



# **OUTDOOR UNITS Maxi MVD V6R 3 pipes Series**

Super DC Inverter (up to 150 kW)

**Protocol V6** 

### **Heat recovery**



**OPTIONALS** 

More information on optionals in the "MUNDOCLIMA CONTROL SYSTEMS" section.

(CL09312)



<sup>(2)</sup> Only to operate in V6 protocol, it does not support prior conversion to V8 protocol using the MA3-PCK.



### WIDE RANGE

### Up to 6 modules

The Maxi MVD V6R Super DC Inverter modular system consists of 6 basic modules, up to 3 of which as desired by the customer, forming a total system capacity ranging from 8 up to 54 HP (150 kW) in 2 HP increments.



8 / 10 / 12 HP

14 / 16 / 18 HP

# 8/10/12/14/16/18 HP ... Max. 54 HP ( 150 kW)



### HIGH EFFICIENCY

# Independent control of the heat exchanger and the compressor

In cooling or heating mode, in a modular system, the outdoor heat exchanger and compressor are independently controlled to improve energy efficiency. This means that even when the outdoor unit that is not operating, its heat exchanger can be used for heat exchange while its compressor is stopped. This function can make full use of the external heat exchanger to improve the heat exchange efficiency.

# MS box

# DC Inverter EVI Scroll Compressor (Enhanced Steam Injection)

The EVI compressor allows the unit to operate in heating mode as far as -25 °C thanks to the 2 stages of compression and the wide frequency range of 15 - 140 Hz.

# Suction Discharge

EVI compressor

### EER up to 7.8

The V6R heat recovery system can provide the cooling and heating system simultaneously. Heat recovery is achieved by redirecting exhaust heat from indoor units in cooling mode to areas that require heating. As a result, energy efficiency is maximized and energy consumption is reduced. Partial charge efficiencies are very high (up to 7.8 in the 8 HP unit).



Note: EER in simultaneous cooling and heating operation at 50 %, based on the following conditions: outdoor temp. 7 °C BS and 6 °C BH, indoor temp. 27 °C BS, 19 °C BH for cooling and 20 °C BS for heating.

### Plate-type heat exchanger

The plate heat exchanger increases the subcooling of the refrigerant, resulting in a 10 % improvement in energy efficiency and a reduction in refrigerant flow noise.



### Floating evaporation/condensation temperature

The evaporation temperature (in cooling) and the condensation temperature (in heating) are automatically adjusted based on indoor and outdoor temperatures to balance comfort and energy efficiency.







### COMFORT

### Wide operating temperature range

The V6R series, among other mixed modes, can operate stably in heating-only mode between -25 °C and 19 °C, with 100% efficiency down to -5 °C and in cooling-only mode between -15 °C and 52 °C.





**Note:** Cooling operation at low outdoor ambient temperatures (-15  $^{\circ}$ C  $\sim$  to -5  $^{\circ}$ C) is only available for indoor units connected to the MS01 distribution box.

**Multiple silent modes** 

The silent mode includes several reduced noise programming options that can be used when low noise operations are required.

In total there are: 4 night silent modes, 3 silent modes and 4 super silent modes.



In super silent mode, both the maximum fan speed and the frequency of the compressor are limited.



In night silent mode and silent mode, only the maximum fan speed is limited.

The night silent mode is activated "X" hours after the maximum temperature peak is recorded by the outdoor unit, and deactivated "Y" hours later.





Note: The curve shown in the graph is an example.

### **Continuous heating**

Normally, it is necessary to stop the heating operation mode during defrosting. However, in a modular installation, the continuous heating operation mode makes it possible to operate defrosting as the heating operation goes on. The units defrost alternately so that while one unit is defrosting, the other continues heating.



Normal heating operation



Stage 2: Operation in continuous heating mode

Stage 1: Operation in continuous heating mode



### HIGH RELIABILITY

### **ROTATING FUNCTION**

In a multiple system, this function equalises the running time of the outdoor units, extending significantly the compressors service life.



### "Backup" function

In a modular installation, in case of failure of one of the modules, one of the modules at rest will automatically start up.



