-E	PLFY-P63VLMD-E	PLFY-P80VLMD-E	PLFY-P100VLMD-E	PLFY-P125VLMD-E
Grille		CMP-40VLW-C	CMP-40VLW-C	CMP-40VLW-C	CMP-40VLW-C	CMP-63VLW-C	CMP-63VLW-C	CMP-100VLW-C	CMP-100VLW-C	CMP-125VLW-C
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
	Power consumption (kW)	0.072/0.075	0.072/0.075	0.072/0.075	0.081/0.085	0.082/0.086	0.101/0.105	0.147/0.156	0.157/0.186	0.28/0.28
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
	Power consumption (kW)	0.065/0.069	0.065/0.069	0.065/0.069	0.074/0.079	0.075/0.080	0.094/0.099	0.140/0.150	0.150/0.180	0.27/0.27

Device designation		PLFY-P20VLMD-E	PLFY-P25VLMD-E	PLFY-P32VLMD-E	PLFY-P40VLMD-E	PLFY-P50VLMD-E	PLFY-P63VLMD-E	PLFY-P80VLMD-E	PLFY-P100VLMD-E	PLFY-P125VLMD-E
Grille		CMP-40VLW-C	CMP-40VLW-C	CMP-40VLW-C	CMP-40VLW-C	CMP-63VLW-C	CMP-63VLW-C	CMP-100VLW-C	CMP-100VLW-C	CMP-125VLW-C
Air volume (m^3/h)	L/M1/M2/H	390/480/-/570	390/480/-/570	390/480/-/570	420/510/-/630	540/660/-/750	600/780/-/930	930/1110/-/1320	1050/1260/-/1500	1140/1620/1800/1980
Sound level (dB(A))*	L/H	28/34	28/34	28/34	30/37	32/38	33/40	34/40	37/43	40/46
Dimensions (grille) (mm)**	W/D/H	776 (1.080)/634 (710)/350 (20)	776 (1.080)/634 (710)/350 (20)	776 (1.080)/634 (710)/350 (20)	776 (1.080)/634 (710)/350 (20)	946 (1.250)/634 (710)/350 (20)	946 (1.250)/634 (710)/350 (20)	1.446 (1.750)/634 (710)/350 (20)	1.446 (1.750)/634 (710)/350 (20)	1.708 (2.010)/606 (710)/350 (20)
Weight (grille) (kg)		23 (6.5)	23 (6.5)	24 (6.5)	24 (6.5)	27 (7.5)	28 (7.5)	44 (12.5)	47 (12.5)	56 (13)
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6	6	10	10	10	10
	s.	12	12	12	12	12	16	16	16	16
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.37	0.37	0.37	0.42	0.43	0.51	0.74	0.88	1.35

* Sound pressure level measured centrically at a distance of 1.5 m below the grille

** Recommended installation height, value given in the brackets refers to the visible height of the grille

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PLFY-P15–50VFM-E PAR-SL100A-E

4-way ceiling cassette

European ceiling grid dimensions

Advantages

European ceiling grid dimensions
The compact dimensions of 570 x 570 mm simplify installation in existing suspended ceilings as per standardised Euro grid dimensions.

Minimum installation height
The required installation height is only 245 mm. Thus, these units can also be fitted in suspended ceilings of very low height.

Lightweight unit - easy mounting
The use of state-of-the-art materials ensures a max. weight of only 114–15 kg. Mounting is therefore significantly simplified.

Drain pump
The fitted drain pump provides a delivery height of 850 mm.

Fresh air connection as standard
The cassette for European ceiling grid dimensions is provided with a pre-stamped fresh air opening as standard.

Grille with optional infrared receiver
Panel SLP-2FA for wired remote control. The infra-red receiver is integrated in panel SLP-2FALM, which also contains remote control PAR-SL100A-E. No additional receiver is therefore needed.

Horizontal air outlet

Optional 3D i-see sensor

PLFY 4-way ceiling cassettes to fit European ceiling grid

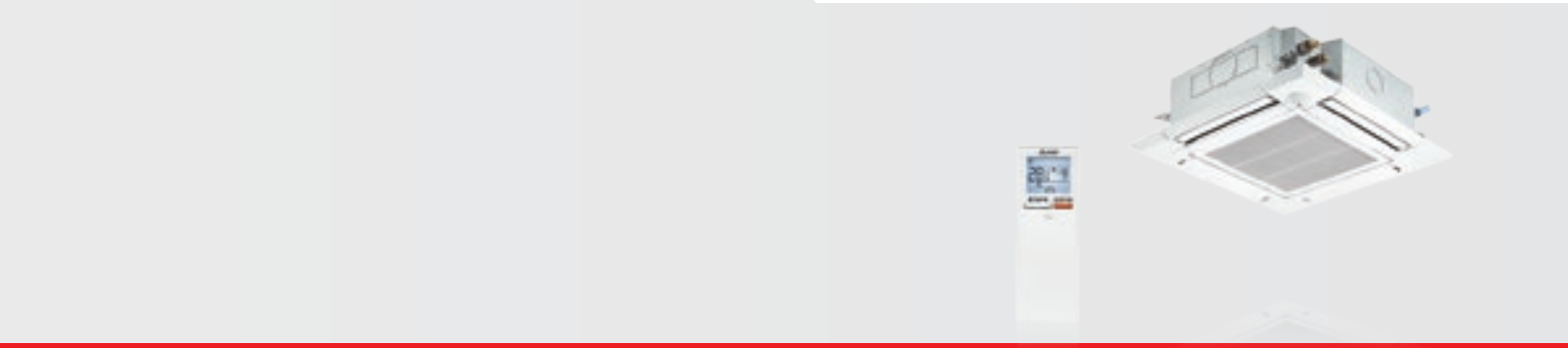
Device designation		PLFY-P15VFM-E	PLFY-P20VFM-E	PLFY-P25VFM-E	PLFY-P32VFM-E	PLFY-P40VFM-E	PLFY-P50VFM-E
Grille for cable remote control		SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA
Grille for infrared remote control		SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM
Cooling	Cooling capacity (kW)	1.7	2.2	2.8	3.6	4.5	5.6
	Power consumption (kW)	0.02	0.02	0.02	0.02	0.03	0.04
Heating	Heating capacity (kW)	1.9	2.5	3.2	4.0	5.0	6.3
	Power consumption (kW)	0.02	0.02	0.02	0.02	0.03	0.04

Device designation		PLFY-P15VFM-E	PLFY-P20VFM-E	PLFY-P25VFM-E	PLFY-P32VFM-E	PLFY-P40VFM-E	PLFY-P50VFM-E
Grille for cable remote control		SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA
Grille for infrared remote control		SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM
Air volume (m³/h)	L/M/H	390/450/480	390/450/510	390/480/540	420/480/570	450/540/660	540/660/780
Sound level (dB(A))*	L/M/H	26/28/30	26/29/31	26/30/33	26/30/34	28/33/39	33/39/43
Dimensions (grille) (mm)**	W/D/H	570 (625)/570 (625)/245 (10)	570 (625)/570 (625)/245 (10)	570 (625)/570 (625)/245 (10)	570 (625)/570 (625)/245 (10)	570 (625)/570 (625)/245 (10)	570 (625)/570 (625)/245 (10)
Weight (grille) (kg)		14 (3)	14 (3)	14 (3)	15 (3)	15 (3)	15 (3)
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6	6	6
	s.	12	12	12	12	12	12
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current cooling/heating (A)		0.19/0.14	0.21/0.16	0.22/0.17	0.23/0.18	0.28/0.23	0.40/0.35

* Sound pressure level measured centrically at a distance of 1.5 m below the grille

** Required installation height, value given in the brackets refers to the visible height of the grille

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.



PAR-SL100A-E PLFY-M20–125VEM-E

4-way ceiling cassettes

Advantages

Compact dimensions
Due to their low installation height, these units are ideal for use in suspended ceilings. Mounting is also simplified due to the light unit design.

Optionally available with Plasma Quad Connect filter
Plasma Quad Plus filter technology ensures highly effective air purification. Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM 2,5; <2,5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.

Panel optionally with PLP-6EA infrared receiver
panel for cable remote control. The infra-red receiver is integrated in panel PLP-6EALM, which also contains remote control PAR-SL100A-E. No additional receiver is therefore needed.

Individual settings of the flaps
All 4 air flaps can be adjusted individually and conveniently via the remote control.

Automatic fan level
In auto-fan operation, the airflow automatically adjusts itself to the room requirements. This way, the correct quantity of conditioned air is always available (MA remote control required).

Coanda effect

Suitable for connection to R32 outdoor units

Optional i-see sensor and filter lift

Accessories
See page 166 onwards

PLFY 4-way ceiling cassettes

Device designation		PLFY-M20VEM-E	PLFY-M25VEM-E	PLFY-M32VEM-E	PLFY-M40VEM-E	PLFY-M50VEM-E	PLFY-M63VEM-E	PLFY-M80VEM-E	PLFY-M100VEM-E	PLFY-M125VEM-E
Grille for cable remote control		PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
Grille for infrared remote control		PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
	Power consumption (kW)	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.07	0.11
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
	Power consumption (kW)	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.07	0.11

Device designation		PLFY-M20VEM-E	PLFY-M25VEM-E	PLFY-M32VEM-E	PLFY-M40VEM-E	PLFY-M50VEM-E	PLFY-M63VEM-E	PLFY-M80VEM-E	PLFY-M100VEM-E	PLFY-M125VEM-E
Grille for cable remote control		PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
Grille for infrared remote control		PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM	PLP-6EALM
Air volume (m³/h)	L/M1/M2/H	720/780 840/900	720/780 840/900	780/840 900/960	780/840 900/1020	780/840 960/1080	840/900/ 960/1080	840/1020/ 1200/1380	1200/1380/ 1560/1740	1320/1560/ 1800/2100
Sound level (dB(A))*	L/H	24/29	24/29	26/31	26/31	26/31	28/32	28/37	34/41	35/45
Dimensions (grille) (mm)**	W/D/H	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/298 (40)	840 (950)/840 (950)/298 (40)
Weight (grille) (kg)		19 (5)	19 (5)	19 (5)	19 (5)	19 (5)	21 (5)	21 (5)	24 (5)	24 (5)
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6	6	10	10	10	10
	s.	12	12	12	12	12	16	16	16	16
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current cooling/heating (A)		0.31/0.24	0.31/0.24	0.32/0.25	0.32/0.25	0.32/0.25	0.36/0.29	0.50/0.43	0.67/0.60	1.06/0.99

* Sound pressure level measured centrically at a distance of 1.5 m below the grille

** Required installation height, value given in the brackets refers to the visible height of the grille

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32. For further information please see the corresponding operation manual.

PKFY-P10–32VLM-E | PKFY-P40/50VLM-E | PKFY-P63/100VKM-E

Wall mounted units

Advantages

Quiet running
Thanks to optimisation of the air flow between the heat exchanger, air cylinder and four-stage fan motor a quiet running is achieved.

Optionally available with Plasma Quad Connect filter
Plasma Quad Plus filter technology ensures highly effective air purification. Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM 2,5; <2,5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.

Modern design
The attractive design of the wall-mounted units means that they can easily be integrated into any work or home environment. The integral flap closes the air outlet when the unit is switched off, creating a neat visual appearance. All wall units in pure white with a modern flat panel design.

Easy to assemble and service
To make installation easier, all the screws provided for attachment are accessible from the front of the wall-mounted unit. All pipes, including the condensate pipe, can be connected variably (from right, left, below or behind) for greater flexibility in pipe laying and the choice of installation location.

Infrared receiver
All wall mounted units are equipped with an infrared receiver as standard.

Optional drain pump
For the unit sizes P10 to P100A, an optional drain pump is available that is installed next to the unit and is adjusted to the indoor unit in terms of design and colour.

Accessories
See page 166 onwards

PKFY wall mounted units

Device designation		PKFY-P10VLM-E	PKFY-P15VLM-E	PKFY-P20VLM-E	PKFY-P25VLM-E	PKFY-P32VLM-E	PKFY-P40VLM-E	PKFY-P50VLM-E	PKFY-P63VKM-E	PKFY-P100VKM-E
Cooling	Cooling capacity (kW)	1.2	1.7	2.2	2.8	3.6	4.5	5.6	7.1	11.2
	Power consumption (kW)	0.02	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.08
Heating	Heating capacity (kW)	1.4	1.9	2.5	3.2	4.0	5.0	6.3	8.0	12.5
	Power consumption (kW)	0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.04	0.07

Device designation		PKFY-P10VLM-E	PKFY-P15VLM-E	PKFY-P20VLM-E	PKFY-P25VLM-E	PKFY-P32VLM-E	PKFY-P40VLM-E	PKFY-P50VLM-E	PKFY-P63VKM-E	PKFY-P100VKM-E
Air volume (m³/h)	L/M1/M2/H	198/210/228/252	240/252/264/282	240/264/294/324	240/276/324/402	258/324/414/504	378/444/516/600	408/498/612/744	960/-/-/1200	1200/-/-/1560
Sound level (dB(A))*	L/H	22/28	22/28	22/31	22/35	24/41	29/40	31/46	39/45	41/49
Dimensions (mm)	W/D/H	773/237/299	773/237/299	773/237/299	773/237/299	773/237/299	898/237/299	898/237/299	1.170/295/365	1.170/295/365
Weight (kg)		11	11	11	11	11	13	13	21	21
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6	6	6	6	10	10
	s.	12	12	12	12	12	12	12	16	16
Voltage supply (V, phase, Hz)		220 - 240, 1, 50	220 - 240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.20	0.20	0.20	0.25	0.35	0.35	0.45	0.37	0.58

* Sound pressure level measured 1 m in front of and 1 m below the unit

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Ceiling suspended unit

Advantages

Extra slim and elegant
Due to their slim and elegant design, the ceiling suspended units unobtrusively fit in every interior.

Automatic outlet flap for even air distribution
Thanks to the design with a single air outlet, the outlet flap serves as seal when the unit is switched off. In operation, it automatically swings back and forth in order to distribute the outflowing air evenly in the room.

Extremely low noise – highest comfort
Optimised airflow control systems and the high-quality casing made of special plastics with high noise damping effect provide a low sound pressure level of only 29 dB(A) for all units.

Optimised airflow for the respective ceiling height
All units have four fan levels and are suitable for ceiling heights of up to 3.5 m. With a switch on the unit's circuit board, the airflow can be adjusted to the respective ceiling height.

Optional drain pump
The condensate can be moved to the left or right within the unit. The optional drain pump is integrated in the unit. The electrical connection is already on the circuit board.

Significantly simplified mounting
The mounting of the units is carried out sideways. For this purpose, the lateral casing parts are removed. The time required for mounting and adjusting the units is thus considerably shortened.

Accessories
See page 166 onwards

PCFY ceiling suspended units

Device designation		PCFY-P40VKM-E	PCFY-P63VKM-E	PCFY-P100VKM-E	PCFY-P125VKM-E
Cooling	Cooling capacity (kW)	4.5	7.1	11.2	14.0
	Power consumption (kW)	0.04	0.05	0.09	0.11
Heating	Heating capacity (kW)	5.0	8.0	12.5	16.0
	Power consumption (kW)	0.04	0.05	0.09	0.11

Device designation		PCFY-P40VKM-E	PCFY-P63VKM-E	PCFY-P100VKM-E	PCFY-P125VKM-E
Air volume (m^3/h)	L/M1/M2/H	600/660/720/780	840/900/960/1080	1260/1440/1560/1680	1260/1440/1620/1860
Sound level (dB(A))*	L/H	29/36	31/37	36/43	36/44
Dimensions (mm)	W/D/H	960/680/230	1.280/680/230	1.600/680/230	1.600/680/230
Weight (kg)		24	32	36	38
Refrigerant pipe size Ø (mm)	fl.	6	10	10	10
	s.	12	16	16	16
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.28	0.33	0.65	0.76

* Sound pressure level measured 1 m in front of and 1 m below the unit

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PFFY-P20–40VKM-E

Compact floor-standing units
Design casing

Advantages

Particularly compact
The room-saving floor standing units with design casing only measure 70 cm in width, 20 cm in depth and 60 cm in height.

Double air outlet
These floor standing units are equipped with two air outlets: The top air outlet optionally (depending on the operating mode) leads cool or warm air into the room. The lower air outlet provides warm air and thus prevents cold floors.

Very low noise
Due to their optimised air outlet flaps, the new floor standing units offer a very low noise level. The PFFY-P20VKM-E has a noise level of only 27 dB(A).

Variable settings
The top air outlet can be set to 5 different positions via the remote control. Furthermore, a swing and automatic operating mode can be selected. In combination with the 4 fan levels, many individual settings are possible.

PFFY compact floor-standing units

Device designation		PFFY-P20VKM-E	PFFY-P25VKM-E	PFFY-P32VKM-E	PFFY-P40VKM-E
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5
	Power consumption (kW)	0.025	0.025	0.025	0.028
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0
	Power consumption (kW)	0.025	0.025	0.025	0.028

Device designation		PFFY-P20VKM-E	PFFY-P25VKM-E	PFFY-P32VKM-E	PFFY-P40VKM-E
Air volume (m³/h)	L/H	354/522	366/546	366/546	480/642
Sound level (dB(A))*	L/H	27/37	28/38	28/38	35/44
Dimensions (mm)	W/D/H	700/200/600	700/200/600	700/200/600	700/200/600
Weight (kg)		14	14	14	14
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6
	s.	12	12	12	12
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.12	0.12	0.12	0.12

* Sound pressure level measured 1 m in front of the unit and at a height of 1 m

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PFFY-P20–63VCM-E

Compact floor-standing units
without cover, high pressure

Advantages

Optimal use of the room
Thanks to freely selectable units without casing, state-of-theart air conditioning technology can now be integrated almost invisibly into every interior space. The air conditioners, only 200 mm deep, can be easily installed around the perimeter of rooms and deliver maximum capacity.

The dehumidification function
All floor standing units feature a dehumidification function in order to stabilise humidity at changing room temperatures. A further cooling is prevented and the air is dehumidified in order to keep it fresh and invigorating.

High static pressure
Four different pressures can easily be set at the unit via DIP switches. This helps the unit adjust to different installation situations.

DC fan motor
The DC fan motors guarantee highly efficient operation with high pressure and low sound pressure levels.

Super low-noise operation
Only 21 dB(A) for unit size 20.

PFFY floor-standing units without casing, high pressure

Device designation		PFFY-P20VCM-E	PFFY-P25VCM-E	PFFY-P32VCM-E	PFFY-P40VCM-E	PFFY-P50VCM-E	PFFY-P63VCM-E
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5	5.6	7.1
	Power consumption (kW)	0.022	0.026	0.031	0.038	0.052	0.058
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0	6.3	8.0
	Power consumption (kW)	0.022	0.026	0.031	0.038	0.052	0.058

Device designation		PFFY-P20VCM-E	PFFY-P25VCM-E	PFFY-P32VCM-E	PFFY-P40VCM-E	PFFY-P50VCM-E	PFFY-P63VCM-E
Air volume (m³/h)	L/M/H	300/360/420	330/390/480	330/420/510	480/570/660	600/690/810	720/840/990
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 level (dB(A))*	L/M/H	21/23/26	22/25/29	23/26/30	25/27/30	28/31/34	28/32/35
Dimensions (mm)	W/D/H	700/200/690	700/200/690	700/200/690	900/200/690	900/200/690	1.100/200/690
Weight (kg)		18	18	18.5	22.5	22.5	25.5
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6	6	10
	s.	12	12	12	12	12	16
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.25	0.30	0.34	0.38	0.50	0.49

* Sound pressure level measured 1 m in front of the unit and at a height of 1 m

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEFY-P200–250VMHS-E

Ceiling concealed ducted units
high static pressure / horizontal airflow

Advantages

High pressure
In case long air ducts need to be designed, the ceiling concealed ducted units type PEFY-VMH with a static pressure of 50 to 250 Pa are perfect.

Very service-friendly
Parts relevant to service such as fan roll and fan motor are easily accessible via a revision opening.

Optional drain pump

Accessories
See page 166 onwards

PEFY ceiling concealed ducted units, high static pressure

Device designation		PEFY-P200VMHS-E	PEFY-P250VMHS-E
Cooling	Cooling capacity (kW)	22.4	28.0
	Power consumption (kW)	0.99 / 1.14	1.23 / 1.41
Heating	Heating capacity (kW)	25.0	31.5
	Power consumption (kW)	0.99 / 1.14	1.23 / 1.41

Device designation		PEFY-P200VMHS-E	PEFY-P250VMHS-E
Air volume (m³ / h)	L / M / H	3000 / 3660 / 4320	3480 / 4260 / 5040
Static pressure (Pa)**		50 / 100 / 150 / 200 / 250	50 / 100 / 150 / 200 / 250
Sound level (dB(A))*	L / M / H	36 / 39 / 43	39 / 42 / 46
Dimensions (mm)	W / D / H	1.250 / 1.120 / 470	1.250 / 1.120 / 470
Weight (kg)		97	100
Refrigerant pipe size Ø (mm)	fl.	10	10
	s.	22	22
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50
Operating current (A)		3.47	4.72

* Sound power level measured centrally at a distance of 1.5 m beneath the device and with 50 Pa of external static compression

** Static compression can be configured via dip switch

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEFY-M20–140VMA-A

Ceiling concealed ducted units
medium static pressure / variable airflow

Advantages

Low installation height – only 250 mm
The ceiling concealed ducted units also fulfil great performance demands, especially at lower installation heights in the suspended ceiling.

Extremely low-noise operation
With a sound pressure level of only 21 dB(A) (types P20/25), the PEFY-VMA-series is one of the quietest of its kind.

Filter as standard
for all PEFY-M VMA-A

Optionally available with Plasma Quad Connect filter
Plasma Quad Plus filter technology ensures highly effective air purification. Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM 2,5; <2,5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.

With condensate pump
The condensate pump is already integrated in the unit.

Optimal adjustment due to variable airflow
The air intake can optionally take place from the rear (standard) or from below (provided by customer). Therefore, only the filter needs to be relocated from the back to the bottom of the unit.

Suitable for connection to R32 outdoor units

Accessories
See page 166 onwards

PEFY ceiling concealed ducted units, medium static pressure

Device designation		PEFY-M20 VMA-A	PEFY-M25 VMA-A	PEFY-M32 VMA-A	PEFY-M40 VMA-A	PEFY-M50 VMA-A	PEFY-M63 VMA-A	PEFY-M80 VMA-A	PEFY-M100 VMA-A	PEFY-M125 VMA-A	PEFY-M140 VMA-A
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
	Power consumption (kW)	0.032	0.032	0.044	0.047	0.066	0.087	0.080	0.142	0.199	0.208
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	18.0
	Power consumption (kW)	0.030	0.030	0.042	0.045	0.064	0.085	0.078	0.140	0.197	0.206

Device designation		PEFY-M20 VMA-A	PEFY-M25 VMA-A	PEFY-M32 VMA-A	PEFY-M40 VMA-A	PEFY-M50 VMA-A	PEFY-M63 VMA-A	PEFY-M80 VMA-A	PEFY-M100 VMA-A	PEFY-M125 VMA-A	PEFY-M140 VMA-A
Air volume (m³/h)	L/M/H	360/450/510	360/450/510	450/540/630	600/720/840	720/870/1020	810/960/1140	870/1080/1260	1380/1680/1920	1680/2040/2220	1770/2130/2400
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	40/50/70/100/150
Sound level (dB(A))*	L/H	21/27	21/27	23/30	23/31	24/34	27/35	25/34	30/38	34/40	33/40
Dimensions (mm)	W/D/H	700/732/250	700/732/250	700/732/250	900/732/250	900/732/250	900/732/250	1.100/732/250	1.400/732/250	1.400/732/250	1.600/732/250
Weight (kg)		21	21	21	25	25	27	30	37	38	42
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6	6	10	10	10	10	10
	s.	12	12	12	12	12	16	16	16	16	16
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.25	0.25	0.34	0.37	0.51	0.66	0.57	0.97	1.23	1.34

* Sound power level measured centrally at a distance of 1.5 m beneath the device and with 35/40 Pa of external static compression

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEFY-M20–125VMA2-A

Ceiling concealed ducted units

medium static pressure / variable airflow / High volume flow

Advantages

Low installation height – only 250 mm

The ceiling concealed ducted units also fulfil great performance demands, especially at lower installation heights in the suspended ceiling.

High volume flow

With their high air volume flows, the units are ideal for projects where air circulation is particularly important.

Filter as standard

for all PEFY-M VMA2-A

With condensate pump

The condensate pump is already integrated in the unit.

Optimal adjustment due to variable airflow

The air intake can optionally take place from the rear (standard) or from below (provided by customer). Therefore, only the filter needs to be relocated from the back to the bottom of the unit.

Accessories

See page 166 onwards

PEFY ceiling concealed ducted units, medium static pressure

Device designation		PEFY-M20 VMA2-A	PEFY-M25 VMA2-A	PEFY-M32 VMA2-A	PEFY-M40 VMA2-A	PEFY-M50 VMA2-A	PEFY-M63 VMA2-A	PEFY-M80 VMA2-A	PEFY-M100 VMA2-A	PEFY-M125 VMA2-A
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
	Power consumption (kW)	0.087	0.087	0.087	0.080	0.208	0.208	0.208	0.208	0.208
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
	Power consumption (kW)	0.085	0.085	0.085	0.078	0.206	0.206	0.206	0.206	0.206

Device designation		PEFY-M20 VMA2-A	PEFY-M25 VMA2-A	PEFY-M32 VMA2-A	PEFY-M40 VMA2-A	PEFY-M50 VMA2-A	PEFY-M63 VMA2-A	PEFY-M80 VMA2-A	PEFY-M100 VMA2-A	PEFY-M125 VMA2-A
Air volume (m³/h)	L/M/H	810/960/1.140	810/960/1.140	810/960/1.140	870/1.080/1.260	1.770/2.130/2.400	1.770/2.130/2.400	1.770/2.130/2.400	1.770/2.130/2.400	1.770/2.130/2.400
Static pressure (Pa)		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	40/50/70/100/150	40/50/70/100/150	40/50/70/100/150
Sound level (dB(A))*	L/H	27/35	27/35	27/35	25/34	33/40	33/40	33/40	33/40	33/40
Dimensions (mm)	W/D/H	900/732/250	900/732/250	900/732/250	1.100/732/250	1.600/732/250	1.600/732/250	1.600/732/250	1.600/732/250	1.600/732/250
Weight (kg)		27	27	27	30	42	42	42	42	42
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6	6	10	10	10	10
	s.	12	12	12	12	12	16	16	16	16
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.66	0.66	0.66	0.57	1.34	1.34	1.34	1.34	1.34

* Sound pressure level measured centrically at a distance of 1.5 m below the unit

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEFY-P15–63VMS1-E

Ceiling concealed ducted units
Flat design

Advantages

Low installation height – only 200 mm
The ceiling concealed ducted units feature a low installation height. A height of only 200 mm is required for installation.

Sufficient pressure
The external static pressure is adjustable from 5 to 50 Pascal. Thus, the unit can be flexibly adjusted to the respective circumstances.

With condensate pump
The condensate pump is already integrated in the unit.

Extremely low-noise operation
Thanks to a new fan generation, the new ceiling concealed ducted units have a very low noise level despite their low installation height of 200 mm. The noise level is at 22 dB(A) for the small fan level (PEFY-P15/20/25VMS1-E).

Optionally available with Plasma Quad Connect filter
Plasma Quad Plus filter technology ensures highly effective air purification. Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM 2,5; <2,5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.

PEFY ceiling concealed ducted units in flat design

Device designation		PEFY-P15VMS1-E	PEFY-P20VMS1-E	PEFY-P25VMS1-E	PEFY-P32VMS1-E	PEFY-P40VMS1-E	PEFY-P50VMS1-E	PEFY-P63VMS1-E
Cooling	Cooling capacity (kW)	1.7	2.2	2.8	3.6	4.5	5.6	7.1
	Power consumption (kW)	0.05	0.05	0.06	0.07	0.07	0.09	0.09
Heating	Heating capacity (kW)	1.9	2.5	3.2	4.0	5.0	6.3	8.0
	Power consumption (kW)	0.03	0.03	0.04	0.05	0.05	0.07	0.07

Device designation		PEFY-P15VMS1-E	PEFY-P20VMS1-E	PEFY-P25VMS1-E	PEFY-P32VMS1-E	PEFY-P40VMS1-E	PEFY-P50VMS1-E	PEFY-P63VMS1-E
Air volume (m³/h)	L/H	300/420	360/480	360/480	450/600	480/660	570/780	720/990
Static pressure (Pa)		5/15/35/50	5/15/35/50	5/15/35/50	5/15/30/50	5/15/35/50	5/15/35/50	5/15/35/50
Sound level (dB(A))*	L/H	22/26	22/28	22/29	23/30	26/30	29/34	29/35
Dimensions (mm)	W/D/H	839/700/200	839/700/200	839/700/200	839/700/200	1.039/700/200	1.039/700/200	1.239/700/200
Weight (kg)		19	19	19	20	24	24	28
Refrigerant pipe size Ø (mm)	fl.	6	6	6	6	6	6	10
	s.	12	12	12	12	12	12	16
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.42	0.28	0.28	0.33	0.42	0.52	0.57

* Sound pressure level measured centrically at a distance of 1.5 m below the unit

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

VRF HX2 S/M 1000–2500 DXE | VRF HP1000–2000 DXE | VRF HP1000–2000R DXE

VRF City Multi door air curtain – available as suspended and concealed ceiling units

thermoscreens®

Advantages

- High energy efficiency (very high efficiency, 75 % energy savings)
- Plug&Play: fast installation due to integrated Mitsubishi Electric system components PAC-AH and LEV-Kit
- High comfort and energy savings due to new 3D-air outlet grille with homogenous outlet (90-92 % according to ISO 27327)
- Can be integrated into GLT and central control unit via AE-200/EW-50E and TG2000
- Condensate reservoir and electronic heating for defrost-phase included as standard
- Individual wiring of the fan levels possible for customers
- Connectable to PUHY/PURY/PQHY/PQRY systems

Door air curtain, HX2-S, VRF City Multi

Designation of air curtain		VRF HX2-S 1000 DXE	VRF HX2-S 1500 DXE	VRF HX2-S 2000 DXE	VRF HX2 2000 DXE HO	VRF HX-S 2500 DXE
Air speed (m/s)		9.0	9.0	9.0	9.0	9.0
Dimensions (mm)	W/D/H	1.190/735/306	1.720/735/306	2.240/735/306	2.240/735/306	2.770/735/306
Sound pressure level (dB(A))		44–52	44–52	45–53	45–53	45–53
Weight (kg)		66	87	114	114	160
Airflow (m³/h)		1310	2070	2590	2590	3070
Capacity index		P71	P125	P140	P200	P200
Cooling capacity (kW)		6.8	10.8	12.3	16.8	17.0
Heating capacity (kW)		8.3	13.8	15.7	21.0	21.2
Max. installation height (m)		3.2	3.2	3.2	3.2	3.2
Voltage supply (without defroster)		230V, 1ph, 50Hz	230V, 1ph, 50Hz	230V, 1ph, 50Hz	230V, 1ph, 50Hz	230V, 1ph, 50Hz
Voltage supply (with defroster)		400V, 3ph (3+N), 50Hz	400V, 3ph (3+N), 50Hz	400V, 3ph (3+N), 50Hz	400V, 3ph (3+N), 50Hz	400V, 3ph (3+N), 50Hz
Operating current (A)		0.8/7.3	1.2/12.1	1.4/14.4	1.4/14.4	2.0/18.3

Prices upon request

The specifications of the Mr. Slim systems can be found on page 87.

Door air curtain, HX2-M, VRF City Multi

Designation of air curtain		VRF HX2-M 1000 DXE	VRF HX2-M 1500 DXE	VRF HX2-M 2000 DXE	VRF HX2-M 2500 DXE
Air speed (m/s)		13.1	13.1	13.1	13.1
Dimensions (mm)	W/D/H	1.190/735/306	1.720/735/306	2.240/735/306	2.770/735/306
Sound pressure level (dB(A))		42–54	42–54	43–55	43–55
Weight (kg)		72	96	126	175
Airflow (m³/h)		1640	2580	3210	4050
Capacity index		P100	P140	P200	P250
Cooling capacity (kW)		8.2	12.6	16.6	20.5
Heating capacity (kW)		10.3	15.7	20.7	25.6
Max. installation height (m)		4.0	4.0	4.0	4.0
Voltage supply (without defroster)		230V, 1ph, 50Hz	230V, 1ph, 50Hz	230V, 1ph, 50Hz	230V, 1ph, 50Hz
Voltage supply (with defroster)		400V, 3ph (3+N), 50Hz	400V, 3ph (3+N), 50Hz	400V, 3ph (3+N), 50Hz	400V, 3ph (3+N), 50Hz
Operating current (A)		1.7/8.2	2.6/13.5	3.4/16.4	4.6/20.9

Prices upon request

The specifications of the Mr. Slim systems can be found on page 87.

▶ **Other combinations possible. Documentation available on request.**

Order the air screen modules directly from the manufacturer Thermoscreens:

Thermoscreens GmbH
In der Loh 6a
40668 Meerbusch

Telefon: 02150/910 4098
Telefax: 02150/910 4097
post@thermoscreens.de www.thermoscreens.de

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PWFY-P100VM-E-BU

Booster unit

Water heating up to 70 °C

Advantages

Warm water up to 70 °C

With the booster unit, water temperatures of up to 70 °C can be achieved in the primary circuit. Ideal for heating drinking water up to 65 °C.

Inverter-controlled compressor

The booster circuit is operated via an inverter-controlled R134a compressor.

Heat recovery

The R2 system recovers the heat generated in cooled down rooms and uses it for heating drinking water.

COP over 5

Due to the heat recovery, a system COP of 5.5 can be reached at a water temperature of 70 °C.

External control

The target value can be preset using a 4-20 mA signal from an external control. Contacts for switching on/off and changing the operating mode are available as standard.

Accessories

- Cable remote control PAR-W21MAA

PWFY booster unit

Device designation		PWFY-P100VM-E-BU
Heating	Heating capacity (kW)	12.5
	Adjustable temperature range °C	30–70

Device designation		PWFY-P100VM-E-BU
Sound pressure level dB(A) *		44
Water volume flow rate (m³/h)		0.6–2.15
Inlet water temperature °C		10–70
Temperature difference during operation (K)		5
Dimensions (mm)	W/D/H	450/300/800
Weight (kg)		64
Refrigeration data		
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R134a/1.1/1.1
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		1430/1.6/1.6
Refrigerant pipe size Ø (mm)	fl.	10
	s.	16
Electrical data		
Voltage supply (V, phase, Hz)		220–240, 1, 50
Max. power consumption (kW)		2.48
Max. operating current (A)		11.12

* Sound pressure level measured 1 m in front of the unit and at a height of 1 m

Energy efficiency class on a scale from A+++ to D

▶ **The booster unit is only suitable for connection to City Multi R2 systems for simultaneous cooling and heating.**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PWFY-P140VM-E-AU

Water heat exchanger

Hot and cold water supply

Advantages

Water heating up to 45 °C

With the heat exchanger unit, water temperatures of up to 45 °C can be achieved in heating mode. Ideal for supplying floor heatings or fan coils.

Water cooling down to 10 °C

In cooling mode, minimum water temperatures of 10 °C are possible.

Heat recovery

When connected to an R2 system, the heat generated in cooled rooms or cooled processes can be recovered and used for heating up water.

Four operating modes

Four operating modes provide an optimal adjustment to the specific requirements. Cooling, heating, ECO mode and frost protection mode are available.

ECO mode

In ECO mode, the target temperature is automatically adjusted to the outside temperature. The course of the heating curve can be individually adjusted.

External control

The target value can be preset using a 4-20 mA signal from an external control. Contacts for switching on/off and changing the operating mode are available as standard.

Can be connected to City Multi Y and R2 systems

Note

In combinations featuring outdoor units from the PUHY and PQHY series, the PAC-SV01PW-E valve must be connected upstream of every water heat exchanger.

Accessories

- Cable remote control PAR-W21MAA

PWFY water heat exchanger

Device designation		PWFY-P140VM-E-AU
Cooling	Cooling capacity (kW)	16.0
	Adjustable temperature range °C	10 – 30
Heating	Heating capacity (kW)	18.0
	Adjustable temperature range °C	30 – 45

Device designation		PWFY-P140VM-E-AU
Sound pressure level dB(A) *		29
Water volume flow rate (m³/h)		1.8 – 4.3
Inlet water temperature °C		10 – 40
Outlet water temperature °C		5 – 45
Temperature difference during operation (K)		5
Dimensions (mm)	W / D / H	450 / 300 / 800
Weight (kg)		36
Refrigeration data		
Refrigerant pipe size Ø (mm)	fl.	10
	s.	18
Electrical data		
Voltage supply (V, phase, Hz)		220 – 240.1, 50
Max. power consumption (kW)		0.015
Operating current (A)		0.065

* Sound pressure level measured 1 m in front of the unit and at a height of 1 m

Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Connection kit

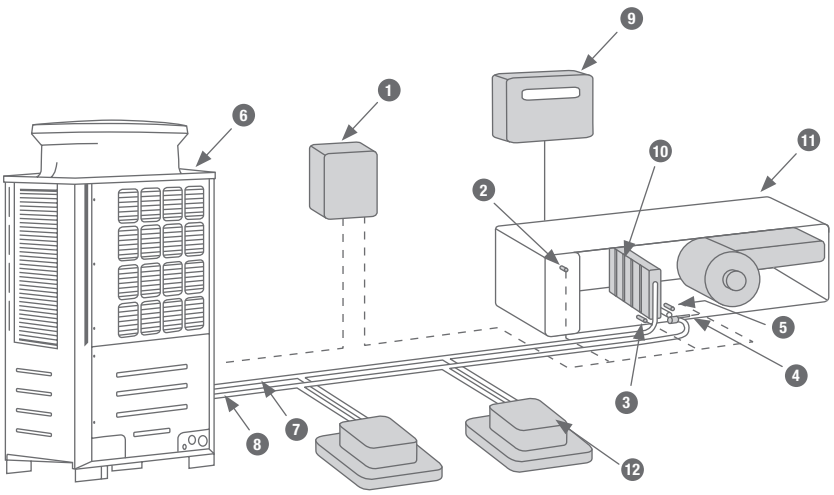
For heat exchangers in ventilation units

- The PAC-AH 125–500M-J connection kits are suitable for heating and cooling mode. They can be used to implement return air or supply air control when used in conjunction with a ventilation unit. The new function of supply air control is made possible by additional temperature sensors and a new controller.
- Outputs above 56 kW of cooling and 63.0 kW of heating can be achieved through the use of multiple connection kits with multi-circuit heat exchangers.
- Comprising the controller box – including standard PCB and microprocessor control – plus four temperature sensors, the connection kit is integrated into the City Multi M-Net data bus for control purposes.
- The scope of delivery also includes the electronic expansion valves (LEV) required for connecting the external heat exchangers to the piping system.

Please observe our design and installation information during the design phase.

- Either the standard individual remote controllers are selected or activation is handled by a superordinate system remote controller (e.g. centralised remote controller). In addition, it is possible to make use of the many applications of the external inputs and outputs.
- The PAC-AH125–500M-J connection kits feature a 0 to 10 V input for setpoint specification as standard.
- The PAC-AH125–500M-J connection kits are intended for installation in closed rooms.

