aircon
AIR CONDITIONING

PRODUCTS CATALOGUE

SPLIT
MULTI
OFFICE

66
MONTH
WARRANTY
MDV®

MDV®

Table of contents

The manufacturer reserves the right to implement changes in units specifications at any time.
Units parameters can be changed without prior notice.
The units contain fluorinated greenhouse gases (R32 GWP=675, R410 GWP=2088)

About the company

Aircon Sp. z o.o. provides services on the domestic market since 1999. The core business of our company is the import of MDV air-conditioning units, which we represent in Poland since 2004.

Since the company was founded, our fundamental activity is the import of a wide range of air-conditioning devices, from the most common wall-mounted splits, through duct, cassette and ceiling units, multi-split type to complex VRF systems with variable refrigerant flow.

The year 2015 brought changes in the corporate identity of our company. In particular, we have redesigned our logo:

aircon
AIR CONDITIONING

The new logo colour and design refers to the previous version, but thanks to the modifications it has acquired a new, modern and professional nature. Dark blue “aircon” wordmark is supplemented with a specific red dot inside the “o” letter. This is how we communicate the accuracy of solutions that the Aircon company has to offer (“a bull’s-eye hit”), as well as the heating function, which together with cooling is available in products from our offer.

The new Aircon logo expresses our mission and position:
- modernity
- dynamism
- accuracy of the solutions
- 100% involvement in the world of HVAC solutions

Please get acquainted with the MDV products!

Series of units sold in Poland

SPLIT

Units designed for wall installation. The advantages of this type of air-conditioners are: quiet operation, fast cooling and heating as well as energy efficiency. Ideal solutions for an apartment or house.

MULTI

The multi system makes it possible to connect from 2 to 5 indoor units to a single outdoor unit. This solutions enables individual cooling or heating of each room, and thus significant electric energy savings. It is a comfortable solution, when there is a need for air-conditioning in several rooms.

OFFICE

A wide range of available indoor units designed to obtain the optimum cooling and heating capacity and ensure comfort operation. They are intended for use in any type of commercial solutions: an office, a shop, a restaurant.

VRF

Modular air-conditioning system, where a number of indoor units can be connected to a single outdoor unit. A wide range of indoor units ensures full system integration with the building, while maintaining its external and internal aesthetics, at low level sound. The VRF systems are best suited for the air-conditioning of buildings, production and assembly halls, etc.

Efficient and economical air-conditioners,

a wide range of models with a variety of capacities.

Appropriate for both, cooling and heating.

With your MDV air-conditioner you get

high quality product at a reasonable price.

MDV brand strategy:

- Higher efficiency, lower energy consumption.
- Environment-friendly.
- Complete commercial air-conditioning solution.
- Easy to design.
- Simple installation and maintenance.

Many reference facilities in Poland and around the world

"FABRYKA FORMY"
gym network
1066 kW

LEAR factory in Tychy
2 MW

Łódź Technical University
100 kW

Office-retail building
Prometeon in Łódź
308 kW

R-32
ecology in your hands

R-32 is a very energy efficient refrigerant with three times lower global-warming potential (GWP) in comparison with traditional R410a gas. Contrary to R-32 other refrigerants containing chlorine (such as R-22) have harmful effect on the stratospheric ozone layer, leading to its destruction.

R-32 refrigerant brings many benefits for the environment, but also for the user. It provides 10% higher performance of the unit. It belongs to refrigerants with lower flammability (2L class). Sparks generated inside the unit as well as discharges are incapable of igniting R-32 gas. Thanks to the low combustion rate, the flame does not spread.

By using the R-32 refrigerant you contribute to the prevention of global warming.

The ErP Directive establishes an obligation to use a new type of product labels, which allows consumers to make informed choice of the air-conditioning appliances and receive reliable information concerning the purchased device.

R-32 refrigerant is a perfect response to the new F-gas regulations!

Functions

Energy saving

Economy operation

When enabled, this function starts the air-conditioner for 8 hours in economy operation mode, thereby reducing energy consumption even by 60%, in comparison with operation in standard mode.

1W in standby mode

In the standby mode, by cutting off the power from the unused electric components, the energy consumption will be reduced to 1W. In comparison with conventional units that use 5W of energy in standby mode, we can achieve savings of 80%.

Sleep mode

By activating this function, the air-conditioner will automatically increase (or decrease in the heating mode) the set temperature by 1°C during the first two hours of operation, while the fan is set at low speed. After further 5 hours of continuous operation – the air-conditioner will switch off. Unnoticeable for the user, slow change of temperature and automatic switching off, guarantees maintaining comfort and significant energy saving.

Reliability

Refrigerant leakage detection

In the event the unit detects refrigerant leakage, the indoor unit display will show the EC code and the air-conditioner stops operating. This function additionally protects the compressor against damage.

Self-diagnostics and protection function

In the event of detected malfunction, the unit automatically switches off and displays relevant error code, what significantly simplifies diagnostics and resolving the failure.

Emergency operation mode

In the event of temperature sensor failure, the air-conditioner displays an error code, without stopping the operation. This allows the air-conditioner to operate in the emergency mode until the arrival of the service team.

Operation in low ambient temperatures

A built-in low temperature kit adjusts the outdoor unit fan speed according to the condensing temperature. This allows the unit to operate in cooling mode at outdoor temperatures as low as -15°C.

Health

High density filter

Smaller mesh diameter of the filter cloth increases filtering efficiency up to 80% in comparison with traditional filters used in other air-conditioners.

Catalyst filter

Special catalytic coating of the filter cleans air from formaldehyde and other organic odorous compounds.

Multifunctional filter

Filter composed of three filtration inserts with different characteristics: catalyst filter - removing formaldehyde and odorous compounds, filter with platinum nanoparticles - neutralising allergens and bacteria and filter with vitamin C - enriching air with vitamin C particles for better comfort and well-being.

Filter with silver ions

Silver ions placed on a special net clean air from bacteria by damaging their cell walls.

Air ionizer

By releasing the negative ions it eliminates odours, smoke and pollens from the air, making it more healthy and comfortable.

Fresh air

Outdoor air can be supplied to the air-conditioner through the additional ventilation duct. This ensures the supply of oxygen, making the conditions in the room even more comfortable.

Comfort

“Follow me” function

In normal conditions, the unit measures room temperature using the sensor placed under the cover of the appliance. By activating the “Follow me” function, the temperature measurement is performed by the wired or wireless remote controller sensor. This allows to maintain the accurate temperature in the place occupied by the user.

3D airflow

Automatic vertical and horizontal louvre swing ensures even temperature distribution in the whole room.

Fast cooling / heating function

During start-up the compressor instantly reaches its maximum rotations, in order to ensure comfort in the room in the quickest way.

Turbo function

After switching this function on, the fan will automatically run on the highest speed, in order to rapidly cool down the room.

Comfort

Intelligent modulation of the fan rotational speed

12 steps of indoor fan speed regulation to ensure the highest comfort to the users.

5 steps of outdoor fan speed regulation

Use of inverter motor in the outdoor fan, allowed to increase the available speeds from two to five, which significantly influences reduction of noise level and power consumption.

Hot start function

Activation and speed of the fun in the heating mode depends on temperature of the indoor unit heat exchanger. This prevents the cold air drafts, which might be uncomfortable to the user.

Temperature compensation

Temperature measured by the sensor placed inside the air-conditioner, may differ, depending on the installation height, from the temperature above the floor even by several degrees. The temperature compensation function allows relevant adjustments to be made in order to ensure more accurate temperature control and increase the air-conditioner usage comfort.

8°C heating

This function allows to maintain the minimal temperature of 8°C. This prevents excessive room cooling during longer absence of the residents in the winter period.

Two-way air-flow

In the cooling mode, the louver guides cool air-flow not directly on the users, but parallel to the floor level, in order to make it fall down naturally. In the heating mode, the hot air-flow is directed downward. This solution ensures even temperature distribution in the room and improves comfort.

360° air-flow

Special design of the cassette air-conditioner panel makes it possible to blow air in all available directions, ensuring optimal cooling or heating in the whole room.

Auto Swing

Through automatic swing of the air louver we can achieve even distribution of the cold or warm air in the whole room.

Mute function

User can switch off the beep sounds emitted by the air-conditioner as well as the display backlight, to ensure that nothing affects the leisure in the room.

Facilities

Manual switch

You can easily turn the air-conditioner on or off, without using a remote controller or additional tools, just use the built-in switch.

Remote switch

Integrated on/off contacts enable remote switching on and off of the air-conditioner with use of additional switch. This contact can also be used for an emergency switching off of the air-conditioning system, in case of e.g. fire alarm.

Wired remote controller

The wired remote controller is permanently fixed to a wall. Depending on the model, the controller has many additional functions that facilitate the maintenance of comfort conditions. It is especially recommended for commercial spaces.

Central remote controller

The central controller enables to control up to 64 indoor units. The control can be carried out individually or in groups. The maximum cable length is 1200 m.

Auto restart

In case of power cuts, the air-conditioner memorizes all last settings and resumes them automatically after the power is restored.

Restoring the louver settings

The air-conditioner memorizes the last setting of the louver and resumes it each time the unit is started.

Timer

This function enables to program the time of automatic switching on and off of the air-conditioner.

Two-way connection of the condensate drain

Condensate drain pipes can be connected both from the left or right side of the unit, what significantly simplifies the installation.

Split and multi compatible

Indoor units can be used in single split and multi systems. This facilitates the air-conditioning system configuration in a building with a higher number of rooms.

Static pressure setting

The external static pressure of the unit can be set manually with use of the switch placed on the control board.

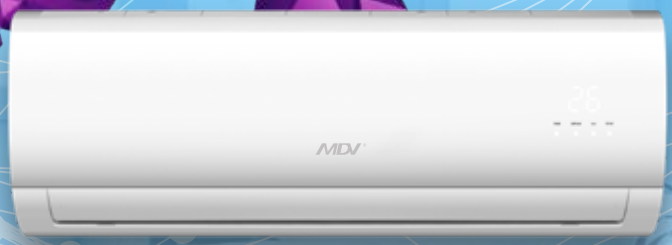
Built-in drain pump

The built-in drain pump with a lift height up to 750 mm, facilitates distribution of the condensate drain installation in the space above the suspended ceiling.

MDV®

SPLIT

SERIES



Aroma

Units available at selected partners of AIRCON company.

TURBO function

After switching on this function, the fan will automatically run on the highest speed, in order to rapidly cool down the room.

1W in standby mode

In the standby mode, by cutting off the power from the unused electric components, the energy consumption will be reduced to 1W. In comparison with conventional units that use 5W of energy in the standby mode, we can achieve savings of 80%.

Aromatic filter

The air-conditioner is optionally equipped with an aromatic filter, which ensures feeling of jasmine freshness for several weeks.