### **Cooling liquid**

The electric panel is kept cold by a cooling liquid that passes through the heat sink via a pipe. Compared to the air cooling method, the PCB temperature is 10 °C lower.



### Detection of lack/excess of gas

The V6R series can detect if the system lacks refrigerant or if there is an excess.



### Fewer components

Integration of different components within the same electronic board, and communication between RS485 bus type boards, thus minimizing the risk of failure.



### Leak detection

The V6R system can detect in real time if there is a refrigerant leak in any room and thus close the valves of the MS box automatically, to prevent all the refrigerant from leaking out. At the same time, it sends an activation signal to the air extraction systems to ensure the safety of the system.



Note: This function is only available using the MS01/N1-D distribution box. An external gas detector must be connected to it.

# MUND

### Easier installation

### Automatic refrigerant gas charging

The V6R series charges the refrigerant gas automatically without having to perform the additional charge calculation.



### Up to 1000 m of pipe

- Total piping length: 1000 m
- Real piping length of the furthest indoor unit (equivalent): **175 m (200 m)**
- Piping length between the first distributor and the furthest indoor unit (when certain conditions are met): 40 m (90 m)
- Piping length between the MS distribution box and the furthest indoor unit: **40 m**
- Height difference between the outdoor unit and indoor units: **110 m**
- Height difference between indoor units: 30 m

### Energy management system

For projects with temporary power supply restrictions, the V6R series can be configured to limit its capacity between  $40 \sim 100 \%$ .



### High static pressure

The available static fan pressure can be increased by 80 Pa, simply activating a micro-switch on the control board of the outdoor unit.







### EASIER INSTALLATION

### Automatic addressing

By default, the first time the entire system powered on, the outdoor unit automatically assigns an address to each indoor unit. It is also possible to consult and change the address of each interior unit from your local controller.

### Without oil balance pipe

Thanks to the new oil management technology, in the modular systems, there is no need to install the oil balance pipe.





### Distribution boxes with up to 12 outlets

The distribution boxes for the V6R system have up to 12 outlets. Each outlet can connect up to 5 or 8 indoor units, depending on the model of each box. Indoor units up to 28 kW can be connected by combining 2 outputs from the same box.

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Model			MS01/N1-D <sup>(1)</sup>	MS04/N1-D	MS06/N1-D	MS08/N1-D	MS10/N1-D	MS12/N1-D	
Code				CL23630	CL23631	CL23632	CL23633	CL23634	CL23635
Power supply		Ph / V / Hz	1N~/230/50	1N~/230/50	1N~/230/50	1N~/230/50	1N~/230/50	1N~/230/50	
Max. number of indoor units groups (outlets)				1	4	6	8	10	12
Max. number of internal units per group				8	5	5	5	5	5
Max. number of indoor unit	ts in total			8	20	30	40	47	47
Max. capacity of each group kW				32	16	16	16 16		16
Max. total capacity of indoor units kW				32	49	63	85	85	85
Sound pressure <sup>(2)</sup> dB(A)				40	44	45	47	47	47
Sound power <sup>(2)</sup> dB(A)			60	63	65	65	65	65	
	Outdoor unit side	Liquid	mm (inches)	9.5 (3/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")
		Low pressure gas	mm (inches)	15.9 (5/8")	28.6 (1 1/8")	28.6 (1 1/8")	28.6 (1 1/8")	28.6 (1 1/8")	28.6 (1 1/8")
Refrigerant connections		High pressure gas	mm (inches)	12.7 (1/2")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")
	Indoor unit side	Liquid	mm (inches)	9.5 (3/8")	9.5 (3/8")	9.5 (3/8")	9.5 (3/8")	9.5 (3/8")	9.5 (3/8")
		Gas	mm (inches)	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")
Drainage connection mm			Ø25	Ø25	Ø25	Ø25	Ø25	Ø25	
Dimensions (W x H x D) mm			mm	440x195x296	668x250x574	668x250x574	974x250x574	974x250x574	974x250x574
Weight kg				10.5	33	36	48	51	54

Notes: <sup>(1)</sup> The MS01/N1-D box is used for cooling operation at low outdoor ambient temperature (-15 °C  $\sim$  to -5 °C).