Connection of a ventilation system

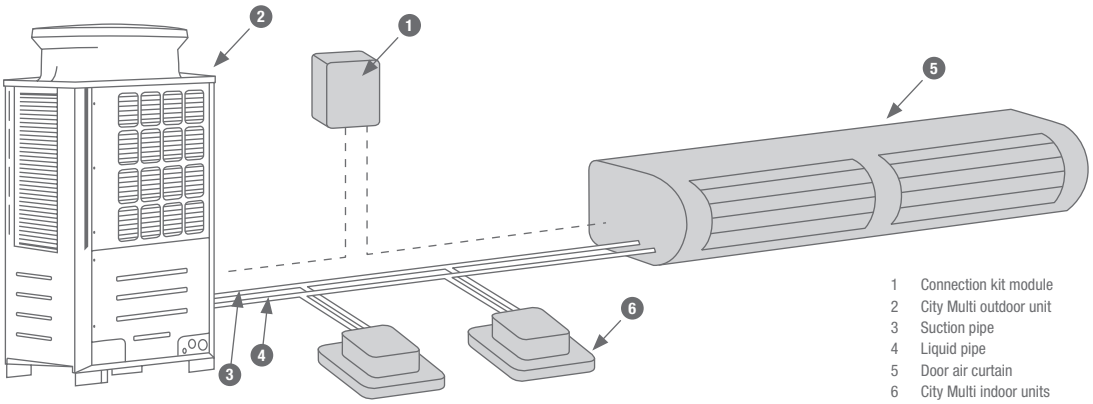


1–5 Connection kit module
6 City Multi outdoor unit
7 Suction pipe
8 Liquid pipe
9 Control of the ventilation system (on site)
10 Heat exchanger (on site)
11 Ventilation unit
12 City Multi indoor units

We will be happy to provide technical details and information on request.

Connection to door air curtain

Additional connection options
Door air curtains and other refrigerant/air heat exchangers can also be connected to the connection kit.



1 Connection kit module
2 City Multi outdoor unit
3 Suction pipe
4 Liquid pipe
5 Door air curtain
6 City Multi indoor units

We will be happy to provide technical details and information on request.

Unit name		PAC-AH125M-J		PAC-AH140M-J	PAC-AH250M-J		PAC-AH500M-J	
		Cooling/heating		Cooling/heating	Cooling/heating		Cooling/heating	
Output class*		P100	P125	P140	P200	P250	P400	P500
Cooling output min. – max.	kW	9,0–11,2	11,2–14,0	14,0–16,0	16,0–22,4	22,4–28,0	36,0–45,0	45,0–56,0
Heating output min. – max.	kW	10,0–12,5	12,5–16,0	16,0–18,0	18,0–25,0	25,0–31,5	40,0–50,0	50,0–63,0
Reference volume flow rate Use without indoor units	m^3/h	2.000	2.500	3.000	4.000	5.000	8.000	10.000
Reference volume flow rate Use with standard indoor units in the system	m^3/h	800	1.000	1.120	1.600	2.000	3.200	4.000
Air inlet temperature, cooling	°C	15–24	15–24	15–24	15–24	15–24	15–24	15–24
Air inlet temperature, heating, supply air control	°C	-10–15 °C	-10–15 °C	-10–15 °C	-10–15 °C	-10–15 °C	-10–15 °C	-10–15 °C
Air inlet temperature, heating, return air control	°C	-10–20 °C	-10–20 °C	-10–20 °C	-10–20 °C	-10–20 °C	-10–20 °C	-10–20 °C
IP protection class		2X	2X	2X	2X	2X	2X	2X
Weight	kg	5	5	5	5	5	5	5
Controller box dimensions (mm)	W x D x H	418 x 325 x 122	418 x 325 x 122	418 x 325 x 122	418 x 325 x 122	418 x 325 x 122	418 x 325 x 122	418 x 325 x 122
Cooling connections	mm	10/16	10/16	10/16	10/18	10/22	12/28	16/28
Voltage supply	V, Phase, Hz	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50

* Configurable via DIP switches

Combination options

	PAC-AH125M-J	PAC-AH140M-J	PAC-AH250M-J	PAC-AH500M-J
PUHY-Standard P200–P1350	•	•	•	• (> P400)
PUHY High COP EP200–EP1350	•	•	•	• (> EP400)
PURY Standard P200–P900	•	•	•	
PURY High COP EP200–EP900	•	•	•	
PQHY WY P200–P900	•	•	•	• (> P400)
PQRY WR2 P200–P600	•	•	•	

PAC-LV11M-J

PAC-MK54BC

PAC-MK34BC

Multi-split branch boxes

For City Multi outdoor units

Advantages

- A customary tee can be used to connect the two branch boxes.

LEV-Kit PAC-LV11M-J / PAC-MK34BC / PAC-MK54BC

The connection kits make it possible to connect indoor units from the M series and Mr. Slim series to City Multi VRF units. The advantage for users lies in the significantly larger choice of possible indoor units. In addition to the electronic expansion valve, the LEV kit contains a control board and an address board for the precise addressing of each indoor unit used.

Branch boxes for PUMY outdoor units

Designation of branch boxes		PAC-MK34BC	PAC-MK54BC	PAC-LV11M-J
Dimensions (mm)	W	450	450	180
	D	280	280	210
	H	170	170	140
Weight (kg)		6.7	7.4	1.3
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Connectable indoor units (number)		1–3	1–5	1
Connectable indoor units (power)		15–100*	15–100*	15–50

* per indoor unit

The LEV kit can be mounted on the indoor unit itself or up to 15 m away, e.g. in a false ceiling outside the room that is to be air conditioned. The connection kits require a voltage supply (230 V, 50 Hz, 1 phase) and also supply voltage to the connected indoor unit. The insulated housing is impervious to vapour diffusion and does not require a condensate drain.

Compatibility tables

Via PAC-LV11M-J to PUMY-P

Unit	Type	Indoor unit performance index								
		15	18	20	25	35	42	50	60	71
Wall-mounted units	MSZ-LN-VG2				•	•		•		
Wall-mounted units	MSZ-AP-VGK	•		•	•	•	•	•		
Wall-mounted units	MSZ-EF-VGK		•		•	•	•	•		
Floor-standing units	MFZ-KT-VG				•	•		•		

Via PAC-LV11M-J to PUMY-SP

Unit	Type	Indoor unit performance index								
		15	18	20	25	35	42	50	60	71
Wall-mounted units	MSZ-LN-VG2				•	•		•		
Wall-mounted units	MSZ-AP-VGK	•		•	•	•	•	•		
Wall-mounted units	MSZ-EF-VGK		•		•	•	•	•		
Floor-standing units	MFZ-KT-VG				•	•		•		

Via PAC-LV11M-J to PUHY-P/-EP**YNW, PURY-P/PURY-EP**YNW, PQHY-P**YLMA, PQRY-P**YLMA

Unit	Type	Indoor unit performance index								
		15	18	20	25	35	42	50	60	71
Wall-mounted units	MSZ-LN-VG2				•	•		•		
Wall-mounted units	MSZ-AP-VGK	•		•						

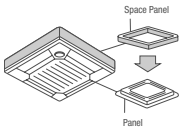
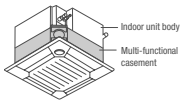
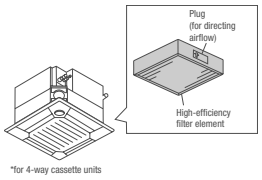
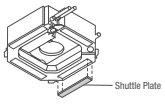
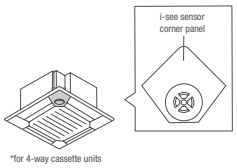
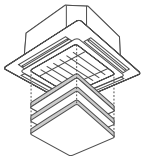
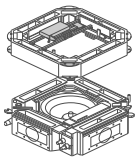
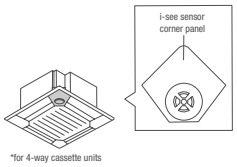
Via PAC-MK33/53BC an PUMY-P

Unit	Type	Indoor unit performance index								
		15	18	20	25	35	42	50	60	71
Wall-mounted units	MSZ-LN-VG2				•	•		•		
Wall-mounted units	MSZ-AP-VGK	•		•	•	•	•	•		
Wall-mounted units	MSZ-EF-VGK		•		•	•	•	•		
Floor-standing units	MFZ-KT-VG				•	•		•		
1-way ceiling cassettes	MLZ-KP-VF				•	•		•		
Concealed ducted units	SEZ-M-DA				•	•		•	•	•
4-way ceiling cassettes	SLZ-M-FA	•			•	•		•		

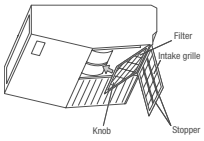
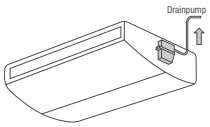
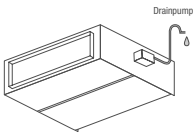
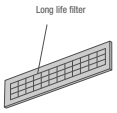
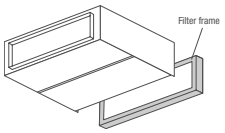
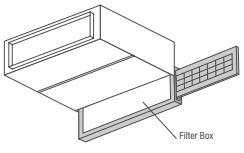
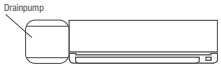
Via PAC-MK33/53BC to PUMY-SP

Unit	Type	Indoor unit performance index								
		15	18	20	25	35	42	50	60	71
Wall-mounted units	MSZ-LN-VG2				•	•		•		
Wall-mounted units	MSZ-AP-VGK	•		•	•	•	•	•		
Wall-mounted units	MSZ-EF-VGK		•		•	•	•	•		
Floor-standing units	MFZ-KT-VG				•	•		•		
1-way ceiling cassettes	MLZ-KP-VF				•	•		•		
Concealed ducted units	SEZ-M-DA				•	•		•	•	•
4-way ceiling cassettes	SLZ-M-FA	•			•	•		•		

Indoor unit accessories

Name	Description
PLFY-M VEM-E	**4-way ceiling cassettes**
PAC-SJ65AS-E	for PLFY-M20-125VEM-E
	**Plinth panel** Enables installation even with little space available in the ceiling. The required installation height is reduced by 40 mm.
PAC-SJ41TM-E	for PLFY-M20-125VEM-E
	**Outside air box incl. filter housing** Supplies outside air to the ceiling cassette. Outside air can account for up to 20% of the rated air volume. For installation between unit and panel; installation height 135 mm.
PAC-SH59KF-E	for PLFY-M20-125VEM-E with outside air box PAC-SJ41TM-E
	**High-performance filter element** High-performance filter element for use in the PAC-SH53TM-E outside air box. Features a filter efficiency of 65% and a service life of approx. 2,500 operating hours.
PAC-SJ37SP-E	for PLFY-M20-125VEM-E
	**Locking panel** The locking panels are installed in the air outlet opening of the indoor units in order to lock a maximum of 2 air outlets.
PAC-SE1ME-E	for PLFY-M20-125VEM-E
	**i-see sensor** The i-see sensor measures the temperature in the floor area and uses automatic fan control to cut temperature layering to a minimum. Improved temperature distribution reduces the compressor runtime and energy consumption.
PLP-6EAJ	for PLFY-M20-125VEM-E
	**Filter lift panel** The filter can be lowered by up to 4 m via remote controller. This makes filter cleaning easier, especially in high rooms.
PAC-SK51FT-E	for PLFY-M20-125VEM-E
	**Plasma Quad Connect filter**[1] **P**lasma Quad Connect add-on air purification filter for installation between the unit and the panel
PLFY-P VFM-E	**4-way ceiling cassettes in Euro grid dimensions**
PAC-SF1ME-E	for PLFY-P15-50VFM-E
	**3D i-see sensor** The 3D i-see sensor detects the number of persons in the room and adjusts the output to meet demand. An energy-saving programme is automatically activated in the event of low occupancy.

1 Available as of May 2021.

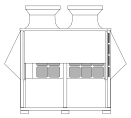
Name	Description
PCFY-P VKM-E	**Ceiling suspended units**
PAC-SH88KF-E	for PCFY-P40VKM-E
PAC-SH89KF-E	for PCFY-P63VKM-E
PAC-SH90KF-E	for PCFY-P100/125VKM-E
	**High-performance filter element** High-performance filter element as replacement for the standard air filter. The high-performance and standard filter cannot be operated simultaneously.
PAC-SJ92DM-E	for PCFY-P40VKM-E
PAC-SJ93DM-E	for PCFY-P63-125VKM-E
	**Condensate pump** The condensate pump is integrated into the unit and the condensate is conveyed upwards. The delivery head is 600 mm.
PEFY-P VMHS-E	**Ceiling concealed units**
PAC-KE05DM-F	PEFY-P200/250VMHS-E
	**Condensate pump** Condensate pump for installation in the units.
PAC-KE85LAF	for PEFY-P200/250VMHS-E
	**Long-Life-Filterelement** for den Einsatz der Filterelemente ist der Filterrahmen PAC-KE TB-F erforderlich.
PAC-KE250TB-F	for PEFY-P200/250VMHS-E
	**Filter frame** The filter frame is required in order to use the long-life filters.
PEFY-M VMA-E	**Ceiling concealed units**
PAC-KE91TB-E	for PEFY-M20-32VMA
PAC-KE92TB-E	for PEFY-M40/50VMA
PAC-KE93TB-E	for PEFY-M63-80VMA
PAC-KE94TB-E	for PEFY-M100/125VMA
PAC-KE95TB-E	for PEFY-M140VMA
	**Filter boxes** The filter boxes enable the removal of the filters towards either the side or the bottom, even when a duct is connected on the suction side. The air filter included in the scope of delivery for the indoor unit is deployed in the filter box.
PKFY-P VLM/VKM	**Wall-mounted units**
PAC-SK01DM-E	Condensate pump for PKFY-P10-50VLM-E
PAC-SH94DM-E	Condensate pump for PKFY-P63/100VKM-E
	**Condensate pump** The condensate pump features a dedicated housing and is intended for installation next to the wall-mounted unit on the left-hand side, as this is where the intake manifold of the pump is located. The delivery head is 800 mm.

Indoor unit accessories

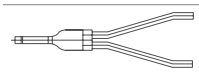
Name	Description
MAC-100FT-E	for PKFY-P10-100VLM/VKM-E
	Plasma Quad Connect[1] add-on air purification filter for installation on the air intake of the unit

1 Available as of May 2021.

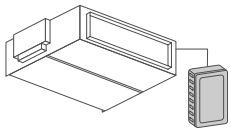
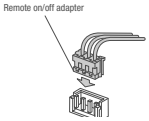
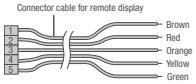
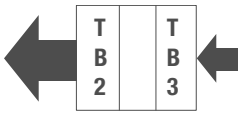
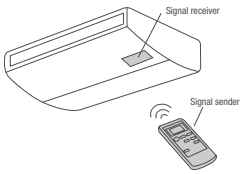
Accessories for outdoor units

Name	Description
Wind protection hoods for YNW series outdoor units	
SH-S YNW-A	for City Multi “S” outdoor unit modules
SH-L YNW-A	for City Multi “L” outdoor unit modules
SH-XL YNW-A	for City Multi “XL” outdoor unit modules
	**Wind protection hoods** The hoods protect the heat exchangers against heavy winds in the case of unprotected installation, enabling cooling mode at outside temperatures as low as –15 °C.
Heated condensate trays for YNW series outdoor units	
DP-S YNW	for City Multi “S” outdoor unit modules
DP-L YNW	for City Multi “L” outdoor unit modules
DP-XL YNW	for City Multi “XL” outdoor unit modules
	**Heated condensate trays** Electrically heated condensate tray for safe discharge of accumulated condensation even at sub-zero temperatures.
Safety guard set for YNW series outdoor units	
FG-S YNW-A	for City Multi “S” outdoor unit modules
FG-L YNW-A	for City Multi “L” outdoor unit modules
FGL-XL YNW-A	for City Multi “XL” outdoor unit modules
Panel heater for YNW series outdoor units	
PAC-PH01EHY	for City Multi “S” outdoor unit modules
PAC-PH02EHY	for City Multi “L” outdoor unit modules
PAC-PH03EHY	for City Multi “XL” outdoor unit modules
Accessories for PUMY outdoor units	
PAC-SG61DS-E	Condensate drain set
PAC-SH97DP-E	Condensate tray
PAC-SH96SG-E	Air deflector (2x required for PUMY-P)
PAC-SH95AG-E	Wind protection panel (2x required for PUMY-P)

Cooling technology accessories

Name	Description
BC Controller coupler	
CMY-R160-J1	Coupler for all BC Controllers with solder connections
	**BC Controller coupler** Size 100–250 indoor units occupy two outputs on the BC Controller. The coupler is used to join two outputs with precision.

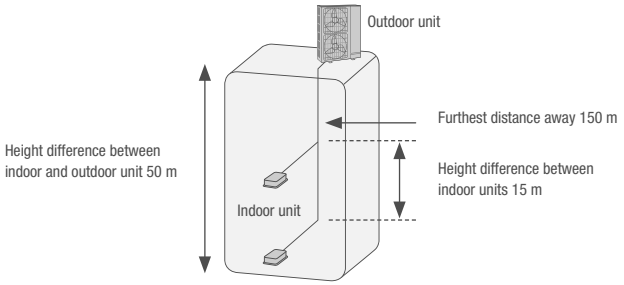
Control system accessories

Name	Description
Control accessories	
PAC-SE41TS-E	
	**External temperature sensor** This set comprises a temperature sensor, 2-wire connection cable (12 m long) and fixing material.
PAC-SE55RA-E	
	**Remote on/off adapter** The remote on/off adapter comprises a connector with cabling for establishing a remote on/off switching operation (cabling length 2 m, can be extended to max. 10 m). Switch, relay, timer and cabling implemented on site.
PAC-SA88HA-E	1 pc.
	**Remote monitoring cable** Fault and operation notification issued in the form of a 12 V DC signal. This 12 V signal can be connected to a relay for further processing. The on-site relay must feature a maximum output of 0.9 W.
PAC-SF46EPA-F	
	**Signal transmission amplifier** Amplifies the transmission of M-Net data bus signals for bus networks featuring distant branches.
ME-AC/KNX15	for up to 15 indoor units
ME-AC/KNX100	for up to 100 indoor units
	KNX interfaces KNX interface for up to 100 units, only with EW-50E or AE-200E for KNX15 and KNX100.
ME-AC-MBS-50	for up to 50 indoor units
ME-AC-MBS-100	for up to 100 indoor units
	Modbus interfaces Interface for incorporating City Multi systems into a Modbus building management system. It is only connected in combination with EW-50E or AE-200E for MBS-50 and MBS-100 and its range of functions depends on the project in question.
PAR-SL94B-E	for PCFY-P40-125VKM-E
	**Infrared remote controller** The infrared remote controller set comprises the infrared remote controller (transmitter), a wall bracket and the receiver element, which is integrated into the label on the bottom of the housing.
PAR-SE9FA-E	for PLFY-M20-125VEM-E
	**Infrared receiver for integration into panel** The infrared receiver can be integrated into the panel, with the remote controller PAR-FL32 required for operation.

PUMY

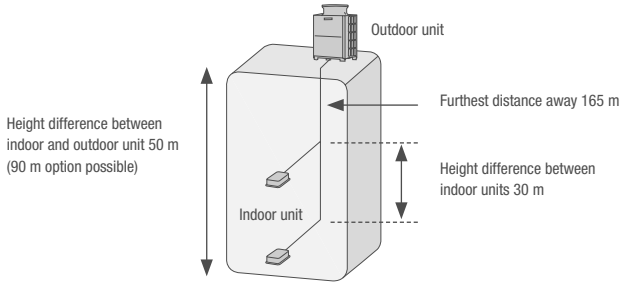
Total length of pipes	300 m (150 m[1])
Furthest distance away	150 m (80 m[1])
Furthest distance away after first branch	30 m
Permissible height difference between ...	
Indoor unit and outdoor unit (roof installation)	50 m
Indoor unit and outdoor unit (floor installation)	40 m
Indoor units	15 m

1 Values apply to PUMY-P200YKM.



Y-series PUHY-P/PUHY-EP

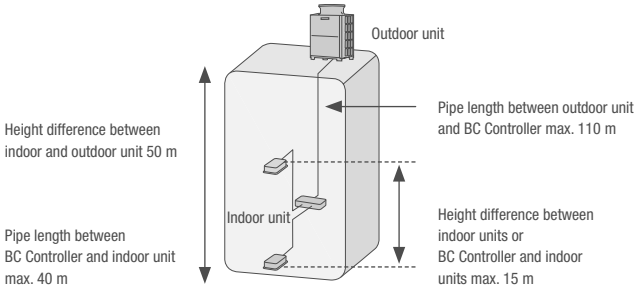
Total length of pipes	1000 m
Furthest distance away	165 m
Equivalent furthest distance away	190 m
Furthest distance away after first branch	90 m
Permissible height difference between ...	
Indoor unit and outdoor unit (roof installation)	50 m[1]
Indoor unit and outdoor unit (floor installation)	40 m[1]
Indoor units	30 m



R2-series

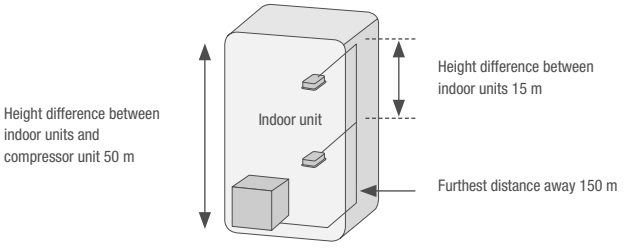
Total length of pipes	max. 950 m[2]
Furthest distance away	165 m
Equivalent furthest distance away	190 m
Between outdoor unit and BC Controller	110 m
Between BC Controller and indoor unit	90 m
Permissible height difference between ...	
Indoor unit and outdoor unit (roof installation)	50 m[1]
Indoor unit and outdoor unit (floor installation)	40 m[1]
Indoor unit and BC Controller	15 m[3]
Master controller and slave controller	15 m
Indoor units	15 m[3]

1 Height differences of up to 90 m are possible for certain sizes. Please contact your specialist dealer to learn more.
2 Depending on the size of the outdoor unit and the distance between the outdoor unit and the BC Controller.
3 Max. 10 m for type 200 and 250 indoor units.



WY-series PQHY-P

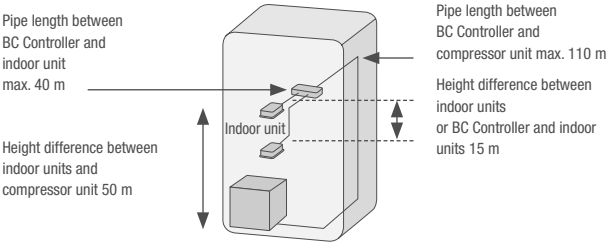
Total length of pipes	300 m
Furthest distance away	150 m
Equivalent furthest distance away	175 m
Permissible height difference between ...	
Indoor unit and PQHY (PQHY above iE)	50 m
Indoor unit and PQHY (PQHY below iE)	40 m
Indoor units	15 m



WR2-series PQRY-P

Total length of pipes	300 m
Furthest distance away	150 m
Equivalent furthest distance away	175 m
Permissible height difference between ...	
Indoor unit and PQRY (PQRY above iE)	50 m
Indoor unit and PQRY (PQRY below iE)	40 m
Indoor unit and BC Controller	15 m
Master controller and slave controller	15 m
Indoor units	15 m[1]

1 Max. 10 m for type 200 and 250 indoor units.



Framework conditions

City Multi VRF series

Guaranteed application range of the City Multi VRF series

Cooling	Indoors:	15–24 °C	(damp)
	Outdoors:	–15–52 °C	(dry) with wind-protected installation (for PUHY-P, PUHY-EP, PURY-P, PURY-EP)
		–5–46 °C	PUMY-P/SP
		–15–52 °C	PUHY-P/EP/M/EM, PURY-P/EP/M/EM (dry) with wind-protected installation
	Outdoors WR2 and WY:	10–45 °C	Cooling water temperature
		–5–45 °C	On request
Heating	Y-series		
	Indoors:	–15–27 °C	(dry)
	Outdoors:	–20–15.5 °C	(damp)
	R2-series		
	Indoors:	15–27 °C	(dry)
	Outdoors:	–20–15.5 °C	(damp)
	Outdoors WR2:	–10–45 °C	Cooling water temperature

Measurement conditions for Mitsubishi Electric air conditioning units

Cooling	Indoors:	27 °C	(dry)
		19 °C	(damp)
	Outdoors:	35 °C	(dry)
		24 °C	(damp)
	Outdoors WR2:	30 °C	Cooling water temperature
Heating	Indoors:	20 °C	(dry)
	Outdoors:	7 °C	(dry)
		6 °C	(damp)
	Outdoors WR2 and WY:	20 °C	Cooling water temperature

Refrigerant pipe length 7.5 m (one way), ΔH = 0 m. Sound pressure level measured in free field, outdoor unit measuring point 1 m away from and 1 m above the unit. Indoor unit conditions depend on the unit type; see technical data.

City Multi HVRF

Contents

Benefits and properties

Also available with R32
Modern Hybrid VRF systems work with City Multi VRF outdoor units in which R32 is used. The combination of reduced refrigerant charge quantity and low GWP value cuts the system-specific CO_2 equivalent to less than 21 % of that recorded for conventional VRF systems using R410A. This performance already complies with the values stipulated for the year 2030 onwards in the F-gas Regulation.

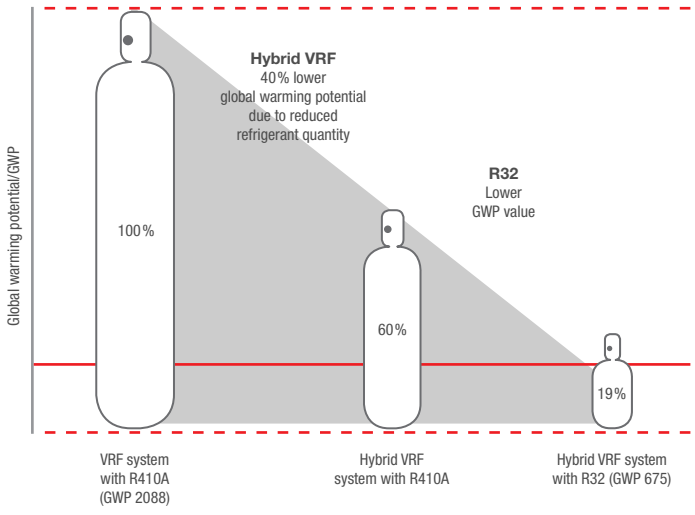
Installation in accordance with standards
Hybrid VRF technology enables users to enjoy all the benefits of a VRF system in accordance with standards even when using R32 refrigerant. R32 is a refrigerant that belongs to safety class A2L (A = non-toxic; 2L = mildly flammable). Use in occupied areas requires compliance with safety standards that are based on the ratio of room size to refrigerant charge quantity and defined in national and international standards (e.g. DIN EN 378 and IEC 60335).

As the Hybrid VRF system operates with a water-based internal circuit, the proportion of refrigerant-carrying components in the rooms and thus the scope of necessary fire protection measures can be reduced to a minimum. Detailed guidelines on installation in accordance with standards are available on request and can be found in the latest planning documents.

System comparison: less is more
Design and installation of the 2-pipe system is very flexible and much more straightforward than for a chiller plus an additional heat generator with four pipes. For example, no additional pumps, tanks or switch valves are required in the Hybrid City Multi system. With the 2-pipe system, there are significantly fewer connection points in the piping network. This ultimately reduces potential leaks and makes the system more reliable and less maintenance-intensive.

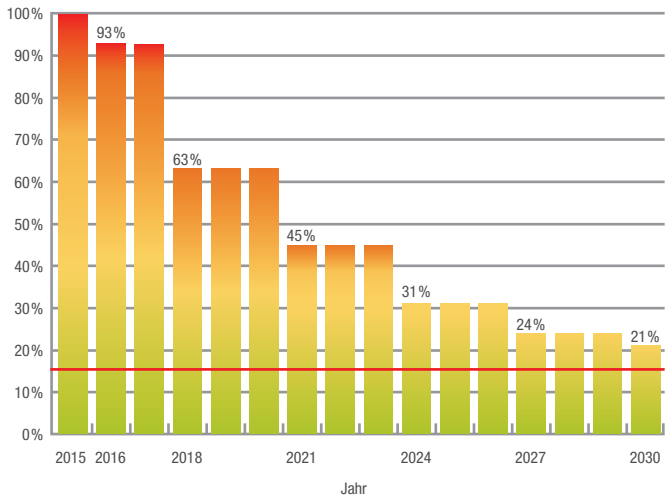
Already equipped for the future
Hybrid VRF systems with R32 refrigerant

Reduced global warming potential thanks to Hybrid VRF technology with R32



When using a Hybrid VRF system with R32 refrigerant, it is already possible to meet the CO_2 equivalent required by the EU for the year 2030.

Phase-down according to F-gas Regulation



The baseline value is the annual average of the total quantity (CO_2 equivalent) brought into circulation on the EU market from 2009 to 2012.

What's new

The new Hybrid VRF Y-series
The Hybrid VRF air conditioning systems just get more and more flexible, with the established Hybrid VRF R2-series now joined by a hybrid Y version for cooling or heating. Mitsubishi Electric has thus introduced another forward-looking option onto the market that is equipped to meet current and future guidelines for cutting-edge sustainable construction.

Just like the R2-series, the Y-series combines the benefits of a direct evaporation system with those of a water-based system.

Ideal for use in:
Open-plan offices
Department stores
Buildings in which the rooms must remain free of refrigerant pipes

The hydro unit – the component that makes the difference
In the Hybrid VRF Y variant, the hydro unit handles the exchange of heat between refrigerant and water. This component takes the form of a box with an integrated plate heat exchanger and pump. While the plate heat exchanger is used to exchange energy between the refrigerant and the water, the inverter-controlled pump subsequently ensures that the tempered water is sent via pipes to the indoor units precisely according to demand. R32 refrigerant circulates exclusively between the hydro unit and the outdoor unit.

No glycol required
The hydro unit of the Hybrid VRF system can be installed in the building, thereby making frost protection precautions unnecessary. This reduces the energy consumption in comparison with conventional chillers.

No hydraulic balancing
Hydraulic balancing is omitted as the indoor units continuously monitor the heat exchangers and regulate the required water volume via the control valves of each individual indoor unit. This ensures optimum utilisation of the heat exchanger at all times.

Very low refrigerant charge quantity
As Hybrid VRF systems in the Y-series use R32 refrigerant, they have a far lower CO_2 equivalent than conventional systems. This ensures that the requirements of the F-gas Regulation for the year 2030 are already met: not only does R32 feature a low GWP value, the system also saves on the refrigerant charge quantity due to the fact that water is largely used as the transport medium within the building.

The tried and tested M-Net bus is used to control the overall system, ensuring the flow of data between the units and the control system – as well as a superordinate building management system, if present.

Further information on HVRF technology is available on **page 278.**

HVRF Y system with hydro unit: the successful Y-series for heating or cooling is now also available as a Hybrid VRF system (HVRF).

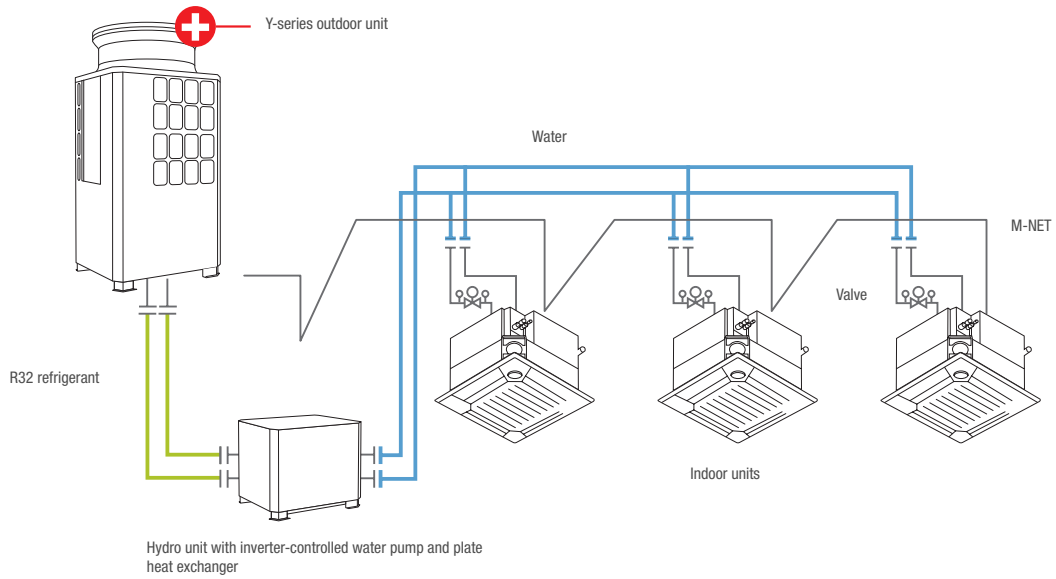
For dimension graphics open PDF excerpt.
leslink.info/dimensions

Wide range of sizes
The range includes seven different sizes, with the cooling capacity of the outdoor units ranging from 22.4 to 56 kW and the heating output of individual units covering 25 to 63 kW. Each size is featured in two variants providing different levels of efficiency. The full-inverter compressor generates the exact output needed to meet demand in each case. Furthermore, the indoor units are equipped with continuously adjustable valves that dispense precisely the amount of water required to conveniently reach the desired temperature that has been set. This interplay enables efficient operation and thus very low operating costs.

Individual cost reporting possible
Thanks to the valves deployed at the indoor units, precise reporting can be performed for individual rooms to establish the required heat or cooling capacity. The data from the indoor units, the continuously adjustable valves and the outdoor units is sent to the centralised remote controller via the M-Net bus. Individual cost reporting can then be implemented using a type AE200 central control system or the cloud-based RMI tool, for example.

Flexible deployment of indoor units
Operators are free to choose from a wide range of indoor unit variants for individually adapting the new HVRF Y-series to suit the specific conditions in the building. This opens the door to a variety of options including recessed ceiling units, a floor-standing unit, standard and Euro grid cassettes, and a wall-mounted indoor unit. All indoor units are available in different capacities, with cooling capacity starting at 1.1 kW. In this way, the indoor units are also suitable for small rooms as well as the low cooling and heating outputs required in very well insulated buildings.

As straightforward as a VRF system
Hybrid VRF Y systems feature a modular design, with all key system components tailored to one another. This enables operators to call on a wide range of indoor units. The Hybrid VRF systems are controlled via the on-site M-Net and subsequent automation of the overall system is not required. Mitsubishi Electric provides everything you need from a single source.



Overview of indoor units

HVRF indoor units

Page reference

Performance code	P10	P 15	P 20	P 25	P 32	P 40	P 50	P 63	P 71	P 80	P 100	P 125
Cooling capacity (kW)	1,2	1,7	2,2	2,8	3,6	4,5	5,6	7,1	8,0	9,0	11,2	14,0
Heating capacity (kW)	1,5	1,9	2,5	3,2	4,0	5,0	6,3	8,0	9,0	10,0	12,5	16,0

4-way ceiling cassette in Euro grid dimensions
PLFY-WL VFM
187

4-way ceiling cassette with Coanda effect
PLFY-WL VEM-E
188

Wall-mounted units
PKFY-WL VLM-E
189

Floor-standing unit with static pressure
PFFY-WP VLRMM-E
190

PFFY-W20-50VCM-A
191

Ceiling concealed unit, variable throughflow, medium static pressure
PEFY-WP-VMA-E
192

PEFY-W20-125VMA(2)-A
193–194

Ceiling concealed unit, extra flat design
PEFY-WP VMS1-E
195

Ceiling concealed unit, extra flat design, integrated valve
PEFY-W10-50VMS-A
196

Overview of outdoor units

S S module, width 920 mm
L L module, width 1240 mm
XL XL module, width 1750 mm
Page reference

Cooling or heating

Performance code	P 200	P 250	P 300	P 350	P 400	P 450	P 500
Cooling capacity (kW)	22,4	28,0	33,5	40,0	45,0	50,0	56,0
Heating capacity (kW)	25,0	31,5	37,5	45,0	50,0	56,0	63,0

Y-series R32
Excellent seasonal efficiency
PUHY-EM200–500
179

Y-series R32
PUHY-M200–500
178

Cooling and heating

Performance code	P 200	P 250	P 300	P 350	P 400	P 450	P 500
Cooling capacity (kW)	22,4	28,0	33,5	40,0	45,0	50,0	56,0
Heating capacity (kW)	25,0	31,5	37,5	45,0	50,0	56,0	63,0

R2-series
Excellent seasonal efficiency
PURY-EP
183

R2-series R32
Excellent seasonal efficiency
PURY-EM
181

R2-series
PURY-P
184

R2-series R32
PURY-M
182

WR2-series
PQRY-P
185



R32

PUHY-M200 – 300YNW-A1 PUHY-M350 – 450YNW-A1 PUHY-M500YNW-A1

City Multi HVRF

HVRF Y / cooling and heating

HVRF Y outdoor units M200 to 300, cooling or heating

Device designation		PUHY-M200YNW-A1	PUHY-M250YNW-A1	PUHY-M300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	5.53	8.38	9.85
	EER / SEER	4.05 / 6.55	3.34 / 5.90	3.40 / 6.4
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	5.70	8.18	9.66
	COP / SCOP	4.38 / 3.65	3.85 / 3.53	3.88 / 3.58

Device designation		PUHY-M200YNW-A1	PUHY-M250YNW-A1	PUHY-M300YNW-A1
Airflow (m³ / h)		10200	11100	14400
Sound pressure level (dB(A))*		58.0	60.0	61.0
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858
Weight (kg)		222	222	223
Refrigeration data				
Total pipe length (m)***		110	110	110
Max. height difference (m)		50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 6.5 / 8.5	R32 / 6.5 / 8.5	R32 / 6.5 / 8.5
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 4.39 / 5.74	675 / 4.39 / 5.74	675 / 4.39 / 5.74
Refrigerant pipe size Ø (mm)	fl.	10	10	10
	s.	22	22	22
Electrical data				
Voltage supply (V, phase, Hz)		380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling / heating (A)		8.8 / 9.1	13.4 / 13.1	15.7 / 15.4
Recommended breaker size (A)		25	32	32
Connectable indoor units (number / type)		1 – 26 / W(L)10 - W(L)125	1 – 32 / W(L)10 - W(L)125	2 – 39 / W(L)10 - W(L)125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

HVRF Y outdoor units M350 to 500, cooling or heating

Device designation		PUHY-M350YNW-A1	PUHY-M400YNW-A1	PUHY-M450YNW-A1	PUHY-M500YNW-A1
Cooling	Cooling capacity (kW)	40.0	45.0	50.0	56.0
	Power consumption (kW)	12.15	14.65	14.70	17.72
	EER / SEER	3.29 / 6.68	3.07 / 6.58	3.40 / 7.10	3.16 / 6.88
Heating	Heating capacity (kW)	45.0	50.0	56.0	63.0
	Power consumption (kW)	12.16	13.69	16.00	17.07
	COP / SCOP	3.70 / 3.50	3.65 / 3.50	3.50 / 3.50	3.69 / 3.50

Device designation		PUHY-M350YNW-A1	PUHY-M400YNW-A1	PUHY-M450YNW-A1	PUHY-M500YNW-A1
Airflow (m³ / h)		16200	18000	18300	21900
Sound pressure level (dB(A))*		62.0	65.0	65.5	63.5
Dimensions (mm)**	W / D / H	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.750 / 740 / 1.858
Weight (kg)		270	273	290	329
Refrigeration data					
Total pipe length (m)***		110	110	110	110
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 9.8 / 14.0	R32 / 9.8 / 14.0	R32 / 10.8 / 19.0	R32 / 10.8 / 19.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 6.62 / 9.45	675 / 6.62 / 9.45	675 / 7.29 / 12.83	675 / 7.29 / 12.83
Refrigerant pipe size Ø (mm)	fl.	12	12	16	16
	s.	28	28	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling / heating (A)		19.4 / 19.5	23.4 / 21.9	23.5 / 25.6	28.4 / 27.3
Recommended breaker size (A)		40	63	63	63
Connectable indoor units (number / type)		2 – 45 / W(L)10 - W(L)125	2 – 45 / W(L)10 - W(L)125	2 – 45 / W(L)10 - W(L)125	2 – 45 / W(L)10 - W(L)125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

R32

PUHY-EM200–300YNW-A1 PUHY-EM350–450YNW-A1 PUHY-EM500YNW-A1

City Multi HVRF

Seasonal efficiency / HVRF / cooling and heating

HVRF outdoor units EM200 to 300, cooling or heating

Device designation		PUHY-EM200YNW-A1	PUHY-EM250YNW-A1	PUHY-EM300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	5.00	7.31	8.48
	EER / SEER	4.48 / 7.83	3.83 / 6.78	3.95 / 7.25
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	5.50	7.89	9.30
	COP / SCOP	4.54 / 3.78	3.99 / 3.6	4.03 / 3.63