Optional wired remote controller

For the user convenience, besides the infrared remote controller, it is also possible to apply an additional wall-mounted, wired controller.

Functions

STANDARD

Turbo function


Emergency operation mode


Operation in low ambient temperatures


Hot start

1W in standby mode


Split and multi compatible


Restoring the louver settings


Wireless remote controller


Auto restart


Timer

5 steps of outdoor fan speed regulation

Intelligent modulation of the fan rotational speed


Sleep mode

OPTIONAL


Wired remote controller


"Follow me" function


Aromatic filter

Technical specifications

R-32 Eco-friendly refrigerant

				Refrigerant 410A				Refrigerant R32			
Set				ZAF-09N1-A1	ZAF-12N1-A1	ZAF-18N1-A1	ZAF-24N1-A1	ZAF-09N8-A1	ZAF-12N8-A1	ZAF-18N8-A1	ZAF-24N8-A1
Indoor unit				MSAFAU-09HRDN1-QRD0GW	MSAFBU-12HRDN1-QRD0GW	MSAFCU-18HRFN1-QRD0GW	MSAFDU-24HRFN1-QRD0GW	MSAFBU-09HRDN8-QRD0GW	MSAFBU-12HRDN8-QRD0GW	MSAFCU-18HRFN8-QRD0GW	MSAFDU-24HRFN8-QRD0GW
Outdoor unit				MOBA30-09HFN1-QRD0GW	MOBA30-12HFN1-QRD0GW	MOB31-18HFN1-QRD0GW	MOCA31-24HFN1-QRD0GW	MOBA03-09HFN8-QRD0GW	MOBA03-12HFN8-QRD0GW	MOB02-18HFN8-QRD0GW	MOCA02-24HFN8-QRD0GW
Power supply (V/phase/Hz)				220-240/1/50				220-240/1/50			
Version				Reversible heat pump				Reversible heat pump			
Cooling	Capacity	Rated	kW	2.6	3.5	5.3	7.0	2.6	3.5	5.3	7.0
		Min-Max	kW	1.0 ~ 3.2	1.1 ~ 4.1	1.8 ~ 6.1	2.7 ~ 2.9	1.0~3.2	1.1~4.1	1.8~6.1	2.1~7.9
	Rated input power		kW	0.77	1.30	1.64	2.34	0.71	1.24	1.92	2.35
	EER		kW/kW	3.38	2.69	3.23	2.99	3.70	2.82	2.76	2.98
	Annual power consumption		kWh/year	148	203	276	408	153	204	254	412
	SEER			6.2	6.1	6.4	6.1	6.2	6.1	7.1	6.1
	ErP energy class			A++	A++	A++	A++	A++	A++	A++	A++
Heating	Capacity	Rated	kW	2.9	3.8	5.6	7.3	2.9	3.2	5.6	7.3
		Min-Max	kW	0.8 ~ 3.4	0.9 ~ 4.2	1.4 ~ 6.7	1.6 ~ 8.8	0.8~3.4	1.1~4.2	1.4~6.7	1.6~8.8
	Rated input power		kW	0.77	1.19	1.63	2.28	0.74	0.96	1.55	2.04
	COP		kW/kW	3.77	3.19	3.44	3.07	3.92	3.33	3.61	3.58
	Annual power consumption		kWh/year	811	778	1506	1936	762	841	1425	1700
	SCOP			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	ErP energy class			A+	A+	A+	A+	A+	A+	A+	A+
Maximum input current			A	9.5	10.0	11.5	17.0	10.0	10.0	10.0	16.0
Indoor unit	Dimensions (width x depth x height)		mm	720x194x285	810x194x285	967x213x302	1047x220x327	805x194x285	805x194x285	957x213x302	1040x220x327
	Transport dimensions (width x depth x height)		mm	790x270x360	880x270x360	1045x295x380	1130x405x310	870x270x360	870x270x360	1035x295x380	1120x405x310
	Weight (net / gross)		kg	6.8/8.9	7.2/9.6	9.5/12.5	11.9/15.2	7.8/9.6	7.8/9.6	10.0/13.0	12.3/15.8
	Air-flow (low/medium/high)		m^3/min	4.5/5.3/7.0	6.2/7.8/9.5	9.0/11.3/14.0	10.7/13.3/16.3	5.7/7.7/8.7	6.0/8.3/10.0	9.0/11.3/14.0	11.0/13.6/16.3
	Acoustic pressure level (low/medium/high)		dB(A)	29/34/40	28/36/41	35/40/47	34/39/45	28/31/38	27/34/39	28/34/44	30/37/46
	Acoustic power level		dB(A)	52	53	56	59	53	53	55	59
Outdoor unit	Dimensions (width x depth x height)		mm	770x300x555	770x300x555	800x333x554	845x363x702	700x270x550	700x270x550	800x333x554	845x363x702
	Transport dimensions (width x depth x height)		mm	900x348x615	900x348x615	920x390x615	965x395x755	815x325x615	815x325x615	920x390x615	965x395x765
	Weight (net / gross)		kg	25.2/27.4	25.5/27.7	37.8/40.5	48.4/51.6	22.8/25.1	22.8/25.1	34.0/36.7	51.5/54.5
	Air-flow		m^3/min	30.0	30.0	35.0	45.0	28.3	28.3	33.3	50.0
	Acoustic pressure level		dB(A)	55	56	56	60	55	55	55	59
	Acoustic power level		dB(A)	60	59	63	65	61	65	61	67
Refrigerant	Type			R410A	R410A	R410A	R410A	R32	R32	R32	R32
	Amount		kg	0.80	0.80	1.48	1.85	0.50	0.50	1.00	1.60
Refrigerant installation	Liquid/gas		mm	Ø6.35 / Ø9.52	Ø6.35 / Ø9.52	Ø6.35 / Ø12.7	Ø9.52 / Ø15.9	Ø6.35 / Ø9.52	Ø6.35 / Ø9.52	Ø6.35 / Ø12.7	Ø9.52 / Ø15.9
	Maximum length		m	25	25	30	50	25	25	30	50
	Maximum height difference		m	10	10	20	25	10	10	20	25
Recommended electrical wiring and protections	Power supply unit/cross-section		mm^2	outdoor unit / 3x1.5		outdoor unit / 3x2.5		outdoor unit / 3x1.5			
	Transmission		mm^2	5x1.5	5x1.5	5x1.5	5x2.5	5x1.5	5x1.5	5x1.5	5x1.5
	Protection		A	10	16	16	20	10	10	16	20
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 50				-15 ~ 50			
		Heating	°C	-15 ~ 30				-25 ~ 30			

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R410A GWP=2088 or R32 GWP=675)

All Easy

Simple installation

All Easy saves installation time. And all this thanks to the modified connection terminal, massive installation plate and ample space for piping and wiring.

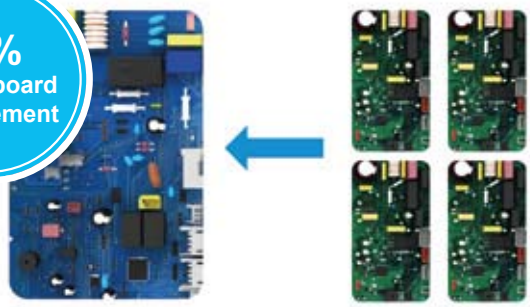
20% faster installation

All Easy saves installation time. And all this thanks to the modified connection terminal, massive installation plate and ample space for piping and wiring.

Easy maintenance

New casing design with the universal control board, which is the same for each size of the unit. The board and electronics are very easy to disassemble, what allows to accelerate the maintenance process.

60% faster board replacement



Easy cleaning

Easy do disassemble filters can be removed from the unit without opening the panel. Moreover, detachable louvers make it possible to shorten the air-conditioner cleaning time by up to half, compared with standard appliances.

50% faster cleaning

With All Easy

you SAVE TIME!

1,5 h quicker installation!

Functions

STANDARD


Wireless remote controller


Easy installation


Emergency operation mode


Mute function

Refrigerant leakage detection


High density filter


Restoring the louver settings


Intelligent modulation of the fan rotational speed


Manual on-off

1W in standby mode


Operation in low ambient temperatures


Two-way connection of the condensate drain


Split and multi compatible


5 steps of fan speed regulation


Hot start


Auto restart

OPTIONAL


"Follow me" function


WiFi control


Alarm port


Wired remote controller


Central remote controller

R-32
Eco-friendly refrigerant

Technical specifications

Set				ZAE-09N8-A1	ZAE-12N8-A1	ZAE-18N8-A1	ZAE-24N8-A1
Indoor unit				MSAEAU-09HRFNX-QRD0GW	MSAEBU-12HRFNX-QRD0GW	MSAECU-18HRFNX-QRD0GW	MSAEDU-24HRFNX-QRD0GW
Outdoor unit				MOBA30-09HFN8-QRD0GW	MOBA30-12HFN8-QRD0GW	MOB30-18HFN8-QRD0GW	MOCA30-24HFN8-QRD0GW
Power supply (V/phase/Hz)				220-240/1/50			
Version				Reversible heat pump			
Cooling	Capacity	Rated	kW	2.6	3.5	5.3	7.3
		Min-Max	kW	1.2~3.4	1.4~4.6	2.0~6.2	2.1~8.4
	Rated input power		kW	0.77	1.15	1.50	2.26
	EER		kW/kW	3.38	3.04	3.53	3.23
	Annual power consumption		kWh/year	134	204	280	393
	SEER			6.8	6.3	7.1	6.6
	ErP energy class			A++	A++	A++	A++
Heating	Capacity	Rated	kW	2.9	4.1	5.7	7.6
		Min-Max	kW	0.8~3.4	0.9~5.1	1.3~7.0	2.1~9.4
	Rated input power		kW	0.78	1.07	1.39	2.11
	COP		kW/kW	3.72	3.83	4.10	3.60
	Annual power consumption		kWh/year	778	859	1406	2053
	SCOP			4.0	4.0	4.0	4.0
	ErP energy class			A+	A+	A+	A+
Maximum input current			A	9.5	10.0	11.5	16.0
Indoor unit	Dimensions (width x depth x height)		mm	717x193x302	805x193x302	964x222x325	1106x232x315
	Transport dimensions (width x depth x height)		mm	785x375x285	875x285x375	1045x405x305	1195x420x342
	Weight (net / gross)		kg	7.5/10.1	8.2/10.9	10.8/14.3	14.3/18.2
	Air-flow (low/medium/high)		m^3/min	5.5/7.2/8.1	6.0/8.2/9.2	9.2/12.0/13.5	10.8/16.2/17.5
	Acoustic pressure level (quiet/low/medium/high)		dB(A)	21/29/34/41	23/30/37/41	24/33/41/45	27/35/44/46
	Acoustic power level		dB(A)	53	54	57	59
Outdoor unit	Dimensions (width x depth x height)		mm	700x270x550	700x270x550	800x333x554	845x363x702
	Transport dimensions (width x depth x height)		mm	815x325x615	815x325x615	920x390x615	965x395x765
	Weight (net / gross)		kg	26.4/28.9	26.5/28.8	37.0/39.9	48.0/51.3
	Air-flow		m^3/min	33.3	33.3	35.0	45.0
	Acoustic pressure level		dB(A)	55	55	57	59
	Acoustic power level		dB(A)	59	61	62	65
Refrigerant	Type			R32	R32	R32	R32
	Amount		kg	0.70	0.80	1.25	1.60
Refrigerant installation	Liquid/gas		mm	Ø6.35 / Ø9.52	Ø6.35 / Ø9.52	Ø6.35 / Ø12.7	Ø9.52 / Ø15.9
	Maximum length		m	25	25	30	50
	Maximum height difference		m	10	10	20	25
Recommended electrical wiring and protections	Power supply unit/cross-section		mm^2	outdoor unit / 3x1.5	outdoor unit / 3x1.5	outdoor unit / 3x2.5	outdoor unit / 3x2.5
	Transmission		mm^2	5x1.5	5x1.5	5x1.5	5x1.5
	Protection		A	10	10	16	20
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 50			
		Heating	°C	-25 ~ 30			