(2) Sound pressure measured in a semi-anechoic chamber at a 1 m distance from the bottom of the MS box while it is changing its operating mode.



### EASIER MAINTENANCE

### Maintenance mode

When the maintenance mode is activated, the outdoor unit does not check the number of indoor units connected, so that the system can continue to operate without them.



### Black Box

As standard, the units are equipped with a "Black Box" multi-functional board that allows to check the operating parameters of the unit without having to open the front panel. It also allows the recording of the operating parameters during the last 30 minutes.

### Settings menu

The main board features the new parameter settings menu that allows you to adjust most of the equipment's functions.





### VERSATILITY

### Up to 200% connectivity rate

Under certain conditions, the V6R system allows the connection of up to 200% of the outdoor unit capacity.



Connectable capacity of each type of indoor units Number of Total connectable Type of system outdoor units capacity Hydrobox indoor 100 % outside joined together VRF indoor units **AHUKZ-D** units units air indoor units 1 50 % ~ 200 % 50 % ~ 200 % 50 % ~ 150 % MVD indoor units only 2 50 % ~ 150 % \_ \_ \_ 3 50 % ~ 130 % 50 % ~ 130 % \_ \_ \_ MVD indoor units + Hydrobox indoor units 1, 2 or 3  $50 \% \sim 200 \%$ 50 % ~ 130 % 0 % ~ 100 % MVD indoor units + 100 % outside air indoor units 1, 2 or 3 50 % ~ 100 % 50 % ~ 100 %  $0 \% \sim 30 \%$  $0~\%\sim 30~\%$ \_ MVD indoor units + AHUKZ-D units 1.2 or 3 50 % ~ 100 % 50 % ~ 100 % 0 % ~ 50 % \_ \_

### VERSATILITY

### **Multiple uses**

With the Maxi MVD V6R 3-pipe system with heat recovery, you can cool, heat and produce hot water (up to 80 °C) simultaneously with a single system.



### HYDROBOX INDOOR UNIT FOR HOT WATER PRODUCTION

Hydrobox indoor unit for high temperature hot water production. Connected to a Maxi MVD V6R system, it can produce hot water for heating and DHW within a temperature range between 25 °C and 80 °C, thanks to its built-in R134a compressor that allows it to produce high temperature water.

- In the low temperature operation mode: it is a system with R410A refrigerant, the R410A absorbs heat from the environment and transfers it to the plate heat exchanger of the Hydrobox unit.
- In the high temperature operation mode: it is a system with R134a refrigerant, the R134a absorbs the heat from the R410A circuit and transfers it to the plate heat exchanger of the Hydrobox unit.

140 kW of hot water production. Wired control Installation accessories Principal Hydrobox (#0 DHW tanl Installation accessories Installation accessories Secondary Hydrobox (#2) ...

> Hydrobox indoor units are connected directly to the main piping with no need for a MS distribution box.





Up to 10 Hydrobox

Possible modular connection of up to 10 Hydrobox indoor units, thus able to reach