Device designation		PUHY-EM200YNW-A1	PUHY-EM250YNW-A1	PUHY-EM300YNW-A1
Airflow (m³ / h)		10200	11100	14400
Sound pressure level (dB(A))*		58.0	60.0	61.0
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858
Weight (kg)		228	228	229
Refrigeration data				
Total pipe length (m)***		110	110	110
Max. height difference (m)		50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 6.5 / 8.5	R32 / 6.5 / 8.5	R32 / 6.5 / 8.5
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 4.39 / 5.74	675 / 4.39 / 5.74	675 / 4.39 / 5.74
Refrigerant pipe size Ø (mm)	fl.	10	10	10
	s.	22	22	28
Electrical data				
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		8.0 / 8.8	11.7 / 12.6	13.5 / 14.9
Recommended breaker size (A)		25	32	32
Connectable indoor units (number / type)		1–26 / WP10–WP125	1–32 / WP10–WP125	2–39 / WP10–WP125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

HVRF outdoor units EM350 to 500, cooling or heating

Device designation		PUHY-EM350YNW-A1	PUHY-EM400YNW-A1	PUHY-EM450YNW-A1	PUHY-EM500YNW-A1
Cooling	Cooling capacity (kW)	40.0	45.0	50.0	56.0
	Power consumption (kW)	11.29	12.82	14.20	17.07
	EER / SEER	3.54 / 7.23	3.51 / 7.4	3.52 / 7.58	3.28 / 7.18
Heating	Heating capacity (kW)	45.0	50.0	56.0	63.0
	Power consumption (kW)	12.12	13.40	15.68	16.75
	COP / SCOP	3.71 / 3.5	3.73 / 3.5	3.57 / 3.5	3.76 / 3.5

Device designation		PUHY-EM350YNW-A1	PUHY-EM400YNW-A1	PUHY-EM450YNW-A1	PUHY-EM500YNW-A1
Airflow (m³ / h)		16200	16200	18300	21900
Sound pressure level (dB(A))*		62.0	65.0	65.5	63.5
Dimensions (mm)**	W / D / H	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.750 / 740 / 1.858
Weight (kg)		276	299	299	338
Refrigeration data					
Total pipe length (m)***		110	110	110	110
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 9.8 / 14.0	R32 / 9.8 / 14.0	R32 / 10.8 / 19.0	R32 / 10.8 / 19.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 6.62 / 16.07	675 / 6.62 / 16.07	675 / 7.29 / 20.12	675 / 7.29 / 20.12
Refrigerant pipe size Ø (mm)	fl.	12	12	16	16
	s.	28	28	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		18.1 / 19.4	20.5 / 21.4	22.7 / 25.1	27.3 / 26.8
Recommended breaker size (A)		40	63	63	63
Connectable indoor units (number / type)		2–45 / W(L)10 - W(L)125	2–50 / W(L)10 - W(L)125	2–50 / W(L)15 - W(L)125	2–50 / W(L)10 - W(L)125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

R32

CMH-WM250–500V-A

Hydro unit

HVRF Y / cooling and heating

Hydro unit CMH250 to CMH500, cooling or heating

Device designation		CMH-WM250V-A	CMH-WM350V-A	CMH-WM500V-A
Outdoor units		PUHY-(E)M200 / 250	PUHY-(E)M300 / 350	PUHY-(E)M400 / 450 / 500
Cooling	Power consumption (kW)	0.74	0.90	1.06
Heating	Power consumption (kW)	0.74	0.90	1.06

Device designation		CMH-WM250V-A	CMH-WM350V-A	CMH-WM500V-A
Sound pressure level (dB(A))		60	60	60
Dimensions (mm)	W / D / H	920 / 740 / 660	920 / 740 / 660	920 / 740 / 660
Weight (kg)		112	122	143
Refrigeration data				
Total pipe length (m)*		110	110	110
Max. height difference (m)*		50	50	50
Electrical data				
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		3.67	4.48	5.23

* between outdoor unit and Hydro unit unit

Accessories

Type designation	Description	Quantity
PAC-SH01DP-E	Drain pan	1

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

R32

PURY-EM200–300YNW-A1 PURY-EM350–450YNW-A1 PURY-EM500YNW-A1

City Multi HVRF

Seasonal efficiency / HVRF R2 / cooling and heating

HVRF outdoor units EM200 to 300, cooling and heating

Device designation		PURY-EM200YNW-A1	PURY-EM250YNW-A1	PURY-EM300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	5.13	7.69	10.3
	EER / SEER	4.36 / 6.54	3.64 / 6.64	3.93 / 7.17
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	6.23	8.84	10.46
	COP / SCOP	4.01 / 3.74	3.56 / 3.6	3.77 / 3.6

Device designation		PURY-EM200YNW-A1	PURY-EM250YNW-A1	PURY-EM300YNW-A1
Airflow (m^3 / h)		10200	11100	14400
Sound pressure level (dB(A))*		59.0	60.5	61.0
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858
Weight (kg)		231	231	237
Refrigeration data				
Total pipe length (m)***		110	110	110
Max. height difference (m)		50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 5.2 / 13.5	R32 / 5.2 / 13.5	R32 / 5.2 / 17.9
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 3.51 / 9.11	675 / 3.51 / 9.11	675 / 3.51 / 12.09
Refrigerant pipe size Ø (mm)	fl.	16	16	16
	s.	18	22	22
Electrical data				
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		10.3 / 11.4	14.8 / 16.6	19.9 / 21.0 / 19.3
Recommended breaker size (A)		25	32	32
Connectable indoor units (number / type)		1–30 / WP10–WP125	1–37 / WP10–WP125	2–45 / WP10–WP125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

HVRF outdoor units EM350 to 500, cooling and heating

Device designation		PURY-EM350YNW-A1	PURY-EM400YNW-A1	PURY-EM450YNW-A1	PURY-EM500YNW-A1
Cooling	Cooling capacity (kW)	40.0	45.0	50.0	56.0
	Power consumption (kW)	13.91	13.84	15.24	18.06
	EER / SEER	3.53 / 7.22	3.25 / 6.60	3.28 / 6.78	3.10 / 6.59
Heating	Heating capacity (kW)	45.0	50.0	56.0	63.0
	Power consumption (kW)	13.10	13.88	15.77	17.45
	COP / SCOP	3.70 / 3.51	3.60 / 3.51	3.55 / 3.51	3.61 / 3.51

Device designation		PURY-EM350YNW-A1	PURY-EM400YNW-A1	PURY-EM450YNW-A1	PURY-EM500YNW-A1
Airflow (m^3 / h)		15000	18900	18900	17700
Sound pressure level (dB(A))*		62.5	65.0	65.5	63.5
Dimensions (mm)**	W / D / H	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.750 / 740 / 1.858
Weight (kg)		276	280	305	348
Refrigeration data					
Total pipe length (m)***		110	110	110	110
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 8.0 / 15.5	R32 / 8.0 / 19.5	R32 / 10.8 / 19.5	R32 / 10.8 / 19.5
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 5.40 / 10.46	675 / 5.40 / 13.16	675 / 7.29 / 13.16	675 / 7.29 / 13.16
Refrigerant pipe size Ø (mm)	fl.	16	18	18	18
	s.	28	28	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		22.3 / 21.0	22.1 / 22.2	24.4 / 25.2	28.9 / 27.9
Recommended breaker size (A)		40	63	63	63
Connectable indoor units (number / type)		2–45 / WP10–WP125	2–50 / WP10–WP125	2–50 / WP10–WP125	2–50 / WP10–WP125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

R32

PURY-M200–300YNW-A1 PURY-M350–450YNW-A1 PURY-M500YNW-A1

City Multi HVRF

HVRF / cooling and heating

HVRF outdoor units M200 to 300, cooling and heating

Device designation		PURY-M200YNW-A1	PURY-M250YNW-A1	PURY-M300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	5.53	8.40	11.65
	EER / SEER	4.05 / 6.23	3.33 / 5.90	2.87 / 6.37
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	6.39	9.15	11.00
	COP / SCOP	3.91 / 3.63	3.44 / 3.53	3.40 / 3.53

Device designation		PURY-M200YNW-A1	PURY-M250YNW-A1	PURY-M300YNW-A1
Airflow (m³ / h)		10200	11100	14400
Sound pressure level (dB(A))*		59.0	60.5	61.0
Dimensions (mm)**	W / D / H	920 / 740 / 1.858	920 / 740 / 1.858	920 / 740 / 1.858
Weight (kg)		227	227	227
Refrigeration data				
Total pipe length (m)***		110	110	110
Max. height difference (m)		50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 5.2 / 13.5	R32 / 5.2 / 13.5	R32 / 5.2 / 15.5
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 3.51 / 9.11	675 / 3.51 / 9.11	675 / 3.51 / 10.46
Refrigerant pipe size Ø (mm)	fl.	16	16	16
	s.	18	22	22
Electrical data				
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		11.5 / 11.7	16.7 / 16.9	22.0 / 21.0
Recommended breaker size (A)		25	32	32
Connectable indoor units (number / type)		1–30 / WP10–WP125	1–37 / WP10–WP125	2–45 / WP10–WP125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

HVRF outdoor units M350 to 500, cooling and heating

Device designation		PURY-M350YNW-A1	PURY-M400YNW-A1	PURY-M450YNW-A1	PURY-M500YNW-A1
Cooling	Cooling capacity (kW)	40.0	45.0	50.0	56.0
	Power consumption (kW)	14.93	15.15	15.47	22.25
	EER / SEER	3.39 / 6.68	2.97 / 6.12	3.23 / 6.56	2.51 / 5.87
Heating	Heating capacity (kW)	45.0	50.0	56.0	63.0
	Power consumption (kW)	13.14	14.08	16.18	18.26
	COP / SCOP	3.70 / 3.51	3.55 / 3.51	3.46 / 3.50	3.45 / 3.50

Device designation		PURY-M350YNW-A1	PURY-M400YNW-A1	PURY-M450YNW-A1	PURY-M500YNW-A1
Airflow (m³ / h)		11500	18900	18900	17700
Sound pressure level (dB(A))*		62.5	65.0	65.5	63.5
Dimensions (mm)**	W / D / H	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.240 / 740 / 1.858	1.750 / 740 / 1.858
Weight (kg)		270	273	293	337
Refrigeration data					
Total pipe length (m)***		110	110	110	110
Max. height difference (m)		50	50	50	50
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 8.0 / 15.5	R32 / 8.0 / 19.5	R32 / 10.8 / 30.3	R32 / 10.8 / 30.3
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 5.40 / 10.46	675 / 5.40 / 18.56	675 / 7.29 / 20.45	675 / 7.29 / 20.45
Refrigerant pipe size Ø (mm)	fl.	16	18	18	18
	s.	28	28	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling / heating (A)		23.9 / 21.0	24.2 / 22.5	24.8 / 25.9	35.6 / 29.2
Recommended breaker size (A)		40	63	63	63
Connectable indoor units (number / type)		2–45 / WP10–WP125	2–50 / WP10–WP125	2–50 / WP10–WP125	2–50 / WP10–WP125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PURY-EP200–300YNW-A1 PURY-EP350–450YNW-A1 PURY-EP500YNW-A1

City Multi HVRF

Seasonal efficiency / HVRF / cooling and heating

HVRF outdoor units EP200 to 300, cooling and heating

Device designation		PURY-EP200YNW-A1	PURY-EP250YNW-A1	PURY-EP300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	6.27	8.77	10.24
	EER	3.57	3.19	3.27
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	6.92	9.84	11.12
	COP	3.61	3.20	3.37

Device designation		PURY-EP200YNW-A1	PURY-EP250YNW-A1	PURY-EP300YNW-A1
Airflow (m³/h)		10200	11100	14400
Sound pressure level (dB(A))*		59.0	60.5	61.0
Dimensions (mm)**	W/D/H	920/740/1.858	920/740/1.858	920/740/1.858
Weight (kg)		234	234	236
Refrigeration data				
Total pipe length (m)***		110	110	110
Max. height difference (m)		50	50	50
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R410A/5.2/33.5	R410A/5.2/39.5	R410A/5.2/39.5
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		2088/10.86/69.95	2088/10.86/82.48	2088/10.86/82.48
Refrigerant pipe size Ø (mm)	fl.	16	18	18
	s.	18	22	22
Electrical data				
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling/heating (A)		10.5/11.6	14.8/16.6	17.2/18.7
Recommended breaker size (A)		25	32	32
Connectable indoor units (number/type)		1–20/WP10–WP125	1–25/WP10–WP125	1–30/WP10–WP125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

HVRF outdoor units EP350 to 500, cooling and heating

Device designation		PURY-EP350YNW-A1	PURY-EP400YNW-A1	PURY-EP450YNW-A1	PURY-EP500YNW-A1
Cooling	Cooling capacity (kW)	40.0	45.0	50.0	56.0
	Power consumption (kW)	13.98	13.88	16.83	21.22
	EER	2.86	3.24	2.97	2.63
Heating	Heating capacity (kW)	45.0	50.0	56.0	63.0
	Power consumption (kW)	14.28	14.12	16.86	21.67
	COP	3.15	3.54	3.32	2.90

Device designation		PURY-EP350YNW-A1	PURY-EP400YNW-A1	PURY-EP450YNW-A1	PURY-EP500YNW-A1
Airflow (m³/h)		15000	18900	18900	17700
Sound pressure level (dB(A))*		62.5	65.0	65.5	63.5
Dimensions (mm)**	W/D/H	1.240/740/1.858	1.240/740/1.858	1.240/740/1.858	1.750/740/1.858
Weight (kg)		279	338	306	345
Refrigeration data					
Total pipe length (m)***		110	110	110	110
Max. height difference (m)		50	50	50	50
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R410A/8.0/47.0	R410A/8.0/47.0	R410A/10.8/55.5	R410A/10.8/56.0
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		2088/16.70/98.14	2088 /16.70/98.14	2088/22.55/115.88	2088 /22.50/116.93
Refrigerant pipe size Ø (mm)	fl.	18	22	22	22
	s.	28	28	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling/heating (A)		23.6/24.1	23.4/23.8	28.4/28.4	35.8/36.5
Recommended breaker size (A)		40	63	63	63
Connectable indoor units (number/type)		1–35/WP10–WP125	1–40/WP10–WP125	1–45/WP10–WP125	1–50/WP10–WP125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PURY-P200–300YNW-A1 PURY-P350–450YNW-A1 PURY-P500YNW-A1

City Multi HVRF

HVRF / cooling and heating

HVRF outdoor units P200 to 300, cooling and heating

Device designation		PURY-P200YNW-A1	PURY-P250YNW-A1	PURY-P300YNW-A1
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	7	9.92	11.31
	EER	3.20	2.82	2.96
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	7.08	10.06	11.94
	COP	3.53	3.13	3.14

Device designation		PURY-P200YNW-A1	PURY-P250YNW-A1	PURY-P300YNW-A1
Airflow (m³/h)		10200	11100	14400
Sound pressure level (dB(A))*		59	60.5	61.0
Dimensions (mm)**	W/D/H	920/740/1.858	920/740/1.858	920/740/1.858
Weight (kg)		229	229	231
Refrigeration data				
Total pipe length (m)***		110	110	110
Max. height difference (m)		50	50	50
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R410A/5.2/37.0	R410A/5.2/43.0	R410A/5.2/43.0
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		2088/10.86/77.26	2088/10.86/89.78	2088/10.86/89.78
Refrigerant pipe size Ø (mm)	fl.	16	18	18
	s.	18	22	22
Electrical data				
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling/heating (A)		11.8/11.9	16.7/16.9	19.0/20.1
Recommended breaker size (A)		25	32	32
Connectable indoor units (number/type)		1–20/WP10–WP125	1–25/WP10–WP125	1–35/WP10–WP125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

HVRF outdoor units P350 to 500, cooling and heating

Device designation		PURY-P350YNW-A1	PURY-P400YNW-A1	PURY-P450YNW-A1	PURY-P500YNW-A1
Cooling	Cooling capacity (kW)	40.0	45.0	50.0	56.0
	Power consumption (kW)	14.59	16.65	17.92	22.67
	EER	2.74	2.70	2.79	2.47
Heating	Heating capacity (kW)	45.0	50.0	56.0	63.0
	Power consumption (kW)	14.35	13.39	17.39	17.53
	COP	3.13	3.36	3.22	3.30

Device designation		PURY-P350YNW-A1	PURY-P400YNW-A1	PURY-P450YNW-A1	PURY-P500YNW-A1
Airflow (m³/h)		15000	18900	18900	17700
Sound pressure level (dB(A))*		62.5	65.0	65.5	63.5
Dimensions (mm)**	W/D/H	1.240/740/1.858	1.240/740/1.858	1.240/740/1.858	1.750/740/1.858
Weight (kg)		273	273	293	337
Refrigeration data					
Total pipe length (m)***		110	110	110	110
Max. height difference (m)		50	50	50	50
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R410A/8.0/49.3	R410A/8.0/55.3	R410A/10.8/55.3	R410A/10.8/56.0
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		2088/16.70/102.94	2088/16.70/115.47	2088/22.55/115.47	2088/22.55/116.93
Refrigerant pipe size Ø (mm)	fl.	18	22	22	22
	s.	28	28	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling/heating (A)		24.6/24.2	28.1/22.6	30.2/29.3	38.2/29.5
Recommended breaker size (A)		40	63	63	63
Connectable indoor units (number/type)		1–35/WP10–WP125	1–40/WP10–WP125	1–45/WP10–WP125	1–50/WP10–WP125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit
** By removing the base, the height can be reduced to 1798 mm
*** One way length

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PQRY-P200–300YLM-A PQRY-P350–500YLM-A

City Multi HVRF

Water-cooled systems / HVRF / cooling and heating

HVRF units P200 to P300, cooling and heating

Device designation		PQRY-P200YLM-A	PQRY-P250YLM-A	PQRY-P300YLM-A
Cooling	Cooling capacity (kW)	22.4	28.0	33.5
	Power consumption (kW)	3.97	5.44	7.55
	EER	5.64	5.14	4.43
Heating	Heating capacity (kW)	25.0	31.5	37.5
	Power consumption (kW)	4.04	5.41	7.13
	COP	6.18	5.82	5.25

Device designation		PQRY-P200YLM-A	PQRY-P250YLM-A	PQRY-P300YLM-A
Cooling water flow (m³ / h)		5.76	5.76	5.76
Pressure drop (cooling water) (kPa)		24	24	24
Sound pressure level dB(A) *		46	48	54
Dimensions (mm)	W / D / H	880 / 550 / 1.100	880 / 550 / 1.100	880 / 550 / 1.100
Weight (kg)		172	172	172
Refrigeration data				
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 5.0 / 32.0	R410A / 5.0 / 37.0	R410A / 5.0 / 38.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 10.44 / 66.82	2088 / 10.44 / 77.26	2088 / 10.44 / 79.34
Refrigerant pipe size Ø (mm)	fl.	16	18	18
	s.	18	22	22
Electrical data				
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current (A)		6.3	8.7	12.1
Max. power indoor units (%)		50–150	50–150	50–150
Recommended breaker size (A)		25	25	25
Connectable indoor units (number / type)		2–30 / WP10–125	3–37 / WP10–125	3–45 / WP10–125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

HVRF units P350 to P500, cooling and heating

Device designation		PQRY-P350YLM-A	PQRY-P400YLM-A	PQRY-P450YLM-A	PQRY-P500YLM-A
Cooling	Cooling capacity (kW)	40	45.0	50.0	56.0
	Power consumption (kW)	9.98	10.05	12.05	14.58
	EER	4.00	4.47	4.14	3.84
Heating	Heating capacity (kW)	45	50.0	56.0	63.0
	Power consumption (kW)	8.87	9.45	11.11	13.07
	COP	5.07	5.29	5.04	4.82

Device designation		PQRY-P350YLM-A	PQRY-P400YLM-A	PQRY-P450YLM-A	PQRY-P500YLM-A
Cooling water flow (m³ / h)		7.20	7.20	7.20	7.20
Pressure drop (cooling water) (kPa)		44	44	44	44
Sound pressure level dB(A) *		52	52	54	54
Dimensions (mm)	W / D / H	880 / 550 / 1.450	880 / 550 / 1.450	880 / 550 / 1.450	880 / 550 / 1.450
Weight (kg)		216	216	216	216
Refrigeration data					
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 6.0 / 58.0	R410A / 6.0 / 58.0	R410A / 6.0 / 59.0	R410A / 6.0 / 61.0
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 12.53 / 121.10	2088 / 12.53 / 121.10	2088 / 12.53 / 123.19	2088 / 12.53 / 127.37
Refrigerant pipe size Ø (mm)	fl.	22	22	22	22
	s.	28	28	28	28
Electrical data					
Voltage supply (V, phase, Hz)		380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current (A)		16.0	16.1	19.3	23.3
Max. power indoor units (%)		50–150	50–150	50–150	50–150
Recommended breaker size (A)		25	32	40	40
Connectable indoor units (number / type)		4–50 / WP10–125	4–50 / WP10–125	5–50 / WP10–125	5–50 / WP10–125

* Sound pressure level measured at a distance of 1 m and at a height of 1 m in front of the unit

▶ **The units are not suitable for outside installation.**

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

CMB-WM1016V-AA | CMB-WM108V-AB | CMB-WM1016V-AB

City Multi HVRF

HVRF cooling and heating

BC master controller HVRF

Device designation		CMB-WM108V-AA	CMB-WM1016V-AA
Dimensions (mm)	W / D / H	1.520 / 630 / 300	1.800 / 630 / 300
Weight (kg)		86	98
Water pipe size Ø (")		3 / 4	3 / 4
Refrigerant pipe size Ø (mm)	fl.	**	**
	s.	**	**
Voltage supply (V, phase, Hz)		220 – 240, 1, 50	220 – 240, 1, 50
Max. power consumption (kW)		0.46	0.46
Operating current (A)		2.83	2.83
Max. power indoor units (kW)		40	40
Connectable indoor units (number / type)		8 / WP10-WP125*	16 / WP10-WP125*

* 2 outlets are required for indoor units belonging to the WP100/WP125 performance classes

** Refrigeration connections are dependent on the outdoor unit and can be found in the planning document

BC slave-controller HVRF

Device designation		CMB-WM108V-AB	CMB-WM1016V-AB
Dimensions (mm)	W / D / H	1.520 / 630 / 300	1.520 / 630 / 300
Weight (kg)		44	51
Water pipe size Ø (")		3 / 4	3 / 4
Voltage supply (V, phase, Hz)		220 – 240, 1, 50	220 – 240, 1, 50
Max. power consumption (kW)		0.01	0.01
Operating current (A)		0.05	0.05
Connectable indoor units (number / type)		8 / WP10-WP125*	16 / WP10-WP125*

* 2 outlets are required for indoor units belonging to the WP100/WP125 performance classes

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PLFY-WL10–32VFM-E1 PAR-SL100A-E

4-way ceiling cassette

European ceiling grid dimensions

Advantages

European ceiling grid dimensions
The compact dimensions of 570 x 570 mm simplify installation in existing suspended ceilings as per standardised Euro grid dimensions.

Drain pump
The fitted drain pump provides a delivery height of 850 mm.

Fresh air connection as standard
The cassette for European ceiling grid dimensions is provided with a pre-stamped fresh air opening as standard.

Grille with optional infrared receiver
Panel SLP-2FA for wired remote control. The infra-red receiver is integrated in panel SLP-2FALM, which also contains remote control PAR-SL100A-E. No additional receiver is therefore needed.

Horizontal air outlet

Optional 3D i-see sensor

Connectable to HVRF Y systems using optional PAC-SK04VK-E valve kit

PLFY 4-way ceiling cassettes to fit European ceiling grid

Device designation		PLFY-WL10VFM-E1	PLFY-WL15VFM-E1	PLFY-WL20VFM-E1	PLFY-WL25VFM-E1	PLFY-WL32VFM-E1
Grille for cable remote control		SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA
Grille for infrared remote control		SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM
valve kit HVRF-Y		PAC-SK04VK-E	PAC-SK04VK-E	PAC-SK04VK-E	PAC-SK04VK-E	PAC-SK04VK-E
Cooling	Cooling capacity (kW)	1.2	1.7	2.2	2.8	3.6
	Power consumption (kW)	0.02	0.02	0.02	0.03	0.04
Heating	Heating capacity (kW)	1.4	1.9	2.5	3.2	4.0
	Power consumption (kW)	0.02	0.02	0.02	0.03	0.04

Device designation		PLFY-WL10VFM-E1	PLFY-WL15VFM-E1	PLFY-WL20VFM-E1	PLFY-WL25VFM-E1	PLFY-WL32VFM-E1
Grille for cable remote control		SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA
Grille for infrared remote control		SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM	SLP-2FALM
Air volume (m³/h)	L/M/H	360/390/420	360/420/480	390/420/480	390/450/540	390/540/720
Sound level (dB(A))*	L/M/H	25/26/27	25/26/29	27/29/31	27/30/34	27/33/41
Dimensions (grille) (mm)**	W/D/H	570 (625)/570 (625)/208 (10)	570 (625)/570 (625)/208 (10)	570 (625)/570 (625)/208 (10)	570 (625)/570 (625)/208 (10)	570 (625)/570 (625)/208 (10)
Weight (grille) (kg)		13 (3)	13 (3)	14 (3)	14 (3)	14 (3)
Water pipe size Ø (mm)***		20/20	20/20	20/20	20/20	20/20
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current cooling/heating (A)		0.23/0.17	0.24/0.18	0.26/0.20	0.29/0.23	0.38/0.32

* Sound pressure level measured centrically at a distance of 1.5 m below the grille

** Required installation height, value given in the brackets refers to the visible height of the grille

*** Required internal diameter

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PLFY-WL32–50VEM-E1

4-way ceiling cassette

Advantages

Compact dimensions
Due to their low installation height, these units are ideal for use in suspended ceilings. Mounting is also simplified due to the light unit design.

Optional Plasma Quad Connect filter for air purification
Plasma Quad Plus filter technology achieves highly effective air purification and odour neutralisation.

Flexible air flow adjustment
The microprocessor-controlled blower operation offers a variety of air flow configurations. Four fan stages can be set. The air volume flow can be adjusted to the respective ceiling height (up to 3 m) via a switch on the unit circuit board.

Fresh air connection possible
A pre-punched fresh air knockout permits a direct fresh air connection.

Individual settings of the flaps
All 4 air flaps can be adjusted individually and conveniently via the remote control.

Automatic fan level
In auto-fan operation, the airflow automatically adjusts itself to the room requirements. This way, the correct quantity of conditioned air is always available (MA remote control required).

Coanda effect

Optional i-see sensor and filter lift

Connectable to HVRF Y systems using optional PAC-SK04VK-E valve kit

Accessories
See page 166 onwards

PLFY 4-way ceiling cassettes

Device designation		PLFY-WL32VEM-E1	PLFY-WL40VEM-E1	PLFY-WL50VEM-E1
Grille for cable remote control		PLP-6EA	PLP-6EA	PLP-6EA
Grille for infrared remote control		PLP-6EALM	PLP-6EALM	PLP-6EALM
valve kit HVRF-Y		PAC-SK04VK-E	PAC-SK04VK-E	PAC-SK04VK-E
Cooling	Cooling capacity (kW)	3.6	4.5	5.6
	Power consumption (kW)	0.03	0.03	0.04
Heating	Heating capacity (kW)	4.0	5.0	6.3
	Power consumption (kW)	0.03	0.03	0.04

Device designation		PLFY-WL32VEM-E1	PLFY-WL40VEM-E1	PLFY-WL50VEM-E1
Grille for cable remote control		PLP-6EA	PLP-6EA	PLP-6EA
Grille for infrared remote control		PLP-6EALM	PLP-6EALM	PLP-6EALM
Air volume (m³/h)	L/M1/M2/H	840/900/960/1020	840/900/960/1020	840/960/1080/1200
Sound level (dB(A))*	N/M1/M2/H	26/27/29/30	26/28/29/31	27/29/31/33
Dimensions (grille) (mm)**	W/D/H	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)	840 (950)/840 (950)/258 (40)
Weight (grille) (kg)		20 (5)	20 (5)	20 (5)
Water pipe size (mm)***		20/20	20/20	20/20
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current cooling/heating (A)		0.33/0.27	0.35/0.29	0.40/0.34

* Sound pressure level measured centrically at a distance of 1.5 m below the grille
** Required installation height, value given in the brackets refers to the visible height of the grille
*** Required internal diameter

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PKFY-WL10–25VLM-E PKFY-WL32/40VLM-E

Compact wall-mounted units

Design casing

Advantages

Quiet running
Thanks to optimisation of the air flow between the heat exchanger, air cylinder and four-stage fan motor a quiet running is achieved.

The dehumidification function
All floor standing units feature a dehumidification function in order to stabilise humidity at changing room temperatures. A further cooling is prevented and the air is dehumidified in order to keep it fresh and invigorating.

Easy to assemble and service
To make installation easier, all the screws provided for attachment are accessible from the front of the wall-mounted unit.

Infrared receiver
All wall mounted units are equipped with an infrared receiver as standard.

Optional condensate pump
For models WL10 to WL40 an optional condensate pump with a head of 850 mm is available, which is installed next to the unit and matches the indoor unit in design and colour.

Connectable to HVRF Y systems using optional PAC-SK04VK-E valve kit

Optional Plasma Quad Connect filter for air purification
Plasma Quad Plus filter technology achieves highly effective air purification and odour neutralisation.

PKFY compact wall-mounted units

Device designation		PKFY-WL10VLM-E	PKFY-WL15VLM-E	PKFY-WL20VLM-E	PKFY-WL25VLM-E	PKFY-WL32VLM-E	PKFY-WL40VLM-E
valve kit HVRF-Y		PAC-SK04VK-E	PAC-SK04VK-E	PAC-SK04VK-E	PAC-SK04VK-E	PAC-SK04VK-E	PAC-SK04VK-E
Cooling	Cooling capacity (kW)	1.2	1.7	2.2	2.8	3.6	4.5
	Power consumption (kW)	0.02	0.02	0.03	0.04	0.04	0.05
Heating	Heating capacity (kW)	1.4	1.9	2.5	3.2	4.0	5.0
	Power consumption (kW)	0.01	0.01	0.02	0.03	0.03	0.04

Device designation		PKFY-WL10VLM-E	PKFY-WL15VLM-E	PKFY-WL20VLM-E	PKFY-WL25VLM-E	PKFY-WL32VLM-E	PKFY-WL40VLM-E
Air volume (m³/h)	L/M1/M2/H	198/228/246/270	198/228/258/294	240/300/360/420	240/324/420/504	378/456/540/624	384/492/600/714
Sound level (dB(A))*	N/M1/M2/H	22/26/28/30	22/26/29/32	22/28/33/36	22/30/36/41	29/34/38/41	30/36/41/45
Dimensions (mm)	W/D/H	773/237/299	773/237/299	773/237/299	773/237/299	898/237/299	898/237/299
Weight (kg)		11	11	11	11	13	13
Water pipe size		20/20	20/20	20/20	20/20	20/20	20/20
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current cooling/heating (A)		0.20/0.15	0.20/0.15	0.25/0.20	0.35/0.30	0.35/0.30	0.45/0.4

* Sound pressure level measured 1 m in front of and 1 m below the unit

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PFFY-WP20–50VLRMM-E

Compact floor-standing units
HVRF indoor units

Advantages

Optimal use of the room
Thanks to freely selectable units without casing, state-of-theart air conditioning technology can now be integrated almost invisibly into every interior space. The air conditioners, only 220 mm deep, can be easily installed around the perimeter of rooms and deliver maximum capacity.

The dehumidification function
All floor standing units feature a dehumidification function in order to stabilise humidity at changing room temperatures. A further cooling is prevented and the air is dehumidified in order to keep it fresh and invigorating.

High static pressure
Three different pressures can easily be set at the unit via DIP switches. This helps the unit adjust to different installation situations.

DC fan motor
The DC fan motors guarantee highly efficient operation with high pressure and low sound pressure levels.

Can only be connected to HVRF R2 systems

PFFY floor standing units without cover

Device designation		PFFY-WP20VLRMM-E	PFFY-WP25VLRMM-E	PFFY-WP32VLRMM-E	PFFY-WP40VLRMM-E	PFFY-WP50VLRMM-E
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5	5.6
	Power consumption (kW)	0.07	0.09	0.11	0.14	0.14
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0	6.3
	Power consumption (kW)	0.04	0.04	0.04	0.05	0.05

Device designation		PFFY-WP20VLRMM-E	PFFY-WP25VLRMM-E	PFFY-WP32VLRMM-E	PFFY-WP40VLRMM-E	PFFY-WP50VLRMM-E
Air volume (m³/h)	L/M/H	270/300/360	360/420/480	450/540/630	480/600/690	630/780/900
Static pressure (Pa)		20/40/60	20/40/60	20/40/60	20/40/60	20/40/60
Sound level (dB(A))*	L/M/H	31/33/38	31/33/38	31/35/38	34/37/40	37/42/45
Dimensions (mm)	W/D/H	886/220/639	1.006/220/639	1.006/220/639	1.246/220/639	1.246/220/639
Weight (kg)		22	25	25	29	29
Water pipe size Ø (mm)**		20/20	20/20	20/20	20/20	20/20
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Max. power consumption (kW)		0.04	0.04	0.04	0.05	0.05
Operating current (A)		0.35	0.35	0.47	0.47	0.65

* Sound pressure level measured 1 m in front of the unit and at a height of 1 m
** Required internal diameter

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PFFY-W20–50VCM-E

Compact floor-standing units
HVRF indoor units

Advantages

Optimal use of the room
Thanks to freely selectable units without casing, state-of-theart air conditioning technology can now be integrated almost invisibly into every interior space. The air conditioners, only 220 mm deep, can be easily installed around the perimeter of rooms and deliver maximum capacity.

The dehumidification function
All floor standing units feature a dehumidification function in order to stabilise humidity at changing room temperatures. A further cooling is prevented and the air is dehumidified in order to keep it fresh and invigorating.

High static pressure
Three different pressures can easily be set at the unit via DIP switches. This helps the unit adjust to different installation situations.

DC fan motor
The DC fan motors guarantee highly efficient operation with high pressure and low sound pressure levels.

Integrated valve for use in HVRF Y systems

PFFY floor standing units without cover

Device designation		PFFY-W20VCM-E	PFFY-W25VCM-E	PFFY-W32VCM-E	PFFY-W40VCM-E	PFFY-W50VCM-E
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5	5.6
	Power consumption (kW)	0.022	0.029	0.035	0.038	0.062
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0	6.3
	Power consumption (kW)	0.022	0.029	0.035	0.038	0.062

Device designation		PFFY-W20VCM-E	PFFY-W25VCM-E	PFFY-W32VCM-E	PFFY-W40VCM-E	PFFY-W50VCM-E
Air volume (m³/h)	L/M/H	300/360/420	330/420/510	390/450/540	480/570/660	630/750/870
Static pressure (Pa)		0/10/40/60	0/10/40/60	0/10/40/60	0/10/40/60	0/10/40/60
Sound level (dB(A))*	L/M/H	21/23/26	22/26/30	25/28/32	25/27/30	28/32/35
Dimensions (mm)	W/D/H	700/200/615	700/200/615	700/200/615	900/200/615	900/200/615
Weight (kg)		18.5	18.5	19	23	23
Water pipe size Ø (mm)**		20/20	20/20	20/20	20/20	20/20
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Max. power consumption (kW)		0.04	0.04	0.04	0.05	0.05

* Sound pressure level measured 1 m in front of the unit and at a height of 1 m
** Required internal diameter

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEFY-WP20–50VMA-E

Ceiling concealed ducted unit
medium static pressure / variable airflow

Advantages

Low installation height – only 250 mm
The ceiling concealed ducted units also fulfil great performance demands, especially at lower installation heights in the suspended ceiling.

Optionally available with Plasma Quad Connect filter
Plasma Quad Plus filter technology ensures highly effective air purification. Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM 2,5; <2,5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.

Filter as standard
for all PEFY-WP VMA-E

With condensate pump
The condensate pump is already integrated in the unit.

Optimal adjustment due to variable airflow
The air intake can optionally take place from the rear (standard) or from below (provided by customer). Therefore, only the filter needs to be relocated from the back to the bottom of the unit.

Can only be connected to HVRF R2 systems

Accessories
See page 166 onwards

PEFY ceiling concealed ducted units, medium static pressure

Device designation		PEFY-WP20VMA-E	PEFY-WP25VMA-E	PEFY-WP32VMA-E	PEFY-WP40VMA-E	PEFY-WP50VMA-E
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5	5.6
	Power consumption (kW)	0.07	0.09	0.11	0.14	0.14
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0	6.3
	Power consumption (kW)	0.05	0.07	0.09	0.12	0.12

Device designation		PEFY-WP20VMA-E	PEFY-WP25VMA-E	PEFY-WP32VMA-E	PEFY-WP40VMA-E	PEFY-WP50VMA-E
Air volume (m³/h)	L/M/H	450/540/630	600/720/840	720/870/1020	870/1080/1260	870/1080/1260
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
Sound level (dB(A))*	L/M/H	23/26/29	23/27/30	25/29/32	26/29/34	26/29/34
Dimensions (mm)	W/D/H	700/732/250	900/732/250	900/732/250	1.100/732/250	1.100/732/250
Weight (kg)		21	26	26	31	31
Water pipe size Ø (mm)**		20/20	20/20	20/20	20/20	20/20
Voltage supply (V, phase, Hz)		220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60
Operating current (A)		0.44	0.53	0.63	1.04	1.04

Device designation		PEFY-WP63VMA-E	PEFY-WP71VMA-E	PEFY-WP80VMA-E	PEFY-WP100VMA-E	PEFY-WP125VMA-E
Cooling	Cooling capacity (kW)	7.1	8.0	9.0	11.2	14.0
	Power consumption (kW)	0.14	0.24	0.24	0.24	0.36
Heating	Heating capacity (kW)	8.0	9.0	10.0	12.5	16.0
	Power consumption (kW)	0.12	0.22	0.22	0.22	0.34

Device designation		PEFY-WP63VMA-E	PEFY-WP71VMA-E	PEFY-WP80VMA-E	PEFY-WP100VMA-E	PEFY-WP125VMA-E
Air volume (m³/h)	L/M/H	870/1080/1260	1380/1680/1980	1380/1680/1980	1380/1680/1980	1770/2130/2520
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
Sound level (dB(A))*	L/M/H	26/29/34	28/33/37	28/33/37	28/33/37	32/36/40
Dimensions (mm)	W/D/H	1.100/732/250	1.400/732/250	1.400/732/250	1.400/732/250	1.600/732/250
Weight (kg)		31	40	40	40	42
Water pipe size Ø (mm)**		32/32	32/32	32/32	32/32	32/32
Voltage supply (V, phase, Hz)		220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60
Operating current (A)		1.04	1.36	1.36	1.47	2.10

* Sound pressure level measured centrically at a distance of 1.5 m below the unit
** Required internal diameter

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEFY-W20–125VMA-A

Ceiling concealed ducted unit
medium static pressure

Advantages

Low installation height – only 250 mm
The ceiling concealed ducted units also fulfil great performance demands, especially at lower installation heights in the suspended ceiling.

Optionally available with Plasma Quad Connect filter
Plasma Quad Plus filter technology ensures highly effective air purification. Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM 2,5; <2,5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.

Filter as standard
for all PEFY-W VMA-E

With condensate pump
The condensate pump is already integrated in the unit.

Optimal adjustment due to variable airflow
The air intake can optionally take place from the rear (standard) or from below (provided by customer). Therefore, only the filter needs to be relocated from the back to the bottom of the unit.

