OUTDOOR UNITS
Mini MVD V8M 2 Pipes Series
Super DC Inverter (25 kW ~ 61,5 kW)

Protocol V8

**MORE POWER IN A REDUCED SIZE...
25 kW ~ 61,5 kW**

OPTIONALS

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

Centralised control

CCM180A/WS[1]
(CL09300)

TC3-10.1
(CL09305)

CCM-15(A)[1]
(CL92872)

Control software

IMMPRO II + MK2-B3311 Hardware
(CL09306)

BMS

GW3-MOD
(CL09307)

GW3-BAC
(CL09308)

GW3-LON
(CL09309)

IMMP-BAC(A)[1]
(CL09303)

IN770AIR
(CL09350 / CL09351 / CL09352)

Accessories

Wattmeter
DTSU666
(CL09431)

XYE MA-EK
Extension
module[1]
(CL09430)

XYE MA3-EK
Extension module
(CL09440)

[1] It is necessary to change the protocol to V6 in the outdoor unit.

MVD V8M OUTDOOR UNITS Series

MUNDOCLIMA

MORE COMPACT

25.2 ~ 40 kW

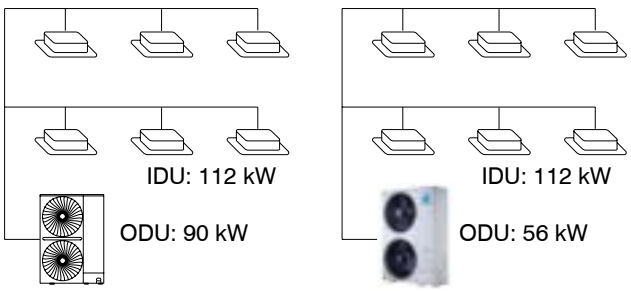
Model 252 / 280 / 335 / 400

45 ~ 61.5 kW

Model 450 / 500 / 560 / 615

VERSATILITY

Under certain conditions, the new V8M series allows the connection of up to 200 % of the outdoor unit capacity.



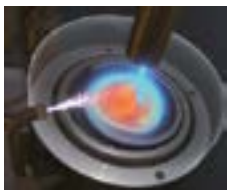
Traditional VRF system **New V8M series**

HIGH STATIC PRESSURE

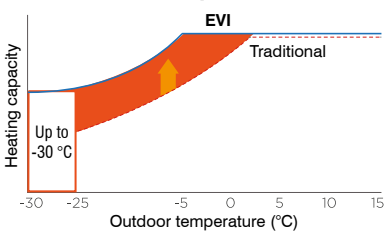
The fan's available static pressure can be increased up to 80 Pa.

EVI DC INVERTER SCROLL COMPRESSOR (Enhanced vapor injection)

The EVI compressor increases the circulation of refrigerant and improves the capacity in both cooling and heating.

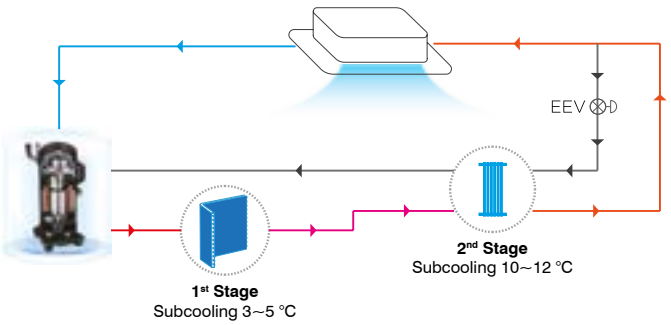


Performance comparison



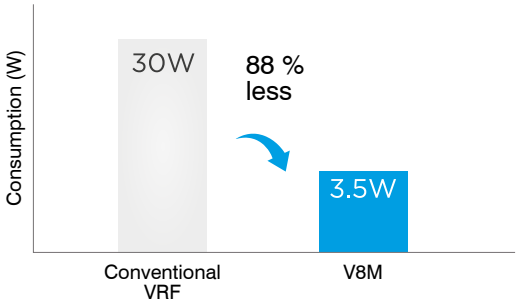
SUBCOOLING IN 2 STAGES

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.