### HYDROBOX UNIT TECHNICAL SPECIFICATIONS

Model	MVD-W140RN3				
Code	CL23636				
Power supply	Ph / V / Hz	1N~ / 230 / 50			
Outside air: 7 °C DB, 6 °C WB;	Capacity	kW	14		
Water flow rate: 2.4 m <sup>3</sup> /h	Consumption	kW	1.59		
Outside air: 7 °C DB, 6 °C WB;	Capacity	kW	7.1		
Water flow rate: 2.4 m <sup>3</sup> /h	Consumption	kW	2.98		
Nominal / max. current	16 / 20				
Water outlet temperature range	°C	25 ~ 80			
Water flow rate	Nominal (min. ~ max.)	m³/h	2.4 (1.2 ~ 2.9)		
Heat exchanger pressure drop at nominal flow rate		kPa	20		
Permitted water pressure	Permitted water pressure min. ~ max.				
Water inlet temperature range	/ater inlet temperature range min. ~ max. °C				
Sound pressure	dB(A)	43			
Sound power	dB(A)	54			
	Туре		Welding		
Refrigerant connections	Liquid	mm (inches) 9.			
	Gas	mm (inches)	12.7 (1/2")		
Water connections	Туре	Male thread			
	Diameter	mm (inches)	Ø 25 (1")		
	Brand	Mitsubishi			
Compressor	Туре	DC Inverter Twin Rotary			
ompressor	Quantity	1			
	Model	SBB220FAMEC			
Internal refrigerant	Type / GWP		R134a / 143		
	Quantity	kg / TCO₂eq	1.2 / 1.716		
Electrical connections (1)	Power wiring	mm²	2 x 2.5 + T		
	Communication cable	mm²	3 x 0.75 (shielded)		
Dimensions (W x H x D)	450 x 795 x 300				
Weight	63				
Operating temperature range	Heating	٥C	-20 ~ 30		
operating temperature range	DHW	°C	-20 ~ 43		

Notes:

<sup>(1)</sup> Recommended power wiring for L < 20 m; It should be calculated according to the conditions of each installation. \* Does not include recirculation pump.