Integrated valve for use in HVRF Y systems

Accessories
See page 166 onwards

PEFY ceiling concealed ducted units, medium static pressure

Device designation		PEFY-W20VMA-A	PEFY-W25VMA-A	PEFY-W32VMA-A	PEFY-W40VMA-A	PEFY-W50VMA-A
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5	5.6
	Power consumption (kW)	0.032	0.032	0.044	0.047	0.093
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0	6.3
	Power consumption (kW)	0.030	0.030	0.042	0.045	0.091

Device designation		PEFY-W20VMA-A	PEFY-W25VMA-A	PEFY-W32VMA-A	PEFY-W40VMA-A	PEFY-W50VMA-A
Air volume (m³/h)	L/M/H	360/450/510	360/450/510	450/540/630	600/720/840	870/1080/1260
Static pressure (Pa)		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
Sound level (dB(A))*	L/M/H	21/25/27	21/25/27	23/27/30	23/28/31	26/31/35
Dimensions (mm)	W/D/H	700/732/250	700/732/250	700/732/250	900/732/250	1.100/732/250
Weight (kg)		22	22	22	26	30
Water pipe size Ø (mm)**		20/20	20/20	20/20	20/20	20/20
Voltage supply (V, phase, Hz)		220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60
Operating current (A)		0.25	0.25	0.34	0.37	0.65

Device designation		PEFY-W63VMA-A	PEFY-W71VMA-A	PEFY-W80VMA-A	PEFY-W100VMA-A	PEFY-W125VMA-A
Cooling	Cooling capacity (kW)	7.1	8.0	9.0	11.2	14.0
	Power consumption (kW)	0.093	0.093	0.093	0.142	0.199
Heating	Heating capacity (kW)	8.0	9.0	10.0	12.5	16.0
	Power consumption (kW)	0.091	0.091	0.091	0.140	0.197

Device designation		PEFY-W63VMA-A	PEFY-W71VMA-A	PEFY-W80VMA-A	PEFY-W100VMA-A	PEFY-W125VMA-A
Air volume (m³/h)	L/M/H	870/1080/1260	1380/1680/1980	1380/1680/1980	1380/1680/1920	1680/2040/2220
Static pressure (Pa)		40/50/70/100/150	40/50/70/100/150	40/50/70/100/150	40/50/70/100/150	40/50/70/100/150
Sound level (dB(A))*	L/M/H	26/31/35	26/31/35	26/31/35	30/35/38	34/38/40
Dimensions (mm)	W/D/H	1.100/732/250	1.100/732/250	1.100/732/250	1.400/732/250	1.400/732/250
Weight (kg)		30	30	30	37	38
Water pipe size Ø (mm)**		32/32	32/32	32/32	32/32	32/32
Voltage supply (V, phase, Hz)		220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60
Operating current (A)		0.65	0.65	0.65	0.97	1.23

* Sound pressure level measured centrically at a distance of 1.5 m below the unit
** Required internal diameter

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEFY-W20–50VMA2-A

Ceiling concealed ducted unit

medium static pressure / variable airflow / High volume flow

Advantages

Low installation height – only 250 mm

The ceiling concealed ducted units also fulfil great performance demands, especially at lower installation heights in the suspended ceiling.

High volume flow

With their high air volume flows, the units are ideal for projects where air circulation is particularly important.

Filter as standard

for all PEFY-W VMA2-E

With condensate pump

The condensate pump is already integrated in the unit.

Optimal adjustment due to variable airflow

The air intake can optionally take place from the rear (standard) or from below (provided by customer). Therefore, only the filter needs to be relocated from the back to the bottom of the unit.

Integrated valve for use in HVRF Y systems

Accessories

See page 166 onwards

PEFY ceiling concealed ducted units, medium static pressure

Device designation		PEFY-W20VMA2-A	PEFY-W25VMA2-A	PEFY-W32VMA2-A	PEFY-W40VMA2-A	PEFY-W50VMA2-A
Cooling	Cooling capacity (kW)	2.2	2.8	3.6	4.5	5.6
	Power consumption (kW)	0.093	0.093	0.208	0.208	0.208
Heating	Heating capacity (kW)	2.5	3.2	4.0	5.0	6.3
	Power consumption (kW)	0.091	0.091	0.206	0.206	0.206

Device designation		PEFY-W20VMA2-A	PEFY-W25VMA2-A	PEFY-W32VMA2-A	PEFY-W40VMA2-A	PEFY-W50VMA2-A
Air volume (m³/h)	L/M/H	870/1080/1260	870/1080/1260	870/1080/1260	870/1080/1260	1770/2130/2400
Static pressure (Pa)		40/50/70/100/150	40/50/70/100/150	40/50/70/100/150	40/50/70/100/150	40/50/70/100/150
Sound level (dB(A))*	L/M/H	26/31/35	26/31/35	33/37/39	33/37/39	33/37/39
Dimensions (mm)	W/D/H	1.100/732/250	1.100/732/250	1.100/732/250	1.100/732/250	1.600/732/250
Weight (kg)		30	30	30	30	42
Water pipe size Ø (mm)**		20/20	20/20	20/20	20/20	20/20
Voltage supply (V, phase, Hz)		220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60
Operating current (A)		0.68	0.68	1.40	1.40	1.40

Device designation		PEFY-W63VMA2-A	PEFY-W71VMA2-A	PEFY-W80VMA2-A	PEFY-W100VMA2-A	PEFY-W125VMA2-A
Cooling	Cooling capacity (kW)	7.1	8.0	9.0	11.2	14.0
	Power consumption (kW)	0.208	0.208	0.208	0.208	0.208
Heating	Heating capacity (kW)	8.0	9.0	10.0	12.5	16.0
	Power consumption (kW)	0.206	0.206	0.206	0.206	0.206

Device designation		PEFY-W63VMA2-A	PEFY-W71VMA2-A	PEFY-W80VMA2-A	PEFY-W100VMA2-A	PEFY-W125VMA2-A
Air volume (m³/h)	L/M/H	1770/2130/2400	1770/2130/2400	1770/2130/2400	1770/2130/2400	1770/2130/2400
Static pressure (Pa)		40/50/70/100/150	40/50/70/100/150	40/50/70/100/150	40/50/70/100/150	40/50/70/100/150
Sound level (dB(A))*	L/M/H	33/37/39	33/37/39	33/37/39	33/37/39	33/37/39
Dimensions (mm)	W/D/H	1.600/732/250	1.600/732/250	1.600/732/250	1.600/732/250	1.600/732/250
Weight (kg)		42	42	42	42	42
Water pipe size Ø (mm)**		30/30	30/30	30/30	30/30	30/30
Voltage supply (V, phase, Hz)		220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60	220–240, 1, 50/60
Operating current (A)		1.40	1.40	1.40	1.40	1.40

* Sound pressure level measured centrically at a distance of 1.5 m below the unit

** Required internal diameter

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEFY-WP10–50VMS1-E

Ceiling concealed ducted unit
flat design

Advantages

Low installation height – only 200 mm
The ceiling concealed ducted units feature a low installation height. A height of only 200 mm is required for installation.

Sufficient pressure
The external static pressure is adjustable from 5 to 50 Pascal. Thus, the unit can be flexibly adjusted to the respective circumstances.

Optionally available with Plasma Quad Connect filter
Plasma Quad Plus filter technology ensures highly effective air purification. Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM 2,5; <2,5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.

With condensate pump
The condensate pump is already integrated in the unit.

Extremely low-noise operation
Thanks to a new fan generation, the new ceiling concealed ducted units have a very low noise level despite their low installation height of 200 mm. The noise level is at 20 dB(A) for the small fan level (PEFY-WP10).

Can only be connected to HVRF R2 systems

PEFY ceiling concealed ducted units in flat design

Device designation		PEFY-WP10VMS1-E	PEFY-WP15VMS1-E	PEFY-WP20VMS1-E	PEFY-WP25VMS1-E	PEFY-WP32VMS1-E	PEFY-WP40VMS1-E	PEFY-WP50VMS1-E
Cooling	Cooling capacity (kW)	1.2	1.7	2.2	2.8	3.6	4.5	5.6
	Power consumption (kW)	0.03	0.05	0.05	0.06	0.07	0.07	0.09
Heating	Heating capacity (kW)	1.4	1.9	2.5	3.2	4.0	5.0	6.3
	Power consumption (kW)	0.03	0.03	0.03	0.04	0.05	0.05	0.07

Device designation		PEFY-WP10VMS1-E	PEFY-WP15VMS1-E	PEFY-WP20VMS1-E	PEFY-WP25VMS1-E	PEFY-WP32VMS1-E	PEFY-WP40VMS1-E	PEFY-WP50VMS1-E
Air volume (m³/h)	L/M/H	240/270/300	300/360/420	330/390/480	330/420/540	480/540/660	570/660/780	720/840/990
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 level (dB(A))*	L/M/H	20/23/25	22/24/28	23/25/29	23/26/30	28/30/33	30/32/35	30/33/36
Dimensions (mm)	W/D/H	790/700/200	790/700/200	790/700/200	790/700/200	990/700/200	990/700/200	1.190/700/200
Weight (kg)		19	19	20	20	25	25	27
Water pipe size Ø (mm)**		20/20	20/20	20/20	20/20	20/20	20/20	20/20
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.21	0.33	0.38	0.40	0.50	0.62	0.66

* Sound pressure level measured centrically at a distance of 1.5 m below the unit
** Required internal diameter

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PEFY-W10–50VMS-A

Ceiling concealed ducted unit
flat design

Advantages

Low installation height – only 200 mm
The ceiling concealed ducted units feature a low installation height. A height of only 200 mm is required for installation.

Sufficient pressure
The external static pressure is adjustable from 5 to 50 Pascal. Thus, the unit can be flexibly adjusted to the respective circumstances.

Optionally available with Plasma Quad Connect filter
Plasma Quad Plus filter technology ensures highly effective air purification. Plasma ionisation and the electrostatically charged filter ensure that even the smallest particles (PM 2,5; <2,5 µm) such as pollen, viruses, mould, bacteria and allergens are separated and rendered harmless.

Without condensate pump
The PAC-KE08DM-E condensate pump is optionally available.

Extremely low-noise operation
Thanks to a new fan generation, the new ceiling concealed ducted units have a very low noise level despite their low installation height of 200 mm. The noise level is at 20 dB(A) for the small fan level (PEFY-W10).

Integrated valve for use in HVRF Y systems

PEFY ceiling concealed ducted units in flat design

Device designation		PEFY-W10VMS-A	PEFY-W15VMS-A	PEFY-W20VMS-A	PEFY-W25VMS-A	PEFY-W32VMS-A	PEFY-W40VMS-A	PEFY-W50VMS-A
Cooling	Cooling capacity (kW)	1.2	1.7	2.2	2.8	3.6	4.5	5.6
	Power consumption (kW)	0.020	0.025	0.030	0.035	0.040	0.045	0.070
Heating	Heating capacity (kW)	1.4	1.9	2.5	3.2	4.0	5.0	6.3
	Power consumption (kW)	0.020	0.025	0.030	0.035	0.040	0.045	0.070

Device designation		PEFY-W10VMS-A	PEFY-W15VMS-A	PEFY-W20VMS-A	PEFY-W25VMS-A	PEFY-W32VMS-A	PEFY-W40VMS-A	PEFY-W50VMS-A
Air volume (m^3/h)	L/M/H	240/270/300	300/330/420	330/390/450	330/390/510	330/390/540	480/570/660	570/720/870
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 level (dB(A))*	L/M/H	20/22/23	22/24/25	23/24/26	23/24/28	24/25/31	24/25/28	25/29/33
Dimensions (mm)	W/D/H	790/700/200	790/700/200	790/700/200	790/700/200	790/700/200	990/700/200	990/700/200
Weight (kg)		19	19	19	19	19.5	23.5	23.5
Water pipe size Ø (mm)**		20/20	20/20	20/20	20/20	20/20	20/20	20/20
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current (A)		0.16	0.24	0.26	0.30	0.37	0.39	0.55

* Sound pressure level measured centrically at a distance of 1.5 m below the unit
** Required internal diameter

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.


CITY MULTI
CITY MULTI
CITY MULTI

IT/technology room solutions

Contents

Benefits and properties

System solutions for perfect cooling of IT and technology rooms
Cutting-edge IT and technology rooms are characterised by a steadily growing exchange of data and increased computing capacity. All of this generates a high heat load per square metre that must be removed by special air conditioning systems.

Energy efficiency, reliability and a high sensitive capacity are decisive factors when it comes to planning and designing such facilities.

The Mitsubishi Electric product range includes comprehensive overall solutions for a wide variety of application areas.

Basic application in low output range
- M-series

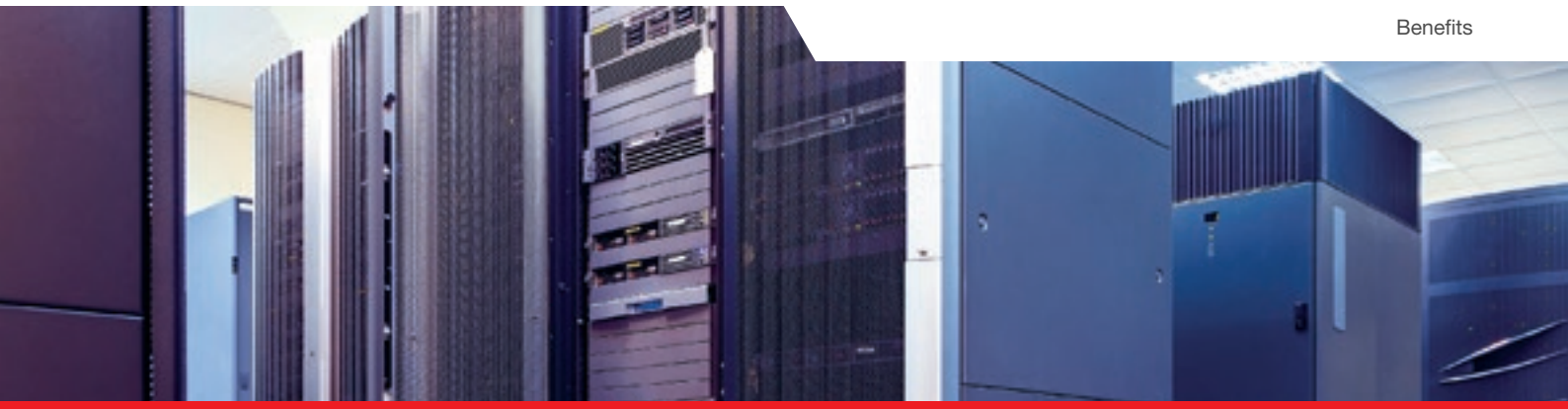
Standard application in medium output range
- Mr. Slim

More complex applications in higher output ranges
(precision air conditioning)
- s-MEXT-G00

Reliable operation via rotation back-up function
As the computers in server rooms are usually in permanent operation, continuous cooling of such rooms must be guaranteed even following air conditioning system failure. The rotation back-up function (not available for the M-series) ensures that the second system automatically enters operation as a back-up in the event of a fault.

In addition, automatic operation switchover between the two systems can take place at fixed intervals of 1 to 28 days to offset their respective operating hours.

s-MEXT-G00 + Mr. Slim



Benefits and properties

High sensitive outputs required
When planning and designing technology rooms, particular attention must be paid to the sensitive output. The constant operation leads to a continuous drop in relative humidity within the closed room. This falling humidity also reduces the thermal conductivity of the air itself, with higher outputs required in order to handle the temperature exchange between the room air and the heat exchanger.

The range of products featured in this chapter therefore maintains a particular focus on ensuring large heat exchanger surfaces in the indoor units. Large heat exchanger surfaces are able to achieve high sensitive outputs and thus ensure reliable air conditioning even when humidity is very low.

Maximum efficiency and reduced operating costs
Given the increasing energy demand in modern technology rooms, any energy savings can help deliver a considerable reduction in the operating costs. This accounts for a significant proportion of the overall costs for systems that have undergone ten years of permanent operation on average. Through its commitment to the use of high-quality and energy-efficient components such as inverter technology and R32 refrigerant, Mitsubishi Electric is able to provide the best possible overall solutions.

Indoor and outdoor units

Inverter cooling or heating

Page reference

Performance code	35	42	50	60	71
Cooling capacity (kW)	3,5	4,2	5,0	6,0	7,1

NEW

Wall-mounted units MSY-TP

204–205

MUY-TP

204–205

Performance code	35	50	60	71	100	125	140
Cooling capacity (kW)	3,5	5,0	6,0	7,1	10,0	12,5	14,0
Heating capacity (kW)	4,0	4,5	7,0	8,0	11,0	14,0	16,0

Wall-mounted unit PKA-M

206–207

Ceiling suspended unit PCA-M

208–209

Performance code	006	009	013	022	038	044
Cooling capacity (kW)	6,79	10,1	11,9	22,5	38,8	42,4

NEW R32

s-MEXT-G00
IT climate cabinet

210–219

IT RAC system MSY-TP/MUY-TP

Highlights

- High sensible capacity (up to 95%)
- Energy efficiency class up to A+++
- Guaranteed application range down to -25°C
- Refrigerant charge quantity max. 0.98 kg

The units are particularly suitable for small server and technology rooms requiring an affordable air conditioning solution.

- Small companies with in-house server centres or telephone switchboards
- B&Bs/hostels
- Workshops
- Craft businesses
- Educational establishments

The unit sets MUSY-TP35VF and MUSY-TP50VF contain the outdoor unit (MUY), the indoor unit (MSY), the wired remote controller PAR-40MAA and the connection adapter MAC-397IF-E.

There are no infrared remote controllers available for this unit series.

R32

MUY-TP35 / 50VF | PAR-40MAA | MUSY-TP35 / 50VF

IT RAC System

Split-inverter / cooling only

Wired Remote Control connectable | Weekly | ON/OFF | Standard Filter

Low-temperature Cooling | Auto Restart | Pre-charged | INVERTER | Certified Quality | REUSE PIPING

MUSY-TP inverter / wall-mounted unit sets, cooling only

Combination designation		MUSY-TP35VF	MUSY-TP50VF
Outdoor units		MUY-TP35VF	MUY-TP50VF
Cooling	Cooling capacity (kW)	3.5 (1.5–4.0)	5.0 (1.5–5.7)
	SHR*	0.95	0.95
	Power consumption (kW)	0.76	1.45
	SEER	9.0	8.0
	Energy efficiency class	A+++	A++
	Application range (°C)	–25~+46	–25~+46

* SHR: ratio of sensible cooling capacity to total cooling capacity
Measurement conditions: outdoor temperature 35°C, room temperature 22°C, relative humidity 40%

Indoor units		MSY-TP35VF	MSY-TP50VF
Air flow in cooling mode (m³/h)	N/M/H/S	600/696/822/984	600/696/822/984
Sound leve (dB(A))	N/M/H/S	31/36/40/45	31/36/40/45
Dimensions (mm)	W/D/H	923/250/305	923/250/305
Weight (kg)		12.5	12.5
Outdoor units		**MUY-TP35VF**	**MUY-TP50VF**
Airflow (m³/h)		1758	1758
Sound pressure level cooling (dB(A))		45	47
Dimensions (mm)	W/D/H	800/285/550	800/285/550
Weight (kg)		34	34
Refrigeration data			
Total pipe length (m)		20	20
Max. height difference (m)		12	12
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32/0.85/0.98	R32/0.85/0.98
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675/0.57/0.66	675/0.57/0.66
Refrigerant pre-filling for (m)		7	7
Top-up quantity of refrigerant (g/m)		10	10
Electrical data			
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50
Operating current (A)	Cooling	3.6	6.4
Recommended cable cross-section - supply cable to outdoor unit (mm²)		3 x 1.5	3 x 2.5
Recommended cable cross-section - indoor unit - outdoor unit (mm²)		4 x 1.5	4 x 1.5
Recommended breaker size (A)		10	10

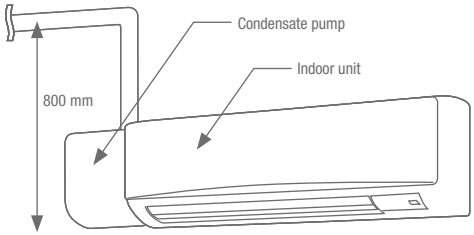
Sound pressure level measured 1 m in front of and 0.8 m below the unit in cooling mode
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Wall mounted unit PKA-M

Highlights

- SEER up to 6.5
- Energy efficiency class up to A++
- Sensible capacity up to 100%



The powerful and reliable wall-mounted unit is easy to install and service.

Air quality
- Long-life filter

Airflow control
- Automatic fan stage control
- 2, 3 or 4 fan speeds
- Quiet operation

Comfort and control
- Optional: Kabelfernbedienung mit Wochentimer
- Automatic restart after power outage
- Rotation back-up function with PAR-40MAA

Installation and maintenance
- Installation up on the wall
- Optional: condensate pump with head of up to 80 cm
- Higher sensitive output thanks to device combinations with larger indoor units.

With infrared remote controller included in the scope of supply, optional wired remote controller

Accessories

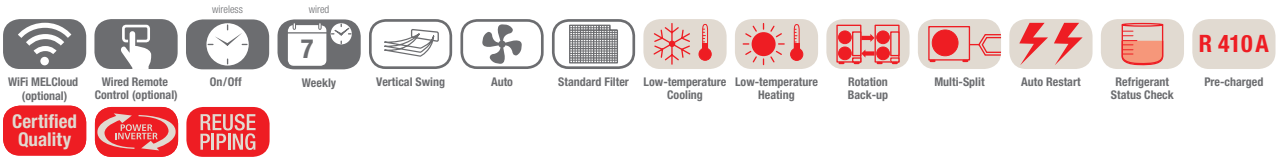
Type designation	Description	Quantity
PAC-SH29TC-E	Connecting plug for cable remote control	1
PAC-YT52CRA	Wired remote control compact	1
PAR-40MAA	Wired remote control Deluxe	1
PAR-CT01MAA*	Wired remote controller with touchscreen	1
MAC-567IF-E	MELCloud Wi-Fi adapter	1
MAC-100FT-E	Plasma Quad Connect (available from May 2021)	1

* Available in several versions. Further information available in chapter controls

PUHZ-ZRP35 / 50VKA | PUHZ-ZRP60VHA | PKA-M50LAL | PKA-M60 / 71KAL

Wall mounted units

Single-split / power inverter / Cooling and heating



PKA-M wall mounted units, cooling / heating, infrared remote control included in scope of delivery

Indoor units		PKA-M50LAL	PKA-M60KAL	PKA-M71KAL
Outdoor units		PUHZ-ZRP35VKA	PUHZ-ZRP50VKA	PUHZ-ZRP60VHA
Cooling	Cooling capacity (kW)	3.6 (1.6–4.5)	5.0 (2.3–5.6)	6.1 (2.7–6.7)
	SHR*	0.99	1.00	1.00
	Power consumption (kW)	0.88	1.24	1.60
	SEER	6.5	6.3	6.3
	Energy efficiency class	A++	A++	A++
	Application range (°C)	–15~+46	–15~+46	–15~+46

Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit

Indoor units		PKA-M50LAL	PKA-M60KAL	PKA-M71KAL
Air volume (m³ / h)	L / M / H	540 / 630 / 720	1080 / 1200 / 1320	1080 / 1200 / 1320
Sound level (dB(A))	L / M / H	36 / 40 / 43	39 / 42 / 45	39 / 45
Dimensions (mm)	W / D / H	898 / 249 / 295	1.170 / 295 / 365	1.170 / 295 / 365
Weight (kg)		13	21	21
Outdoor units		**PUHZ-ZRP35VKA**	**PUHZ-ZRP50VKA**	**PUHZ-ZRP60VHA**
Airflow (m³ / h)		2700	2700	3300
Sound pressure level cooling / heating (dB(A))		44 / 46	44 / 46	47 / 48
Dimensions (mm)	W / D / H	809 / 300 / 630	809 / 300 / 630	950 / 330 (+30) / 943
Weight (kg)		43	46	70
Refrigeration data				
Total pipe length (m)		50	50	50
Max. height difference (m)		30	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R410A / 2.2 / 2.6	R410A / 2.4 / 2.8	R410A / 3.5 / 4.7
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		2088 / 4.6 / 5.44	2088 / 5.02 / 5.85	2088 / 7.31 / 9.81
Refrigerant pre-filling for (m)		30	30	30
Refrigerant pipe size Ø (mm)	fl.	6	6	10
	s.	12	12	16
Electrical data				
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Operating current cooling / heating (A)		3.58 / 3.97	6.23 / 6.90	7.72 / 8.92
Recommended breaker size (A)		16	16	25

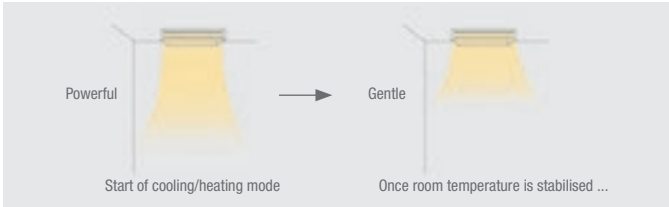
Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Outdoor units 100 / 125 / 140 are also available in 230V / 1Ph versions on request.
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PCA-M suspended ceiling unit

Highlights

- SEER up to 6.4
- Energy efficiency class up to A++
- Sensible capacity up to 100%



The versatile ceiling suspended unit is ideal for technical rooms with its excellent air distribution and extremely sensitive capacity. Special combinations with up to 100 % sensitive capacity are available.

Design
- Modern housing in pure white
- Just 23 cm high

Air quality
- Long-life filter
- High-efficiency filter
- Outside air connection

Airflow control
- Automatic fan stage control
- 4 fan speeds
- Mode for high/low ceilings for the ideal upward airflow (up to 4.2 m) or in low rooms

Comfort and control
- Automatic restart after power outage
- Rotation back-up function

Installation and maintenance
- Easy installation
- Optional installation of condensate pump

PCA-M suspended ceiling unit
- Rotation back-up function (with PUHZ-PUZ)
- High air throw
- High energy efficiency up to A++
- Highly sensitive cooling performance

Choice of wired or infrared remote controller

Accessories

Type designation	Description	Quantity
PAC-YT52CRA	Wired remote control compact	1
PAR-40MAA	Wired remote control Deluxe	1
PAR-CT01MAA**	Wired remote controller with touchscreen	1
PAR-SL94B-E	Infrared remote control	1
PAC-SJ_DM-E*	Condensate pump	1
PAC-SH_KF-E*	High-Efficiency Filter	1
MAC-567IF-E	MELCloud Wi-Fi adapter	1

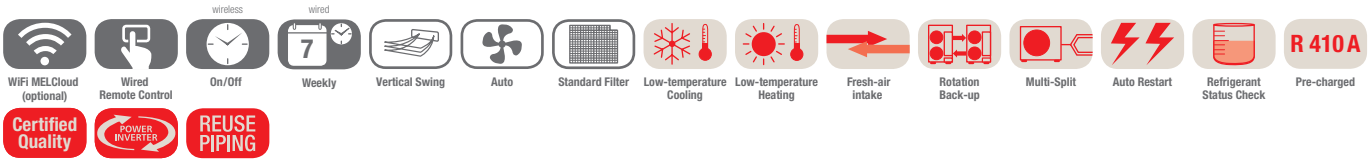
* Varies according to the size of the unit. More detailed information can be found at the end of this section on the accessories pages.

** Available in several versions Further information available in chapter controls

PUHZ-ZRP60/71VHA PUHZ-ZRP100YKA PCA-M

Ceiling suspended unit

Single-split / power inverter / Cooling and heating



PCA-M ceiling suspended units, cooling / heating, remote control not included in scope of delivery

Indoor units		PCA-M71KA	PCA-M100KA	PCA-M125KA
Outdoor units		PUHZ-ZRP60VHA	PUHZ-ZRP71VHA	PUHZ-ZRP100YKA
Cooling	Cooling capacity (kW)	6.1 (2.7–6.7)	7.1 (3.3–8.1)	9.5 (4.9–11.4)
	SHR*	0.99	1.0	0.98
	Power consumption (kW)	1.69	1.87	2.22
	SEER	6.3	6.4	6.2
	Energy efficiency class	A++	A++	A++
	Application range (°C)	–15~+46	–15~+46	–15~+46

* SHR: ratio of sensible cooling capacity to total cooling capacity
Measurement conditions: outdoor temperature 35°C, room temperature 22°C, relative humidity 40%

Indoor units		PCA-M71KA	PCA-M100KA	PCA-M125KA
Air volume (m³/h)	L/M1/M2/H	960/1020/1080/1200	1320/1440/1560/1680	1380/1500/1620/1740
Sound level (dB(A))	L/H	35/41	37/43	39/45
Dimensions (mm)	W/D/H	1.280/680/230	1.600/680/230	1.600/680/230
Weight (kg)		32	37	38
Outdoor units		**PUHZ-ZRP60VHA**	**PUHZ-ZRP71VHA**	**PUHZ-ZRP100YKA**
Airflow (m³/h)		3300	3300	6600
Sound pressure level cooling/heating (dB(A))		47/48	47/49	49/51
Dimensions (mm)	W/D/H	950/330 (+30)/943	950/330 (+25)/943	1.050/330 (+40)/1.338
Weight (kg)		70	70	123
Refrigeration data				
Total pipe length (m)		50	55	75
Max. height difference (m)		30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R410A/3.5/4.7	R410A/3.5/4.7	R410A/5.0/7.4
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		2088/7.31/9.81	2088/7.31/9.81	2088/10.44/15.45
Refrigerant pre-filling for (m)		30	30	30
Refrigerant pipe size Ø (mm)	fl.	10	10	10
	s.	16	16	16
Electrical data				
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	380–415, 3+N, 50
Operating current cooling/heating (A)		7.72/8.92	7.63/8.65	3.95/3.98
Recommended breaker size (A)		25	25	16

Sound pressure level of the indoor unit measured 1 m in front of and 1 m below the unit
Outdoor units 100 / 125 / 140 are also available in 230V / 1Ph versions on request.
Energy efficiency class on a scale from A+++ to D

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

s-MEXT-G00 - Over: air blow-out upwards

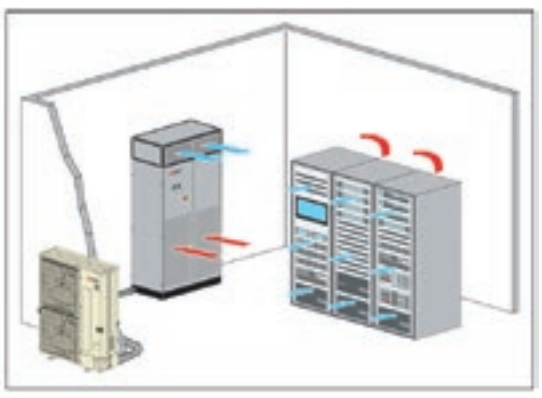
Climate cabinets with Mr. Slim outdoor unit

Highlights

- A climatic chamber for refrigerants R410A and R32
- Version: cooling only
- Version: cooling, heating, humidifying
- SHR value up to 92%
- Water leak sensor
- G4 air filter with differential pressure monitoring
- EC fan
- Cascading of up to 10 units

Ideal for small to medium-sized technology and server rooms

The new s-MEXT G00 unit series is designed for air conditioning in small to medium-sized technology and server rooms. The climate cabinets are connected to one or two Mr. Slim outdoor units. In addition to cooling, the focus can optionally be extended to include heating, humidifying and dehumidifying functions for more complex room climate requirements. As a plug-and-play solution, the system is suitable for quick and easy installation and commissioning. And the units also undergo to a comprehensive test run before leaving the factory. The s-MEXT G00 climate cabinets with Mr. Slim outdoor units can be operated with R410A or R32 as refrigerant.



Over: air blow-out upwards

The air intake from outside the room is via openings in the lower part of the doors of the air-conditioning cabinet and blows the air into the room. In the figure, the air blow-out is shown with a 90° plenum (optional).

Additional unit properties:

Unit structure
- 3 housing sizes
- Capacities from 6 - 22.5 kW with one Mr. Slim outdoor unit
- Capacities from 38.8 - 42.4 kW with two Mr. Slim outdoor units
- Pipe lengths up to max. 100 metres
- Front access to all unit components

Fan and volume flow rate control
- 1 EC plug fan or 2 EC plug fans for size 022
- Fan speed control via

// Constant speed
// Variable speed based on load request
// Constant volume flow rate (optional)
// Constant pressure in raised floor (optional)

- Economy function in standby mode

Switch cabinet and control
- Main switch
- Remote on/off contact
- Fault notification output, priority A
- Fault notification output, priority B
- PAC-IF 013 interface card installed in climate cabinet and cabled
- Supply/return air temperature control
- Black box function for error message analysis
- Operating display with clear text display on climate cabinet

PUZ-ZM60VHA

PUZ-ZM100-250YKA

s-MEXT-G00 Over

s-MEXT-G00 - Over: air blow-out upwards - cooling only

Climate cabinets with Mr. Slim outdoor unit

s-MEXT-G00 climate cabinets with Mr. Slim outdoor unit: installations without raised floor, air blow-out upwards - cooling only

Combination designation		s-M-G07 006 0 K	s-M-G07 009 0 K	s-M-G07 013 0 K	s-M-G07 022 0 K	s-M-G07 038 0 K	s-M-G07 044 0 K
Indoor units		s-M-G00 006 0 K	s-M-G00 009 0 K	s-M-G00 013 0 K	s-M-G00 022 0 K	s-M-G00 038 0 K	s-M-G00 044 0 K
Outdoor units		PUZ-ZM60VHA	PUZ-ZM100YKA	PUZ-ZM125YKA	PUZ-ZM250YKA	2 x PUZ-ZM200YKA	2 x PUZ-ZM250YKA
Air blow-out		Up flow	Up flow	Up flow	Up flow	Up flow	Up flow
Cooling	Cooling capacity (kW)*	6.82	10.1	11.9	22.6	39.0	42.5
	Sensible capacity (kW)*	6.18	8.91	10.2	19.3	33.6	35.3
	SHR**	0.91	0.88	0.86	0.85	0.86	0.83
	Power consumption (kW)*	1.46	2.35	3.41	7.11	6.16	8.37
	EER*	4.67	4.30	3.49	3.18	3.58	2.88
	Climate cabinet application range, temperature (°C)	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C
	Climate cabinet application range, relative humidity (%)	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %
	Outdoor unit application range (°C)	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C

* Cooling capacity: Outside: 35 °C; Inside: 27 °C / 47 % r. h.; 5 m cable lengths; ESP: 20 Pa

** SHR: ratio of sensible cooling capacity to total cooling capacity

*** for wind-protected installation or with accessories Low Temperature Kit

Indoor units		s-M-G00 006 0 K	s-M-G00 009 0 K	s-M-G00 013 0 K	s-M-G00 022 0 K	s-M-G00 038 0 K	s-M-G00 044 0 K
Air volume flow (m³/h)	Min./Max.	1.400/2000	1.800/2.500	2.000/2.800	4.000/5.000	7.600/8.800	8.000/10.000
Static pressure (Pa)	Min./Max.	20/360	20/275	20/401	20/214	20/211	20/181
Sound pressure level dB(A)	Nom.	53	57	61	60	63	67
Dimensions (mm)	W/D/H	600/500/1.980	600/500/1.980	600/500/1.980	1.050/330/1.338	1.000/890/1.980	1.000/890/1.980
Weight (kg)		103	106	110	165	237	237
Outdoor units		**PUZ-ZM60VHA**	**PUZ-ZM100YKA**	**PUZ-ZM125YKA**	**PUZ-ZM250YKA**	**2 x PUZ-ZM200YKA**	**2 x PUZ-ZM250YKA**
Airflow (m³/h)		3.300	6.600	7.200	8.400	2 x 8.400	2 x 8.400
Sound pressure level cooling (dB(A))		47	49	50	59	2 x 59	2 x 59
Dimensions (mm)	W/D/H	950/355/943	1.050/370/1.338	1.050/370/1.338	1.050/370/1.338	2 x 1.050/370/1.338	2 x 1.050/370/1.338
Weight (kg)		70	123	125	138	2 x 137	2 x 138
Refrigeration data							
Total pipe length (m)		55	100**	100**	100**	100**	100**
Max. height difference (m)		30	30	30	30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R32/2.8/3.6	R32/4.0/6.8	R32/4.0/6.8	R32/6.8/9.2	R32/2 x 6.3/2 x 9.2	R32/2 x 6.3/2 x 9.2
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		675/1.89/2.43	675/2.7/4.59	675/2.7/4.59	675/4.59/6.21	675/2 x 4.25/2 x 6.21	675/2 x 4.25/2 x 6.21
Refrigerant pipe size Ø (mm)	fl.	10	10	10	12	2 x 10	2 x 12
	s.	16	16	16	22 (28***)	2 x 22 (28***)	2 x 22 (28***)
Electrical data (outdoor unit)							
Voltage supply (V, phase, Hz)		220 – 240, 1, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling (A)		5.66	3.08	4.91	****	****	****
Recommended breaker size (A)		25	16	16	32	2 x 32	2 x 32
Electrical data (indoor unit)							
Voltage supply (V, phase, Hz)		230, 1, 50	230, 1, 50	230, 1, 50	230, 1, 50	400, 3+N, 50	400, 3+N, 50
Operating current cooling (A)		1.5	2.1	2.7	3.0	2.1	2.8
Max. operating current (A)		2.3	2.3	2.8	3.9	3.8	3.8

* measured at a distance of 1 m

** from 71 to 105 m please check Mr. Slim O&M Manual

*** for cable lengths of over 50 m

**** Values were not available at the time of printing

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

R32

s-MEXT-G00 Over

PUZ-ZM60VHA

PUZ-ZM100-250YKA

s-MEXT-G00 - Over: air blow-out upwards - cooling, heating, humidifying

Climate cabinets with Mr. Slim outdoor unit

s-MEXT-G00 climate cabinets with Mr. Slim outdoor unit: installations without raised floor, air blow-out upwards - cooling, heating, humidifying

Combination designation		s-M-G07 006 O KHB	s-M-G07 009 O KHB	s-M-G07 013 O KHB	s-M-G07 022 O KHB	s-M-G07 038 O KHB	s-M-G07 044 O KHB
Indoor units		s-M-G00 006 O KHB	s-M-G00 009 O KHB	s-M-G00 013 O KHB	s-M-G00 022 O KHB	s-M-G00 038 O KHB	s-M-G00 044 O KHB
Outdoor units		PUZ-ZM60VHA	PUZ-ZM100YKA	PUZ-ZM125YKA	PUZ-ZM250YKA	2 x PUZ-ZM200YKA	2 x PUZ-ZM250YKA
Air blow-out		Up flow	Up flow	Up flow	Up flow	Up flow	Up flow
Heating capacity (kW)		2.6	2.6	2.6	3.9	9.0	9.0
Steam output (kg / h)		3.0	3.0	3.0	3.0	8.0	8.0
Cooling	Cooling capacity (kW)*	6.82	10.1	11.9	22.6	39.0	42.5
	Sensible capacity (kW)*	6.18	8.91	10.2	19.3	33.6	35.3
	SHR**	0.91	0.88	0.86	0.85	0.86	0.83
	Power consumption (kW)*	1.46	2.35	3.41	7.11	6.16	8.37
	EER*	4.67	4.30	3.49	3.18	3.58	2.88
	Climate cabinet application range, temperature (°C)	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C
	Climate cabinet application range, relative humidity (%)	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %
	Outdoor unit application range (°C)	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C

* Cooling capacity: Outside: 35 °C; Inside: 27 °C / 47 % r. h.; 5 m cable lengths; ESP: 20 Pa