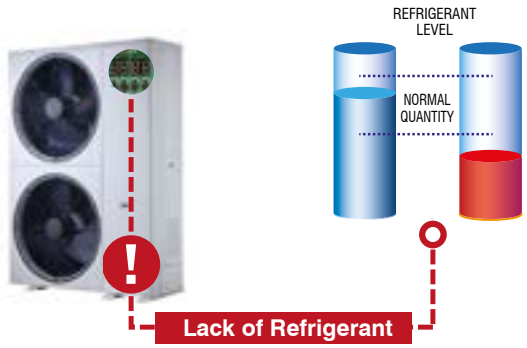
LOW CONSUMPTION IN STAND-BY MODE

The V8M series only consumes 3.5 W in stand-by mode, compared to 30 W on average in a conventional VRF.



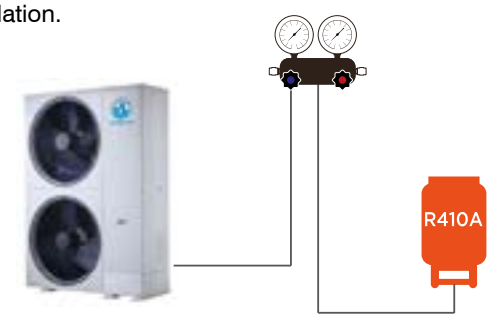
DETECTION OF LACK/EXCESS OF REFRIGERANT

The V8M series can detect if the system lacks refrigerant or if there is an excess.



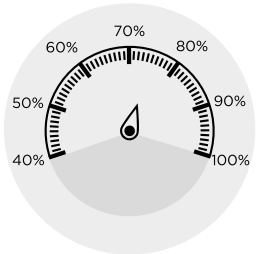
AUTOMATIC REFRIGERANT GAS CHARGE

The V8M series charges the refrigerant gas automatically without having to perform the additional charge calculation.



ENERGY MANAGEMENT SYSTEM

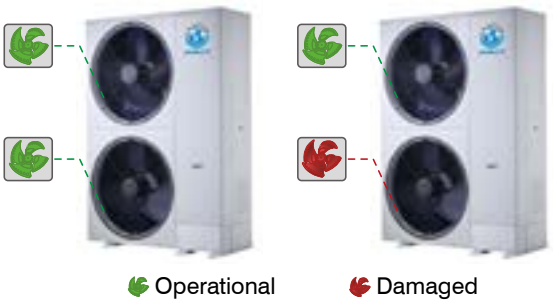
For projects with temporary power supply restrictions, the V8M series can be configured to limit its capacity between 40 ~ 100 % in 1 % steps.



DOUBLE “BACKUP” FUNCTION

01 - Fans

The equipment can be left running with only one fan.

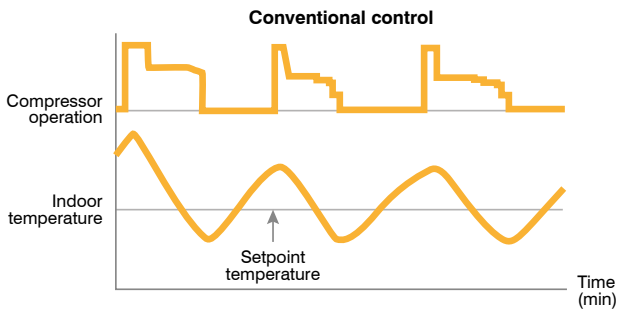


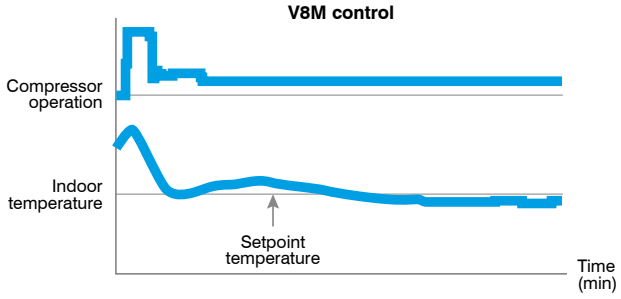
02 - Sensors

Even if a temperature sensor is damaged, the equipment can continue to work, thanks to the algorithm that allows the generation of a virtual sensor to operate as a backup.