### OUTDOOR UNITS TECHNICAL SPECIFICATIONS



Model				MVD-V6R252W/ V2GN1	MVD-V6R280W/ V2GN1	MVD-V6R335W/ V2GN1	MVD-V6R400W/ V2GN1	MVD-V6R450W/ V2GN1	MVD-V6R500W/ V2GN1
Code				CL23620	CL23621	CL23622	CL23623	CL23624	CL23625
Power supply	Ph / V / Hz			3N~ / 400 / 50					
	Nominal capacity		kW	22.4	28	33.5	40	45	50
	Nominal c	onsumption	kW	5.25	7.15	8.64	9.83	12	13.81
0 11 (1)	EER			4.27	3.9	3.88	4.07	3.75	3.62
Cooling (1)	Prated, c (des	sign capacity)	kW	22.4	28	33.5	40	45	50
	SEER			7.73	7.55	7.30	6.70	6.68	6.88
	ηs,c (Seas	sonal energy efficiency)	%	306	299	289	265	264	272
	Nominal /	Nominal / max. capacity		22.4 / 25	28/31.5	33.5 / 37.5	40 / 45	45 / 50	50 / 56
	Nominal /	max. consumption	kW	3.96 / 4.69	5.46 / 7.12	6.57 / 9.48	8.26 / 9.78	9.78 / 12.26	11.9/14.77
	Nominal /	max. COP		5.66 / 5.33	5.13 / 4.43	5.1 / 3.95	4.84 / 4.6	4.6 / 4.08	4.2 / 3.79
Heating (2)	P <sub>rated</sub> ,h (des	sign capacity)	kW	22.4	28	33.5	40	45	50
	SCOP			4.18	4.25	4.60	4.35	4.33	4.20
	ηs,h (Seas	sonal energy efficiency)	%	164	167	181	171	170	165
	Tbiv (bival	ent temperature)	°C	-10	-10	-10	-10	-10	-10
Nominal / max. cur	rent	. ,	Α	18 / 20	22 / 25	24 / 25	28 / 30	34 / 35	36 / 40
• • • •	Connectab	le capacity	%	50 - 200	50 - 200	50 - 200	50 - 200	50 - 200	50 - 200
Connectivity	Max. numl	per of indoor units		64	64	64	64	64	64
	Brand			Hitachi	Hitachi	Hitachi	Hitachi	Hitachi	Hitachi
	Туре					EVI Scroll	DC Inverter		1
Compressor	Quantity			1	1	1	1	1	1
	Model				AA55PHDG-D1Y2	1		DC80PHDG-D1Y2	1
	Туре			DC	DC	DC	DC	DC	DC
	Quantity			1	1	1	2	2	2
Fan	Flow rate		m³/h	9,000	9,500	10,000	14,000	14,900	15,800
	Static	Standard	Pa	0 ~ 20	0 ~ 20	0 ~ 20	0 ~ 20	0 ~ 20	0 ~ 20
	pressure	Configurable	Pa	20/40/60/80	20/40/60/80	20/40/60/80	20/40/60/80	20/40/60/80	20/40/60/80
Sound pressure (4) dl		dB(A)	58	58	60	61	64	65	
Sound power (L <sub>WA</sub> ) <sup>(4)</sup> dB(A)		dB(A)	78	78	81	85	88	88	
Dimensions (W x H x D) mm		mm	990 x 1635 x 790	990 x 1635 x 790	990 x 1635 x 790	1340 x 1635 x 850	1340 x 1635 x 850	1340 x 1635 x 825	
Weight kg		kg	232	232	232	300	300	300	
Type / GWP			R410A / 2088	R410A / 2088	R410A / 2088	R410A / 2088	R410A / 2088	R410A / 2088	
Reingerant	Quantity		kg/TCO <sub>2</sub> eq	8 / 16.7	8 / 16.7	8 / 16.7	10 / 20.88	10 / 20.88	10/20.88
	Max.	Outdoor unit above	m	110	110	110	110	110	110
Refrigerant piping	vertical	Outdoor unit below	m	110	110	110	110	110	110
longui	Total		m	1,000	1,000	1,000	1,000	1,000	1,000
Refrigerant nining	Liquid mm (inche			12.7 (1/2")	12.7 (1/2")	12.7 (1/2")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")
connections (5)	Low pressure gas mm (inches			25.4 (1")	25.4 (1")	25.4 (1")	28.6 (1 1/8")	28.6 (1 1/8")	28.6 (1 1/8")
	High press	sure gas	mm (inches)	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")
Electrical	Power wiri	ng / ICP	mm <sup>2</sup>	4x4 + T/20	4 x 4 + T / 25	4x4 + T/25	4x6 + T/32	4x10 + T/40	4x10 + T/50
connections (6)	Communic	cation cable	mm²	3 x 0.75 (shielded)					
		Cooling only (7)	°C	-15 ~ 52	-15 ~ 52	-15 ~ 52	-15 ~ 52	-15 ~ 52	-15 ~ 52
	VRF ind.	Main cooling (7)	°C	-15 ~ 27	-15 ~ 27	-15 ~ 27	-15 ~ 27	-15 ~ 27	-15 ~ 27
Uperating tem-	anito	Heating only	°C	-25 ~ 19	-25 ~ 19	-25 ~ 19	-25 ~ 19	-25 ~ 19	-25 ~ 19
Porataro rango		Main heating	°C	-15 ~ 19	-15 ~ 19	-15 ~ 19	-15 ~ 19	-15 ~ 19	-15 ~ 19
	Hydrobox	Heating	°C	-20 ~ 30	-20 ~ 30	-20 ~ 30	-20 ~ 30	-20 ~ 30	-20 ~ 30
	ind. units	DHW	<u> </u>	-20 ~ 43	-20 ~ 43	-20 ~ 43	-20 ~ 43	-20 ~ 43	-20 ~ 43

Notes:

(1) Nominal cooling conditions: indoor 27 °C BS, 19 °C BH and outdoor 35 °C BS, 24 °C BH, for a pipe length of 7.5 m and with no height difference.

(2) Nominal heating conditions: indoor 20 °C BS, 15 °C BH and outdoor 7 °C BS, 6 °C BH, for a pipe length of 7.5 m and with no height difference.

(3) The connectable capacity may vary depending on the type of indoor units used. In order to know the connectivity allowed in each case, please refer to the "Connectivity" table.

<sup>(4)</sup> Sound pressure measured in anechoic chamber at 1 m frontal distance and 1.3 m height.

<sup>(5)</sup> The refrigerant piping diameter indicated is for the service valves, this does not mean that the piping needs to be of that diameter.

 $^{(6)}$  Recommended power wiring for L < 20 m; It should be calculated depending on the conditions of each installation.

<sup>(7)</sup> Cooling operation at low outdoor ambient temperature (-15 °C ~ to -5 °C) is only available for indoor units connected to the MS01 distribution box.