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R410A GWP=2088 or R32 GWP=675)

MDV®

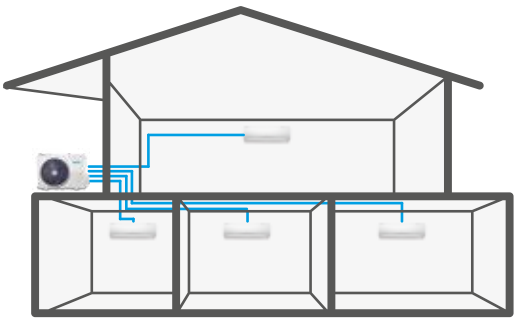
MULTI

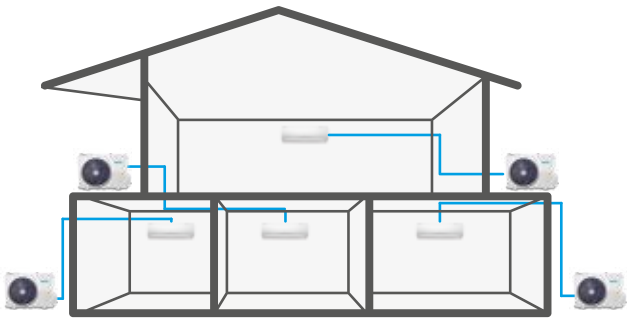
SERIES

MULTI Free Match

Free Match – flexible installation

Possible to connect up to 5 indoor units to one outdoor unit. Each indoor unit can be individually controlled. Indoor units do not need to be installed at the same time, what enables system extension depending on the user needs.





Flexible design

In one system, it is possible to connect All Easy and Aroma series wall-mounted units (capacity: 2.6-7.0 kW) and cassette type units (capacity: 2.1-5.3 kW). Total installation length can reach up to 75 m. It gives more design freedom and great possibilities of air-conditioning system configuration in spaces with different interior arrangements.

Technical specifications

R-32 Eco-friendly refrigerant

Outdoor unit				M20C-18HFN8-Q	M30E-27HFN8-Q	M40B-36HFN8-Q	M50D-42HFN8-Q
Power supply (V/phase/Hz)				220-240/1/50			
Version				Reversible heat pump			
Cooling	Rated capacity		kW	5.3	7.9	10.6	12.3
	Rated input power		kW	1.75	2.46	3.52	3.80
	EER		kW/kW	3.20	3.20	2.91	3.22
	SEER			6.8	6.5	6.5	6.6
	ErP energy class			A++	A++	A++	A++
Heating	Rated capacity		kW	5.6	8.2	11.1	12.3
	Rated input power		kW	1.45	2.27	3.17	3.32
	COP		kW/kW	3.84	3.61	3.51	3.71
	SCOP			4.0	4.0	4.0	4.0
	ErP energy class			A+	A+	A+	A+
Maximum input power			W	2300	3100	4600	4700
Air-flow			m^3/min	36.7	45.0	66.7	64.2
Acoustic pressure level			dB(A)	56	59	63	62
Acoustic power level			dB(A)	63	65	68	71
Outdoor unit	Dimensions (width x depth x height)		mm	800x333x554	845x363x702	946x410x810	946x410x810
	Transport dimensions (width x depth x height)		mm	920x390x615	965x395x765	1090x500x875	1090x500x875
	Weight (net / gross)		kg	36.0	53.0	68.8	73.3
Refrigerant	Type			R32	R32	R32	R32
	Amount		kg	1.30	1.57	2.10	2.40
Refrigerant installation	Liquid/gas		mm	2x Ø6.35 / Ø9.52	3x Ø6.35 / Ø9.52	4 x Ø6.35/3x Ø9.52+1x Ø12.7	5 x Ø6.35/4x Ø9.52+1x Ø12.7
	Maximum total length		m	40	60	80	80
	Maximum length to each unit		m	25	30	35	35
	Maximum height difference (outdoor-indoor)	Outdoor unit above indoor units	m	15	15	15	15
		Outdoor unit below indoor units	m	10	10	10	10
	Max. height difference between indoor units		m	10	10	10	10
Recommended electrical wiring and protections	Power supply		mm^2	3x2.5	3x2.5	3x4.0	3x4.0
	Transmission		mm^2	4x1.5	4x1.5	4x1.5	4x1.5
	Protection		A	16	20	25	30
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 50			
		Heating	°C	-15 ~ 24			

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

Available combinations of indoor units

Cooling capacity 5.3 kW

	1 UNIT	2 UNITS
M20F-18HFN8-Q	9	9+9
	12	9+12
	18	9+18
		12+12

Cooling capacity 7.9 kW

	1 UNIT	2 UNITS	3 UNITS
M30E-27HFN8-Q	9	9+9	9+9+9
	12	9+12	9+9+12
	18	9+18	9+12+12
		12+12	
		12+18	

Cooling capacity 10.6 kW

	1 UNIT	2 UNITS	3 UNITS		4 UNITS	
M40B-36HFN8-Q	9	9+9	9+9+9	12+12+12	9+9+9+9	9+12+12+18
	12	9+12	9+9+12	12+12+18	9+9+9+12	12+12+12+12
	18	9+18	9+9+18	12+18+18	9+9+9+18	
		12+12	9+12+12	12+12+12	9+9+12+12	
		12+18	9+12+18	12+12+18	9+9+12+18	
		18+18	9+18+18	12+18+18	9+12+12+12	

Cooling capacity 12.3 kW

	1 UNIT	2 UNITS		3 UNITS			4 UNITS			5 UNITS	
M50E-42HFN8-Q	9	9+9	12+18	9+9+9	9+12+18	12+12+24	9+9+9+9	9+9+12+18	9+12+12+24	9+9+9+9+9	9+9+12+12+12
	12	9+12	12+24	9+9+12	9+12+24	12+18+18	9+9+9+12	9+9+12+24	9+12+18+18	9+9+9+9+12	9+12+12+12+12
	18	9+18	18+18	9+9+18	9+18+18	18+18+18	9+9+9+18	9+9+18+18	12+12+12+12	9+9+9+9+18	
	24	9+24	18+24	9+9+24	12+12+12		9+9+9+24	9+12+12+12	12+12+12+18	9+9+9+12+12	
		12+12		9+12+12	12+12+18		9+9+12+12	9+12+12+18		9+9+9+12+18	

Cassette type units

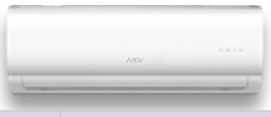
Compact cassette

Indoor unit			MCA3I-09HRFN8-QRDA	MCA3U-12HRFN8-QRDAW	MCA3U-18HRFN8-QRCAW
Panel			T-MBQ4-03E		
Power supply (V/phase/Hz)			220-240/1/50		
Cooling	Rated capacity	kW	2.6	3.5	5.3
	Rated input power	kW	0.040	0.040	0.100
Heating	Rated capacity	kW	2.9	4.1	5.3
	Rated input power	kW	0.040	0.040	0.100
Air-flow (low/medium/high)		m^3/min	7.5/8.3/9.7	7.5/8.8/10.0	8.3/10.8/13.3
Acoustic pressure level (low/medium/high)		dB(A)	33/36/39	34/37/41	36/42/48
Acoustic power level		dB(A)	53	58	59
Indoor unit	Dimensions (width x depth x height)	mm	570x570x260	570x570x260	570x570x260
	Transport dimensions (width x depth x height)	mm	655x655x290	655x655x290	655x655x290
	Weight (net / gross)	kg	14.5/17.3	16.0/19.0	18.0/21.0
Panel	Dimensions (width x depth x height)	mm	647x647x50	647x647x50	647x647x50
	Transport dimensions (width x depth x height)	mm	715x715x123	715x715x123	715x715x123
	Weight (net / gross)	kg	2.5/4.5	2.5/4.5	2.5/4.5
Refrigerant installation	Liquid	mm	Ø6.35	Ø6.35	Ø6.35
	Gas	mm	Ø9.52	Ø9.52	Ø12.7

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

Wall-mounted type

Aroma



Indoor unit			MSAFBU-09HRDN8-QRD0GW	MSAFBU-12HRDN8-QRD0GW	MSAFCU-18HRFN8-QRD0GW	MSAFDU-24HRFN8-QRD0GW
Power supply (V/phase/Hz)			220-240/1/50			
Cooling	Rated capacity	kW	2.6	3.5	5.3	7.0
	Rated input power	kW	0.048	0.048	0.044	0.062
Heating	Rated capacity	kW	2.9	3.5	5.6	7.3
	Rated input power	kW	0.048	0.048	0.044	0.062
Air-flow (low/medium/high)		m^3/min	5.7/7.7/8.7	6.0/8.3/10.0	9.0/11.3/14.0	11.0/13.6/16.3
Acoustic pressure level (low/medium/high)		dB(A)	28/31/38	27/34/39	28/34/44	30/37/46
Acoustic power level		dB(A)	53	53	55	59
Indoor unit	Dimensions (width x depth x height)	mm	805x194x285	805x194x285	957x213x302	1040x220x310
	Transport dimensions (width x depth x height)	mm	870x270x360	870x270x360	1035x295x380	1120x405x327
	Weight (net / gross)	kg	7.8/9.6	7.8/9.6	10.0/13.0	12.3/15.8
Refrigerant installation	Liquid	mm	Ø6.35	Ø6.35	Ø6.35	Ø9.52
	Gas	mm	Ø9.52	Ø9.52	Ø12.7	Ø15.9