EVAPORATION/CONDENSATION FLOATING TEMPERATURE

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

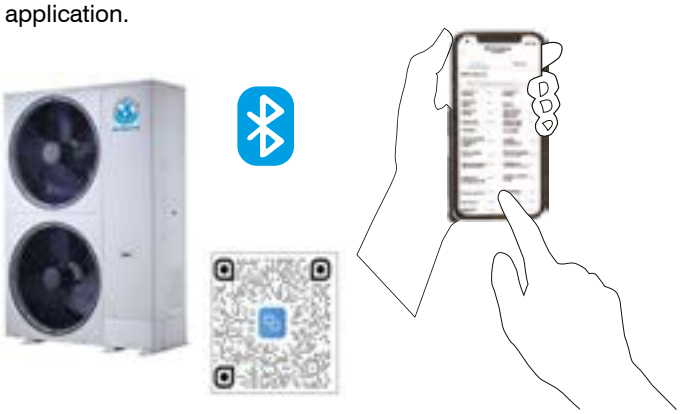




MVD V8M OUTDOOR UNITS Series

FEATURES BLUETOOTH MODULE

For easier commissioning and maintenance, the V8M series allows you to configure and consult operating parameters via mobile phone, using the LET'S LINK application.



EASY TO INSTALL

The mini MVD can be transported with a forklift. Its small size makes it easier to install and effectively reduces the time and manpower required.

CONNECTABLE INDOOR UNITS

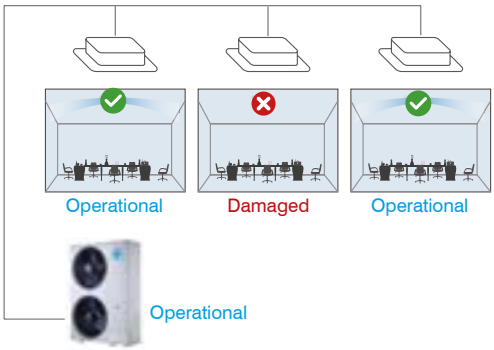
Model	Max. number of IDU
252	13
280	16
335	19
400	23
450	26
500	29
560	33
615	36

SIMPLIFIED CONNECTION

The central controller is directly connected to the outdoor unit and the automatic direction is activated; This way, the controller can detect all indoor units connected to that outdoor unit. Afterward, the addresses can be modified manually with the individual controller of each equipment.

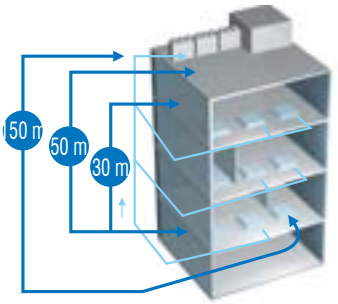
MAINTENANCE MODE

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.



TOTAL PIPE LENGTH

The Mini MVD V8M system supports a maximum pipe length of 150m, with a height difference between the outdoor and indoor units of up to 50m.



150m: Maximum pipe length between the outdoor unit and the farthest indoor unit.

50m: Maximum height difference between the indoor and outdoor units.

30m: Maximum height difference between indoor units.

AUTOMATIC ADDRESSING

By default, the first time the power supply is activated for the entire system, the outdoor unit automatically assigns the address to each indoor unit. It is also possible to consult and modify the address of each interior unit from your controller.