** SHR: ratio of sensible cooling capacity to total cooling capacity

*** for wind-protected installation or with accessories Low Temperature Kit

Indoor units		s-M-G00 006 O KHB	s-M-G00 009 O KHB	s-M-G00 013 O KHB	s-M-G00 022 O KHB	s-M-G00 038 O KHB	s-M-G00 044 O KHB
Air volume flow (m³ / h)	Min. / Max.	1.400 / 2000	1.800 / 2.500	2.000 / 2.800	4.000 / 5.000	7.600 / 8.800	8.000 / 10.000
Static pressure (Pa)	Min. / Max.	20 / 360	20 / 275	20 / 401	20 / 214	20 / 211	20 / 181
Sound pressure level dB(A)	Nom.	53	57	61	60	63	67
Dimensions (mm)	W / D / H	600 / 500 / 1.980	600 / 500 / 1.980	600 / 500 / 1.980	1.000 / 500 / 1.980	1.000 / 890 / 1.980	1.000 / 890 / 1.980
Weight (kg)		103	106	110	165	237	237
Outdoor units		**PUZ-ZM60VHA**	**PUZ-ZM100YKA**	**PUZ-ZM125YKA**	**PUZ-ZM250YKA**	**2 x PUZ-ZM200YKA**	**2 x PUZ-ZM250YKA**
Airflow (m³ / h)		3.300	6.600	7.200	8.400	2 x 8.400	2 x 8.400
Sound pressure level cooling (dB(A))		47	49	50	59	2 x 59	2 x 59
Dimensions (mm)	W / D / H	950 / 355 / 943	1.050 / 370 / 1.338	1.050 / 370 / 1.338	1.050 / 370 / 1.338	2 x 1.050 / 370 / 1.338	2 x 1.050 / 370 / 1.338
Weight (kg)		70	123	125	138	2 x 137	2 x 138
Refrigeration data							
Total pipe length (m)		55	100**	100**	100**	100**	100**
Max. height difference (m)		30	30	30	30	30	30
Refrigerant type / refrigerant quantity (kg) / max. quantity (kg)		R32 / 2.8 / 3.6	R32 / 4.0 / 6.8	R32 / 4.0 / 6.8	R32 / 6.8 / 9.2	R32 / 2 x 6.3 / 2 x 9.2	R32 / 2 x 6.3 / 2 x 9.2
GWP / CO_2 equivalent (t) / CO_2 equivalent max. (t)		675 / 1.89 / 2.43	675 / 2.7 / 4.59	675 / 2.7 / 4.59	675 / 4.59 / 6.21	675 / 2 x 4.25 / 2 x 6.21	675 / 2 x 4.25 / 2 x 6.21
Refrigerant pipe size Ø (mm)	fl.	10	10	10	12	2 x 10	2 x 12
	s.	16	16	16	22 (28***)	2 x 22 (28***)	2 x 22 (28***)
Electrical data (outdoor unit)							
Voltage supply (V, phase, Hz)		220 – 240, 1, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling (A)		5.66	3.08	4.91	****	****	****
Recommended breaker size (A)		25	16	16	32	2 x 32	2 x 32
Electrical data (indoor unit)							
Voltage supply (V, phase, Hz)		230, 1, 50	230, 1, 50	230, 1, 50	230, 1, 50	400, 3+N, 50	400, 3+N, 50
Operating current cooling (A)		1.5	2.1	2.7	3.0	2.1	2.8
Max. operating current (A)		27.7	27.7	28.2	35.0	29.2	29.2

* measured at a distance of 1 m

** from 71 to 105 m please check Mr. Slim O&M Manual

*** for cable lengths of over 50 m

**** Values were not available at the time of printing

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

PUHZ-ZRP60VHA

PUHZ-ZRP100-250YKA

s-MEXT-G00 Over

R410A

s-MEXT-G00 - Over: air blow-out upwards - cooling only

Climate cabinets with Mr. Slim outdoor unit

s-MEXT-G00 climate cabinets with Mr. Slim outdoor unit: installations without raised floor, air blow-out upwards - cooling only

Combination designation		s-M-G02 006 O K	s-M-G02 009 O K	s-M-G02 013 O K	s-M-G02 022 O K	s-M-G02 038 O K	s-M-G02 044 O K
Indoor units		s-M-G00 006 O K	s-M-G00 009 O K	s-M-G00 013 O K	s-M-G00 022 O K	s-M-G00 038 O K	s-M-G00 044 O K
Outdoor units		PUHZ-ZRP60VHA	PUHZ-ZRP100YKA	PUHZ-ZRP125YKA	PUHZ-ZRP250YKA	2 x PUHZ-ZRP200YKA	2 x PUHZ-ZRP250YKA
Air blow-out		Up flow	Up flow	Up flow	Up flow	Up flow	Up flow
Cooling	Cooling capacity (kW)*	6.79	10.1	11.9	22.5	38.8	42.4
	Sensible capacity (kW)*	6.28	9.0	10.3	19.5	34.0	37.5
	SHR**	0.92	0.89	0.87	0.87	0.88	0.88
	Power consumption (kW)*	1.53	2.17	3.49	7.11	5.44	7.11
	EER*	3.9	3.98	2.97	2.87	2.87	2.59
	Climate cabinet application range, temperature (°C)	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C
	Climate cabinet application range, relative humidity (%)	30–60 %	30–60 %	30–60 %	30–60 %	30–60 %	30–60 %
	Outdoor unit application range (°C)	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C

* Cooling capacity: Outside: 35 °C; Inside: 27 °C / 47 % r. h.; 5 m cable lengths; ESP: 20 Pa

** SHR: ratio of sensible cooling capacity to total cooling capacity

*** for wind-protected installation or with accessories Low Temperature Kit

Indoor units		s-M-G00 006 O K	s-M-G00 009 O K	s-M-G00 013 O K	s-M-G00 022 O K	s-M-G00 038 O K	s-M-G00 044 O K
Air volume flow (m³/h)	Min./Max.	1.400/2000	1.800/2.500	2.000/2.800	4.000/5.000	7.600/8.800	8.000/10.000
Static pressure (Pa)	Min./Max.	20/360	20/275	20/401	20/214	20/211	20/181
Sound pressure level dB(A)	Nom.	53	57	61	60	63	67
Dimensions (mm)	W/D/H	600/500/1.980	600/500/1.980	600/500/1.980	1.000/500/1.980	1.000/890/1.980	1.000/890/1.980
Weight (kg)		103	106	110	165	237	237
Outdoor units		**PUHZ-ZRP60VHA**	**PUHZ-ZRP100YKA**	**PUHZ-ZRP125YKA**	**PUHZ-ZRP250YKA**	**2 x PUHZ-ZRP200YKA**	**2 x PUHZ-ZRP250YKA**
Airflow (m³/h)		3300	6600	7200	8400	2 x 8.400	2 x 8.400
Sound pressure level (dB(A))	Cooling	47	49	50	59	2 x 59	2 x 59
Dimensions (mm)	W/D/H	950/355/943	1.050/370/1.338	1.050/370/1.338	1.050/370/1.338	2 x 1050/370/1338	2 x 1050/370/1338
Weight (kg)		70	123	125	135	2 x 135	2 x 135
Refrigeration data							
Total pipe length (m)		50	75	75	100**	100**	100**
Max. height difference (m)		30	30	30	30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R410A/3.5/4.7	R410A/5.0/7.4	R410A/5.0/7.4	R410A/7.70/12.5	R410A/2 x 7.1/2 x 10.7	R410A/2 x 7.7/2 x 12.5
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		2088/7.31/9.81	2088/10.44/15.45	2088/10.44/15.45	2088/16.08/26.10	2088/2 x 14.82/2 x 22.3	2088/2 x 16.08/2 x 26.10
Refrigerant pipe size Ø (mm)	fl.	10	10	10	12	2 x 10	2 x 12
	s.	16	16	16	22 (28***)	2 x 22 (28***)	2 x 22 (28***)
Electrical data (outdoor unit)							
Voltage supply (V, phase, Hz)		220–240, 1, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling (A)		7.72	3.95	5.93	11.5	2 x 9.1	2 x 11.5
Recommended breaker size (A)		25	16	16	32	2 x 32	2 x 32
Electrical data (indoor unit)							
Voltage supply (V, phase, Hz)		230, 1, 50	230, 1, 50	230, 1, 50	230, 1, 50	400, 3+N, 50	400, 3+N, 50
Operating current cooling (A)		1.5	2.1	2.7	3	2.1	2.8
Max. operating current (A)		2.3	2.3	2.8	3.9	3.8	3.8

* measured at a distance of 1 m

** from 71 to 105 m please check Mr. Slim O&M Manual

*** for cable lengths of over 50 m

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For further information please see the corresponding operation manual.

R410A

s-MEXT-G00 Over

PUHZ-ZRP60VHA

PUHZ-ZRP100-250YKA

s-MEXT-G00 - Over: air blow-out upwards - cooling, heating, humidifying

Climate cabinets with Mr. Slim outdoor unit

s-MEXT-G00 climate cabinets with Mr. Slim outdoor unit: installations without raised floor, air blow-out upwards - cooling, heating, humidifying

Combination designation		s-M-G02 006 O KHB	s-M-G02 009 O KHB	s-M-G02 013 O KHB	s-M-G02 022 O KHB	s-M-G02 038 O KHB	s-M-G02 044 O KHB
Indoor units		s-M-G00 006 O KHB	s-M-G00 009 O KHB	s-M-G00 013 O KHB	s-M-G00 022 O KHB	s-M-G00 038 O KHB	s-M-G00 044 O KHB
Outdoor units		PUHZ-ZRP60VHA	PUHZ-ZRP100YKA	PUHZ-ZRP125YKA	PUHZ-ZRP250YKA	2 x PUHZ-ZRP200YKA	2 x PUHZ-ZRP250YKA
Air blow-out		Up flow	Up flow	Up flow	Up flow	Up flow	Up flow
Heating capacity (kW)		2.6	2.6	2.6	3.9	9.0	9.0
Steam output (kg/h)		3.0	3.0	3.0	3.0	8.0	8.0
Cooling	Cooling capacity (kW)*	6.79	10.1	11.9	22.5	38.8	42.4
	Sensible capacity (kW)*	6.28	9.0	10.3	19.5	34.0	37.5
	SHR**	0.92	0.89	0.87	0.87	0.88	0.88
	Power consumption (kW)*	1.53	2.17	3.49	7.11	5.44	7.11
	EER*	3.9	3.98	2.97	2.87	2.87	2.59
	Climate cabinet application range, temperature (°C)	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C
	Climate cabinet application range, relative humidity (%)	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %
	Outdoor unit application range (°C)	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C

* Cooling capacity: Outside: 35 °C; Inside: 27 °C / 47 % r. h.; 5 m cable lengths; ESP: 20 Pa

** SHR: ratio of sensible cooling capacity to total cooling capacity

*** for wind-protected installation or with accessories Low Temperature Kit

Indoor units		s-M-G00 006 O KHB	s-M-G00 009 O KHB	s-M-G00 013 O KHB	s-M-G00 022 O KHB	s-M-G00 038 O KHB	s-M-G00 044 O KHB
Air volume flow (m³/h)	Min./Max.	1.400/2000	1.800/2.500	2.000/2.800	4.000/5.000	7.600/8.800	8.000/10.000
Static pressure (Pa)	Min./Max.	20/360	20/275	20/401	20/214	20/211	20/181
Sound pressure level dB(A)	Nom.	53	57	61	60	63	67
Dimensions (mm)	W/D/H	600/500/1.980	600/500/1.980	600/500/1.980	1.000/500/1.980	1.000/890/1.980	1.000/890/1.980
Weight (kg)		112	115	119	179	262	262
Outdoor units		**PUHZ-ZRP60VHA**	**PUHZ-ZRP100YKA**	**PUHZ-ZRP125YKA**	**PUHZ-ZRP250YKA**	**2 x PUHZ-ZRP200YKA**	**2 x PUHZ-ZRP250YKA**
Airflow (m³/h)		3300	6600	7200	8400	2 x 8.400	2 x 8.400
Sound pressure level (dB(A))	Cooling	47	49	50	59	2 x 59	2 x 59
Dimensions (mm)	W/D/H	950/355/943	1.050/370/1.338	1.050/370/1.338	1.050/370/1.338	2 x 1050/370/1338	2 x 1050/370/1338
Weight (kg)		70	123	125	135	2 x 135	2 x 135
Refrigeration data							
Total pipe length (m)		50	75	75	100**	100**	100**
Max. height difference (m)		30	30	30	30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg) GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		R410A/3.5/4.7 2088/7.31/9.81	R410A/5.0/7.4 2088/10.44/15.45	R410A/5.0/7.4 2088/10.44/15.45	R410A/7.70/12.5 2088/16.08/26.10	R410A/2 x 7.1/2 x 10.7 2088/2 x 14.82/2 x 22.3	R410A/2 x 7.7/2 x 12.5 2088/2 x 16.08/2 x 26.10
Refrigerant pipe size Ø (mm)	fl.	10	10	10	12	2 x 10	2 x 12
	s.	16	16	16	22 (28***)	2 x 22 (28***)	2 x 22 (28***)
Electrical data (outdoor unit)							
Voltage supply (V, phase, Hz)		220 – 240, 1, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling (A)		7.72	3.95	5.93	11.5	2 x 9.1	2 x 11.5
Recommended breaker size (A)		25	16	16	32	2 x 32	2 x 32
Electrical data (indoor unit)							
Voltage supply (V, phase, Hz)		230, 1, 50	230, 1, 50	230, 1, 50	230, 1, 50	400, 3+N, 50	400, 3+N, 50
Operating current cooling (A)		1.5	2.1	2.7	3	2.1	2.8
Max. operating current (A)		27.7	27.7	28.55	35.7	29.6	29.6

* measured at a distance of 1 m

** from 71 to 105 m please check Mr. Slim O&M Manual

*** for cable lengths of over 50 m

Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

s-MEXT-G00 - Under: air blow-out downwards

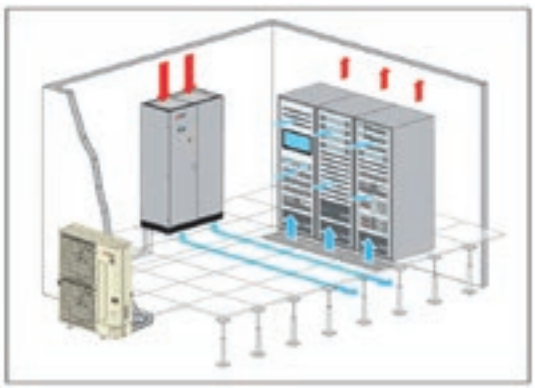
Climate cabinets with Mr. Slim outdoor unit

Highlights

- A climatic chamber for refrigerants R410A and R32
- Version: cooling only
- Version: cooling, heating, humidifying
- SHR value up to 92%
- Water leak sensor
- G4 air filter with differential pressure monitoring
- EC fan
- Cascading of up to 10 units

Ideal for small to medium-sized technology and server rooms

The new s-MEXT G00 unit series is designed for air conditioning in small to medium-sized technology and server rooms. The climate cabinets are connected to one or two Mr. Slim outdoor units. In addition to cooling, the focus can optionally be extended to include heating, humidifying and dehumidifying functions for more complex room climate requirements. As a plug-and-play solution, the system is suitable for quick and easy installation and commissioning. And the units also undergo to a comprehensive test run before leaving the factory. The s-MEXT G00 climate cabinets with Mr. Slim outdoor units can be operated with R410A or R32 as refrigerant



Under: air blow-out downwards

The air intake occurs via the top of the unit. The air blow-out is directed downwards into the raised floor. If there is no raised floor, it is possible to distribute the air across the floor of the room using an optional plenum underneath the unit.

Additional unit properties:

Unit structure
- 3 housing sizes
- Capacities from 6 - 22.5 kW with one Mr. Slim outdoor unit
- Capacities from 38.8 - 42.4 kW with two Mr. Slim outdoor units
- Pipe lengths up to max. 100 metres
- Front access to all unit components

Fan and volume flow rate control
- 1 EC plug fan or 2 EC plug fans for size 022
- Fan speed control via

// Constant speed
// Variable speed based on load request
// Constant volume flow rate (optional)
// Constant pressure in raised floor (optional)

- Economy function in standby mode

Switch cabinet and control
- Main switch
- Remote on/off contact
- Fault notification output, priority A
- Fault notification output, priority B
- PAC-IF 013 interface card installed in climate cabinet and cabled
- Supply/return air temperature control
- Black box function for error message analysis
- Operating display with clear text display on climate cabinet

R32

s-MEXT-G00 Under

PUZ-ZM60VHA

PUZ-ZM100-250YKA

s-MEXT-G00 - Under: air blow-out downwards - cooling only

Climate cabinets with Mr. Slim outdoor unit

s-MEXT-G00 climate cabinets with Mr. Slim outdoor unit: installations with false floor or air blow-out plenum

Combination designation		s-M-G07 006 U K	s-M-G07 009 U K	s-M-G07 013 U K	s-M-G07 022 U K	s-M-G07 038 U K	s-M-G07 044 U K
Indoor units		s-M-G00 006 U K	s-M-G00 009 U K	s-M-G00 013 U K	s-M-G00 022 U K	s-M-G00 038 U K	s-M-G00 044 U K
Outdoor units		PUZ-ZM60VHA	PUZ-ZM100YKA	PUZ-ZM125YKA	PUZ-ZM250YKA	2 x PUZ-ZM200YKA	2 x PUZ-ZM250YKA
Air blow-out		Down flow	Down flow	Down flow	Down flow	Down flow	Down flow
Cooling	Cooling capacity (kW)*	6.82	10.1	11.9	22.6	39.0	42.5
	Sensible capacity (kW)*	6.18	8.91	10.2	19.3	33.6	35.3
	SHR**	0.91	0.88	0.86	0.85	0.86	0.83
	Power consumption (kW)*	1.46	2.35	3.41	7.11	6.16	8.37
	EER*	4.67	4.30	3.49	3.18	3.58	2.88
	Climate cabinet application range, temperature (°C)	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C
	Climate cabinet application range, relative humidity (%)	30–60 %	30–60 %	30–60 %	30–60 %	30–60 %	30–60 %
	Outdoor unit application range (°C)	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C

* Cooling capacity: Outside: 35 °C; Inside: 27 °C / 47 % r. h.; 5 m cable lengths; ESP: 20 Pa

** SHR: ratio of sensible cooling capacity to total cooling capacity

*** for wind-protected installation or with accessories Low Temperature Kit

Indoor units		s-M-G00 006 U K	s-M-G00 009 U K	s-M-G00 013 U K	s-M-G00 022 U K	s-M-G00 038 U K	s-M-G00 044 U K
Air volume flow (m³/h)	Min./Max.	1.400/2000	1.800/2.500	2.000/2.800	4.000/5.000	7.600/8.800	8.000/10.000
Static pressure (Pa)	Min./Max.	20/360	20/275	20/401	20/214	20/211	20/181
Sound pressure level dB(A)	Nom.	53	57	61	60	63	67
Dimensions (mm)	W/D/H	600/500/1.980	600/500/1.980	600/500/1.980	1.000/500/1980	1.000/890/1.980	1.000/890/1.980
Weight (kg)		110	115	120	175	247	247
Outdoor units		**PUZ-ZM60VHA**	**PUZ-ZM100YKA**	**PUZ-ZM125YKA**	**PUZ-ZM250YKA**	**2 x PUZ-ZM200YKA**	**2 x PUZ-ZM250YKA**
Airflow (m³/h)		3.300	6.600	7.200	8.400	2 x 8.400	2 x 8.400
Sound pressure level cooling (dB(A))		47	49	50	59	2 x 59	2 x 59
Dimensions (mm)	W/D/H	950/355/943	1.050/370/1.338	1.050/370/1.338	1.050/370/1.338	2 x 1.050/370/1.338	2 x 1.050/370 /1.338
Weight (kg)		70	123	125	138	2 x 137	2 x 138
Refrigeration data							
Total pipe length (m)		55	100**	100**	100**	100**	100**
Max. height difference (m)		30	30	30	30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R32/2.8/3.6	R32/4.0/6.8	R32/4.0/6.8	R32/6.8/9.2	R32/2 x 6.3/2 x 9.2	R32/2 x 6.3/2 x 9.2
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		675/1.89/2.43	675/2.7/4.59	675/2.7/4.59	675/4.59/6.21	675/2 x 4.25/2 x 6.21	675/2 x 4.25/2 x 6.21
Refrigerant pipe size Ø (mm)	fl.	10	10	10	12	2 x 10	2 x 12
	s.	16	16	16	22 (28***)	2 x 22 (28***)	2 x 22 (28***)
Electrical data (outdoor unit)							
Voltage supply (V, phase, Hz)		220–240, 1, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling (A)		5.66	3.08	4.91	****	****	****
Recommended breaker size (A)		25	16	16	32	2 x 32	2 x 32
Electrical data (indoor unit)							
Voltage supply (V, phase, Hz)		230, 1, 50	230, 1, 50	230, 1, 50	230, 1, 50	400, 3+N, 50	400, 3+N, 50
Operating current cooling (A)		1.5	2.1	2.7	3.0	2.1	2.8
Max. operating current (A)		2.3	2.3	2.8	3.9	3.8	3.8

* measured at a distance of 1 m

** from 71 to 105 m please check Mr. Slim O&M Manual

*** for cable lengths of over 50 m

**** Values were not available at the time of printing

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For further information please see the corresponding operation manual.

PUZ-ZM60VHA

PUZ-ZM100-250YKA

s-MEXT-G00 Under

s-MEXT-G00 - Under: air blow-out downwards - cooling, heating, humidifying

Climate cabinets with Mr. Slim outdoor unit

s-MEXT-G00 climate cabinets with Mr. Slim outdoor unit: installations with false floor or air blow-out plenum - cooling, heating, humidifying

Combination designation		s-M-G07 006 U KHB	s-M-G07 009 U KHB	s-M-G07 013 U KHB	s-M-G07 022 U KHB	s-M-G07 038 U KHB	s-M-G07 044 U KHB
Indoor units		s-M-G00 006 U KHB	s-M-G00 009 U KHB	s-M-G00 013 U KHB	s-M-G00 022 U KHB	s-M-G00 038 U KHB	s-M-G00 044 U KHB
Outdoor units		PUZ-ZM60VHA	PUZ-ZM100YKA	PUZ-ZM125YKA	PUZ-ZM250YKA	2 x PUZ-ZM200YKA	2 x PUZ-ZM250YKA
Air blow-out		Down flow	Down flow	Down flow	Down flow	Down flow	Down flow
Heating capacity (kW)		2.6	2.6	2.6	3.9	9.0	9.0
Steam output (kg/h)		3.0	3.0	3.0	3.0	8.0	8.0
Cooling	Cooling capacity (kW)*	6.82	10.1	11.9	22.6	39.0	42.5
	Sensible capacity (kW)*	6.18	8.91	10.2	19.3	33.6	35.3
	SHR**	0.91	0.88	0.86	0.85	0.86	0.83
	Power consumption (kW)*	1.46	2.35	3.41	7.11	6.16	8.37
	EER*	4.67	4.30	3.49	3.18	3.58	2.88
	Climate cabinet application range, temperature (°C)	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C
	Climate cabinet application range, relative humidity (%)	30–60 %	30–60 %	30–60 %	30–60 %	30–60 %	30–60 %
	Outdoor unit application range (°C)	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C

* Cooling capacity: Outside: 35 °C; Inside: 27 °C / 47 % r. h.; 5 m cable lengths; ESP: 20 Pa

** SHR: ratio of sensible cooling capacity to total cooling capacity

*** for wind-protected installation or with accessories Low Temperature Kit

Indoor units		s-M-G00 006 U KHB	s-M-G00 009 U KHB	s-M-G00 013 U KHB	s-M-G00 022 U KHB	s-M-G00 038 U KHB	s-M-G00 044 U KHB
Air volume flow (m³/h)	Min./Max.	1.400/2000	1.800/2.500	2.000/2.800	4.000/5.000	7.600/8.800	8.000/10.000
Static pressure (Pa)	Min./Max.	20/360	20/275	20/401	20/214	20/211	20/181
Sound pressure level dB(A)	Nom.	53	57	61	60	63	67
Dimensions (mm)	W/D/H	600/500/1.980	600/500/1.980	600/500/1.980	1.000/500/1.980	1.000/890/1.980	1.000/890/1.980
Weight (kg)		103	106	110	165	237	237
Outdoor units		**PUZ-ZM60VHA**	**PUZ-ZM100YKA**	**PUZ-ZM125YKA**	**PUZ-ZM250YKA**	**2 x PUZ-ZM200YKA**	**2 x PUZ-ZM250YKA**
Airflow (m³/h)		3.300	6.600	7.200	8.400	2 x 8.400	2 x 8.400
Sound pressure level cooling (dB(A))		47	49	50	59	2 x 59	2 x 59
Dimensions (mm)	W/D/H	950/355/943	1.050/370/1.338	1.050/370/1.338	1.050/370/1.338	2 x 1.050/370/1.338	2 x 1.050/370 /1.338
Weight (kg)		70	123	125	138	2 x 137	2 x 138
Refrigeration data							
Total pipe length (m)		55	100**	100**	100**	100**	100**
Max. height difference (m)		30	30	30	30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R32/2.8/3.6	R32/4.0/6.8	R32/4.0/6.8	R32/6.8/9.2	R32/2 x 6.3/2 x 9.2	R32/2 x 6.3/2 x 9.2
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		675/1.89/2.43	675/2.7/4.59	675/2.7/4.59	675/4.59/6.21	675/2 x 4.25/2 x 6.21	675/2 x 4.25/2 x 6.21
Refrigerant pipe size Ø (mm)	fl.	10	10	10	12	2 x 10	2 x 12
	s.	16	16	16	22 (28***)	2 x 22 (28***)	2 x 22 (28***)
Electrical data (outdoor unit)							
Voltage supply (V, phase, Hz)		220–240, 1, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling (A)		5.66	3.08	4.91	****	****	****
Recommended breaker size (A)		25	16	16	32	2 x 32	2 x 32
Electrical data (indoor unit)							
Voltage supply (V, phase, Hz)		230, 1, 50	230, 1, 50	230, 1, 50	230, 1, 50	400, 3+N, 50	400, 3+N, 50
Operating current cooling (A)		1.5	2.1	2.7	3.0	2.1	2.8
Max. operating current (A)		27.7	27.7	28.2	35.0	29.2	29.2

* measured at a distance of 1 m

** from 71 to 105 m please check Mr. Slim O&M Manual

*** for cable lengths of over 50 m

**** Values were not available at the time of printing

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For further information please see the corresponding operation manual.

R410A

s-MEXT-G00 Under

PUHZ-ZRP60VHA

PUHZ-ZRP100-250YKA

s-MEXT-G00 - Under: air blow-out downwards - cooling only

Climate cabinets with Mr. Slim outdoor unit

s-MEXT-G00 climate cabinets with Mr. Slim outdoor unit: installations with false floor or air blow-out plenum

Combination designation		s-M-G02 006 U K	s-M-G02 009 U K	s-M-G02 013 U K	s-M-G02 022 U K	s-M-G02 038 U K	s-M-G02 044 U K
Indoor units		s-M-G00 006 U K	s-M-G00 009 U K	s-M-G00 013 U K	s-M-G00 022 U K	s-M-G00 038 U K	s-M-G00 044 U K
Outdoor units		PUHZ-ZRP60VHA	PUHZ-ZRP100YKA	PUHZ-ZRP125YKA	PUHZ-ZRP250YKA	2 x PUHZ-ZRP200YKA	2 x PUHZ-ZRP250YKA
Air blow-out		Down flow	Down flow	Down flow	Down flow	Down flow	Down flow
Cooling	Cooling capacity (kW)*	6.79	10.1	11.9	22.5	38.8	42.4
	Sensible capacity (kW)*	6.28	9.0	10.3	19.5	34.0	37.5
	SHR**	0.92	0.89	0.87	0.87	0.88	0.88
	Power consumption (kW)*	1.53	2.17	3.49	7.11	5.44	7.11
	EER*	3.9	3.98	2.97	2.87	2.87	2.59
	Climate cabinet application range, temperature (°C)	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C
	Climate cabinet application range, relative humidity (%)	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %	30 – 60 %
	Outdoor unit application range (°C)	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C	(-15 °C***) -5 °C / +46 °C

* Cooling capacity: Outside: 35 °C; Inside: 27 °C / 47 % r. h.; 5 m cable lengths; ESP: 20 Pa

** SHR: ratio of sensible cooling capacity to total cooling capacity

*** for wind-protected installation or with accessories Low Temperature Kit

Indoor units		s-M-G00 006 U K	s-M-G00 009 U K	s-M-G00 013 U K	s-M-G00 022 U K	s-M-G00 038 U K	s-M-G00 044 U K
Air volume flow (m³/h)	Min./Max.	1.400/2000	1.800/2.500	2.000/2.800	4.000/5.000	7.600/8.800	8.000/10.000
Static pressure (Pa)	Min./Max.	20/360	20/275	20/401	20/214	20/211	20/181
Sound pressure level dB(A)	Nom.	53	57	61	60	63	67
Dimensions (mm)	W/D/H	600/500/1.980	600/500/1.980	600/500/1.980	1.000/500/1.980	1.000/890/1.980	1.000/890/1.980
Weight (kg)		103	106	110	165	237	237
Outdoor units		**PUHZ-ZRP60VHA**	**PUHZ-ZRP100YKA**	**PUHZ-ZRP125YKA**	**PUHZ-ZRP250YKA**	**2 x PUHZ-ZRP200YKA**	**2 x PUHZ-ZRP250YKA**
Airflow (m³/h)		3300	6600	7200	8400	2 x 8.400	2 x 8.400
Sound pressure level (dB(A))	Cooling	47	49	50	59	2 x 59	2 x 59
Dimensions (mm)	W/D/H	950/355/943	1.050/370/1.338	1.050/370/1.338	1.050/370/1.338	2 x 1050/370/1338	2 x 1050/370/1338
Weight (kg)		70	123	125	135	2 x 135	2 x 135
Refrigeration data							
Total pipe length (m)		50	75	75	100**	100**	100**
Max. height difference (m)		30	30	30	30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R410A/3.5/4.7	R410A/5.0/7.4	R410A/5.0/7.4	R410A/7.70/12.5	R410A/2 x 7.1/2 x 10.7	R410A/2 x 7.7/2 x 12.5
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		2088/7.31/9.81	2088/10.44/15.45	2088/10.44/15.45	2088/16.08/26.10	2088/2 x 14.82/2 x 22.3	2088/2 x 16.08/2 x 26.10
Refrigerant pipe size Ø (mm)	fl.	10	10	10	12	2 x 10	2 x 12
	s.	16	16	16	22 (28***)	2 x 22 (28***)	2 x 22 (28***)
Electrical data (outdoor unit)							
Voltage supply (V, phase, Hz)		220 – 240, 1, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50	380 – 415, 3+N, 50
Operating current cooling (A)		7.72	3.95	5.93	11.5	2 x 9.1	2 x 11.5
Recommended breaker size (A)		25	16	16	32	2 x 32	2 x 32
Electrical data (indoor unit)							
Voltage supply (V, phase, Hz)		230, 1, 50	230, 1, 50	230, 1, 50	230, 1, 50	400, 3+N, 50	400, 3+N, 50
Operating current cooling (A)		1.5	2.1	2.7	3	2.1	2.8
Max. operating current (A)		2.3	2.3	2.8	3.9	3.8	3.8

* measured at a distance of 1 m

** from 71 to 105 m please check Mr. Slim O&M Manual

*** for cable lengths of over 50 m

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For further information please see the corresponding operation manual.

R410A

PUHZ-ZRP60VHA PUHZ-ZRP100-250YKA s-MEXT-G00 Under

s-MEXT-G00 - Under: air blow-out downwards - cooling, heating, humidifying

Climate cabinets with Mr. Slim outdoor unit

s-MEXT-G00 climate cabinets with Mr. Slim outdoor unit: installations with false floor or air blow-out plenum - cooling, heating, humidifying

Combination designation		s-M-G02 006 U KHB	s-M-G02 009 U KHB	s-M-G02 013 U KHB	s-M-G02 022 U KHB	s-M-G02 038 U KHB	s-M-G02 044 U KHB
Indoor units		s-M-G00 006 U KHB	s-M-G00 009 U KHB	s-M-G00 013 U KHB	s-M-G00 022 U KHB	s-M-G00 038 U KHB	s-M-G00 044 U KHB
Outdoor units		PUHZ-ZRP60VHA	PUHZ-ZRP100YKA	PUHZ-ZRP125YKA	PUHZ-ZRP250YKA	2 x PUHZ-ZRP200YKA	2 x PUHZ-ZRP250YKA
Air blow-out		Down flow	Down flow	Down flow	Down flow	Down flow	Down flow
Heating capacity (kW)		2.6	2.6	2.6	3.9	9.0	9.0
Steam output (kg/h)		3.0	3.0	3.0	3.0	8.0	8.0
Cooling	Cooling capacity (kW)*	6.79	10.1	11.9	22.5	38.8	42.4
	Sensible capacity (kW)*	6.28	9.0	10.3	19.5	34.0	37.5
	SHR**	0.92	0.89	0.87	0.87	0.88	0.88
	Power consumption (kW)*	1.53	2.17	3.49	7.11	5.44	7.11
	EER*	3.9	3.98	2.97	2.87	2.87	2.59
	Climate cabinet application range, temperature (°C)	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C	19 – 35 °C
	Climate cabinet application range, relative humidity (%)	30–60 %	30–60 %	30–60 %	30–60 %	30–60 %	30–60 %
	Outdoor unit application range (°C)	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C	(-15 °C***) -5 °C/+46 °C

* Cooling capacity: Outside: 35 °C; Inside: 27 °C / 47 % r. h.; 5 m cable lengths; ESP: 20 Pa

** SHR: ratio of sensible cooling capacity to total cooling capacity

*** for wind-protected installation or with accessories Low Temperature Kit

Indoor units		s-M-G00 006 U KHB	s-M-G00 009 U KHB	s-M-G00 013 U KHB	s-M-G00 022 U KHB	s-M-G00 038 U KHB	s-M-G00 044 U KHB
Air volume flow (m³/h)	Min./Max.	1.400/2000	1.800/2.500	2.000/2.800	4.000/5.000	7.600/8.800	8.000/10.000
Static pressure (Pa)	Min./Max.	20/360	20/275	20/401	20/214	20/211	20/181
Sound pressure level dB(A)	Nom.	53	57	61	60	63	67
Dimensions (mm)	W/D/H	600/500/1.980	600/500/1.980	600/500/1.980	1.000/500/1.980	1.000/890/1.980	1.000/890/1.980
Weight (kg)		112	115	119	179	262	262
Outdoor units		**PUHZ-ZRP60VHA**	**PUHZ-ZRP100YKA**	**PUHZ-ZRP125YKA**	**PUHZ-ZRP250YKA**	**2 x PUHZ-ZRP200YKA**	**2 x PUHZ-ZRP250YKA**
Airflow (m³/h)		3300	6600	7200	8400	2 x 8.400	2 x 8.400
Sound pressure level (dB(A))	Cooling	47	49	50	59	2 x 59	2 x 59
Dimensions (mm)	W/D/H	950/355/943	1.050/370/1.338	1.050/370/1.338	1.050/370/1.338	2 x 1050/370/1338	2 x 1050/370/1338
Weight (kg)		70	123	125	135	2 x 135	2 x 135
Refrigeration data							
Total pipe length (m)		50	75	75	100**	100**	100**
Max. height difference (m)		30	30	30	30	30	30
Refrigerant type/refrigerant quantity (kg)/max. quantity (kg)		R410A/3.5/4.7	R410A/5.0/7.4	R410A/5.0/7.4	R410A/7.70/12.5	R410A/2 x 7.1/2 x 10.7	R410A/2 x 7.7/2 x 12.5
GWP/CO_2 equivalent (t)/CO_2 equivalent max. (t)		2088/7.31/9.81	2088/10.44/15.45	2088/10.44/15.45	2088/16.08/26.10	2088/2 x 14.82/2 x 22.3	2088/2 x 16.08/2 x 26.10
Refrigerant pipe size Ø (mm)	fl.	10	10	10	12	2 x 10	2 x 12
	s.	16	16	16	22 (28***)	2 x 22 (28***)	2 x 22 (28***)
Electrical data (outdoor unit)							
Voltage supply (V, phase, Hz)		220–240, 1, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50	380–415, 3+N, 50
Operating current cooling (A)		7.72	3.95	5.93	11.5	2 x 9.1	2 x 11.5
Recommended breaker size (A)		25	16	16	32	2 x 32	2 x 32
Electrical data (indoor unit)							
Voltage supply (V, phase, Hz)		230, 1, 50	230, 1, 50	230, 1, 50	230, 1, 50	400, 3+N, 50	400, 3+N, 50
Operating current cooling (A)		1.5	2.1	2.7	3	2.1	2.8
Max. operating current (A)		27.7	27.7	28.55	35.7	29.6	29.6

* measured at a distance of 1 m

** from 71 to 105 m please check Mr. Slim O&M Manual

*** for cable lengths of over 50 m

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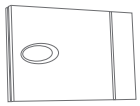
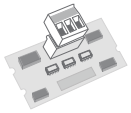
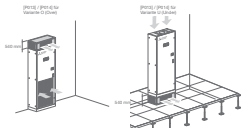
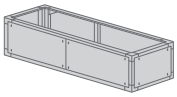
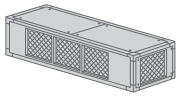
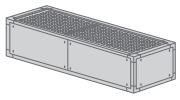
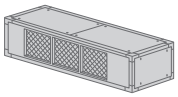
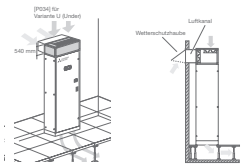
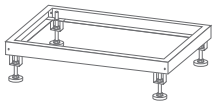
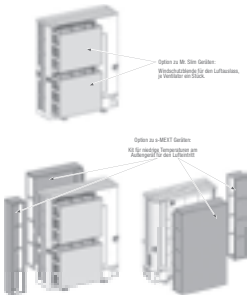
Indoor unit accessories – supplied loose

Name	Description
s-MEXT	**Climate cabinets**
	**Additional safety and control devices** In addition to the safety devices installed in the unit, further safety elements can be selected and integrated into the unit control system.
A521_MH	Fire sensor
A511_MH	Smoke sensor
A492_MH	Additional water leak sensor
P161_MH	Temperature and humidity sensor in the air intake
4666_MH	External temperature sensor
P101_MH	Floor mounting kit (prevents unit slipping in the event of earthquake)
On request	Gas detector for R32 applications
	**BMS connection** Interface cards for connecting the indoor unit to a building management system via various protocols.
A471_MH	RS485 interface card
A472_MH	RS232 interface card
A473_MH	ETHERNET TCP/IP interface card
A474_MH	LonWorks interface card
A476_MH	GSM modem for sending SMS messages
	**Louvre damper with spring return** The louvre damper is mounted on the top of the s-MEXT climate cabinet. It is located at the air outlet on the O (Over) variant and at the air inlet on the U (Under) variant. Combined use with an air plenum is possible. When the fan of the indoor unit is running, the shutter vanes of the louvre damper are opened and free the air path. When the fan is switched off (by an external contact or fault message), the shutter vanes of the louvre dampers are closed, the air path is interrupted and unintentional flow through the indoor unit is prevented.
A532_006-013_MH (only for R410A units)	Louvre damper with spring return (capacity 006-013)
A532_022_MH (only for R410A units)	Louvre damper with spring return (capacity 022)
A532_038-044_MH (only for R410A units)	Louvre damper with spring return (capacity 038-044)

Name	Description
s-MEXT	**Climate cabinets**
	**Supply air plenum (empty)** These air plenums are used to increase the inlet air or outlet air and have no other internals.
P011_006-013_MH (only for Over units)	Supply air plenum (empty) (capacity 006-013)
P011_022_MH (only for Over units)	Supply air plenum (empty) (capacity 022)
P011_038-044_MH (only for Over units)	Supply air plenum (empty) (capacity 038-044)
P012_006-013_MH (only for Over units)	Supply air plenum (empty) in accordance with CL.0 (A1 DIN 4102) (capacity 006-013)
P012_022_MH (only for Over units)	Supply air plenum (empty) in accordance with CL.0 (A1 DIN 4102) (capacity 022)
P012_038-044_MH (only for Over units)	Supply air plenum (empty) in accordance with CL.0 (A1 DIN 4102) (capacity 038-044)
P031_006-013_MH (only for Under units)	Air intake plenum (empty) (capacity 006-013)
P031_022_MH (only for Under units)	Air intake plenum (empty) (capacity 022)
P031_038-044_MH (only for Under units)	Air intake plenum (empty) (capacity 038-044)
P032_006-013_MH (only for Under units)	Air intake plenum (empty) in accordance with CL.0 (A1 DIN 4102) (capacity 006-013)
P032_022_MH (only for Under units)	Air intake plenum (empty) in accordance with CL.0 (A1 DIN 4102) (capacity 022)
P032_038-044_MH (only for Under units)	Air intake plenum (empty) in accordance with CL.0 (A1 DIN 4102) (capacity 038-044)
	**Supply air plenum with air grille at the outlet** These air plenums enable air distribution straight into the room. The air plenums are supplied with air blow-out grilles featuring two-way manually adjustable guide vanes on the front and side surfaces.
P013_006-013_MH	Supply air plenum with air grille at the outlet (capacity 006-013)
P013_022_MH	Supply air plenum with air grille at the outlet (capacity 022)
P013_038-044_MH	Supply air plenum with air grille at the outlet (capacity 038-044)
P014_006-013_MH	Supply air plenum with air grille at the outlet in accordance with CL.0 (A1 DIN 4102) (capacity 006-013)
P014_022_MH	Supply air plenum with air grille at the outlet in accordance with CL.0 (A1 DIN 4102) (capacity 022)
P014_038-044_MH	Supply air plenum with air grille at the outlet in accordance with CL.0 (A1 DIN 4102) (capacity 038-044)
	**Supply air/air intake plenum with sound insulation baffles** This air plenum is fitted with sound insulation baffles to reduce the noise level.
P015_006-013_MH	Supply air plenum with sound insulation baffles (capacity 006-013)
P015_022_MH	Supply air plenum with sound insulation baffles (capacity 022)
P015_038-044_MH	Supply air plenum with sound insulation baffles (capacity 038-044)
P033_006-013_MH	Air intake plenum with sound insulation baffles (capacity 006-013)
P033_022_MH	Air intake plenum with sound insulation baffles (capacity 022)
P033_038-044_MH	Air intake plenum with sound insulation baffles (capacity 038-044)

Indoor unit accessories – supplied loose

Name	Description
s-MEXT	**Climate cabinets**
	**Supply air plenum with sound insulation baffles and air grille at the outlet** This air plenum enables frontal air distribution straight into the room. The air plenum is supplied with air blow-out grilles featuring two-way manually adjustable guide vanes on the front. In addition, the air plenum is lined with sound insulation baffles.
P016_006-013_MH	Supply air plenum with air grille at the outlet and sound insulation baffles (capacity 006-013)
P016_022_MH	Supply air plenum with air grille at the outlet and sound insulation baffles (capacity 022)
P016_038-044_MH	Supply air plenum with air grille at the outlet and sound insulation baffles (capacity 038-044)
	**Air intake plenum with free-cooling louvre dampers** This air intake plenum with free-cooling louvre dampers enables free cooling by introducing outside air directly into the room.
P034_006-013_MH	Air intake plenum with free-cooling louvre dampers (capacity 006-013)
P034_022_MH	Air intake plenum with free-cooling louvre dampers (capacity 022)
P034_038-044_MH	Air intake plenum with free-cooling louvre dampers (capacity 038-044)
A812_MH	Direct free-cooling management
The optional external temperature sensor 4666_MH and optional temperature and humidity sensor P161_MH are additionally required in the air intake	
	**Base frame with adjustable height** Base frame with adjustable feet for s-MEXT precision climate cabinet; used when installing the unit on an existing raised floor.
P041_006-013_MH	Base frame with height: min./max.: 255 - 350 mm (capacity 006-013)
P041_022_MH	Base frame with height: min./max.: 255 - 350 mm (capacity 022)
P041_038-044_MH	Base frame with height: min./max.: 255 - 350 mm (capacity 038-044)
P042_006-013_MH	Base frame with height: min./max.: 355 - 450 mm (capacity 006-013)
P042_022_MH	Base frame with height: min./max.: 355 - 450 mm (capacity 022)
P042_038-044_MH	Base frame with height: min./max.: 355 - 450 mm (capacity 038-044)
P043_006-013_MH	Base frame with height: min./max.: 400 - 510 mm (capacity 006-013)
P043_022_MH	Base frame with height: min./max.: 400 - 510 mm (capacity 022)
P043_038-044_MH	Base frame with height: min./max.: 400 - 510 mm (capacity 038-044)

Name	Description
s-MEXT	**Climate cabinets**
Configurable indoor unit accessories	
A432	Electric heating - reinforced version (only for capacities 038 & 044)
4303	Steam humidifier 8 kg/h - reinforced version (only for capacities 038 & 044)
P051	Dehumidification control
A842	Indoor unit energy meter
On request	Double voltage supply for indoor and outdoor units
P091	Temporary controller UPS
A272	Insulation of panels according to CL 0 (A1 DIN 4102)
P084	ISO ePM10 50% air filter
A547	Constant volume flow (+ADL)
A548	Constant raised floor pressure (+ADL)
P151	Lowered display
	**Kit for low temperatures on outdoor unit** The "low temperature outdoor unit kit" is designed for Mr. Slim outdoor units and enables cooling mode in windy installation conditions at outside temperatures down to -15 °C.
P061_006_Kit_MH	Kit for low temperatures on outdoor unit (capacity 006)
P061_009-022_Kit_MH	Kit for low temperatures on outdoor unit (capacity 009-022)
P061_038-044_Kit_MH	Kit for low temperatures on outdoor unit (capacity 038-044)

Control and cloud systems

Contents

Benefits and properties

The calling card of any air conditioning system
As the interface between technology and the user, the control system can be seen as the calling card of any air conditioning system. Featuring a simple and inviting design, it enables easy operation of the air conditioning system and is the ideal place for configuring your own individual 'feel good' climate. It can even open the door to entirely new options.