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

All Easy

Indoor unit			MSAEAU-09HRFNX-QRD0GW	MSAEBU-12HRFNX-QRD0GW	MSAECU-18HRFNX-QRD0GW	MSAEDU-24HRFNX-QRD0GW
Power supply (V/phase/Hz)			220-240/1/50			
Cooling	Rated capacity	kW	2.6	3.5	5.3	7.3
	Rated input power	kW	0.024	0.024	0.034	0.062
Heating	Rated capacity	kW	2.9	4.1	5.7	7.6
	Rated input power	kW	0.024	0.024	0.034	0.062
Air-flow (low/medium/high)		m^3/min	5.5/7.2/8.1	6.0/8.2/9.2	9.2/12.0/13.5	10.8/16.2/17.5
Acoustic pressure level (low/medium/high)		dB(A)	21/29/34/41	23/30/37/41	24/33/41/45	27/35/44/46
Acoustic power level		dB(A)	53	54	57	59
Indoor unit	Dimensions (width x depth x height)	mm	717x193x285	805x193x302	964x222x305	1106x232x315
	Transport dimensions (width x depth x height)	mm	785x375x302	875x285x375	1045x405x325	1195x420x342
	Weight (net / gross)	kg	7.5/10.1	8.2/10.9	10.8/14.3	14.3/18.2
Refrigerant installation	Liquid	mm	Ø6.35	Ø6.35	Ø6.35	Ø9.52
	Gas	mm	Ø9.52	Ø9.52	Ø12.7	Ø15.9

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

Twin

Simultaneous operation

The TWIN system consists of two, simultaneously operating indoor units, connected to a single outdoor unit. This solution ensures installation space savings, thanks to the application of just one outdoor unit while keeping the required heating or cooling capacity in the air-conditioned room. TWIN systems are designed for air-conditioning of large spaces as: conference rooms, open-space type offices, banquet halls and dining rooms.

Dedicated indoor units

TWIN system enables connecting indoor units with the same capacity. Available models: cassette, duct and ceiling type (capacity index: 18 or 24).

Technical specifications

Set	Outdoor units	Indoor units	Accessories
TWIN P10	MODA-36HFN8-RRDA	MUE-18HRFNX-QRDA	FQZHN-01D
		MUE-18HRFNX-QRDA	
TWIN D10	MODA-36HFN8-RRDA	MTI-18HWFNX-QRDA	FQZHN-01D
		MTI-18HWFNX-QRDA	
TWIN K10	MODA-36HFN8-RRDA	MCD-18HRFNX-QRDA	FQZHN-01D
		MCD-18HRFNX-QRDA	
TWIN P14	MOEA-48HFN8-RRDA	MUE-24HRFNX-QRDA	FQZHN-01D
		MUE-24HRFNX-QRDA	
TWIN D14	MOEA-48HFN8-RRDA	MTI-24HWFNX-QRDA	FQZHN-01D
		MTI-24HWFNX-QRDA	
TWIN K14	MOEA-48HFN8-RRDA	MCD-24HRFNX-QRDA	FQZHN-01D
		MCD-24HRFNX-QRDA	

R-32
Eco-friendly refrigerant

Outdoor unit				MODA-36HFN8-RRDA	MOEA-48HFN8-RRDA
Power supply (V/phase/Hz)				380-415/3/50	
Version				Reversible heat pump	
Cooling	Rated capacity		kW	10.5	13.6
	Rated input power		kW	2.6~12.0	4.8~14.6
	EER		kW/kW	3.90	5.42
	SEER			2.69	2.51
	ErP energy class			6.1	6.1
Heating	Rated capacity		kW	A++	A++
	Rated input power		kW	11.1	15.9
	COP		kW/kW	2.9~13.2	3.9~16.8
	SCOP			2.97	5.34
	ErP energy class			3.74	2.98
Maximum input power			W	4.0	4.0
Air-flow			m^3/min	A+	A+
Acoustic pressure level			dB(A)	10.0	11.2
Acoustic power level			dB(A)	5600	6200
Outdoor unit	Dimensions (width x depth x height)		mm	66.7	125.0
	Transport dimensions (width x depth x height)		mm	64	66
	Weight (net / gross)		kg	68	72
Refrigerant	Type			946x410x810	952x415x1333
	Amount		kg	1090x500x875	1095x495x1480
Refrigerant installation	Liquid/gas		mm	81.5	106.7
	Maximum total length		m	R32	R32
	Maximum length to each unit		m	2.40	2.80
	Maximum height difference (outdoor-indoor)	Outdoor unit above indoor units	m	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9
		Outdoor unit below indoor units	m	65	65
	Max. height difference between indoor units		m	30	30
Recommended electrical wiring and protections	Power supply		mm^2	5x2.5	5x2.5
	Transmission		mm^2	2x1.0 (shielded)	2x1.0 (shielded)
	Protection		A	16	20
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 50	
		Heating	°C	-15 ~ 24	

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

Technical specifications

TWIN cassette type

Indoor unit			MCD-18HRFNX-QRDA	MCD-24HRFNX-QRDA
Panel			T-MBQ-02C1	
Power supply (V/phase/Hz)			220-240/1/50	
Cooling	Rated capacity	kW	5.3	7.0
	Rated input power	kW	0.058	0.141
Heating	Rated capacity	kW	5.6	7.4
	Rated input power	kW	0.058	0.141
Air-flow (low/medium/high)		m^3/min	12.7/14.5/17.3	17.2/20.0/23.0
Acoustic pressure level (low/medium/high)		dB(A)	37/41/46	40/43/47
Acoustic power level		dB(A)	57	60
Indoor unit	Dimensions (width x depth x height)	mm	840x840x205	840x840x205
	Transport dimensions (width x depth x height)	mm	900x900x225	900x900x225
	Weight (net / gross)	kg	21.4/25.1	23.0/27.0
Panel	Dimensions (width x depth x height)	mm	950x950x55	950x950x55
	Wymiary transportowe (szer. x gł. x wys.)	mm	1035x1035x90	1035x1035x90
	Weight (net / gross)	kg	5.0/8.0	5.0/8.0
Refrigerant installation	Liquid	mm	Ø6.35	Ø9.52
	Gas	mm	Ø12.7	Ø15.9

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

TWIN duct type

Indoor unit			MTI-18HWFNX-QRDA	MTI-24HWFNX-QRDA
Power supply (V/phase/Hz)			220-240/1/50	
Cooling	Rated capacity	kW	5.2	7.0
	Rated input power	kW	0.090	0.090
Heating	Rated capacity	kW	5.6	7.6
	Rated input power	kW	0.090	0.090
Air-flow (low/medium/high)		m^3/min	11.4/14.2/16.8	14.0/17.6/20.8
Acoustic pressure level (low/medium/high)		dB(A)	40/42/44	40/42/44
Acoustic power level		dB(A)	62	63
External static pressure		Pa	25 (0~100)	25 (0~160)
Indoor unit	Dimensions (width x depth x height)	mm	880x674x210	1100x774x249
	Transport dimensions (width x depth x height)	mm	1070x725x270	1305x805x305
	Weight (net / gross)	kg	25.6/31.4	31.5/38.9
Refrigerant installation	Liquid	mm	Ø6.35	Ø9.52
	Gas	mm	Ø12.7	Ø15.9

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

Technical specifications

TWIN floor & ceiling type

Indoor unit			MUE-18HRFNX-QRDA	MUE-24HRFNX-QRDA
Power supply (V/phase/Hz)			220-240/1/50	
Cooling	Rated capacity	kW	5.3	6.9
	Rated input power	kW	0.100	0.100
Heating	Rated capacity	kW	5.6	7.6
	Rated input power	kW	0.100	0.100
Air-flow (low/medium/high)		m^3/min	11.3/13.1/15.0	14.2/17.8/20.1
Acoustic pressure level (low/medium/high)		dB(A)	37/40/45	41/46/50
Acoustic power level		dB(A)	57	62
Indoor unit	Dimensions (width x depth x height)	mm	1068x675x235	1068x675x235
	Transport dimensions (width x depth x height)	mm	1145x755x313	1145x755x313
	Weight (net / gross)	kg	26.6/31.8	26.8/31.9
Rury chłodnicze	Liquid	mm	Ø6.35	Ø9.52
	Gas	mm	Ø12.7	Ø15.9

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

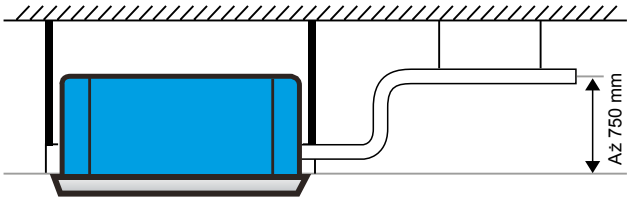
OFFICE STANDARD

SERIES

Compact cassette type

Built-in drain pump

The built-in drain pump with a lift height up to 750 mm, facilitates distribution of the condensate drain installation in the space above the suspended ceiling.



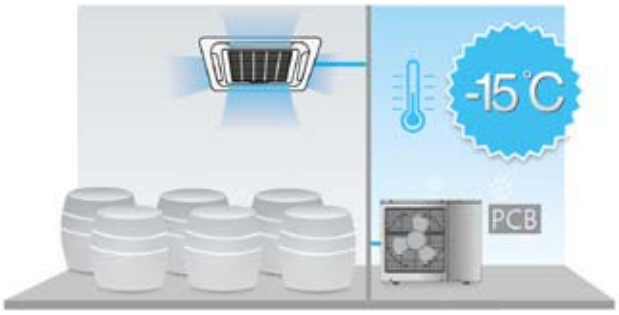
Klim

Wired remote controller

In comparison to the wireless remote controller, the wired one can be permanently fixed to a wall, so it does not get lost along the way.

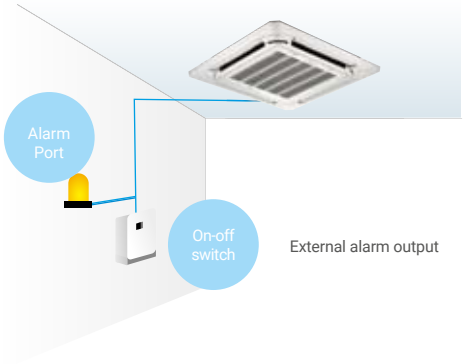
Operation in low ambient temperatures

MDV air-conditioners have been designed in such a way as to operate in the cooling mode even when the temperature falls down to -15°C.



On/Off and Alarm ports

On the indoor unit control board there are ports for remote switching on of the air-conditioner and signalling of the alarm occurrence. The solution is designed especially for units operating in the-technical rooms.