\* Data measured under EUROVENT EN 14825 conditions, at 100 % simultaneity with high pressure duct-type indoor units.

\*\* All the data and specifications can be changed without previous notice.



### COMBINATIONS

Cap	acity	Combination	Number of ODU	Max. number of IDU	
kW	HP	HP			
22.4	8	8	1	64	
28	10	10	1	64	
33.5	12	12	1	64	
40	14	14	1	64	
45	16	16	1	64	
50	18	18	1	64	
56	20	10+12	2	64	
61.5	22	10+12	2	64	
68	24	10+14	2	64	
73.5	26	12+14	2	64	
78.5	28	12+16	2	64	
83.5	30	12+18	2	64	
90	32	16+16	2	64	
95	34	16+18	2	64	
100	36	18+18	2	64	
107	38	12+12+14	3	64	
112	40	12+12+16	3	64	
118	42	12+14+16	3	64	
123.5	44	12+16+16	3	64	
130	46	14+16+16	3	64	
135	48	16+16+16	3	64	
140	50	16+16+18	3	64	
145	52	16+18+18	3	64	
150	54	18+18+18	3	64	

### Note:

<sup>(1)</sup> In systems consisting of several modules, the power wiring and the electrical protections must be independently recalculated for each module.

(2) Standard combinations, any other combination is possible (max. 3 units).

(3) In systems consisting of 2 modules, it is necessary to acquire the FQZHW-02SB outdoor unit distributor; Or the FQZHW-03SB if it consists of 3 modules.

# **Features Description**



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### WEEKLY TIMER

Sets the weekly operation of the unit.

FOLLOW ME FUNCTION (IFEEL) The remote control incorporates an ambient temperature sensor.

AUTOMATIC RESTART Recovery of the parameters before the electrical cut.

### **EMERGENCY OPERATION**

Possibility of manually operating the unit with the button in case of any alarms sounding.



Turbo

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## COLD AIR PRECAUTION

When heating, the initial fan speed is adjusted according to the battery temperature.



Maximum reduction of the cooling/ heating time.

LOW SOUND LEVEL Thanks to the Silence mode and its new design, the sound level is reduced to the minimum.

### **TEMPERATURE COMPENSATION** The remote control allows you to

adjust the compensation temperature for the heating and cooling mode.



### FRESH AIR (ION)

The equipment incorporates an ionizer to generate OH(-) and thus purify the air by deactivating bacteria, viruses and other contaminants in the environment, providing a very pleasant feeling of freshness.



### BREEZE AWAY

Function that allows the air flow to be diverted to another place to prevent the equipment from blowing directly on people.



### QUIETER OUTDOOR UNIT

Optimized design of air outlet grille with noise reduction of 3.3 dB(A) compared to previous models.



### WIDE WORKING RANGE Cooling operation until 50 °C and -15 °C in heating.



WIFI Possibility for the unit to be controlled via WIFI, through an APP.



ENERGY LABELLING FOR COOLING A+++



FOR COOLING A++ ENERGY LABELLING

ENERGY LABELLING



ENERGY LABELLING FOR COOLING A

FOR COOLING A<sup>+</sup>



R410A Equipment using refrigerant R410A with a GWP of 2088.



### NIGHT MODE

Makes the unit operate according to the preset nighttime temperature curve, which creates an ideal nighttime environment and improves sleep quality.

### DAILY TIMER

The timer can be set to start and stop at any point in a 24-hour period.

### 360° DESIGN

Thanks to the 360° panel design, the air is more evenly distributed.



### HORIZONTAL AND VERTICAL FLAP ROTATION

Better air distribution thanks to the flap's horizontal and vertical automatic swing.

### GEAR

Allows to set the equipment capacity to 50 %, 75 % or 100 % (default).



### COLD CATALYST FILTER The equipment features a purifying

filter that can absorb formaldehyde without needing ultra-violet light.

### SPRINT START

Like a sprinter, this function allows the compressor to reach 65 Hz in just 6 s.