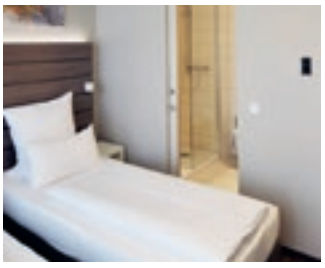
Mitsubishi Electric provides the right control system for any application, with local or centralised remote controllers suitable for small or large systems, for private users and for professional building managers. The following pages provide a detailed look at the key features of smart and user-friendly control systems – from design and functionality through to deployment.

Always the perfect choice
The controller must be a perfect match for the air conditioning system, since every system is only as good as its configuration. Whether for shop, office or hotel environments, remote controllers from Mitsubishi Electric open up the entire range of options for intelligent and sustainable control.

Here are a few example applications as a guide:

Office buildings

Local remote controllers	Central control systems	Information
PAR-40MAA PAR-U02MEDA PAR-CT01MAA	AE-200E EW-50E AT-50B RMI	Simple and intuitive operation of air conditioning technology plays a major role in office buildings. Local remote controllers, central remote controllers and the Remote Monitoring Interface ensure ideal interplay between operation, maintenance and monitoring. The RMI also enables central management and an overview of energy matters at multiple locations.



Hotels

Local remote controllers	Central control systems	Information
PAC-YT52CRA PAR-CT01MAA	AE-200E EW-50E AT-50B RMI	The modern remote controllers PAR-CT01 boast an adjustable look for ideal integration into the design concept of any hotel room. In addition, the central remote controllers enable cool-down protection and overheating protection in unoccupied hotel rooms by switching off the air conditioning technology once the room card is no longer inserted. The RMI offers central access to a number of hotels as well as system and energy evaluation.

Retail chain stores

Local remote controllers	Central control systems	Information
PAR-40MAA PAR-U02MEDA PAR-CT01MAA	AT-50B RMI MELCloud	Retail chain stores benefit from easy control, for example by deploying a PAR-40MAA in combination with cloud systems. The PAR-40MAA makes it easy to operate the air conditioning units. Installation companies can also use the cloud to receive automated fault notifications via e-mail and connect to the systems as a guest. On top of this, access authorisations for departmental managers enable access to corresponding branches.

Leisure facilities

Local remote controllers	Central control systems	Information
PAR-40MAA PAR-U02MEDA PAR-CT01MAA	AT-50B MELCloud	The AT-50B enables convenient central control of air conditioning technology even in larger buildings designed for leisure activities. All key system information is collected centrally, with local remote controllers also allowing decentralised control for various sub-areas of the leisure facilities.


Cool
Auto
28.5℃

Overview of control systems

Mitsubishi Electric also offers a variety of products in the area of control systems, ensuring flexible and reliable solutions for convenient air conditioning system operation. From remote controllers through to central control systems and cloud systems, these options can be tailored in line with individual needs. An array of monitoring systems is also on hand to guarantee reliable operation at all times.

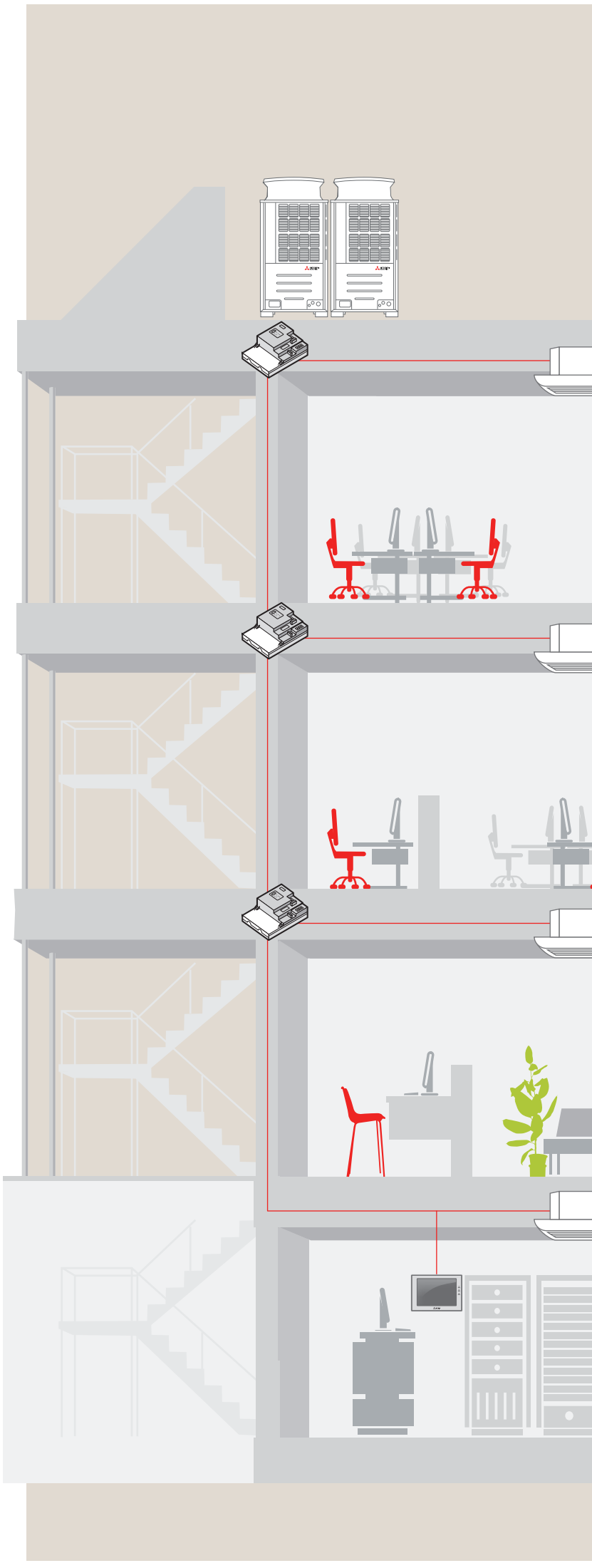
Page reference

AE-200E
Central control of up to 200 indoor units. Data collection and numerous special functions such as individual cost reporting and BACnet connection enable optimised operation.
236–239

EW-50E
Can be used to expand the AE-200E up to 200 indoor units or as a standalone central control system.
237–239

PAR-CT01
Touch remote controller with full-colour display. An all-rounder in appearance and function.
229

Central management and energy evaluation
The RMI offers a variety of remote monitoring options and enables easy operation via PC or app.
244–245



PAC-YT52CRA

Compact cable remote controller

The control options for this remote controller have been reduced to the essential basic functions to simplify the system operation, particularly for hotel applications. A room temperature sensor is already built into this remote controller.

Special functions

- A compact remote controller can control all types of Mitsubishi Electric indoor units.
- Control one indoor unit individually or a group of up to 16 indoor units.
- MA design: group formation is made possible by a transmission cable between the indoor units.
- Dual-setpoint function for individual setting in heating and cooling mode.

Notes

- The PAC-YT52CRA remote controller is designed for exposed installation.
- As this model does not feature test mode, a self-diagnostic function or any further setting functions, it should always be used in combination with an additional superordinate control system.

Technical data	PAC-YT52CRA
Type	MA cable remote controller
Dimensions W x H x D (mm)	70 x 120 x 14.5

PAR-CT01MAA

Multi-coloured cable remote controller (optional Bluetooth interface)

PAR-CT01MAA multi-coloured remote controller

The elegant and versatile PAR-CT01MAA cable remote controller is a technological all-rounder. With its multi-coloured touch display and optional Bluetooth interface, it offers significant flexibility in terms of colour scheme and handling. The remote controller is available in a white plastic version and a black aluminium/plastic version.

Special features

- The PAR-CT01MAA is easy to configure and operate via an app (versions with BLE).
- Free choice of over 180 colour scheme variants for the display, enabling optimum tailoring to the surroundings.
- The remote controller can be personalised via the integration of a graphic (versions with BLE).

PAR-CT01MAA technical features

The PAR-CT01MAA can control up to 16 units within a group. A daily and weekly program is also available in addition to the standard operating modes.

Notes on the versions

PAR-CT01MAA-SB	White, plastic, BLE
PAR-CT01MAA-PB	Black, aluminium/ plastic, BLE
PAR-CT01MAA-S	White, plastic, not BLE

* BLE: Bluetooth Low Energy

Multilingual support

The smartphone app is displayed in the language configured on the user's smartphone.

Technical data	PAR-CT01MAA-S	PAR-CT01MAA-SB	PAR-CT01MAA-PB
Type	MA cable remote controller	MA cable remote controller	MA cable remote controller
Dimensions W x H x D (mm)	65 x 120 x 14	65 x 120 x 14	68 x 120 x 14

PAR-40MAA

PAR-40MAA

MA cable remote controller

The MA remote controller PAR-40MAA provides all the operating functions required for local operation of an air conditioning unit or group. The PAR-40MAA boasts a flat construction and its timeless design blends in perfectly whatever the surroundings.

Its well-arranged display provides a clear at-a-glance overview of the air conditioning unit status in large, easy-to-read characters. The menu structure of the remote controller ensures that all entries can be made using just a few keys, with the most important of these keys featuring a larger size to avoid potential operating errors.

New:
- Flatter construction
- Colour inversion on display
- 14 languages available

Comprehensive special functions
The display module features a choice of two display modes, “full” and “basic”. “Full” mode sees all available information shown on the display, while “Basic” mode provides a compact at-a-glance overview of only the most important settings. If 4-way ceiling cassettes with the new filter lift system are integrated into the system itself, then it can also be operated using the PAR-40MAA. The colours on the display can also be inverted.

Highlights
- The MA remote controller is connected directly to the indoor unit, with groups being formed via the wiring of the indoor units.
- Modern design, flat construction for wall mounting.
- Entries are made using four function keys arranged under the full graphic backlit display.
- Three additional keys for the most important functions enable quick and easy operation. The large on/off key can be used to start and stop the air conditioning unit with the most recently selected settings.
- English menus for easy operation.
- Dual-setpoint function for individual temperature specification in cooling and heating mode.

Technical data	PAR-40MAA
Type	MA cable remote controller
Dimensions W x H x D (mm)	120 x 120 x 14.5

PAR-U02MEDA

Smart ME cable remote controller

The Smart ME cable remote controller PAR-U02MEDA is connected to the City Multi data bus system M-Net. The remote controller and indoor unit are assigned to each other via device addresses, and the indoor units to be controlled can also be formed into a group by addressing.
Easy operability is ensured by a well-arranged touch display.

A number of energy-saving functions can be implemented via the integrated presence sensor. For example, the indoor unit can automatically enter energy-saving mode or even switch off completely when there are no longer any persons in the room.

As the assignment of the indoor units is easy to adjust, this makes the remote controller ideal for buildings with changeable room divisions.

Highlights

- Control one indoor unit individually or a group of up to 16 indoor units.
- Easy-to-read touchscreen.
- Comprehensive weekly timer permits programming of up to eight switching processes for every day of the week.
- Temperature selection in increments of 0.5 °C.
- LED status lamp indicates the current operating mode in colour.
- Brightness sensor for automatic night setback/night increase.
- Display of relative humidity.
- Dual-setpoint function for individual setting in heating and cooling mode.
- Presence sensor

Technical data	PAR-U02MEDA
Type	M-Net cable remote controller
Dimensions W x H x D (mm)	140 x 120 x 25


PAR-FL32MA


PAR-FA32MA


PAR-SE9FA-E


PAR-SF9FA-E


PAR-SL100A-E

Infrared remote controllers

City Multi

	Transmitter			Receiver			
	PAR-SL94B-E Set	PAR-FL32MA*	PAR-SL100A-E*	PAR-FA32MA	PAR-SE9FA-E	PAR-SF9FA-E	Built-in
PMFY-P•VBM		•		•			
PLFY-P•VLMD		•		•			
PFFY-P•VKM		•		•			
PEFY-P•VMHS		•		•			
PFFY-P•VCM		•		•			
PEFY-P•VMS1		•		•			
PEFY-M•VMA(L)		•		•			
PCFY-P•VKM	•	•					
PKFY-P•VLM			•				
PKFY-P•VKM-E		•					•
PLFY-M•VEM-E			•		•		
PLFY-P•VFM-E1			•			•	
PEFY-W(P)•VMS		•		•			
PEFY-W(P)•VMA(L)(2)		•		•			
PFFY-W•VCM		•		•			
PLFY-WL•VEM			•		•		
PLFY-WL•VFM			•			•	
PKFY-WL•VLM			•				•

* With practical bracket for wall mounting

Mr. Slim

	Transmitter		Receiver			Transmitter+Receiver
	PAR-SL97A-E*	PAR-SL100A-E*	PAR-SA9CA-E	PAR-SF9FA-E	PAR-SE9FA-E	PAR-SL94B-E Set
SLZ-M•FA	•	•[1]		•		
SEZ-M•DA	•		•			
PLA-(Z)M•EA	•	•[1]			•	
PEAD-M•JA	•		•			
PKA-M•LAL	•					
PKA-M•KAL	•					
PCA-M•KA	•					•
PCA-M71HA	•					

* With practical bracket for wall mounting

[1] Group control not available

Technical data	PAR-FL32MA	PAR-FA32MA	PAR-SA9CA-E	PAR-SE9FA-E	PAR-SF9FA-E	PAR-SL100A-E	PAR-SL94B-E
Type	Infrared remote controller	Infrared receiver	Infrared receiver	Infrared receiver	Infrared receiver	Infrared remote controller	Set
Dimensions W x H x D (mm)	58 x 159 x 19	70 x 120 x 22.5	70 x 120 x 22,5	Corner piece for installing compatible units in panel	Corner piece for installing compatible units in panel	60 x 188 x 22	–

Overview of functions for local remote controllers

Function	Description	PAR-40MAA		PAR-U02MEDA		PAC-YT52CRA		PAR-FL32MA		PAR-SL100		PAR-CT01	
		Op.	Disp.	Op.	Disp.	Op.	Disp.	Op.	Disp.	Op.	Disp.	Op.	Disp.
On/off	Starts or stops the operation of a group or indoor unit	•	•	•	•	•	•	•	•	•	•	•	•
Choice of operating mode	Cooling/dehumidifying/automatic/ventilation/heating functions depend on indoor unit, automatic only available with (W)R2	•	•	•	•	•	•	•	•	•	•	•	•
Temperature specification	Specification of the room temperature: Cooling/dehumidifying: 19 – 30 °C Heating: 17 – 28 °C Auto: 19 – 28 °C	•	•	•	•	•	•	•	•	•	•	•	•
Dual setpoint	Individual setpoint for heating and cooling mode	•	•	•	•	•	•			•	•	•	•
Blower stage	4-stage: Lo-Mi1-Mi2-Hi 2-stage: Lo-Hi	•	•	•	•	•	•	•	•	•	•	•	•
Limitation of temperature specification	Limits the setting range	•	•	•	•					•		•	•
Vertical blow-out directions	Blow-out angles: 100°/80°/60°/40° and swing	•	•	•	•	•	•	•	•	•	•	•	•
Side blow-out directions	Only available with PLA-M EA, PLFY-P-VEM-E and VFM-E PLFY-WL-VEM-E and VFM-E	•	•									•	•
Timer programs	On/off can be programmed	Week		Week				Day		Day/week (depending on indoor units)		Day/week	
Functions disabled/enabled	Disable start/stop/room temperature/operating mode and filter reset, with operation only permitted for a superordinate control system	•	•	•	•	•	•		•		•	•	•
Room temperature detection	Detection performed by the master indoor unit in a group	•	•	•	•	•	•					•	•
Error code output	Display of a 4-digit error code and the device address of the affected air conditioning unit		•		•		•			•	•	•	•
Test mode	Every indoor unit in the group can be switched to test mode	•	•	•	•		•	•	•	•	•	•	•
Emergency number in event of fault	The telephone number of the troubleshooting service can be displayed in the event of a fault		•		•								•
Language selection	8 possible languages	•	•	•	•								•
Time	Display of the time		•		•					•	•		•
Key lock	Lock all keys on the remote controller/ lock all keys except the on/off key	•	•	•	•								•
Mr. Slim maintenance help	Display of compressor properties (power consumption/operating hours/ switch-on and switch-off processes)/temperature sensor (heat exchanger, IU + OU/blow-out [OU]/room air/filter service life)	•	•									•	•
Redundancy functions	Switch between 2 systems of equal value/start-up of second system if first system fails/start-up of second system if first system is overloaded (only for application with Mr. Slim)	•	•										
Compatibility	Compatible with	City Multi/Mr. Slim/ M-series (MAC-397IF or MAC-334IF-E)		City Multi		City Multi/Mr. Slim/ M-series (MAC-397IF or MAC-334IF-E)		City Multi		City Multi/Mr. Slim (4-way ceiling cassette, S and P series)		City Multi/Mr. Slim/ M-series (MAC-397IF or MAC-334IF-E)	
Dimensions	(W x H x D) mm	120 x 120 x 19		140 x 120 x 25		70 x 120 x 14,5		58 x 159 x 19		66 x 188 x 22		65/68 x 120 x 14	

AT-50B

AT-50B

Central control system with touchscreen

With just 3 keys and a touch-sensitive LCD screen, the new AT-50B central control system delivers top operating comfort in a compact form. All functions for controlling up to 50 unit groups are easy for the user to operate by tapping their finger on the 5-inch colour screen. Weekly timer, energy-saving functions and night setback are already included. I/O modules can be used to enable and disable local remote controllers and to integrate third-party equipment. The screen is equipped with a backlight that switches off automatically. In the event of a fault, the display remains lit until the fault has been eliminated.

The AT-50B central control system has been developed for City Multi systems. Mr. Slim and M-series systems can also be connected and controlled via an adapter. Naturally the AT-50B central control system also supports Lossnay ventilation systems, both in standalone operation and coupled to indoor units.

Highlights

- ME remote controller for integration into the M-Net data bus.
- Visualisation of property on full graphic colour screen.
- Simple operation thanks to integrated touchscreen, plus two programmable function keys.
- Flat construction and modern design.
- Clear symbols with high contrast colour imaging.
- Adjustable clock for comprehensive timer functions such as summer and winter mode, plus input support for movable holidays and operating shutdowns.
- Exposed installation.
- External inputs/outputs.
- Individual control of up to 50 indoor units.
- Dual-setpoint function for individual setting in cooling and heating mode.

Technical data	AT-50B	PAC-SC51KUA*	PAC-YT51HAA
Type	Central control system	Voltage supply	Adapter for external actuation
Dimensions W x H x D (mm)	180 x 120 x 30	271 x 169 x 72	–

* Required if the AT-50B is incorporated into the outdoor unit bus.

AT-50B
Screenshots

Main menu
The clearly arranged main menu guides the user logically to all functions. It connects to the menus for operation and limitation settings, the control panel menu and system management, all featuring different-coloured backgrounds.
In the bottom line of the menu, the Back key is featured on the left while the button for the screen cleaning function and the basic settings of the AT-50B central control system are found on the right.

Home screen
Provides an at-a-glance overview of all relevant operating states of the air conditioning units, with the display being divided up into the respective rooms. Each icon represents an air conditioning unit or a group and can be given a name.
Blue icons indicate that the air conditioning unit is switched on. The temperature and operating mode are also shown, together with the air filter status, timer operation and Lossnay connection. Faults are coloured yellow, with the air conditioning unit icon shown in grey if the respective unit is switched off.

AT-50B overview of functions

Function	Description
Touchscreen	High-resolution colour touchscreen, 5-inch diagonal, landscape format
Function keys	1 on/off key, 2 programmable function keys
Max. no. of controllable indoor units	Max. 50 indoor units/groups
On/off	Switch-on/switch-off for each individual group Switch-on/switch-off for all groups/units with the on/off key on the front
Operating modes	Switchover between cooling/drying/automatic/blower/heating, depending on the indoor unit options Automatic only possible in R2/WR2 systems
Target room temperature	The target room temperature for every group can be set in the following ranges depending on the indoor unit options: Cooling/drying: 19 – 30 °C Heating: 17 – 28 °C Automatic: 19 – 28 °C
Blower stages	The blower for every group can be configured in up to 4 stages depending on the indoor unit options
Blow-out direction	Blow-out angle for each group can be set to as many as 4 positions plus auto-swing depending on the indoor unit options
Timer function	Daily and weekly timer with 16 switching operations per day
Disable/enable local remote controllers	Disabling and enabling of specific remote controller functions (on/off, target temperature, operating mode, and filter symbol off) can be activated individually
Display of the actual room temperature	The measured room temperature can be displayed for every group
Fault notifications	Displayed in the form of a 4-digit error code plus the affected device address. Up to 64 recent faults are stored.
Test mode	Enables test mode for every single unit within a group
Coupling mode with ventilation units	Enables coupled operation for every group, each with one Lossnay ventilation unit
External inputs and outputs	Connection terminals available for: Inputs: on/off via permanent signal, emergency stop via permanent signal Outputs: operating status (on/off), fault notification/standard operation
Refrigerant charge level check	Activates the automatic charge level check of the outdoor units for easier maintenance
Voltage supply	30 V DC (via M-Net control lines or power supply)
Compatible with	City Multi VRF/Mr. Slim (with PAC-SF81MA-E)/M-series (with MAC-334IF)
Dimensions W x H x D (mm)	180 x 120 x 30

AE-200E

AE-200E

Visual control system/expansion modules for AE-200E

AE-200E

Up to 50 indoor units or groups can be controlled as standard. The use of up to three optionally available expansion modules makes it possible to control a maximum of 200 components with the AE-200E centralised system controller.

Backlit liquid crystal display

The backlight ensures greater readability and makes it easier to operate the air conditioning units shown. Users can establish at a glance whether an air conditioning unit is on or off. The display can be operated at night and in the absence of light, with the backlight switching off automatically after a certain period of idle time. If a fault occurs, the backlight switches back on automatically to alert the users.

Touch panel

The 10.4" high-resolution touch-sensitive monitor enables fingertip operation of the air conditioning units. An orange marking around a symbol indicates the air conditioning unit selected by means of tapping.

Individual cost reporting (optional)

The consumption data of the connected units can be exported via a USB connection for evaluation on a PC.

USB interface

A USB interface is integrated on the left-hand side of the AE-200E behind a protective flap. This can be used to load a configuration file previously created on a PC.

Integrated voltage supply

The system controller is intended for direct connection to a 230 V/1-phase/50 Hz voltage supply.

Highlights

- Full-graphic touch panel with colour visualisation for fingertip operation.
- Easy-to-understand symbols display the unit status at a glance.
- Fit for the future with M-Net, Ethernet and USB interfaces, plus terminals for external signals.
- For wall-mounted installation.

EW-50E

These expansion modules for the M-Net data bus make it possible to increase the number of indoor units that can be controlled by the AE-200E centralised system controller to as many as 200.

Highlights

- Each expansion module enables the connection of 50 indoor units or groups to the AE-200E centralised system controller. This means that with three expansion modules, the maximum number permitted, up to 200 indoor units or groups can be managed by a single AE-200E.
- Connection takes place via the Ethernet to which the AE-200E is also connected. As a result, the expansion modules do not need to be installed directly alongside the centralised system controller but can be located further away.

Technical data	AE-200E
Type	Centralised remote controller
Dimensions W x H x D (mm)	283 x 199 x 64

Optional accessories	
Type	**Description**
EW-50E	Expansion module for monitoring up to 200 indoor units. 1x required for 51-100 indoor units, 2x required for 101-150 indoor units and 3x required for 151-200 indoor units
PAC-YG63MCA-J	Analogue input module
PAC-YG84UTB-J	Wall installation housing
BTR-232B	Router according to ME specifications + setup, required depending on option selected
PAC-YG10HA	Cable adapter for external signals
PAC-YG82TB-J	Housing for exposed installation of AE-200E

EW-50E

Centralised system controller with web functionality

The EW-50E centralised system controller is ideal for small and large systems alike, as it can operate up to 50 air conditioning units. In addition, up to 40 centralised system controllers can be connected to form a complete system for controlling and monitoring up to 2,000 indoor units in larger properties. All control and monitoring functions for all Mitsubishi Electric air conditioning unit models are included. External signals can also be used and third-party units operated (requires separate accessories).

Web functionality

The EW-50E does not feature a dedicated display unit. You can conveniently operate and monitor the air conditioning units using the standard web browser Microsoft Internet Explorer on a PC connected to your local network.

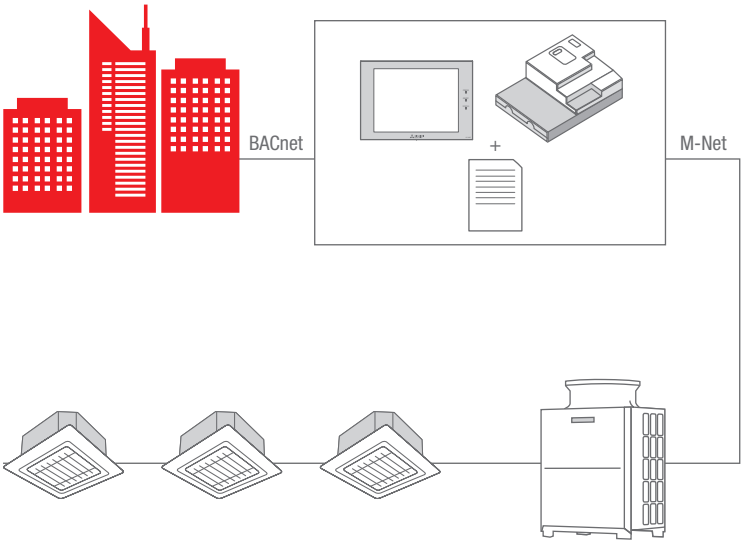
Highlights

- One EW-50E can control up to 50 indoor units or groups.
- The compact system controller does not feature a display unit and is installed “behind the scenes”.
- Easy operation of the air conditioning units on a PC thanks to the integrated user interface.
- The visually appealing user interface is easy to understand and quick to master.
- Clear symbols display the unit status at a glance.
- Ideal for combination with TG-2000A.

Technical data	EW-50E
Type	Centralised remote controller with web functionality
Dimensions W x H x D (mm)	209 x 172 x 92

BACnet Bundle

AE-200E and EW-50E + BACnet function



This package makes it possible to connect air conditioning systems to a BACnet building management system.

AE-200E / EW-50E overview of functions

Function	Description
Display unit	High-resolution colour touchscreen, 10.4-inch diagonal, landscape format (only with AE-200E)
Max. no. of controllable indoor units	Max. 50 indoor units/groups
Expansion options	Up to 3 EW-50E expansion modules for max. 200 indoor units/groups (only with AE-200E)
On/off	Switch-on/switch-off for each group separately or for all groups collectively
Operating modes	Switchover between cooling/dehumidifying/automatic/blower/heating, depending on the indoor unit options; Automatic only possible in R2/WR2 systems
Target room temperature	The target room temperature for every group can be set in the following ranges depending on the indoor unit options: • Cooling/dehumidifying: 19–30 °C • Heating: 17-28 °C • Automatic: 19-28 °C
Blower stage	Up to 4 stages plus automatic can be activated depending on the unit
Blow-out direction	Blow-out angle can be set in up to 4 stages plus auto-swing (depending on the unit)
Timer function	Annual or weekly timer, optional night setback (12 °C)
Disable/enable local remote controllers	Disabling and enabling of specific remote controller functions (on/off, target temperature, operating mode, and filter symbol off) can be activated individually
Display of the actual room temperature	The measured room temperature can be displayed for every group
Fault notifications	Displayed in the form of a 4-digit error code plus the affected device address. Up to 64 recent faults are stored.
Test mode	Enables test mode for every single unit within a group
Coupling mode with ventilation units	Enables coupled operation for every group, each with one Lossnay ventilation unit
Limiting temperatures on browser	The setting range can be specifically limited for each individual unit (e.g. 23 °C to 25 °C)
Web server functionality	The AE-200E and EW-50E centralised system controllers can optionally be operated with a standard web browser if the system controller and the PC are connected to a local network. The administrator can set up, limit, disable or enable access for the users.
Automatic target temperature adjustment	The AE-200E and EW-50E change the target temperature depending on the outside temperature. This function is only available in cooling mode. It requires a PAC-YG63MCA sensor input module and a PT100 sensor (PT100 sensor not included in scope of delivery).
Load shedding circuit	Activates energy-saving functions if power consumption is too high
Energy-saving functions	Various (optional) energy-saving functions for indoor units, groups or the entire system can be activated
Optimised operation start	The air conditioning system commences partial-load operation prior to the programmed timer setting, slowly increasing this up to the actual operation start time in order to ensure the target status is achieved. This helps save energy. It requires a PAC-YG63MCA sensor input module and a PT100 sensor (PT100 sensor not included in scope of delivery).
Password protection	Access to the AE-200E and EW-50E can be protected by a password. If the backlight of the LCD monitor goes out, the password will be requested during the next access attempt.
Night setback	The output can be reduced during the night or when the rooms are not in use. The system maintains the temperature in the rooms, e.g. 16–19 °C in heating mode, so as to stop the rooms from cooling down. In daytime mode, the system heats the rooms back up to 20–22 °C.
External inputs and outputs	Connection terminals available for: — Inputs: on/off via permanent signal, emergency stop via permanent signal Outputs: operating status (on/off), fault notification/fault-free operation
Refrigerant charge level check	Activates the charge level check of the outdoor units for simplified maintenance
Compatible with	City Multi VRF/Mr. Slim (with A/M-Net converter)/M-series (with MAC-334IF)

Expansion of the software functions via activation codes
AE-200E/EW-50E

Personal web
This function makes it possible to set up virtual remote controllers. These can be accessed on the standard PC monitor of the respective user with the help of Internet Explorer.

Maintenance tool
Enables access via the network using the Mitsubishi Electric maintenance tool software. Can provide visualisation of system operating data.

BACnet
This function makes it possible to connect air conditioning systems to a BACnet building management system.

Energy management licence pack
Enables the transmission of information on energy consumption and energy-saving functions. This makes it possible to implement a load shedding circuit, for example.

Interlock control
Integrates functions of the AE-200E and EW-50E centralised remote controllers into the PAC-YG66DCA additional controller. This makes it possible to switch external units on and off via the timer of the central control system, for example. The corresponding activation codes, such as for annual schedule, must be enabled for this purpose.

Batch
Enables the individual cost reporting function in conjunction with the remote monitoring interface.



PAC-YG60MCA-J PAC-YG63MCA-J PAC-YG66DCA-J

Control accessories

The PAC-YG input and output modules can be used to extend the various functions of the EW-50E and AE-200E central control systems. The modules are built into the M-Net bus system, with a minimum of one M-Net indoor unit address required per module.

At the design stage, it must be ensured that the total number of indoor units, Lossnay heat exchangers and PAC-YG modules in an M-Net system does not exceed 50. Every PAC-YG module requires an uninterruptible 24 V DC voltage supply to be provided on site. Install in a dry environment (within the building).

PAC-YG60 MCA-J pulse input module

- Log the most diverse types of counters, for example metering volumes of electricity, gas, water or heat.
- Record the counts from pulse counters.
- Record the energy consumption and individual cost reporting in combination with a central control system.
- Counts are shown in the web display of the EW-50E.

PAC-YG63 MCA-J analogue input module

- It is also possible to automatically e-mail the logged data when used with the AE-200E or EW-50E (router in accordance with ME specifications may be needed).
- An alarm is issued in the form of a potential-free contact if the reading is outside the target range.
- It is also possible to send an alarm e-mail (router in accordance with ME specifications may be needed) when used in conjunction with a central control system if the reading is outside the target range.
- Logging of temperature and humidity sensors.
- 2 inputs per module, one of which is suitable for the direct connection of a PT100 temperature sensor.
- Possible signal inputs: 0–10 V, 4–20 mA, 1–5 V.
- Recording of temperature and/or humidity readings.

PAC-YG66 DCA-J digital input/output module

- Monitoring of third-party equipment such as lighting, louvres, ventilation systems, external fans, pumps, etc.
- Up to six outputs and six inputs per module.
- Enables control of third-party equipment (on/off).
- Records the operating status of third-party equipment (on/off, operation/alarm).

Module name	PAC-YG60 MCA-J	PAC-YG63 MCA-J	PAC-YG66 DCA-J
Dimensions W x D x H (mm)	200 x 120 x 45	200 x 120 x 45	200 x 120 x 45
Weight (kg)	0,6	0,6	0,6

Maintenance Tool

LMAP04-E

Control accessories

BACnet connection with PIN code

- The optional BACnet PIN code for the AE-200E or EW-50E central control system makes it possible to connect to the building management system.

Please note that each central control system requires the corresponding PIN code.

LMAP04-E
LonWorks® interface

- Easy connection of City Multi systems to building management systems via the LonWorks® interface LMAP04-E.
- One LonWorks® interface is needed for 50 indoor units.
- Dimensions (H x W x D): 340 mm x 360 mm x 60 mm

CMS-MNG-E*
Maintenance-Tool

- The Mitsubishi Electric maintenance tool is the easiest and best-value option for the monitoring, maintenance and operation of City Multi systems.
- All relevant system parameters and fault notifications can be displayed, saved or modified on a computer*.
- Comprising an interface box, adapter and software program, the maintenance tool requires an additional USB cable. PC connector: USB type A. CMS-MNG-E connector: USB type B.
- Dimensions (H x W x D): 137 mm x 160 mm x 37 mm

ME-AC/KNX**
EIB/KNX interface

- Integration of 15 (ME-AC/KNX-15) or 100 (ME-AC/KNX-100) City Multi groups
- Supports all key functions of the air conditioning units
- With EW-50E or AE-200E

ME-AC-MBS**
Modbus interface

- Integration of 50 (ME-AC-MBS-50) or 100 (ME-AC-MBS-100) indoor units
- Integration of City Multi systems into a Modbus building management system
- Supports all key functions of the air conditioning units
- With EW-50E or AE-200E

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* Windows 7 (not supported: Starter Edition)/8/8.1/10 (English version recommended*1), Pentium4 2 GHz, minimum 1 GB RAM, minimum 1 GB memory, 1 USB port, connection
** 24 V DC power supply to be provided on site

MAC-567IF-E1

MELCloud®

MELCloud – system control any time, anywhere

Smart cloud-based control for Mitsubishi Electric systems

MELCloud makes it a breeze to control and monitor air conditioning systems, heat pumps and ventilation – whatever the time and wherever you are.

Boasting a wide range of features, MELCloud ensures easier day-to-day operation of your systems. For example, you can adjust target temperatures, switch between operating modes and analyse historic and current trend data at the push of a button. One particularly practical aspect is the cross-system suitability of MELCloud, which provides centralised control of heating, ventilation and air conditioning at all times with a single app. Another benefit of MELCloud is the clear map view that makes it possible to manage multiple locations.

MELCloud is ideal for private and commercial use in a variety of properties including flats, homes, agencies, doctor's practices, offices and retail chain stores.