Functions

STANDARD


Wireless remote controller


Hot start


Alarm port

Refrigerant leakage detection


Fresh air


Restoring the louver settings


Built-in drain pump


Auto restart


Temperature compensation


Operation in low ambient temperatures


Emergency operation mode

OPTIONAL


"Follow me" function


Wired remote controller

8°C heating


Central remote controller

Technical specifications

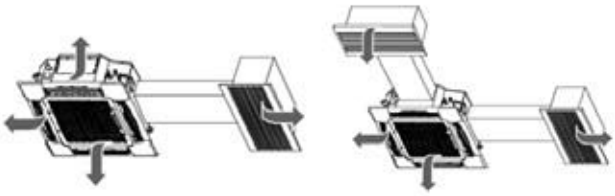
Set				ZMCA-12N1-A1	ZMCA-18N1-A1
Indoor unit				MCA3U-12HRFNX-QRDAW	MCA3-18HRFN1-QRDA
Outdoor unit				MOBA-12HFN1-QRDA	MOBA-18HFN1-QRDA
Panel				T-MBQ-03E	
Indoor unit power supply (V/phase/Hz)				220-240/1/50	220-240/1/50
Outdoor unit power supply (V/phase/Hz)				220-240/1/50	220-240/1/50
Version				Reversible heat pump	
Cooling	Capacity	Rated	kW	3.5	5.1
		Min-Max	kW	0.8~4.1	0.8~6.2
	Rated input power		kW	1.07	1.66
	EER		kW/kW	3.27	3.07
	Annual power consumption		kWh/year	183	278
	SEER			6.1	6.3
	ErP energy class			A++	A++
Heating	Capacity	Rated	kW	4.1	5.6
		Min-Max	kW	0.5~4.4	0.9~7.0
	Rated input power		kW	1.06	1.50
	COP		kW/kW	3.88	3.71
	Annual power consumption		kWh/year	1141	1626
	SCOP			4.0	4.0
	ErP energy class			A+	A+
Maximum input current			A	9.0	10.0
Indoor unit	Dimensions (width x depth x height)		mm	570x570x260	570x570x260
	Transport dimensions (width x depth x height)		mm	655x655x290	655x655x290
	Weight (net / gross)		kg	16.2/21.4	16.5/19.0
	Air-flow (low/medium/high)		m^3/min	6.9/8.4/10.3	8.2/9.2/11.0
	Acoustic pressure level (low/medium/high)		dB(A)	35/39/43	38/42/46
	Acoustic power level		dB(A)	57	57
Panel	Dimensions (width x depth x height)		mm	647x647x50	647x647x50
	Transport dimensions (width x depth x height)		mm	715x715x123	715x715x123
	Weight (net / gross)		kg	2.5/4.5	2.5/4.5
Outdoor unit	Dimensions (width x depth x height)		mm	570x570x260	570x570x260
	Transport dimensions (width x depth x height)		mm	655x655x290	655x655x290
	Weight (net / gross)		kg	16.2/21.4	16.5/19.0
	Air-flow		m^3/min	6.9/8.4/10.3	8.2/9.2/11.0
	Acoustic pressure level		dB(A)	35/39/43	38/42/46
	Acoustic power level		dB(A)	57	57
Refrigerant	Type			R410A	R410A
	Amount		kg	1.05	1.78
Refrigerant installation	Liquid/gas		mm	Ø6.35 / Ø9.52	Ø6.35 / Ø12.7
	Maximum length		m	25	30
	Maximum height difference		m	10	20
Condensate drain			mm	Ø25	Ø25
Recommended electrical wiring and protections	Indoor unit power suppy cord		mm^2	3x1.5	3x1.5
	Outdoor unit power suppy cord		mm^2	3x1.5	3x1.5
	Transmission		mm^2	2x0.75 (shielded)	
	Protection		A	16	16
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 50	
		Heating	°C	-15 ~ 24	

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R410A GWP=2088)

Standard cassette type

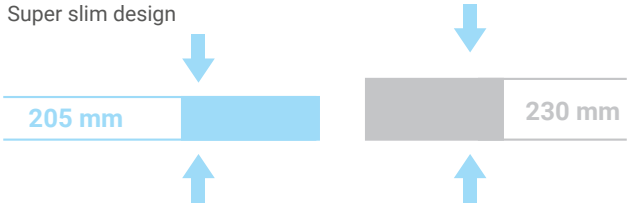
Additional air-supply ducts

Pre-drilled openings in the cover enable connection of the fresh air-supply duct as well as ducts distributing cooled down air from the air-conditioner to the additional diffusers.



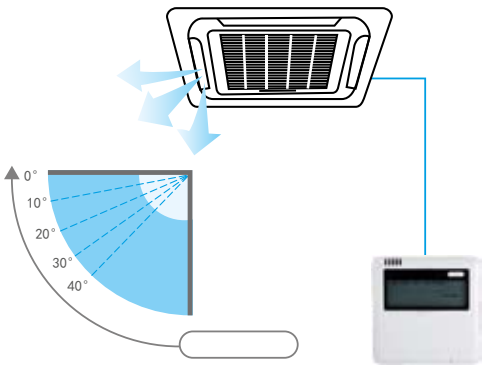
Super slim design

Special design of the indoor unit with the height of only 205 mm (5,3 kW unit). This enables to install the air-conditioner in a very narrow ceiling cavities.



Wide angle of the air outlet

Louvers driven by two motors enable to adjust the air outlet angle within 40°. This allows adjustment of the air-flow direction according to the individual user needs.



Circular air-flow

Air-conditioner panel with additional air nozzles on the corners, ensures ideal air distribution in the whole room.

Functions

STANDARD


Wireless remote controller


Hot start


Alarm port

Refrigerant leakage detection


Fresh air


Restoring the louver settings


Built-in drain pump

360° air-flow


Temperature compensation


Operation in low ambient temperatures


Emergency operation mode


Auto restart

OPTIONAL


"Follow me" function


Wired remote controller

8°C heating


Central remote controller

Technical specifications

R-32 Eco-friendly refrigerant

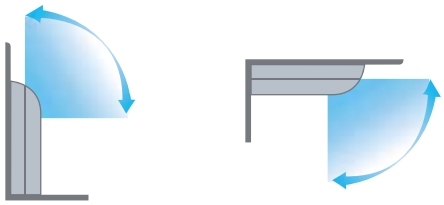
Set				ZMCD-18N8-A1	ZMCD-24N8-A1	ZMCD-36N8-A1	ZMCD-36N8-A3	ZMCD-48N8-A3	ZMCD-55N8-A3
Indoor unit				MCD-18HRFNX-QRDA	MCD-24HRFNX-QRDA	MCD-36HRFNX-QRDA	MCD-36HRFNX-QRDA	MCD-48HRFNX-QRDA	MCD-55HRFNX-QRDA
Outdoor unit				MOBA-18HFN8-QRDA	MOCA-24HFN8-QRDA	MODA-36HFN8-QRDA	MODA-36HFN8-RRDA	MOEA-48HFN8-RRDA	MOEA-55HFN8-RRDA
Panel				T-MBQ-02C1					
Indoor unit power 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
Outdoor unit power supply (V/phase/Hz)				220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Version				Reversible heat pump					
Cooling	Capacity	Rated	kW	5.3	7.0	10.5	10.5	13.6	15.7
		Min-Max	kW	1.3~6.2	2.2~8.2	2.6~12.0	2.6~12.0	4.8~14.6	5.3~16.7
	Rated input power		kW	1.64	2.19	3.90	3.90	5.42	5.99
	EER		kW/kW	3.23	3.21	2.69	2.69	2.51	2.62
	Annual power consumption		kWh/year	266	401	593	593	805	893
	SEER			6.1	6.1	6.1	6.1	6.1	6.1
	ErP energy class			A++	A++	A++	A++	A++	A++
Heating	Capacity	Rated	kW	5.6	7.4	11.1	11.1	15.9	18.2
		Min-Max	kW	1.8~7.0	2.4~8.7	2.9~13.2	2.9~13.2	3.9~16.8	4.4~19.3
	Rated input power		kW	1.50	1.98	2.97	2.97	5.34	6.03
	COP		kW/kW	3.71	3.72	3.74	3.74	2.98	3.02
	Annual power consumption		kWh/year	1654	1890	2824	2824	3903	4123
	SCOP			4.0	4.0	4.0	4.0	4.0	4.0
	ErP energy class			A+	A+	A+	A+	A+	A+
Maximum input current			A	10.0	13.5	10.0	10.0	11.2	14.0
Indoor unit	Dimensions (width x depth x height)		mm	840x840x205	840x840x205	840x840x245	840x840x245	840x840x287	840x840x287
	Transport dimensions (width x depth x height)		mm	900x900x225	900x900x225	900x900x265	900x900x265	900x900x292	900x900x292
	Weight (net / gross)		kg	21.4/25.1	23.0/27.0	27.5/31.0	27.5/31.0	29.0/32.7	29.7/33.4
	Air-flow (low/medium/high)		m^3/min	12.7/14.5/17.3	17.2/20.0/23.0	24.0/27.0/29.6	24.0/27.0/29.6	23.0/26.1/28.6	25.6/29.0/32.8
	Acoustic pressure level (low/medium/high)		dB(A)	37/41/46	40/43/47	46/49/52	46/49/52	49/50/52	48/50/53
	Acoustic power level		dB(A)	57	60	63	63	65	65
Panel	Dimensions (width x depth x height)		mm	950x950x55	950x950x55	950x950x55	950x950x55	950x950x55	950x950x55
	Transport dimensions (width x depth x height)		mm	1035x1035x90	1035x1035x90	1035x1035x90	1035x1035x90	1035x1035x90	1035x1035x90
	Weight (net / gross)		kg	5.0/8.0	5.0/8.0	5.0/8.0	5.0/8.0	5.0/8.0	5.0/8.0
Jednostka zewnętrzna	Dimensions (width x depth x height)		mm	800x333x554	845x363x702	946x410x810	946x410x810	952x415x1333	952x415x1333
	Transport dimensions (width x depth x height)		mm	920x390x615	965x395x765	1090x500x875	1090x500x875	1095x495x1480	1095x495x1480
	Weight (net / gross)		kg	35.6/38.5	66.8/72.6	81.5/87.0	81.5/87.0	106.7/119.9	111.3/124.3
	Air-flow		m^3/min	35.0	45.0	66.7	66.7	125.0	125.0
	Acoustic pressure level		dB(A)	57	62	64	64	66	66
	Acoustic power level		dB(A)	65	66	68	68	72	77
Refrigerant	Type			R32	R32	R32	R32	R32	R32
	Amount		kg	1.35	1.50	2.40	2.40	2.80	2.95
Refrigerant installation	Liquid/gas		mm	Ø6.35 / Ø12.7	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9
	Maximum length		m	30	50	65	65	65	65
	Maximum height difference		m	20	25	30	30	30	30
Condensate drain			mm	Ø32	Ø32	Ø32	Ø32	Ø32	Ø32
Recommended electrical wiring and protections	Indoor unit power suppy cord		mm^2	3x1.5	3x1.5	3x1.5	3x1.5	3x1.5	3x1.5
	Outdoor unit power suppy cord		mm^2	3x2.5	3x2.5	5x2.5	5x2.5	5x2.5	5x2.5
	Transmission		mm^2	2x1.0 (shielded)					
	Protection		A	16	20	16	16	16	20
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 50					
		Heating	°C	-15 ~ 24					

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

Floor & ceiling type

Two ways of installation

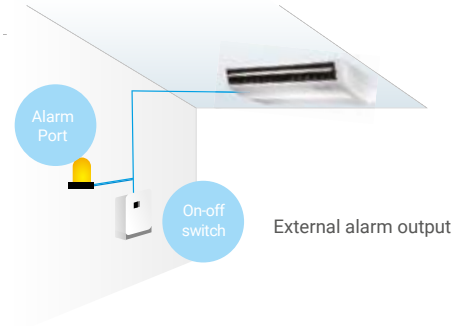
The structural design of the unit makes it possible to install the air-conditioner in two positions: horizontally or vertically at ground level. This significantly increases the scope of possible unit applications.