### HUMIDITY CONTROL

In dehumidification mode, the relative humidity control can be set between 35 % and 85 %.

Allows operation with only ventilation.



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THERMOSTAT It automatically maintains the set

VENTILATION FUNCTION



temperature.

Humidity reduction helps restore an optimum temperature in wet areas.



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R32

Note: This Features Description is generic, you will find the icons that apply to this data sheet in the header of the first page of the data sheet.

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MULTI-SPEED INDOOR FAN The fan has up to 12 different speeds that are automatically adjusted if the automatic ventilation is activated.



CENTRALIZED CONTROLLER Possibility of controlling several units with the same controller.



ENERGY LABELLING FOR HEATING A++





Equipment using the most

environmentally friendly refrigerant R32

with a GWP of 675. In order to install equipment with R32 refrigerant gas, you must review the current legislation.

**R32** 



### The outdoor unit is automatically disconnected from the power supply when the unit is in standby, that way the

DOMOTICS

systems (Consult).

STANDBY FUNCTION

(ONLY 1W IN STANDBY)



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PRESENCE SENSOR Detects inactivity (30 min) in the room to reduce the operating frequency and thus save energy.

consumption in standby mode is only 1W.

Possibility of connection with the main

manufacturers of home automation

R290 XX R290

### Refrigerant

Connectivity

**Energy efficiency** 

Equipment using the new refrigerant R290 which has a GWP of only 3.



### ultra-quiet speed, so that the sound

level of the equipment is very low. CONTROL PANEL A control panel is added to run the





control.



### DUAL AIR FLOW

Top and bottom air outlet. In cooling mode only the upper outlet works, and in heating mode both outlets work, thus heating from ground level.

machine without any wireless remote



### CORE GENIUS

The frequency of traditional Inverter equipment has a fluctuation of ± 1 °C of the ambient temperature during operation. However, with the new "CORE GENIUS" Inverter technology that adjusts 0.6 Hz for each step, the frequency variation of the Inverter is so smooth that the ± 0.5 °C fluctuation of the ambient temperature is not noticeable.







BACKLIT WALL CONTROL

INDIVIDUAL FLAP CONTROL

Possibility to adjust the angle of the 4

The upper slat allows an adjustment

The new KJR-120N wired wall controller features a backlit screen for easy reading.



### HEATING 8 °C



flaps independently.



120°

at 120°.





Comfort

# **Features Description**



### REMOVABLE FILTERS

New filter fastening system with tabs to ensure correct fastening without vibrations.



### OUTSIDE AIR INLET

Possibility of supplying outdoor air directly on the indoor unit.

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LED

DRAINAGE PUMP

Incorporates drainage pump to facilitate the drainage of the indoor unit.

### **REMINDER OF FILTER'S CLEANING**

The equipment tells us when to clean and/or replace the air filter of the indoor unit.

### PIPE COMPATIBILITY

Possibility of increasing one size over the standard diameter in the gas or liquid pipe or both.

### DIGITAL LED DISPLAY

Equipment with a digital display showing the set temperature during normal operation or the ambient temperature in ventilation mode.

### LESS SCREWS

Both the indoor unit and the outdoor unit have less screws, to make the disassembly easier.

### REFRIGERANT LEAK DETECTION

The unit automatically detects the existence of possible leaks of refrigerant in the circuit.



### SELF-CLEANING

This function performs a self cleaning on the indoor unit. When the "SELF-CLEANING" function is activated (SelfClean or iClean buttons), the unit initially operates in cooling mode with the fan at low speed, during this period the condensation water drags the dust from the battery. The unit then switches to heating mode with the fan at low speed, to dry the battery and the inside of the unit. Finally the unit changes to ventilation mode to finish drying completely.



### ULTRA-REINFORCED MOUNTING PLATE

Reinforced mounting plate with measuring range and spirit level included

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POWER SUPPLY ONLY TO OUTDOOR UNIT

The indoor unit is powered by the same interconnection cable with the outdoor unit.



X

### SINGLE-FAN OUTDOOR UNITS Optimize outdoor space thanks to

outdoor units with lower height.