What are the requirements for using MELCloud?
In order to integrate an air conditioning, heating or ventilation system into MELCloud, you require the Wi-Fi adapter MAC-567IF-E1 from Mitsubishi Electric.
- Wi-Fi router with WPS function (also with GSM/LTE router)
- Compatible Mitsubishi Electric unit
- MAC-567IF-E1

As an easy-to-integrate free tool that also provides fault notifications, MELCloud delivers a series of benefits:

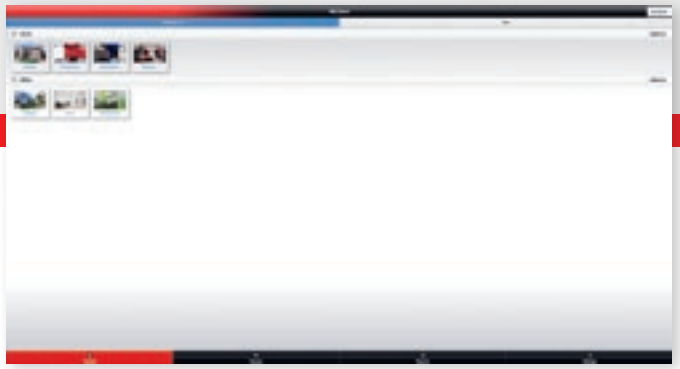
- Easy integration via WPS function
- Cross-system integration of Mitsubishi Electric products
- Suitable for retrofitting without additional cabling
- Unlimited number of units per user account
- Data monitoring (trend data, operating states)
- Guest access for tradespeople or part-time tenants
- Ongoing development of the app
- Possible to connect via LTE router
- E-mail notification sent to two recipients in event of fault
- Timer program available
- Easily expandable
- Compatible with Amazon Alexa[1]

Technical information:
- Cable length 2.04 m
- Transmission frequency 2.4 GHz

MAC-567IF Wi-Fi adapter	
Input voltage	DC 12.7 V (via the internal module)
Power consumption	max. 2 W
Transmission level	max. 17.5 dBm with IEEE 802.11b
AES encryption	AES
Authentication	WPA2-PSK
Cable length	2.04 m
PCB interface	CN105
Transmission range	2.4 GHz

Easy adapter integration thanks to WPS function.

1 Alexa app or Echo products required.



Multi-location and multi-product operation

MELCloud offers a variety of functions beyond central access to multiple locations and products. The trend data archive, timer programs and scenario control ensure easier handling of the systems, while guest authorisations allow family members or installation companies to access the installed system.

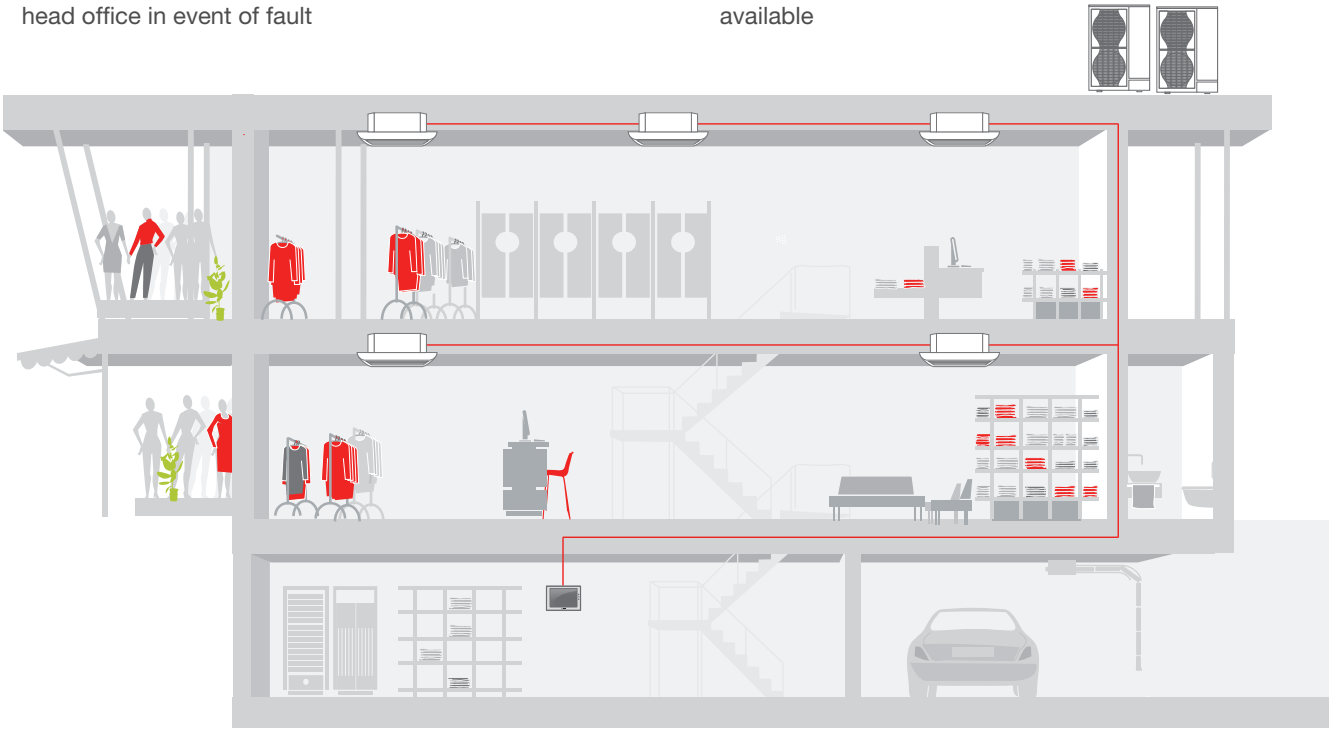
Use of MELCloud does not incur any running costs.

System reports feature system information in prepared visual formats for clear presentation of aspects such as operating modes, temperature curves and fault notifications. The display of calculated energy consumption values[1] also provides an overview of system consumption rates.

1 Compatible unit series required.

Example system: retail chain stores

- MELCloud enables central access from company head office
- Energy data evaluation identifies potential optimisation
- Central access to installed air conditioning technology
- Alarm notification sent to air conditioning company and head office in event of fault
- Air conditioning company accesses system via guest access
- Subdivided access for departmental managers
- Timer programs save energy
- LTE routers enable connection if no dedicated Wi-Fi router available



Router

RMI – Remote Monitoring Interface

The Remote Monitoring Interface (RMI) is the ideal cloud system for all property managers, hotel operators, retailers and installers.

Wherever you are – in one of your buildings, at head office, at your company premises or on the move – with RMI you are always able to access and control your air conditioning systems. You also benefit from an optimal overview since all important location parameters and system data are clearly displayed in one view. Management of multiple locations is intuitive and straightforward. The RMI also features a variety of helpful tools such as timer programs and operational indices – ideal for making the very most of any energy-saving potential.

All benefits at a glance

- Unit and system monitoring
- Clear operation of multiple locations via list or map view
- Adjustments to system parameters (setpoints, fan stages, operating modes, etc.)
- Trend data archive
- Energy data recording and energy evaluation
- Monthly energy reports
- Alarm forwarding via e-mail or SMS

What are the requirements for using RMI?

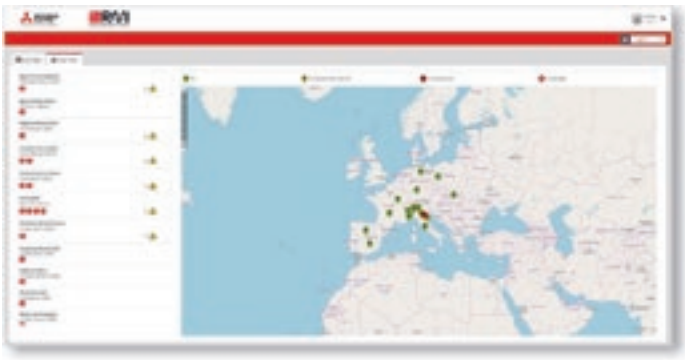
- VRF, HVRF and Mr. Slim systems all compatible
- Connection to AE-200E or EW-50E central control system via VPN router (3G or LAN)

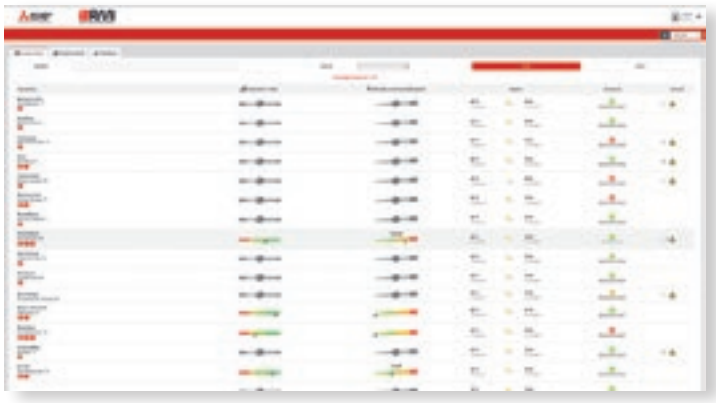
The RMI is available in three different packages.

Package	Scope of performance
RMI Smart	• Operation via app or web portal • Weekly and annual timer • Access to web interface of system remote controller • Location weather data
RMI Advanced	**All the features of RMI Smart plus:** • Fault notifications via e-mail and SMS • Management of multiple locations • Monthly system reports • Energy management • System dashboard
RMI Advanced Multi Tenant	**All the features of RMI Advanced plus:** • Setup of subordinate access authorisations

RMI is compatible with all network-capable central remote controllers

System KPIs (key performance indicators) provide a quick overview of all important system parameters, such as current energy consumption levels and efficient operation. As any number of access authorisations are possible for each location, you can also set up a maintenance access for the specialist company of your choice.



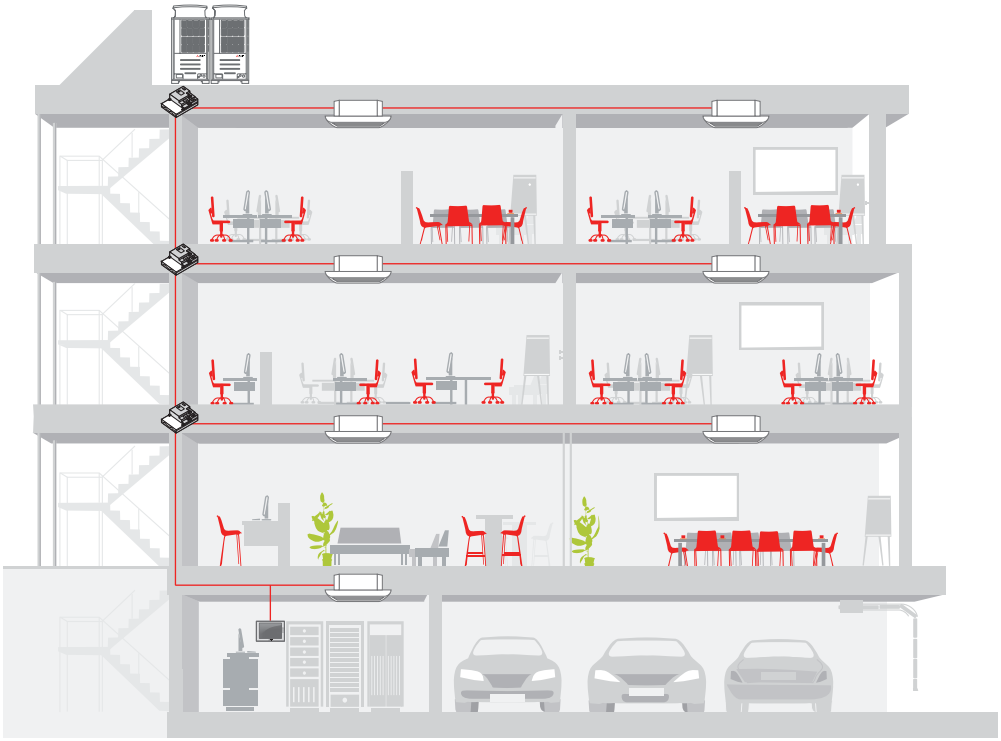


The clear user interface makes using the RMI extremely straightforward – with central settings, analyses and functions available with just a couple of clicks.

Operation via building floor plans and the division of buildings into different floors enables targeted positioning and deployment of air conditioning units.

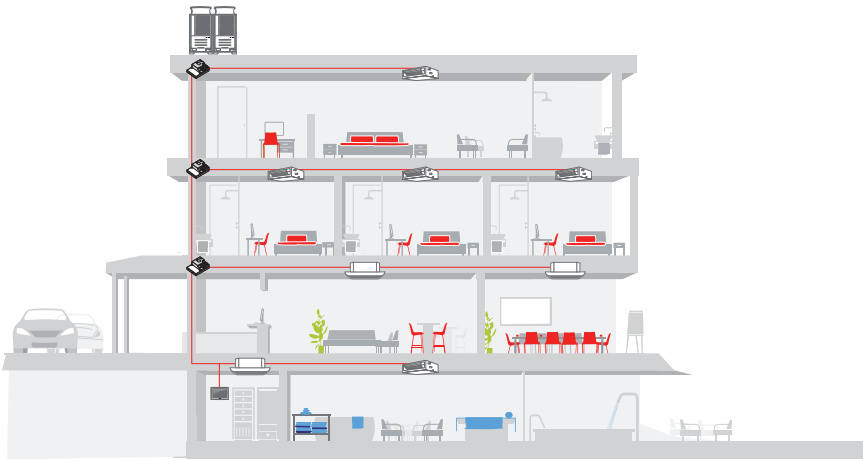
VRF technology office solution

- Standard remote controller PAR-40MAA in office spaces
- AE-200 and EW-50 central control systems
- Remote Monitoring Interface for remote access
- Sub-access for installation companies
- RMI Multi Tenant package used to configure multiple access authorisations for tenants in the office building
- Energy management and individual cost reporting via RMI
- Intesis gateway for connecting to superordinate building technology



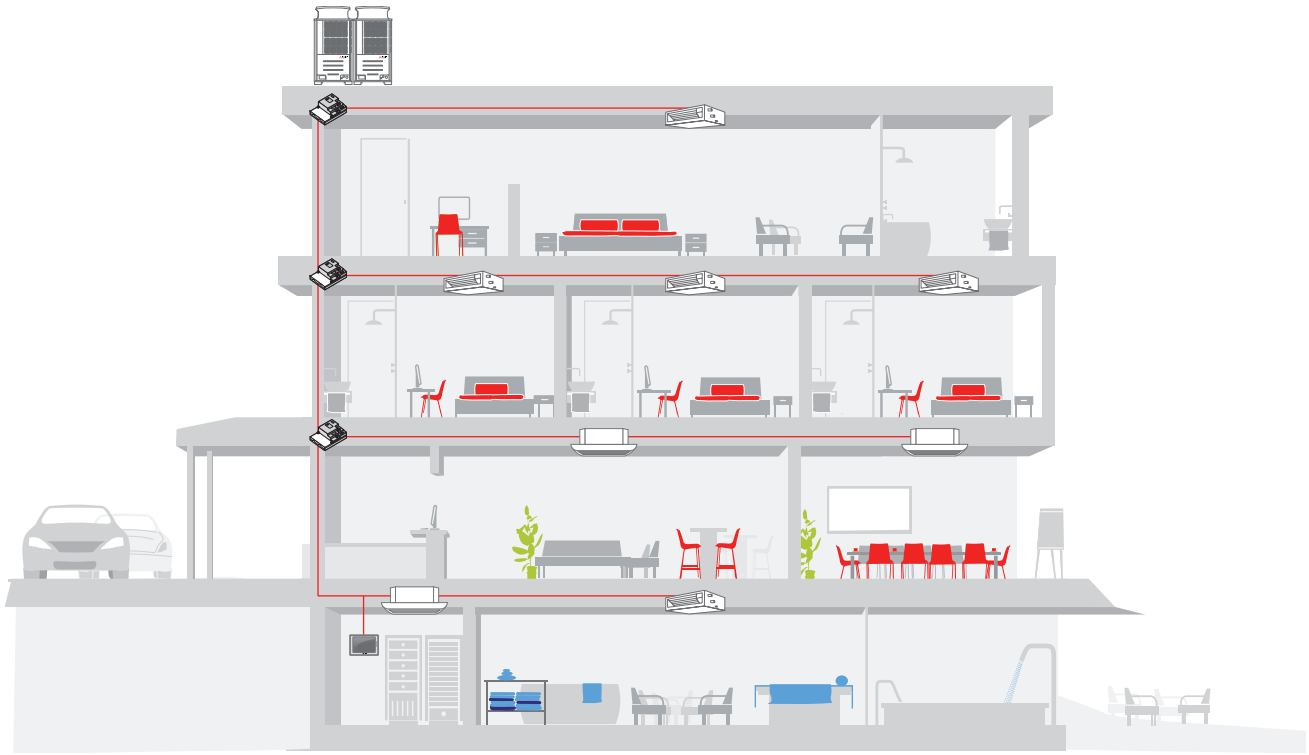
Property management with RMI

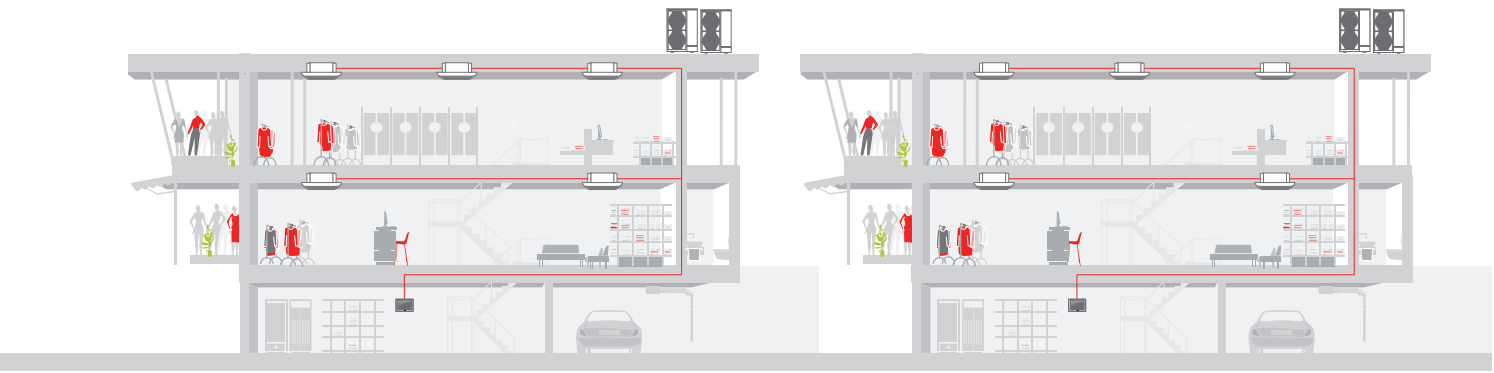
- Central access to multiple locations
- Central analysis of consumption data and fault notifications
- Remote system monitoring
- Remote troubleshooting and basic maintenance options available



HVRF technology hotel solution

- Touch remote controller PAR-CT01MAA in premium rooms
- Standard remote controller PAC-YT52 in standard rooms
- AE-200 and EW-50 central control systems
- Interlock (window contact/card holder)
- Cool-down protection for unoccupied rooms
- Remote Monitoring Interface for remote access and system optimisation
- Intesis gateway for connecting to superordinate management system





Lossnay

Contents

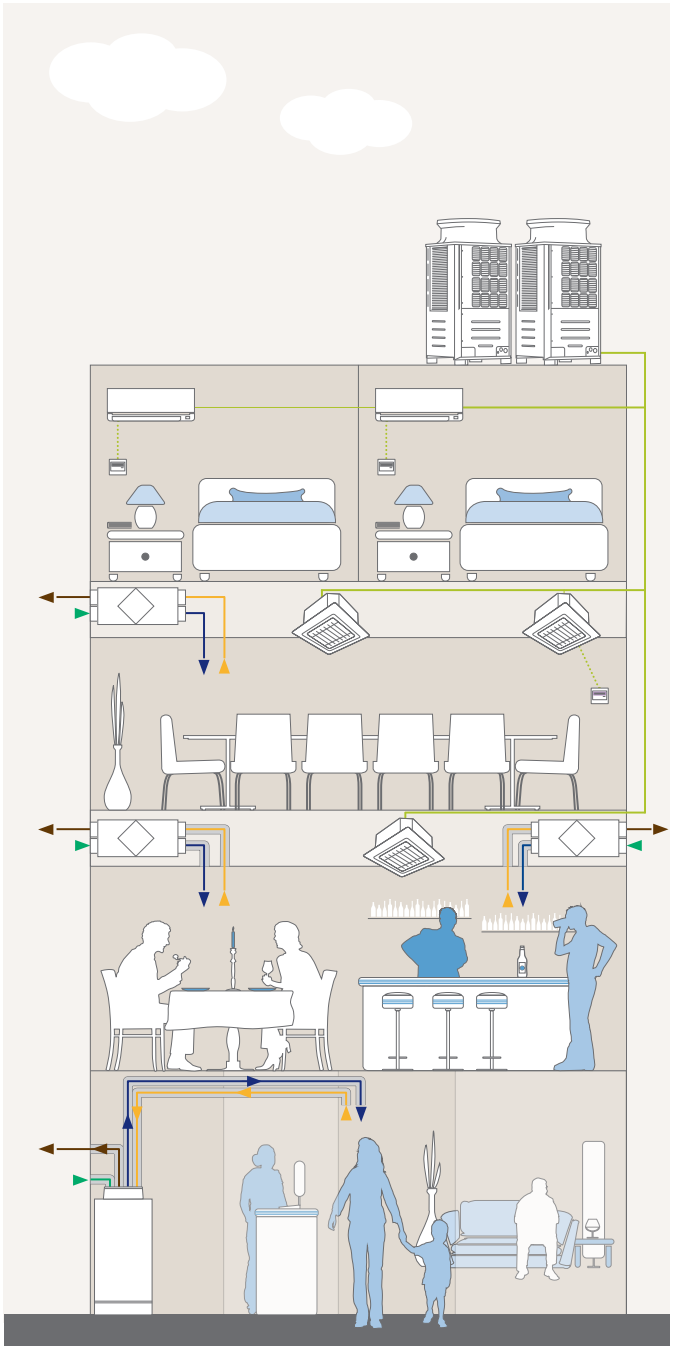
Benefits and properties

The benefits at a glance

- Simple combination with City Multi VRF and Mr. Slim air conditioning systems via data bus without additional adapter or additional control system.
- Decentralised ventilation of the building using a Lossnay system yields energy benefits.
- Controlled ventilation with heat recovery.
- It is easy to retrofit a Lossnay system in a building.
- Very low sound pressure level.
- Connection for a CO_2 sensor is provided as standard.

Connecting to City Multi VRF and Mr. Slim systems

The high-performance City Multi VRF and Mr. Slim air conditioning systems can easily be combined with the Lossnay LGH series – and to great effect. This enables the use of smaller indoor and outdoor unit capacities when designing the air conditioning system. In addition, the connection to the data bus eliminates the need for an additional adapter and an additional control system.

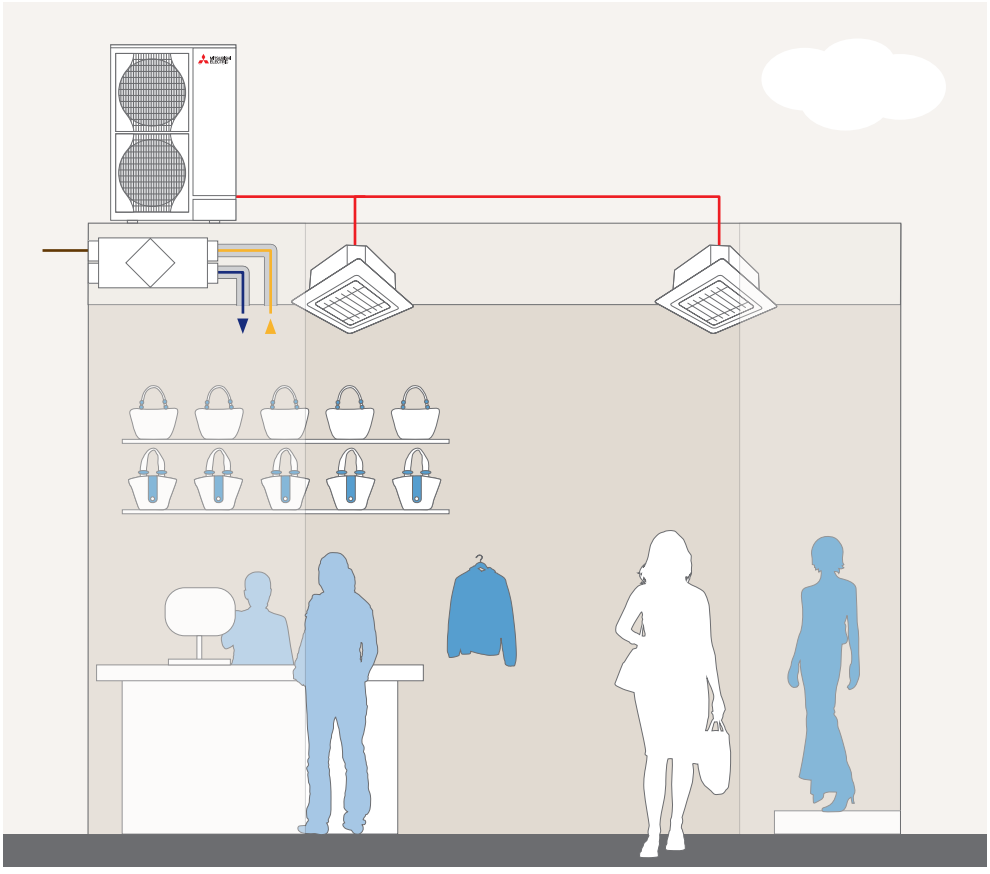


Ventilation/air conditioning combination in a hotel:
The different climate zones within a hotel pose a particular challenge in terms of ventilation and air conditioning. On the one hand, the individual guest rooms should enable individual control so that each guest can set their own preferred temperature.
On the other hand, the foyer, meeting rooms, conference rooms, restaurant and bar area must feature central control and ensure ventilation as well as optimum air conditioning.

Our example system:
City Multi VRF air conditioning system + Lossnay ventilation systems LGF-100GX-E and LGH-RVX(T)

Air conditioning and ventilation: a perfect team

Fresh air for maintaining performance
Supplying suitable amounts of fresh air to closed rooms is not only a requirement of the German Institute for Standardization (DIN) and the Association of German Engineers (VDI), it is also essential for maintaining and even increasing human performance. This is handled by mechanical ventilation technology in offices, retail outlets, theatres, hospitals and any locations that do not feature any windows or that do not enable regular ventilation via windows. As it is a year-round process, air conditioning of the supplied fresh air is essential – with single-split inverters (Mr. Slim series) and VRF systems (City Multi series) ideally suited to this task.



Ventilation/air conditioning combination in a shop:
As window ventilation is not possible in most shops, a regulated supply of fresh air is essential.
In order to generate the ideal 'feel good' atmosphere for customers and the sales team, which will also encourage customers to prolong their visit, it is worth considering a combined solution consisting of air conditioning and a ventilation system with integrated heat recovery. As the energy recovered from the exhaust air is reused, this considerably reduces the air conditioning costs.

Our example system:
Mr. Slim air conditioning units + Lossnay ventilation units LGH-RVX(T)

Benefits and properties

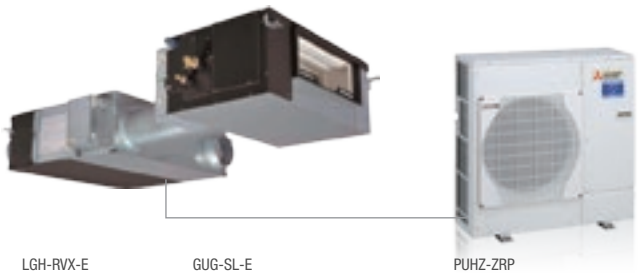
The new GUG heat exchanger unit
GUG is a heat exchanger unit that is connected to the Lossnay LGH to form an overall entity. Mr. Slim Power Inverters are suitable for connection to the GUG heat exchanger unit.

Key features:
- Room temperature control
- Supply air temperature control

Benefits:
- Heat recovery and air conditioning with a single ventilation system
- Volume flow rates from 500 m^3/h to 2,500 m^3/h
- Just one system: saves assembly time, costs and installation space – operation with supply air or exhaust air control
- Easy installation thanks to integrated condensate pump
- Central remote controller offers basic functionality. Full range of functions provided by optional unit PZ-61DR-E
- Available in three sizes

What are the benefits of this combination?
Pre-conditioned outside air is guided by the Lossnay into the GUG heat exchanger unit, then post-conditioned using the heat exchanger connected to a Power Inverter. The operator can choose between return air temperature control and supply air temperature control.

Certain situations do not require the installation of an additional indoor unit for air conditioning, which reduces the amount of assembly and installation work.



Ventilation systems

Lossnay ventilation systems

Page reference

Floor-mounted unit
LGF model, hygiene tested

256

Ceiling concealed units
LGH-RVX

258

Ceiling concealed units
LGH-RVXT

260

Air volume flow rate (m^3/h)	150	250	350	395	500	650	800	1000	1500	2000	2500
Floor-mounted unit LGF model, hygiene tested (256)								■			
Ceiling concealed units LGH-RVX (258)	■	■	■		■	■	■	■	■	■	
Ceiling concealed units LGH-RVXT (260)									■	■	■

Heat and moisture recovery with the Lossnay heat exchanger

Every building needs fresh air to provide the people located there with a healthy and comfortable environment. In most cases, the outside air is too warm or too cold to feed directly into the building. Conditioning the outside air requires a lot of energy. Lossnay solves this problem by means of efficient heat recovery, which substantially reduces the heating and cooling required for a building.

Heat and moisture recovery with the Lossnay heat exchanger compared to conventional ventilation

Summer
Temperature difference between the supply air and exhaust air: 1.7 °C

Supply air	Lossnay	Conventional ventilation
Temperature (°C)	27.7	33
Humidity (%)	58	63
Recovered energy (kW)	7.5	0

Outgoing air

Air conditioning unit

Exhaust air		Outside air	
Temperature (°C)	26	Temperature (°C)	33
Humidity (%)	50	Humidity (%)	63

In contrast to a conventional ventilation system, a Lossnay ventilation system not only guarantees the fresh air supply in the summer but also controls the temperature and humidity – equating to a saving of 7.5 kW.

Winter
4 litres of water are recovered per hour

Supply air	Lossnay	Conventional ventilation
Temperature (°C)	16	0
Humidity (%)	46	50
Recovered energy (kW)	8.2	0

Outgoing air

Air conditioning unit

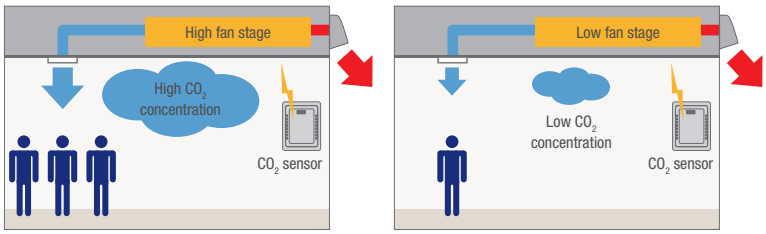
Exhaust air		Outside air	
Temperature (°C)	20	Temperature (°C)	0
Humidity (%)	50	Humidity (%)	50

In winter, the heat recovery function of the Lossnay heat exchanger recovers the energy of the exhaust air so that only a low level of heating is required, making savings of up to 8.2 kW possible.

Method of calculation:
Supply air temperature °C = outside temperature °C – (outside temperature °C – room temperature °C) x heat recovery rate %

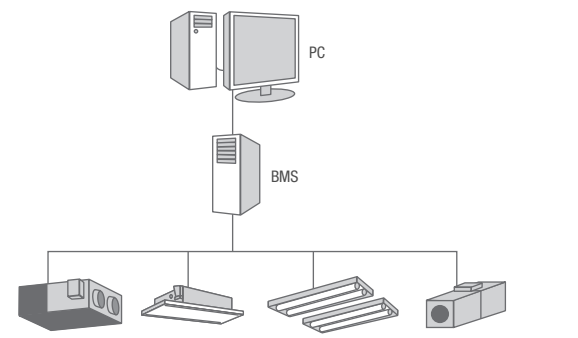
Example calculation for an LGH-100RVX at high fan stage:
27.7 °C = 33 °C – (33 °C – 26 °C) x 76%

Control options for the LGH-RVX(T) series
CO_2 sensor



The Lossnay units in the LGH-RVX(T) and LGF-100GX series feature a connection for an on-site CO_2 sensor as standard.

Air volume can be adjusted via a 0 to 10 V signal



Free cooling function bypass and night-time ventilation for LGH and LGF units

Free cooling function
The bypass damper for the free cooling function can be opened and closed by superordinate control systems. This requires the optional connector PAC-SA88HA-E. If contact SW1 is closed, the Lossnay switches to bypass mode regardless of the operating mode selected on the remote controller.

Automatic ventilation
The automatic function always ensures the optimum type of ventilation for the room conditions.

1. Reduced cooling load
If the outside temperature is below the room temperature, cool outside air is supplied to the building via the bypass function.

2. Night-time ventilation
Using the bypass function, the warm air that collects in the building during the day can be discharged at night.

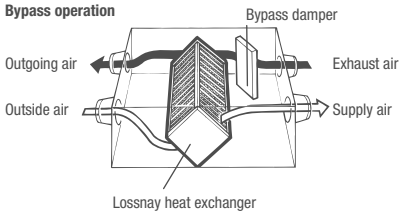
3. Cooling of office equipment
Fresh outside air can be used for cooling offices that are heated up by the devices located there.

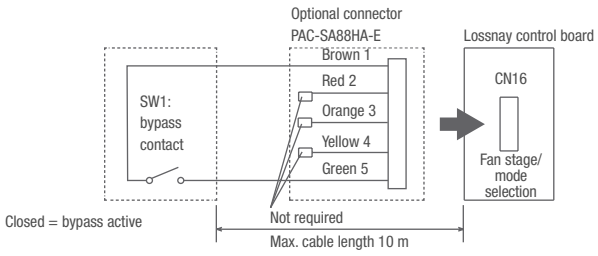
Lossnay mode is automatically activated at temperatures below 8 °C.

Energy-efficient night-time ventilation
In summer, cool outside air can be fed in during the night. This significantly reduces the energy consumption of the air conditioning units.

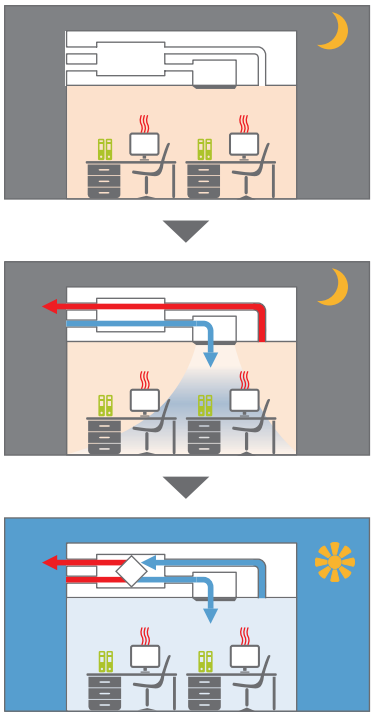
For more information, please refer to the technical documentation.

Bypass operation





Energy-efficient night-time ventilation



When the ventilation and air conditioning system are switched off, the room temperature rises as the walls have heated up during the day.

The outside temperature falls overnight.

As soon as the outside temperature falls below the room temperature, the ventilation starts automatically.

Warm air is transported outside.

Once the room has cooled down, the ventilation stops.