Possible to install vertically against a wall
or horizontally under the ceiling

On/Off and Alarm ports

On the indoor unit control board there are ports for remote switching on of the air-conditioner and signalling of the alarm occurrence. The solution is designed especially for units operating in the technical rooms.



TURBO function

After switching on this function, the fan will automatically run on the highest speed, in order to rapidly cool down the room.

Fresh air supply

Fresh air can be supplied to the room in order to ensure high quality of the air inside the air-conditioned space.

Functions

STANDARD


Wireless remote controller


Sleep mode


3D airflow


Refrigerant leakage detection


Restoring the louver settings


Emergency operation mode


Fresh air


Alarm port


Hot start


Two-way connection of the condensate drain


Timer


Operation in low ambient temperatures

OPTIONAL


"Follow me" function

8°C heating


Wired remote controller


Central remote controller

Technical specifications

R-32 Eco-friendly refrigerant

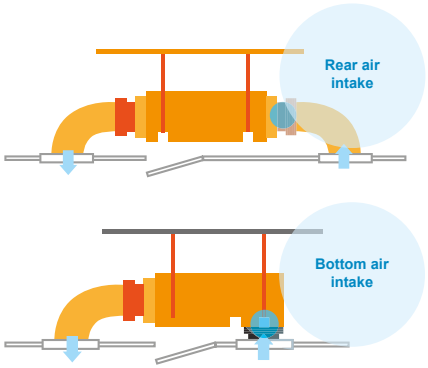
Set				ZMUE-18N8-A1	ZMUE-24N8-A1	ZMUE-36N8-A1	ZMUE-36N8-A3	ZMUE-48N8-A3	ZMUE-55N8-A3
Indoor unit				MUE-18HRFNX-QRDA	MUE-24HRFNX-QRDA	MUE-36HRFNX-QRDA	MUE-36HRFNX-QRDA	MUE-48HRFNX-QRDA	MUE-55HRFNX-QRDA
Outdoor unit				MOBA-18HFN8-QRDA	MOCA-24HFN8-QRDA	MODA-36HFN8-QRDA	MODA-36HFN8-RRDA	MOEA-48HFN8-RRDA	MOEA-55HFN8-RRDA
Indoor unit power 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
Outdoor unit power supply (V/phase/Hz)				220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Version				Reversible heat pump					
Cooling	Capacity	Rated	kW	5.3	6.9	10.5	10.5	14.2	15.9
		Min-Max	kW	1.3~6.2	2.2~8.2	2.6~12.0	2.6~12.0	5.0~15.1	5.3~17.0
	Rated input power		kW	1.70	2.22	4.03	4.03	5.50	6.06
	EER		kW/kW	3.11	3.12	2.61	2.61	2.58	2.62
	Annual power consumption		kWh/year	280	393	556	556	801	916
	SEER			6.1	6.1	6.1	6.1	6.1	6.1
	ErP klasa energetyczna			A++	A++	A++	A++	A++	A++
Heating	Capacity	Rated	kW	5.6	7.6	11.1	11.1	16.1	18.2
		Min-Max	kW	1.8~7.0	2.4~8.7	2.9~13.2	2.9~13.2	3.8~18.1	4.4~19.6
	Rated input power		kW	1.50	2.12	3.00	3.00	5.05	6.04
	COP		kW/kW	3.73	3.59	3.71	3.71	2.93	3.02
	Annual power consumption		kWh/year	1641	1858	3052	3052	4005	4138
	SCOP			4.0	4.0	4.0	4.0	4.0	4.0
	ErP energy class			A+	A+	A+	A+	A+	A+
Maximum input current			A	10.0	13.5	10.0	10.0	11.2	14.0
Indoor unit	Dimensions (width x depth x height)		mm	1068x675x235	1068x675x235	1650x675x235	1650x675x235	1650x675x235	1650x675x235
	Transport dimensions (width x depth x height)		mm	1145x755x313	1145x755x313	1725x755x313	1725x755x313	1725x755x313	1725x755x313
	Weight (net / gross)		kg	26.6	26.8	39.0	39.0	41.2	41.4
	Air-flow (low/medium/high)		m^3/min	11.3/13.1/15.0	14.2/17.8/20.1	23.9/30.7/36.0	23.9/30.7/36.0	23.6/32.2/38.8	23.8/30.6/42.6
	Acoustic pressure level (low/medium/high)		dB(A)	37/40/45	41/46/50	42/47/51	42/47/51	46/50/54	42/47/54
	Acoustic power level		dB(A)	57	62	61	61	67	69
Outdoor unit	Dimensions (width x depth x height)		mm	800x333x554	845x363x702	946x410x810	946x410x810	952x415x1333	952x415x1333
	Transport dimensions (width x depth x height)		mm	920x390x615	965x395x765	1090x500x875	1090x500x875	1095x495x1480	1095x495x1480
	Weight (net / gross)		kg	35.6/38.5	66.8/72.6	81.5/87.0	81.5/87.0	106.7/119.9	111.3/124.3
	Air-flow		m^3/min	35.0	45.0	66.7	66.7	125.0	125.0
	Acoustic pressure level		dB(A)	57	62	64	64	66	66
	Acoustic power level		dB(A)	65	66	68	68	72	77
Refrigerant	Type			R32	R32	R32	R32	R32	R32
	Amount		kg	1.35	1.50	2.40	2.40	2.80	2.95
Refrigerant installation	Liquid/gas		mm	Ø6.35 / Ø12.7	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9
	Maximum length		m	30	50	65	65	65	65
	Maximum height difference		m	20	25	30	30	30	30
Condensate drain			mm	Ø32	Ø32	Ø32	Ø32	Ø32	Ø32
Recommended electrical wiring and protections	Indoor unit power suppy cord		mm^2	3x1.5	3x1.5	3x1.5	3x1.5	3x1.5	3x1.5
	Outdoor unit power suppy cord		mm^2	3x2.5	3x2.5	5x2.5	5x2.5	5x2.5	5x2.5
	Transmission		mm^2	2x1.0 (shielded)					
	Protection		A	16	20	16	16	16	20
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 50					
		Heating	°C	-15 ~ 24					

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

Duct type

Universal duct installation

Two possibilities of air intake – from back or from bottom. The way the air is taken in can be easily changed by the installer during the installation.



High available static pressure up to 160Pa

High available static pressure, up to 160 Pa, considerably improves the design flexibility of the duct type unit installation. This way, air easily overcomes the line and local resistance in the refrigeration system.

Operation in low ambient temperatures

The built-in, additional low temperature kit and special design of the control board, enable the air-conditioner to operate in the cooling mode even when the outdoor temperature reaches -15°C.

Wired remote controller

In comparison to the wireless remote controller, the wired one can be permanently fixed to a wall, so it does not get lost along the way.