### SUPER DC

Equipment that has both. DC Inverter compressor and DC fan motors.

COOLING AT LOW TEMPERATURES Cooling operation down to -15 °C outside.

HEATING AT LOW TEMPERATURES Heating operation down to -25 °C outside.

CONSTANT AIR FLOW CONTROL The indoor fan adjusts to the required static pressure to ensure a constant air supply at all times.



c⁰-C⁰

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165V

HIGH STATIC PRESSURE Wide static pressure range.

### SET TEMPERATURES RANGE ADJUSTMENT

The remote control is able to adjust: minimum cooling from 16 °C up to 24 °C; maximum heating from 30 °C down to 25 °C.

### LEG IN U FORM

Thanks to the new back leg in the outdoor unit, the installation is easier.

### LOW VOLTAGE START

The equipment can start up and operate normally up to a supply voltage lower than the nominal voltage.

### **PROBLEM SOLVING**

Error codes are displayed on the indoor panel, on the wall control or on the outdoor PCB.



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### **CONFIGURABLE STATIC** PRESSURE

From the PCB (or any model with the wireless or wired remote control) the static pressure of the fan can be adjusted, so that the machine can be adapted to each installation.

### **CONFIGURABLE RETURN**

The air intake can be set up either at the rear or at the bottom of the unit. By default, it is set up at the rear.



ROTACIÓN

BACK-UP

**TWIN FUNCTION (2×1)** Two indoor units can be connected to the same outdoor unit. Both indoor units will function

identically as if they were one single unit. It is perfect for open rooms.

### **REVERSE ROTATION**

When the unit is stopped, the outdoor unit fan rotates backwards to remove leaves or other external elements from the coil.

### **ROTATION & BACK UP**

This function allows redundant operation in installations with 2 units connected to the same KJR-120N wired controller, in the event that one machine does not reach the set temperature, the two machines will automatically start operating together at 24 °C in the selected mode. At the same time a rotation in the operation of the 2 machines is carried out so that both machines operate for the same amount of time.



IN

0-10V

OUT

Note: This Features Description is generic, you will find the icons that apply to this data sheet in the header of the first page of the data sheet.

DC Unit with DC fan motor. low noise and low-energy consumption.



### **EVI COMPRESSOR** High efficiency asymmetric scroll compressor with steam injection



0-10V INPUT Unit with DC fan motor with 0-10V



# regulation.





MUND

### Easy installation and maintenance

### AUTO ROUTING

The outdoor unit can assign addresses to the indoor units automatically.



### ENGINEERING MODE



Function adjustment and operating parameters query using the control.





### DELIVERY OUTLET TO ADJACENT

ROOM The unit has pre-drilled outlets for connecting a small duct to climatize an adjacent room.



### AIR DISCHARGE TUBE TO THE OUTSIDE



### Easy and quick to install, it allows the



### CONDENSATE REMOVAL

Removes condensate water so it is not necessary to connect the air conditioner to a drain. In dehumidification mode and in very humid environments, it is recommended to connect the equipment to a drain.



### PANEL OF COMPACT SIZE

The grid panel of the cassette type unit measures  $600 \times 600$  mm.





### GOLDEN FIN

Heat exchanger with special treatment, which protects the equipment against atmospheric phenomena and the effects of aggressive environments. It also prevents the proliferation of bacteria and mold.

AUTOMATIC REFRIGERANT REFILL

Allows the system to be refilled with

refrigerant gas without having to do

Equipment that can be installed in

both horizontal and vertical position.

Advanced air conditioning technology

that optimizes temperature, refrigerant

Unit with DC fan motor with 7 speeds.

**EXTERNAL FAN DIFFERENT** 

Equipment with an electronic

expansion valve that adjusts the

capacity of the equipment in a more

thanks to the DC motor.

Accurate adjustment of fan speed

Technology

and air flow to save energy and

any additional calculation.

META FUNCTION

maximize the comfort.

7 SPEED FAN

SPEEDS

stable way.

EXV

HORIZONTAL / VERTICAL

### BLUE FIN



0

\*

7 VEL.