This reduces the cooling load and thus the energy consumption of the air conditioning system.

leslink.info/vdi6022

Lossnay LGF-100GX
Baumuster
geprüft nach
VDI 6022*
*Bei Einhaltung der entsprechenden Rahmenbedingungen unter www.mitsubishi-les.de/Lossnay

LGF-100GX-E

Floor mounted unit in hygienic design
LGF-100GX-E

Advantages

- Humidifies or dehumidifies the fresh air led into the room
- Due to the heat exchange with the exhaust air, the supply air is either heated or cooled depending on the room conditions
- Unit housing in hygienic design, type tested according to VDI 6022. All components can easily be accessed and cleaned from the front.
- F7 filters are fitted as standard for return air and outside air.
- Free-cooling function can be controlled externally. Ideal for supplying the rooms with cool outside air during the night. This reduces the energy consumption of the air conditioning system even more.
- Connection for CO_2 sensor provided by the customer is available on the circuit board as standard. Via the CO_2 sensor, the quantity of fresh air can be adjusted to the requirements in the room.
- Can be connected directly to air conditioning units of the Mr. Slim series with A-control and to City Multi systems due to new control electronics

Floor mounted unit in hygienic design

Designation		LGF-100GX-E
Airflow (m³/h)	Low	785
	High	995
	Extra high	995
Static pressure (Pa)	Low	119
	High	150
	Extra high	200
Sound pressure level (dB(A))*	Low	44
	High	47
	Extra high	49
Efficiency (%)	Low	81
	High	80
	Extra high	80
Dimensions (mm)	W	1.760
	D	674
	H	1.055
Weight (kg)		164
Voltage supply (V, phase, Hz)		220–240, 1, 50
Duct size Ø (mm)		300

* Sound pressure level measured 1 m in front of the unit and at a height of 1 m

Accessories

PZ-60DR-E

Type designation	Description	Quantity
PZ-60DR-E	Cable remote control for LGF-100GX-E	1
PZ-100GF-E	Replacement filter set EU-G3 class for LGF-100GX-E	1
PZ-100GFM-E	Replacement filter set EU-F7 class for LGF-100GX-E	1

LGH-15–100RVX / LGH-150–200RVX

Ceiling concealed ducted units
LGH series RVX

Advantages

- Free-cooling function can be controlled externally. Ideal for supplying the rooms with cool outside air during the night. This reduces the energy consumption of the air conditioning system even more.
- Due to the heat exchange with the exhaust air, the supply air is either heated or cooled depending on the room conditions
- Minimum maintenance requirements
- Can be connected directly to air conditioning units of the Mr. Slim series with A-control and to City Multi systems due to new control electronics
- Optional special Lossnay remote control, see accessories
- Connection for CO_2 sensor provided by the customer is available on the circuit board as standard. Via the CO_2 sensor, the quantity of fresh air can be adjusted to the requirements in the room.
- New energy-saving fan motors with DC inverter technology
- Humidifies or dehumidifies the fresh air led into the room
- Supplied as standard with 0–10 V input for external setting of air volume

Air ceiling concealed ducted units RVX

Designation		LGH-15RVX-E	LGH-25RVX-E	LGH-35RVX-E	LGH-50RVX-E	LGH-65RVX-E	LGH-80RVX-E	LGH-100RVX-E	LGH-150RVX-E	LGH-200RVX-E
Energy efficiency class		A	A	–	–	–	–	–	–	–
Airflow (m³/h)	Extra low	38	63	88	125	163	200	250	375	500
	Low	75	125	175	250	325	400	500	750	1000
	High	113	188	263	375	488	600	750	1125	1500
	Extra high	150	250	350	500	650	800	1000	1500	2000
Static pressure (Pa)*	Extra low	6	5	10	8	8	10.0	10.6	11	10.0
	Low	24	21	40	30	30	37.5	42.5	44	37.5
	High	54	48	90	68	68	85.0	96.0	98	84.0
	Extra high	95	85	160	120	120	150.0	170.0	175	150.0
Sound pressure level (dB(A))**	Extra low	17.0	17	17.0	18.0	18.0	18.0	18.0	18.0	18.0
	Low	19.0	20	20.0	19.0	22.0	23.0	23.0	24.0	28.0
	High	24.0	22	28.0	28.0	29.0	30.0	31.0	32.0	36.0
	Extra high	28.0	27	32.0	34.0	34.5	34.5	37.0	39.0	40.0
Efficiency (%)	Extra low	84.0	86.0	88.5	87.0	86	85.0	89.5	85.0	89.5
	Low	83.0	82.0	86.0	83.5	84	84.0	86.5	84.0	86.5
	High	81.0	80.0	82.5	81.0	81.0	82.5	83.0	82.5	83.0
	Extra high	80.0	79.0	80.0	78.0	77.0	79.0	80.0	80.0	80.0
Dimensions (mm)	W	610	735	874	1.016	954	1.004	1.231	1.004	1.231
	D	780	780	888	888	908	1.144	1.144	1.144	1.144
	H	289	289	331	331	404	404	404	808	808
Weight (kg)		20	23	30	33	38	48	54	98	110
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Power consumption (W)	Extra low	7	8	11	12	15	18	21	36	42
	Low	14	16	31	32	49	60	75	123	153
	High	28	33	70	78	131	151	209	311	400
	Extra high	49	62	140	165	252	335	420	670	850
Max. operating current (A)		0.40	0.48	0.98	1.15	1.8	1.82	2.50	3.71	4.88
Duct size Ø (mm)		110	150	150	200	200	250	250	250/270	250/270

* At the stated airflows

Energy efficiency class on a scale from A+++ to D

** Sound pressure level measured centrically at a distance of 1.5 m below the unit

Accessories

PZ-61DR-E

Type designation	Description
PZ-61DR-E	Cable remote control for LGH-RVX (-T)
PZ-15RFM-E	Fine dust filter set (class EU-F7) for LGH-15RVX
PZ-25RFM-E	Fine dust filter set (class EU-F7) for LGH-25RVX
PZ-35RFM-E	Fine dust filter set (class EU-F7) for LGH-35RVX
PZ-50RFM-E	Fine dust filter set (class EU-F7) for LGH-50RVX
PZ-65RFM-E	Fine dust filter set (class EU-F7) for LGH-65RVX
PZ-80RFM-E	Fine dust filter set (class EU-F7) for LGH-80/150RVX, 2 sets are required
PZ-100RFM-E	Fine dust filter set (class EU-F7) for LGH-100/200RVX, two sets are required
PZ-15RF8-E	Fine dust filter set for MSC-GE25-35VB
PZ-25RF8-E	Fine dust filter set for MSC-GE25-35VB
PZ-35RF8-E	Fine dust filter set for MSC-GE25-35VB
PZ-50RF8-E	Fine dust filter set for MSC-GE25-35VB
PZ-65RF8-E	Fine dust filter set for MSC-GE25-35VB
PZ-80RF8-E	Replacement filter set (EU-G3 class) for LGH-80/150RVX; 2 sets required for LGH-150RVX
PZ-100RF8-E	Fine dust filter set for MSC-GE25-35VB

LGH-150–250 RVXT-E

Ceiling concealed ducted units
LGH series RVXT

Advantages

- Free-cooling function can be controlled externally. Ideal for supplying the rooms with cool outside air during the night. This reduces the energy consumption of the air conditioning system even more.
- Due to the heat exchange with the exhaust air, the supply air is either heated or cooled depending on the room conditions
- Minimum maintenance requirements
- Can be connected directly to air conditioning units of the Mr. Slim series with A-control and to City Multi systems due to new control electronics
- Optional special Lossnay remote control, see accessories
- Connection for CO_2 sensor provided by the customer is available on the circuit board as standard. Via the CO_2 sensor, the quantity of fresh air can be adjusted to the requirements in the room.
- New energy-saving fan motors with DC inverter technology
- Humidifies or dehumidifies the fresh air led into the room
- Supplied as standard with 0–10 V input for external setting of air volume
- Shallow construction despite high air volumes

Air ceiling concealed ducted units

Designation		LGH-150RVXT-E	LGH-200RVXT-E	LGH-250RVXT-E
Airflow (m³/h)	Extra low	375	500	625
	Low	750	1000	1250
	High	1125	1500	1875
	Extra high	1500	2000	2500
Static pressure of supply air (Pa)*	Extra-low	11	11	11
	Low	44	44	44
	High	98	98	98
	Extra-high	175	175	175
Static pressure of exhaust air (Pa)*	Extra-low	6	6	6
	Low	25	25	25
	High	56	56	56
	Extra-high	100	100	100
Sound pressure level (dB(A))**	Extra low	22.0	22.0	24.0
	Low	29.5	28.0	32.0
	High	35.5	35.5	39.0
	Extra high	39.5	39.5	43.0
Efficiency (%)	Extra low	81.5	84.0	82.5
	Low	81.0	82.5	80.5
	High	80.5	81.0	79.0
	Extra high	80.0	80.0	77.0
Dimensions (mm)	W	1.980	1.980	1.980
	D	1.450	1.450	1.450
	H	500	500	500
Weight (kg)		156	159	198
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50
Power consumption (W)	Extra low	48	56	82
	Low	176	197	244
	High	421	494	687
	Extra high	792	1000	1446
Max. operating current (A)		4.30	5.40	7.60
Duct size (mm)		250 x 750	250 x 750	250 x 750

* At the stated airflows

** Sound pressure level measured centrically at a distance of 1.5 m below the unit

Accessories

PZ-61DR-E

Type designation	Description
PZ-61DR-E	Cable remote control for LGH-RVX (-T)
PZ-150RTF-E	Replacement filter set LGH-150RVXT-E
PZ-250RTF-E	Replacement filter set LGH-200/250RVXT-E
PZ-M6RTFM-E	Additional filter set EU-M6 class for LGH-150/200/250RVXT-E
PZ-F8RTFM-E	Additional filter set EU-F8 class for LGH150/200/250RVXT-E

GUG-01SL-E GUG-02SL-E GUG-03SL-E

Lossnay ceiling-concealed units with GUG heat exchanger units for return air control

Advantages

- The outside air is post-treated by the GUG heat exchanger unit
- Regulation is controlled by the supply air temperature
- Adjustable supply air temperature range in heating mode 17° – 28°C
- Adjustable supply air temperature range in cooling mode 12° – 30°C
- PZ-01RC cable remote control for temperature adjustment included in the scope of supply of the GUG

Lossnay RVX ceiling-concealed units with GUG heat exchanger, return-air-controlled regulation

Lossnay Type		LGH-50RVX-E	LGH-65RVX-E	LGH-80RVX-E	LGH-100RVX-E	LGH-150RVX-E	LGH-200RVX-E
GUG type		GUG-01SL-E	GUG-01SL-E	GUG-02SL-E	GUG-02SL-E	GUG-03SL-E	GUG-03SL-E
Outdoor unit		PUHZ-ZRP35VKA	PUHZ-ZRP35VKA	PUHZ-ZRP50VKA	PUHZ-ZRP71VHA	PUHZ-ZRP100YKA	PUHZ-ZRP100YKA
Airflow (m³/h)		375–500	488–650	600–800	750–1000	1125–1500	1500–2000
Static pressure (Pa)		59–105	53–95	73–130	73–130	84–150	59–105
Cooling capacity (kW)		3.6	4.0	5.0	7.1	9.5	10.0
Heating capacity (kW)		4.1	4.5	6.0	8.1	13.0	13.5
System efficiency	Cooling	4.69	5.03	4.76	4.98	5.27	5.86
	Heating	4.09	4.72	4.62	4.42	4.24	5.02
Dimensions (GUG) (mm)	Width	811	811	1.033	1.033	1.156	1.156
	Depth	551	551	551	551	459	459
	Height	330	330	394	394	404	404
Weight (kg)		21	21	26	26	28	28
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50

Lossnay RVXT ceiling-concealed units with GUG heat exchanger, return-air-controlled regulation

Lossnay Type		LGH-150RVXT-E	LGH-200RVXT-E	LGH-250RVXT-E
GUG type		GUG-03SL-E	GUG-03SL-E	GUG-03SL-E
Outdoor unit		PUHZ-ZRP100YKA	PUHZ-ZRP100YKA	PUHZ-ZRP125YKA
Airflow (m³/h)		1125–1500	1500–2000	1875–2500
Static pressure (Pa)		84–150	82–145	79–140
Cooling capacity (kW)		9.5	10.0	12.5
Heating capacity (kW)		13.0	13.5	14.0
System efficiency	Cooling	5.03	5.59	4.59
	Heating	4.07	4.86	4.75
Dimensions (GUG) (mm)	Width	1.156	1.156	1.156
	Depth	459	459	459
	Height	404	404	404
Weight (kg)		28	28	28
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50

GUG-Connection

PZ-01RC

Lossnay ceiling-concealed units with GUG heat exchanger units for supply air control

Advantages

- The outside air is post-treated by the GUG heat exchanger unit
- Regulation is controlled by the supply air temperature
- Adjustable supply air temperature range in heating mode 17° – 28°C
- Adjustable supply air temperature range in cooling mode 12° – 30°C
- PZ-01RC cable remote control for temperature adjustment included in the scope of supply of the GUG

Lossnay RVX ceiling-concealed units with GUG heat exchanger, supply-air-controlled regulation

Lossnay Type		LGH-80RVX-E	LGH-100RVX-E	LGH-150RVX-E	LGH-200RVX-E
GUG type		GUG-02SL-E	GUG-02SL-E	GUG-03SL-E	GUG-03SL-E
Outdoor unit		PUHZ-ZRP50VKA	PUHZ-ZRP50VKA	PUHZ-ZRP71VHA	PUHZ-ZRP71VHA
Airflow (m³/h)		600–800	750–1000	1125–1500	1500–2000
Static pressure (Pa)		73–130	73–130	84–150	59–105
Cooling capacity (kW)		5.0	5.3	7.1	7.4
Heating capacity (kW)		6.0	6.3	8.9	9.2
System efficiency	Cooling	4.76	5.43	5.32	5.86
	Heating	4.62	5.09	5.49	6.3
Dimensions (GUG) (mm)	Width	1.033	1.033	1.156	1.156
	Depth	551	551	459	459
	Height	394	394	404	404
Weight (kg)		26	26	28	28
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50	220–240, 1, 50

Lossnay RVXT ceiling-concealed units with GUG heat exchanger, supply-air-controlled regulation

Lossnay Type		LGH-150RVXT-E	LGH-200RVXT-E	LGH-250RVXT-E
GUG type		GUG-03SL-E	GUG-03SL-E	GUG-03SL-E
Outdoor unit		PUHZ-ZRP71VHA	PUHZ-ZRP71VHA	PUHZ-ZRP71VHA
Airflow (m³/h)		1125–1500	1500–2000	1875–2500
Static pressure (Pa)		84–150	82–145	79–140
Cooling capacity (kW)		7.1	7.4	7.8
Heating capacity (kW)		8.9	9.2	9.5
System efficiency	Cooling	5.03	5.54	5.31
	Heating	5.16	6.01	5.97
Dimensions (GUG) (mm)	Width	1.156	1.156	1.156
	Depth	459	459	459
	Height	404	404	404
Weight (kg)		28	28	28
Voltage supply (V, phase, Hz)		220–240, 1, 50	220–240, 1, 50	220–240, 1, 50

Air purifiers

Contents

Benefits and properties

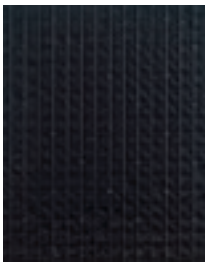
Filter technologies
Thanks to the use of cutting-edge filter technologies, the air purifiers from Mitsubishi Electric deliver extremely thorough air purification (CADR – Clean Air Delivery Rate) of up to 612 m³/h.

Pre-filter
- Filters coarse particles from the ambient air and stops the main filter from getting dirty too quickly.
- Washable
- No replacement necessary

High-efficiency HEPA filter
- The HEPA filter captures fine dust up to PM2.5 and viruses
- Filters 99% of all particles measuring as little as 0.1 µm from the ambient air
- Removes up to 99% of all airborne viruses from the ambient air within 11 minutes (in turbo mode)1
- Non-washable/requires regular replacement. Service life 1.6 to 8 years depending on use.
- Reduction of airborne viruses[1]

1 The stated values were determined under laboratory conditions.
Manual operation (turbo) (600 m³/h) <Testing body> Virus Research Center, Sendai Medical Center, National Hospital Organization <Test method> Performance evaluation test according to JEM1467 (JEM1467) issued by the Japan Electrical Manufacturers association was performed in a 25 m³ test space <Test object> 1 type of airborne virus <Test result> 99% reduction in 10 minutes.

Activated carbon filter
- Washable activated carbon filter for effective removal of harmful substances.
- Activated carbon with catalyst function suppresses the chemical reaction capacity of pollutants such as formaldehyde and helps in breaking these down.
- The activated carbon features a large surface thanks to its porous structure. Not only can it capture odours and pollutants, it also retains its adsorption capacity even when washed.
- Activated carbon: comprises certain types of wood that are carbonised in special processes. Can remove odours and pollutants from the air.
- Catalyst: chemical reaction via catalytic substances. Can break down pollutants.



Platinum catalytic converter[2]
- High-performance decomposition and deodorisation
- The platinum catalyst can absorb formaldehyde, ozone, cigarette odour and more.
- Washable
- No replacement necessary

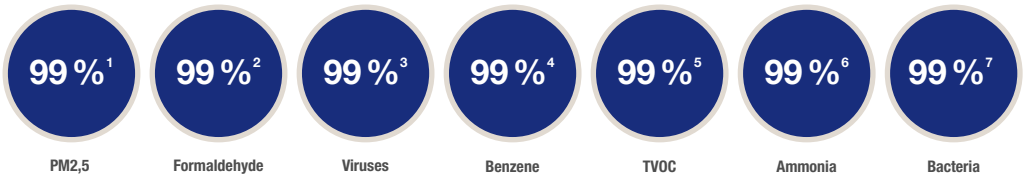
2 Only fitted in MA-E85.

PM2.5 sensor

- PM2.5 is a technical term for fine dust measuring 2.5 µm or less. The installed PM2.5 sensor even detects particles measuring as little as 0.5 µm that could not be detected by previous models.
- Air volume control via detection of number of particles measuring 0.5 µm or more.

Dirty air
Middle range
Clean air

Triple clean monitor shows the state of odours, PM2.5 and dust.

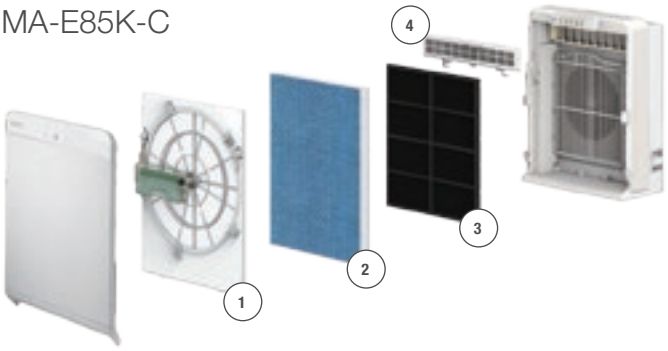


Measurements performed by the Shanghai Entry-Exit Inspection and Quarantine Bureau Mechanical and Electrical Products Testing Technology Center:

1 Test result in 30 m3 room after 20 minutes.
2 Test result in 30 m3 room after 6 hours.
3 Test result in 25 m³ room after 11 minutes.
4 Test result in 30 m3 room after 1 hour.
5 Test result in 30 m3 room after 1 hour.
6 Test result in 30 m3 room after 1 hour.
7 Test result in 30 m3 room after 1 hour.

NEW

MA-E85K-C



1. Pre-filter with self-cleaning function
2. HEPA filter
3. Activated carbon filter
4. Platinum catalytic converter

The air purifier MA-E85K-C is ideal for use in private households. Thanks to its smart search function, it specifically directs the flow of air towards the areas of the room featuring the highest levels of dirt. The integrated self-cleaning function guarantees a long service life without any downtime for maintenance.

Smart search function

- The smart search function detects the contaminated area.
- The movable fins steer the air flow in five directions, thereby ensuring effective cleaning of every contaminated area.

High CADR of 508 m3/h (Clean Air Delivery Rate)

- Ensures speedy cleaning of air
- 5-direction air flow cleans every corner

Front panel made from high-grade steel

- Handy control panel design
- Control panel is located on top to ensure easy use and control of all functions

Auto-cleaning for pre-filter

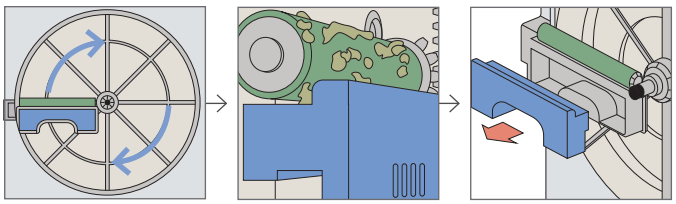
- Automatic cleaning removes dust that could cause clogging
- Automatic filter cleaning removes dust on the pre-filter and offers long-term high-performance dust collection

5-direction automatically changing louvre

Previous air flow.
Blind spot in single-direction air flow.

Finds dirt using louvres that automatically change between 5 directions to the left and right.
This creates a comfortable air flow in the room and quickly removes dirt.

Automatic cleaning principle



Pre-filter is rotated

Dust is removed with a cleaning brush

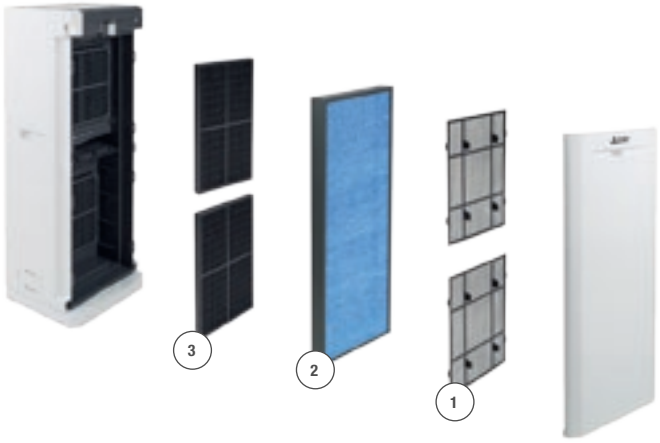
Dispose of waste every 4 months

New PM2.5 sensor

- PM2.5 detection system with high-performance dust sensor
- Air volume control performed by detecting the number of particles measuring 0.5 µm or more

NEW

MA-E100R-E



1 **Pre-filter**
2 **HEPA filter**
3 **Activated carbon filter**

Height 80 cm

The smart functions of the MA-E100R-E ensure reliable air purification and are especially suitable for doctors' practices, restaurants and classrooms. The i-see sensor detects the presence of persons and specifically directs the air flow to the corresponding areas of the room.

i-see sensor performs monitoring and precision detection of persons in the room.

- The i-see sensor divides the monitored area into a grid featuring 752 fields
- (8 vertical x 94 horizontal).
- If the i-see sensor detects a person, the air flow in the corresponding direction is adjusted.
- When the start button is pressed, the sensor performs a 150° search of the room. It detects persons via temperature and motion.

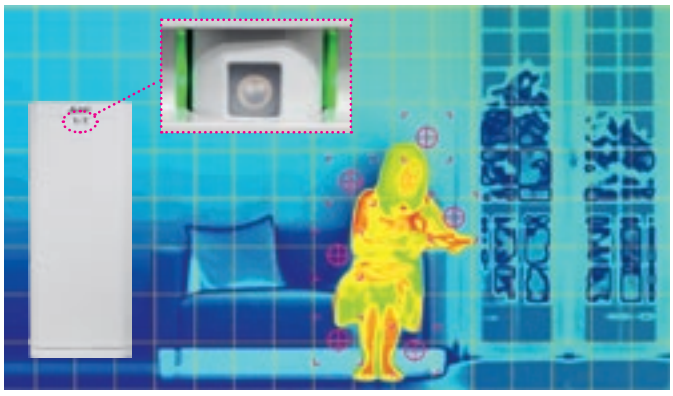
PM2.5 sensor

- Improved PM2.5 detection system with high-performance dust sensor
- Air volume control performed by detecting the number of particles measuring 0.5 µm or more

High CADR of 612m³/h (Clean Air Delivery Rate)

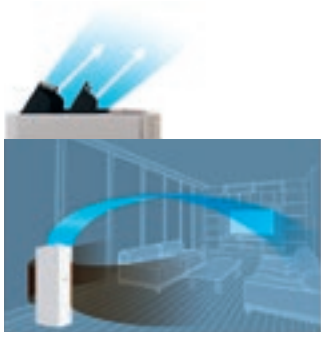
- Ensures speedy cleaning of air
- Reaches all areas in the room, as housing can be swivelled by up to 90°

90° rotation



Search area: 8 x 94 = 752 frames

When i-see sensor detects a person
Air is directed overhead for extra comfort



When i-see sensor does not detect a person
Air is blown far into the room

MA-E85R-E

MA-E100R-E

Air purifier

Designation		MA-E85R-E	MA-E100R-E
CADR (m³/h)		508	612
Power consumption on standby (W)		1	1
Power consumption (W)	S/L/M/H/T	6/8/11/23/86	–/7/19/82/–
Airflow (m³/h)		102/150/204/306/510	-/84/300/600/–
Sound pressure level dB(A)	S/L/M/H/T	22/27/33/43/55	–/22/40/55/–
Dimensions (mm)	W/D/H	425/244/547	320/270/800
Weight (kg)		9,9	13,4
Electrical data			
Voltage supply	(V, Phase, Hz)	220–240, 1, 50	220–240, 1, 50

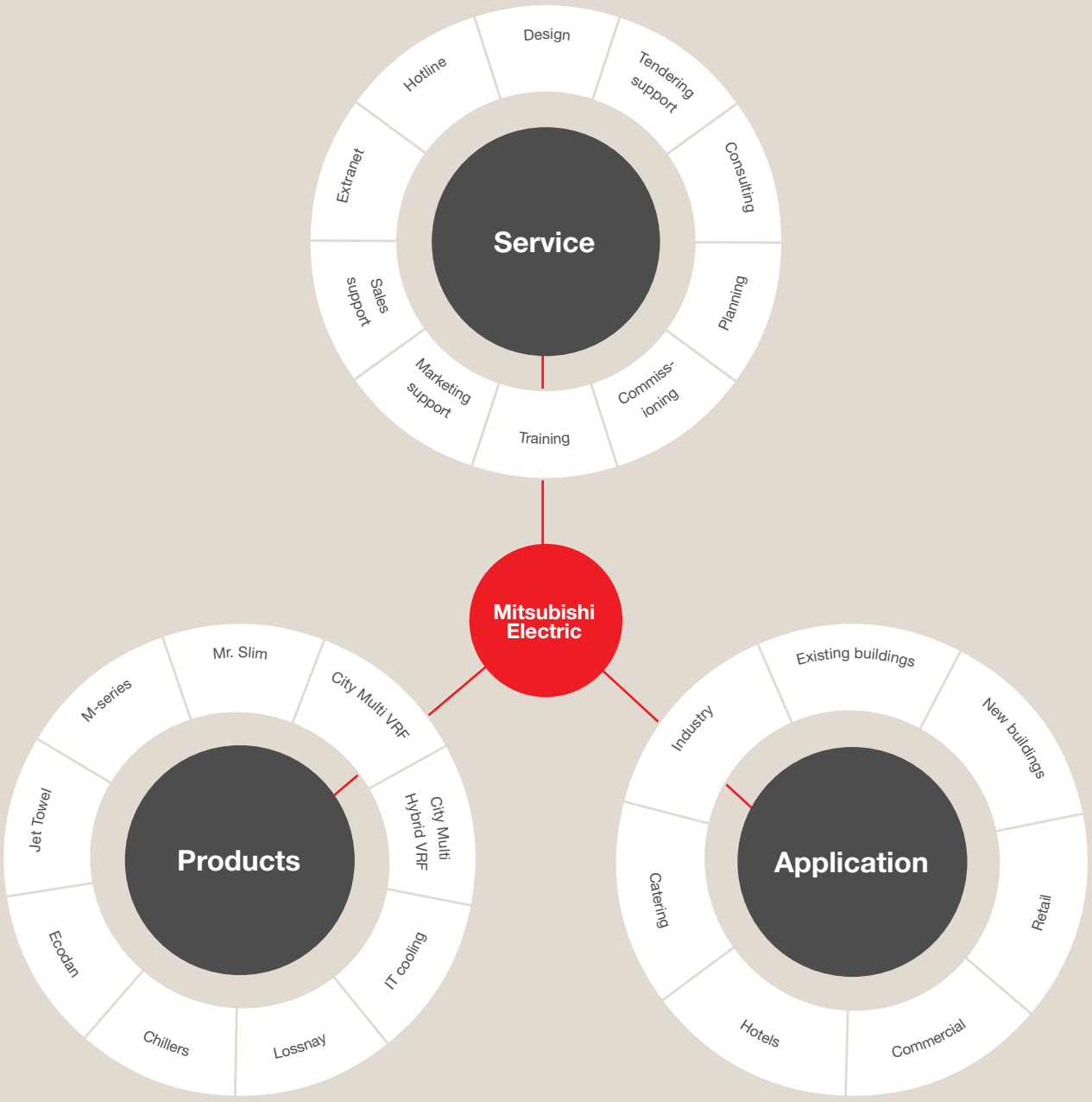
Our air conditioning equipment and heat pumps contain fluorinated greenhouse gases R410A, R134a, R32.
For further information please see the corresponding operation manual.

Services and technologies

360° support

Our products enable us to offer uniquely efficient solutions for all aspects of heating, cooling and ventilation. And our outstanding range of services covers your every need, from system design to commissioning and far beyond. We provide advice and assistance at every stage:

before, during and after your project. Our comprehensive product portfolio helps you implement energy-efficient heating, cooling and ventilation in private and commercial settings alike. Find the ideal solution for each and every application area with Mitsubishi Electric.



Our services for you

DocuFinder
From technical and operation manuals through to product brochures, the DocuFinder boasts all the information you need on each and every Mitsubishi Electric unit. Quick, convenient and easy to use:
www.mitsubishi-les.com/docufinder

Practical tool for refrigerant risk management
In order to make it even easier to design air conditioning systems with A2L refrigerant, a free and practical risk management tool is now available from Mitsubishi Electric with immediate effect. In just a few steps, this tool can calculate the maximum permissible refrigerant charge quantity and determine potential safety precautions for the respective system in line with generally applicable standards. The information provided by users helps establish whether risk management is necessary and which safety precautions may be deployed. Not only is the tool compatible with

DocuFinder
leslink.info/docufinder

Refrigerant Risk Management
leslink.info/a2l

smartphones, it truly rises above the competition: while comparable solutions often only consider the practical limit value (PL) of a refrigerant, our tool weighs the various options when risk management is applied. As risk management serves to considerably increase the maximum permissible charge quantities, this means that installation remains possible even in situations that far exceed the practical limit value. The tool is perfectly tailored to Mitsubishi Electric products and makes optimum use of the possibilities provided by the IEC 60335-2-40 and DIN EN 378 standards.

Technologies for individual requirements

Technology: at the core of everything we do
Our comprehensive range of services is matched by the dazzling array of technologies deployed in our products.

An investment that pays
Mitsubishi Electric sets new standards in inverter technology and is the global technology leader in this field. Inverter technology is the most advanced solution and meets the specific required cooling capacity by making precise adjustments to the compressor speed. This variable control and demand-driven power output enables outstanding energy-saving operation coupled with maximum efficiency. It also eliminates expensive stop-start operation, which can in turn prolong the service life. Four inverter types cater to the various application areas.

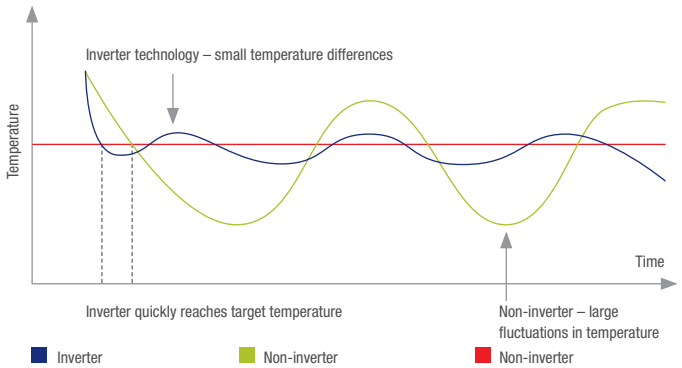
R32 knowledge always to hand
The latest manuals on the correct handling of R32 are now also available in digital format via myDocs. Access the information you need any time, anywhere – online, offline and interactively: **www.mitsubishi-les.com/apps/**

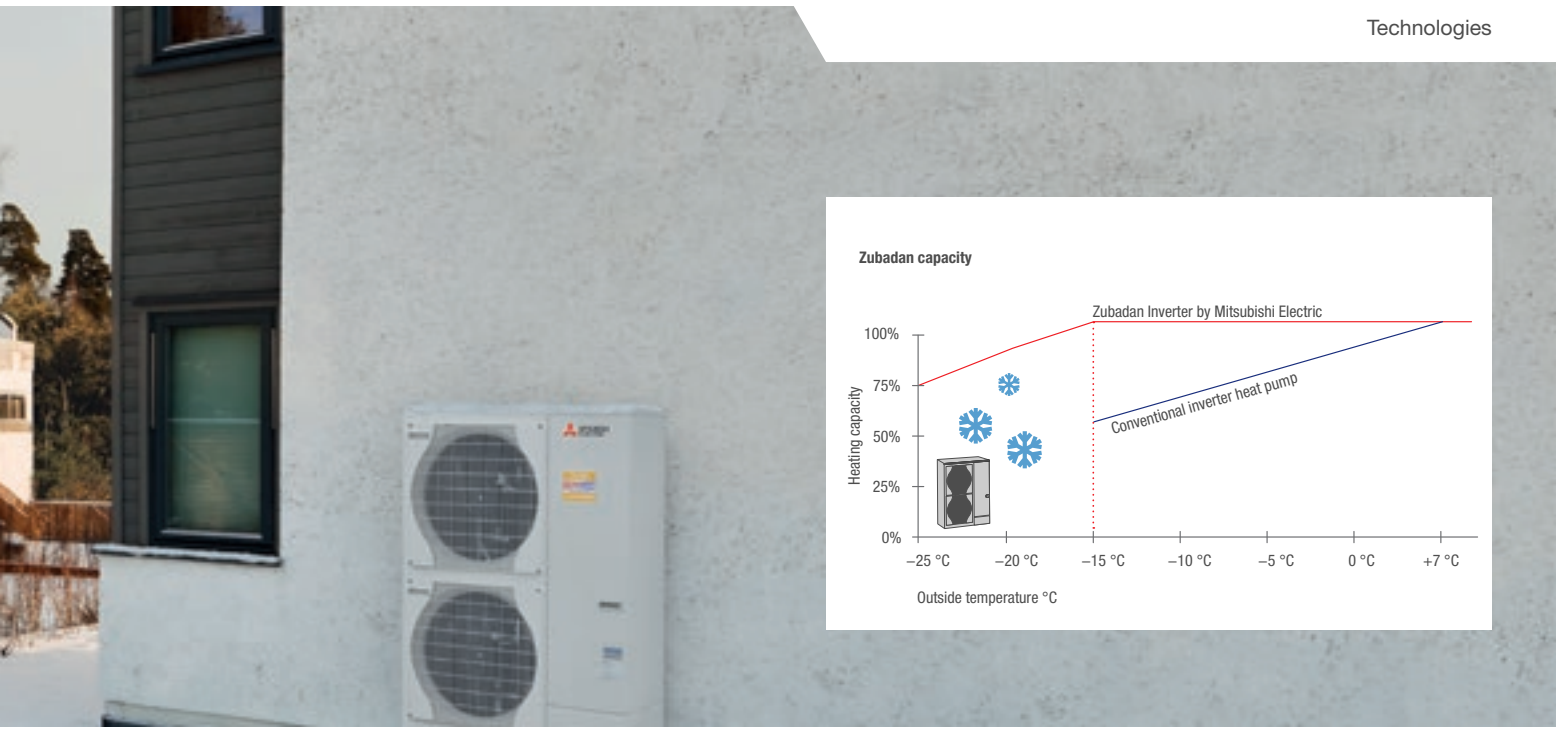
Refrigerant risk management

Standard Inverter
The outdoor units of the Standard Inverter systems in the Mr. Slim series are an attractive option for getting started with inverter technology. They are available in 230 V, 50 Hz and 400 V, 50 Hz designs.

- Pipe length up to 70 m
- Height difference up to 30 m
- All units in sizes 100–140 feature 3-phase design
- Replace technology

Inverter technology
Inverter technology ensures a constant room temperature with minimum energy consumption.





Power Inverter

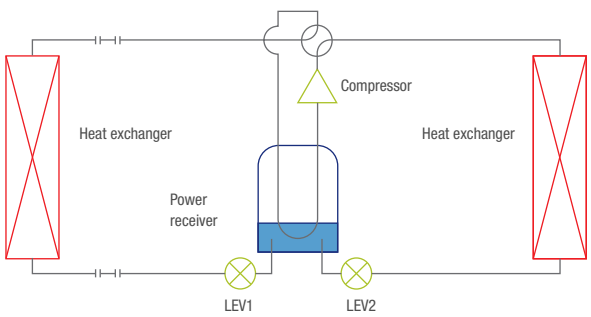
The Power Inverter systems in the Mr. Slim series guarantee particularly energy-saving operation. By using a special power receiver to supercool the refrigerant and two individually controlled expansion valves, the units work within the optimum range in all operating states. This is reflected in the energy efficiency classes of the units. Energy efficiency classes of up to A++ are achieved in heating and cooling mode depending on the indoor unit connected. The low noise level and long pipe runs of 100 m also ensure flexible installation options.

Zubadan Inverter

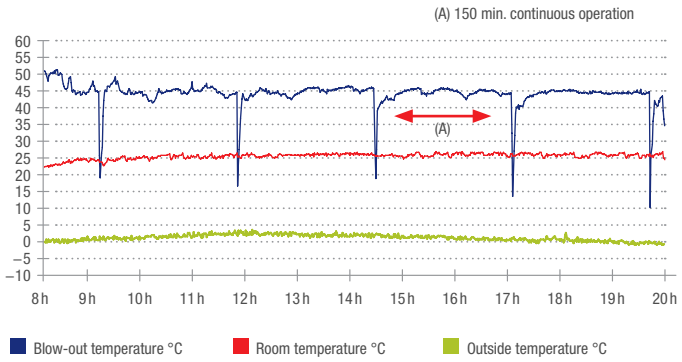
Thanks to patented Zubadan Inverter technology, the Mr. Slim and City Multi VRF series both boast sufficient heating capacity even at low outside temperatures. Full output is still available down to –15 °C and the application range has now been extended as low as –25 °C, meaning that the units no longer need to be overdimensioned for heating mode. They also boast optimised defrosting performance: the intervals between defrosting procedures can be as long as 150 minutes, while the duration of the defrosting procedure has been reduced by 50% compared with conventional units.

- Constant heating capacity down to –15 °C
- Up to 150 minutes of permanent operation between defrosting procedures
- Guaranteed heat pump operation at outside temperatures as low as –25 °C
- Quick heat-up after defrosting phase

Power Inverter circuit
The power receiver and two expansion valves ensure the maximum possible efficiency.



Zubadan defrosting performance
The defrosting procedure has an average duration of only 3 minutes, while intervals between defrosting procedures last up to 150 minutes.



Overview of options

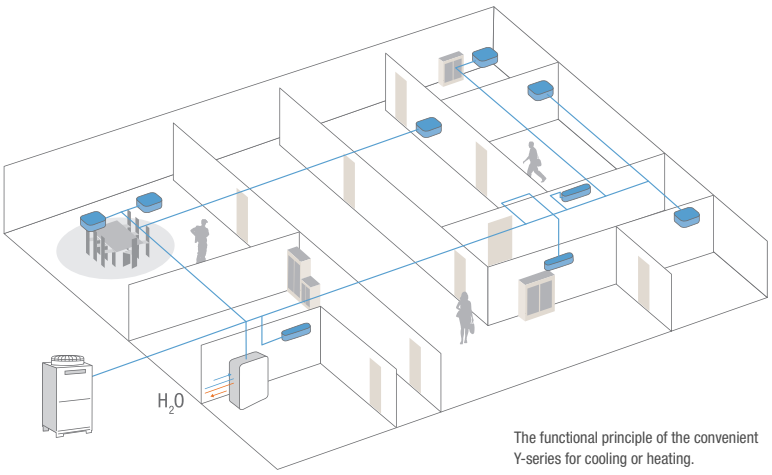
The City Multi Hybrid VRF system represents an entirely unique solution combining the strengths of a direct-evaporation system with those of a chilled water system. It features high energy efficiency, customised comfort and a significantly reduced refrigerant volume.

The ideal solution to suit all needs:

Y-series: heating or cooling

The Y-series stands for flexibility and maximum climate comfort. This 2-pipe system for cooling and heating mode combines up to 50 indoor units of various designs in just one cooling circuit. A wide range of potential indoor units combines with almost unlimited control options to provide ideal solutions whatever the circumstances.

- Excellent seasonal energy efficiency.
- Individual temperature control possible on each indoor unit.
- Zubadan technology for VRF outdoor units: 100 % output down to –15 °C.

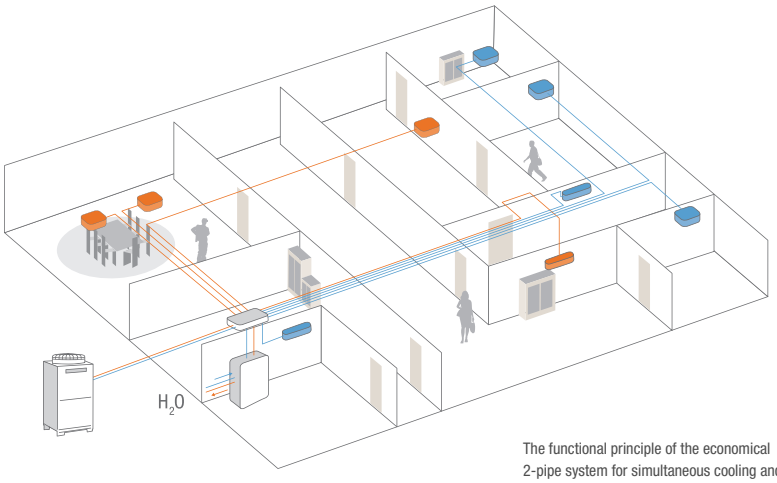


The functional principle of the convenient Y-series for cooling or heating.

R2 series: simultaneous heating and cooling

R2 technology is the only heat recovery system in the world that allows cooling and heating in simultaneous operation with just two pipes. Thermal energy removed from a room during cooling mode can be used to heat other rooms or water. Special booster and heat exchanger units can be connected to an R2 system for heating drinking water to as high as 70 °C.

- High comfort and excellent flexibility.
- Each indoor unit can be operated independently in heating or cooling mode.
- High comfort in mixed operating mode as no compressor stop occurs when changing operating modes from cooling to heating.



The functional principle of the economical 2-pipe system for simultaneous cooling and heating with heat recovery.

M-series: room climate 1.5–18,0 kW

The visually appealing room air conditioning units in the M-series ensure extremely energy-efficient cooling or heating of small to medium-sized rooms.

Mr. Slim: air conditioning systems for commercial applications 3.5–28.0 kW

The Mr. Slim series is ideal for continuous use in medium-sized rooms.

Control and cloud systems

Mitsubishi Electric provides the right control system for any application, with local or centralised remote controllers suitable for small or large systems, for private users and for professional building managers.

Lossnay: decentralised ventilation systems 38.0–2,500 m³/h

Lossnay ventilation units are the decentralised solution for providing the requisite proportion of fresh air in air conditioned rooms.

Chillers for comfort and process applications

The water-based systems for process cooling and air conditioning are a reliable solution for maintaining production processes and quality standards in industrial processes.

Air purifiers and filter technologies 612 m³/h

Thanks to the use of cutting-edge filter technologies, the air purifiers from Mitsubishi Electric deliver extremely thorough air purification (CADR – Clean Air Delivery Rate) of up to 612 m³/h.

City Multi systems: air conditioning and heating solutions for modern and complex buildings

1.2 – 168.0 kW

The City Multi series is ideal for large and complex buildings that require individual air conditioning solutions.

IT/technology room solutions

Professional solutions for technology room air conditioning ensure trouble-free operation of sensitive technology.

Ecodan: air-to-water heat pumps

4.5 – 138.0 kW

Ecodan air-to-water heat pumps are used for heating residential and business premises as well as for the provision of domestic hot water.

Jet Towel: hand dryer

Conventional roller towels and paper towels soon reach their limits in places where lots of people need to wash their hands. A much more modern alternative is the Jet Towel hand dryer. For more information, please refer to the relevant product brochure.

Precision air conditioning

The computer centre is a critical environment that demands guaranteed reliability, equipment safety and modularity. Precision air conditioning meets these challenging essential requirements.

For more information, please refer to the relevant product brochure. Not all products are available in all countries.

About this catalogue

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Our air conditioning systems and heat pumps contain fluorinated greenhouse gases R410A, R134a and R32. For more information, please refer to the relevant operation manuals.

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