Functions

STANDARD


Static pressure setting


Alarm port


Temperature compensation

Refrigerant leakage detection


Restoring the louver settings


Fresh air


Operation in low ambient temperatures


Wired remote controller


Auto restart


Hot start


Two-way connection of the condensate drain


Timer


Emergency operation mode

OPTIONAL


"Follow me" function

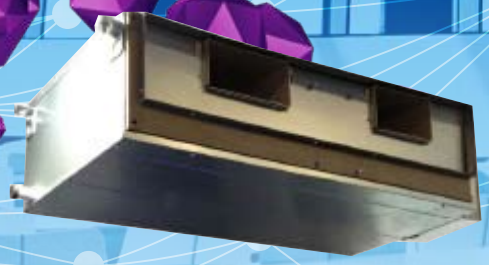

Central remote controller


Wireless remote controller

Technical specifications

Set				ZMTI-18N8-A1	ZMTI-24N8-A1	ZMTI-36N8-A1	ZMTI-36N8-A3	ZMTI-48N8-A3	ZMTI-55N8-A3
Indoor unit				MTI-18HWFNX-QRDA	MTI-24HWFNX-QRDA	MTI-36HWFNX-QRDA	MTI-36HWFNX-QRDA	MTI-48HWFNX-QRDA	MTI-55HWFNX-QRDA
Outdoor unit				MOBA-18HFN8-QRDA	MOCA-24HFN8-QRDA	MODA-36HFN8-QRDA	MODA-36HFN8-RRDA	MOEA-48HFN8-RRDA	MOEA-55HFN8-RRDA
Indoor unit power 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
Outdoor unit power supply (V/phase/Hz)				220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Version				Reversible heat pump					
Cooling	Capacity	Rated	kW	5.2	7.0	10.4	10.4	14.0	15.4
		Min-Max	kW	1.2~6.2	2.2~8.2	2.6~12.0	2.6~12.0	4.2~15.2	5.9~17.3
	Rated input power		kW	1.72	2.19	4.06	4.06	5.15	5.42
	EER		kW/kW	3.02	3.20	2.56	2.56	2.72	2.84
	Annual power consumption		kWh/year	285	390	614	614	808	935
	SEER			6.1	6.1	6.1	6.1	6.1	6.1
	ErP energy class			A++	A++	A++	A++	A++	A++
Heating	Capacity	Rated	kW	5.6	7.6	11.2	11.2	16.0	17.7
		Min-Max	kW	1.8~7.0	2.4~8.7	2.9~13.2	2.9~13.2	3.7~18.0	4.7~20.5
	Rated input power		kW	1.50	2.04	2.99	2.99	4.26	5.18
	COP		kW/kW	3.71	3.72	3.71	3.71	3.76	3.42
	Annual power consumption		kWh/year	1620	1902	3016	3016	4261	4302
	SCOP			4.0	4.0	4.0	4.0	4.0	4.0
	ErP energy class			A+	A+	A+	A+	A+	A+
Maximum input current			A	10.0	13.5	10.0	10.0	11.2	14.0
Indoor unit	Dimensions (width x depth x height)		mm	880x674x210	1100x774x249	1360x774x249	1360x774x249	1200x874x300	1200x874x300
	Transport dimensions (width x depth x height)		mm	1070x725x270	1305x805x305	1570x805x305	1570x805x305	1405x915x355	1405x915x355
	Weight (net / gross)		kg	25.6	31.5	40.5	40.5	47.6	47.6
	External static pressure		Pa	25 (0~100)	25 (0~160)	37 (0~160)	37 (0~160)	50 (0~160)	50 (0~160)
	Air-flow (low/medium/high)		m^3/min	11.4/14.2/16.8	14.0/17.6/20.8	12.5/19.2/23.3	12.5/19.2/23.3	28.0/34.0/40.0	30.3/36.8/43.3
	Acoustic pressure level (low/medium/high)		dB(A)	40/42/44	40/42/44	40/43/47	40/43/47	48/49/50	50/52/54
	Acoustic power level		dB(A)	62	63	64	64	69	74
Outdoor unit	Dimensions (width x depth x height)		mm	800x333x554	845x363x702	946x410x810	946x410x810	952x415x1333	952x415x1333
	Transport dimensions (width x depth x height)		mm	920x390x615	965x395x765	1090x500x875	1090x500x875	1095x495x1480	1095x495x1480
	Weight (net / gross)		kg	35.6/38.5	66.8/72.6	81.5/87.0	81.5/87.0	106.7/119.9	111.3/124.3
	Air-flow		m^3/min	35.0	45.0	66.7	66.7	125.0	125.0
	Acoustic pressure level		dB(A)	57	62	64	64	66	66
	Acoustic power level		dB(A)	65	66	68	68	72	77
Refrigerant	Type			R32	R32	R32	R32	R32	R32
	Amount		kg	1.35	1.50	2.40	2.40	2.80	2.95
Refrigerant installation	Liquid/gas		mm	Ø6.35 / Ø12.7	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9
	Maximum length		m	30	50	65	65	65	65
	Maximum height difference		m	20	25	30	30	30	30
Condensate drain			mm	Ø32	Ø32	Ø32	Ø32	Ø32	Ø32
Recommended electrical wiring and protections	Indoor unit power suppy cord		mm^2	3x1.5	3x1.5	3x1.5	3x1.5	3x1.5	3x1.5
	Outdoor unit power suppy cord		mm^2	3x2.5	3x2.5	5x2.5	5x2.5	5x2.5	5x2.5
	Transmission		mm^2	2x1.0 (shielded)					
	Protection		A	16	20	16	16	16	20
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 50					
		Heating	°C	-15 ~ 24					

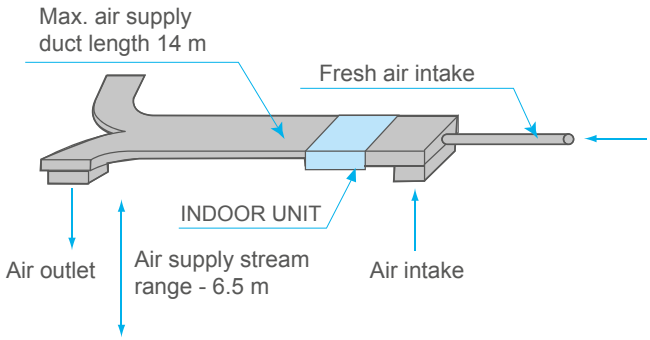
Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)



BIG Inverter duct type

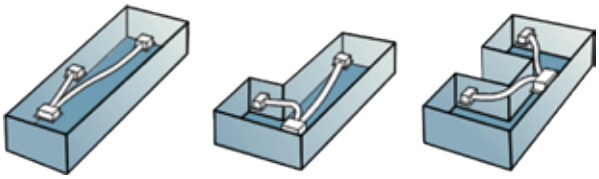
High static pressure

Static pressure up to 200 Pa makes it possible to use duct with length up to 14 m on the height of up to 6,5 m. The unit is dedicated for big, spacious rooms.



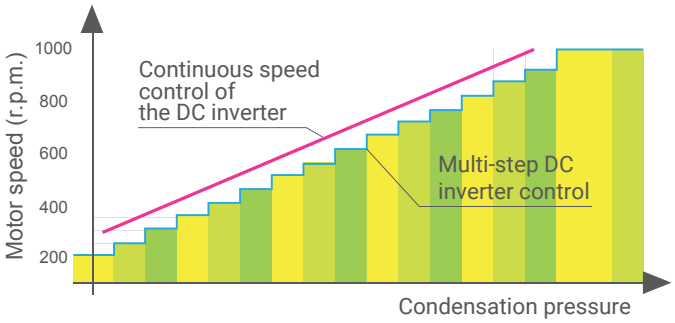
Flexible installation

High available static pressure allows to apply different solutions of air distribution in rooms with unusual shapes.



High performance DC fan

The unit is equipped with DC inverter driven fan. In comparison with AC motor fans, the electric energy consumption is reduced by 50%. Another benefit of the DC motor fans would be the lower level of emitted noise.



Functions

STANDARD


Hot start

Refrigerant leakage detection


Fresh air


Operation in low ambient temperatures


Auto restart


Timer


Wired remote controller

OPTIONAL


"Follow me" function


Wireless remote controller


Central remote controller

Technical specifications

Set				ZMHC-96N1-A3
Indoor unit				**MHC-96HWD1N1(A)**
Outdoor unit				**MOUA-96HD1N1-R**
Indoor unit power supply (V/phase/Hz)				220-240/1/50
Outdoor unit power supply (V/phase/Hz)				380-415/3/50
Cooling	Capacity	Rated	kW	28.0
	Rated input power		kW	9.0
	EER		kW/kW	3.11
Heating	Capacity	Rated	kW	31.5
	Rated input power		kW	8.5
	COP		kW/kW	3.71
Indoor unit	Dimensions (width x depth x height)		mm	1470x512x775
	Transport dimensions (width x depth x height)		mm	1555x545x875
	Weight (net / gross)		kg	83/92
	External static pressure		Pa	0~150
	Air-flow (low/high)		m^3/min	50/80
	Acoustic pressure level (low/high)		dB(A)	49/52
Outdoor unit	Dimensions (width x depth x height)		mm	1120x1558x528
	Transport dimensions (width x depth x height)		mm	1270x1720x565
	Weight (net / gross)		kg	147/163
	Air-flow		m^3/min	163.3
	Acoustic pressure level		dB(A)	59
Refrigerant	Type			R410A
	Amount		kg	7.2
Refrigerant installation	Liquid/gas		mm	Ø9.53 / Ø25.4
	Maximum length		m	50
	Maximum height difference		m	30
Recommended electrical wiring and protections	Indoor unit power suppy cord		mm^2	3x2.5
	Outdoor unit power suppy cord		mm^2	5x6.0
	Transmission		mm^2	3x0.75 (shielded)
	Protection		A	40
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 48
		Heating	°C	-15 ~ 24

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R410A GWP=2088)

OUTDOOR

UNITS

Technical specifications

Outdoor unit				MOBA-12HFN1-QRDA	MOBA-18HFN1-QRDA
Outdoor unit power supply (V/phase/Hz)				220-240/1/50	220-240/1/50
Version				Reversible heat pump	
Cooling	Capacity	Rated	kW	3.5	5.1
		Min-Max	kW	0.8~4.1	0.8~6.2
	Rated input power		kW	1.07	1.66
	EER		kW/kW	3.27	3.07
	SEER			6.1	6.3
	ErP energy class			A++	A++
Heating	Capacity	Rated	kW	4.1	5.6
		Min-Max	kW	0.5~4.4	0.9~7.0
	Rated input power		kW	1.06	1.50
	COP		kW/kW	3.88	3.71
	SCOP			4.0	4.0
	ErP energy class			A+	A+
Maximum input current			A	9.0	10.0
Maximum input power			W	1900	2200
Air-flow			m^3 /min	33.3	35.0
Acoustic pressure level			dB(A)	56	56
Acoustic power level			dB(A)	63	65
Dimensions (width x depth x height)			mm	800x333x554	800x333x554
Transport dimensions (width x depth x height)			mm	920x390x615	920x390x615
Weight (net)			kg	29.9	35.5
Refrigerant	Type			R410A	R410A
	Amount		kg	1.05	1.78
Refrigerant installation	Liquid/gas		mm	Ø6.35 / Ø9.52	Ø6.35 / Ø12.7
	Maximum length		m	25	25
	Maximum height difference		m	10	10
Recommended electrical wiring and protections	Power suppy cord		mm^2	3x1.5	3x1.5
	Transmission		mm^2	2x1.0 (shielded)	2x1.0 (shielded)
	Protection		A	16	16
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 50	-15 ~ 50
		Heating	°C	-15 ~ 24	-15 ~ 24

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R410A GWP=2088)

Technical specifications

R-32 Eco-friendly refrigerant

Outdoor unit				MOBA-18HFN8-QRDA	MOCA-24HFN8-QRDA	MODA-36HFN8-RRDA	MOEA-48HFN8-RRDA	MOEA-55HFN8-RRDA
Outdoor unit power supply (V/phase/Hz)				220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50	380-415/3/50
Version				Reversible heat pump				
Cooling	Capacity	Rated	kW	5.3	7.0	10.5	13.6	15.7
		Min-Max	kW	1.3~6.2	2.2~8.2	2.6~12.0	4.8~14.6	5.3~16.7
	Rated input power		kW	1.64	2.19	3.90	5.42	5.99
	EER		kW/kW	3.23	3.21	2.69	2.51	2.62
	SEER			6.1	6.1	6.1	6.1	6.1
	ErP energy class			A++	A++	A++	A++	A++
Heating	Capacity	Rated	kW	5.6	7.4	11.1	15.9	18.2
		Min-Max	kW	1.8~7.0	2.4~8.7	2.9~13.2	3.9~16.8	4.4~19.3
	Rated input power		kW	1.50	1.98	2.97	5.34	6.03
	COP		kW/kW	3.71	3.72	3.74	2.98	3.02
	SCOP			4.0	4.0	4.0	4.0	4.0
	ErP energy class			A+	A+	A+	A+	A+
Maximum input current			A	10.0	13.5	10.0	11.2	14.0
Maximum input power			W	2200	2950	5600	6200	7500
Air-flow			m^3 /min	35.0	45.0	66.7	125.0	125.0
Acoustic pressure level			dB(A)	57	62	64	66	66
Acoustic power level			dB(A)	65	66	68	72	77
Dimensions (width x depth x height)			mm	800x333x554	845x363x702	946x410x810	952x415x1333	952x415x1333
Transport dimensions (width x depth x height)			mm	920x390x615	965x395x765	1090x500x875	1095x495x1480	1095x495x1480
Weight (net)			kg	35.6	66.8	81.5	106.7	111.3
Refrigerant	Type			R32	R32	R32	R32	R32
	Amount		kg	1.35	1.50	2.40	2.80	2.95
Refrigerant installation	Liquid/gas		mm	Ø6.35 / Ø12.7	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9	Ø9.52 / Ø15.9
	Maximum length		m	30	50	65	65	65
	Maximum height difference		m	20	25	30	30	30
Recommended electrical wiring and protections	Power suppy cord		mm^2	3x2.5	3x2.5	5x2.5	5x2.5	5x2.5
	Transmission		mm^2	2x1.0 (shielded)	2x1.0 (shielded)	2x1.0 (shielded)	2x1.0 (shielded)	2x1.0 (shielded)
	Protection		A	16	16	20	20	25
Recommended operating temperature ranges (outdoor)		Cooling	°C	-15 ~ 50	-15 ~ 50	-15 ~ 50	-15 ~ 50	-15 ~ 50
		Heating	°C	-15 ~ 24	-15 ~ 24	-15 ~ 24	-15 ~ 24	-15 ~ 24

Capacity is based on the following conditions:
Cooling: indoor temperature 27°C DB/19°C WB; outdoor temperature 35°C DB/24°C WB
Heating: indoor temperature 20°C DB/15°C WB; outdoor temperature 7°C DB/6°C WB
Installation length: length of connected pipes is 7,5 m; the height difference is 0.
The unit contains fluorinated greenhouse gases (R32 GWP=675)

MDV®

MODULES
FOR AIR HANDLING UNITS

Solutions for air handling units

AIR Kit

AIR Kit control module enables connection of the universal, inverter outdoor unit with a refrigerant coil in the air handling unit.

Main characteristics:

- simple construction and low cost
- unlimited control of the condensing unit
- 0~10V analogue signal control
- heating and cooling mode
- soft start function
- support of all Office Standard MDV units
- error diagnostics
- defrost function
- anti-freeze Frost sensor (option)
- 0~25 kOhm signal control
- on/off signal control

Very simple connection

The system utilizes expansion elements built-in the outdoor unit, so it is unnecessary to use additional valves.

The unit is controlled by the input signals:

- dry contact, on-off signal to enable cooling operation
- dry contact, on-off signal to enable heating operation
- 0-10 V DC signal for continuous control of unit capacity
- 0-25 kOhm resistance signal for continuous control of unit capacity

Signals outputted from the control unit:

- dry contact, alarm signal
- dry contact, signal active during outdoor unit exchanger defrosting

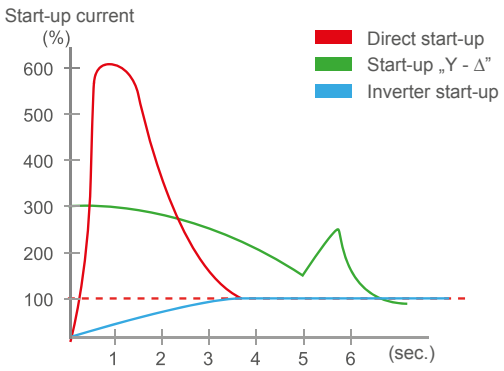
Heating/cooling mode

AIR Kit module can supply coils of the air handling units that operates both, as coolers or heaters.

Soft START

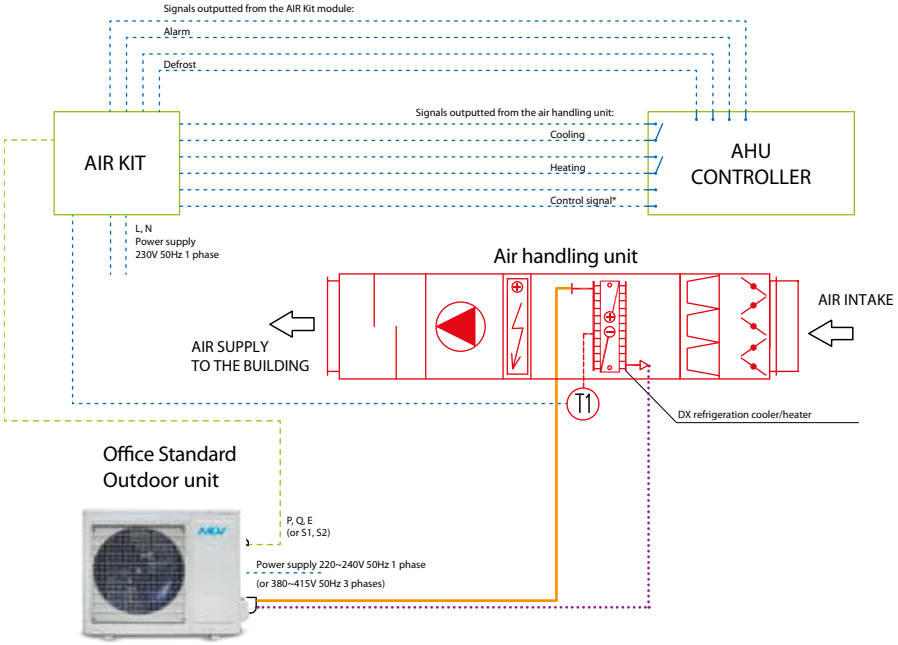
Inverter compressor with the „soft" start function limits temporary overloads and voltage drops in the building's electrical network.- High performance inverter compressors achieve rated capacity in a very short time, directly impacting the time of cooling down or- heating up the air-conditioned rooms. Lower temperature fluctua- tions provide instant feeling of comfort.

Comparing the inverter start-up with conventional one



Circuit diagrams

Connection of the outdoor unit with the supply air handling unit



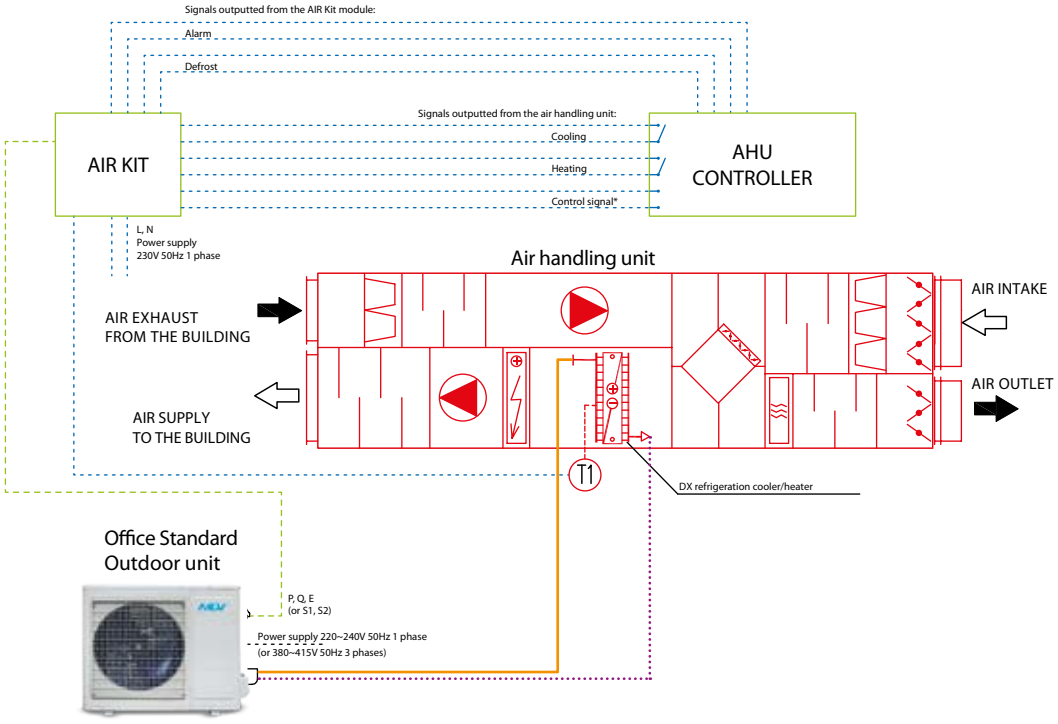
Designation:

- LIQUID copper pipeline, heat insulated
- GAS copper pipeline, heat insulated
- Electrical / signal and control connections
- (T1) Optional temperature sensor for the anti-freeze protection

*Control signals:

- analogue 0~10V
- resistance 0~25 Ω
- ON/OFF

Connection of the outdoor unit with the supply and exhaust air handling unit



Designation:

- LIQUID copper pipeline, heat insulated
- GAS copper pipeline, heat insulated
- Electrical / signal and control connections
- (T1) Optional temperature sensor for the anti-freeze protection

*Control signals:

- analogue 0~10V
- resistance 0~25 Ω
- ON/OFF

CONTROL SYSTEM

RG-57

Functions:

- On / Off
- Change of operation mode
- Change of fan speed
- Set temperature adjustment
- Horizontal / vertical louver control and swing
- Clock
- Timer
- Mute on / switching off the backlit
- Backlit display
- Turbo function
- Sleep mode

Timer

The built-in timer enables to program the time of automatic switching on/off of the air-conditioner.

Air-conditioner set to operate in the auto mode from 8 AM to 8 PM.

Specifications

Model	RG-57
Dimensions (width x height x depth) [mm]	55×140×23
Power supply	1.5V(LR03/AAA)×2

CCM03/CCM30

Functions:

- Control of up to 64 air-conditioners
- Individual or group control
- On/Off
- Operation mode setting
- Fan speed setting
- Set temperature adjustment
- Timer
- Lock function
- Swing function
- Cooling mode
- Heating mode
- Fan mode

Central remote controller

The controller is a multifunctional device, which can control operation of up to 64 indoor units. The maximum length of the transmission cable is 1200 m.

Specifications

Model	CCM03/CCM30
Dimensions (width x height x depth) [mm]	179×119×74 / 180×122×78
Power supply	198-242V(50/60Hz)

Functions:
- On / Off
- Clock settings
- Operation mode settings
- Fan speed settings
- Set temperature adjustment
- Quiet operation
- Key lock
- Swing function
- “Follow me” function

KJR-12B/KJR-29B

“Follow me” function

This function activates the temperature sensor built-in the controller. It replaces the sensor installed in the indoor unit. The air-conditioner will control the air temperature in the closest vicinity of the controller and this way, the temperature adjustment will become more precise and comfortable.

Specifications

Model	KJR-12B/KJR-29B
Dimensions (width x height x depth) [mm]	120×120×15
Power supply	DC 5V

Functions:
- On / Off
- Operation mode setting
- Individual, group and central control
- Control of up to 64 indoor units
- Weekly timer
- Error code display
- Emergency switching on/off
- Control via internet

CCM-180A

Central control

It is possible to connect up to 64 indoor units to a single central remote controller.

Specifications

Model	CCM-180A
Dimensions (width x height x depth) [mm]	182×123×34
Power supply	DC 5V

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AIR CONDITIONING

MDV General Representative in Poland

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