MVD V8M OUTDOOR UNITS Series

MUNDOCLIMA

TECHNICAL SPECIFICATIONS

Model			MVD-V8M252W DRN1	MVD-V8M280W DRN1	MVD-V8M335W DRN1	MVD-V8M400W DRN1	MVD-V8M450W DRN1	MVD-V8M500W DRN1	MVD-V8M560W DRN1	MVD-V8M615W DRN1
Code			CL23362	CL23363	CL23364	CL23365	CL23366	CL23367	CL23368	CL23369
Power supply		Ph / V / Hz	3N~ / 400 / 50							
Cooling [1]	Nominal capacity	kW	25.2	28	33.5	40.00	45.00	50.00	56.00	61.50
	Nominal rating	kW	7.60	9.10	11.60	15.70	16.00	19.50	22.90	30.80
	EER		3.30	3.09	2.90	2.54	2.82	2.57	2.45	2.00
	P_{rated},c (design capacity)	kW	25.2	28	33.5	40.00	45	50	56.0	61.50
	SEER		7.1	6.8	6.38	6.23	6.15	6.08	5.95	5.80
	ηs,c (seasonal energy efficiency)	%	287	279	273.4	263.0	267.8	255.8	249.0	243.0
Heating [2]	Nominal capacity	kW	25.2	28	33.5	40.00	45.00	50.00	56.00	61.50
	Nominal consumption	kW	6.1	7.0	9.1	11.70	12.20	13.70	15.50	18.80
	COP		4.1	4.02	3.68	3.42	3.68	3.65	3.62	3.28
	P_{rated},h (design capacity)	kW	25.2	28	33.5	40.00	45	50	56.00	61.50
	SCOP		4.15	4.1	4.11	4.00	4.10	4.15	4.07	4.00
	ηs,h (seasonal energy efficiency)	%	163	161.4	161.4	163.0	166.2	163.8	159.8	157.0
	Tbiv (bivalent temperature)	°C	-10	-10	-10	-10	-10	-10	-10	-10
Nominal / max. current		A	17 / 20	21 / 25	23 / 32	28 / 32	30 / 40	33 / 40	40 / 50	45 / 50
Connectivity	Connectable capacity	%	50 - 200	50 - 200	50 - 200	50 - 200	50 - 200	50 - 200	50 - 200	50 - 200
	Max. number indoor units		13	16	19	23	26	29	32	35
Compressor	Brand		GMCC	GMCC	GMCC	GMCC	GMCC	GMCC	HITACHI	HITACHI
	Type		DC Inverter - Scroll EVI							
	Quantity		1	1	1	1	1	1	1	1
	Model		SAVC060D11ULKB			SAVC060-D11ULKB	SAVC070D44ULKB		DE98PHDG-D1Y2	
Fan	Type		DC	DC	DC	DC	DC	DC	DC	DC
	Quantity		2	2	2	2	2	2	2	2
	Flow rate	m^3/h	11,800	12,500	12,500	12,500	18,500	20,000	18,500	19,000
	Static pressure	Pa	0 ~ 80	0 ~ 80	0 ~ 80	0 ~ 80	0 ~ 80	0 ~ 80	0 ~ 80	0 ~ 80
Sound pressure [3]		dB(A)	56	57	58	59	60	61	61	62
Sound power (L_{WA}) [3]		dB(A)	76	79	81	82	86	88	89	89
Dimensions (W x H x D)		mm	1130 x 1760 x 580				1250 x 1760 x 580			
Weight		kg	182	182	185	187	214	214	234	234
Refrigerant	Type / GWP		R410A / 2088							
	Quantity	kg / TCO_2eq	6.1 / 12.74	6.1 / 12.74	6.4 / 13.37	7.4 / 15.46	8 / 16.71	8 / 16.71	8.5 / 17.75	8.5 / 17.75
Pipe length [4]	Max. vertical	m	50	50	50	50	50	50	50	50
	Total	m	150	150	150	150	150	150	150	150
Connection pipes [5]	Liquid	mm (inches)	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")
	Gas	mm (inches)	25.4 (1")	25.4 (1")	25.4 (1")	25.4 (1")	28.6 (1-1/8")	28.6 (1-1/8")	28.6 (1-1/8")	28.6 (1-1/8")
Electrical connections [6]	Power wiring / ICP	mm^2/A	4x4+T/20	4x4+T/25	4x4+T/32	4x6+T/32	4x10+T/40	4x10+T/40	4x10+T/40	4x16+T/50
	Communication wiring	mm^2	3 x 0.75 (shielded)							
Operation temp. range	Cooling	°C	-15 ~ 55	-15 ~ 55	-15 ~ 55	-15 ~ 55	-15 ~ 55	-15 ~ 55	-15 ~ 55	-15 ~ 55
	Heating	°C	-30 ~ 30	-30 ~ 30	-30 ~ 30	-30 ~ 30	-30 ~ 30	-30 ~ 30	-30 ~ 30	-30 ~ 30

Notes:

[1] Nominal cooling conditions: indoor 27 °C Dry Bulb (DB), 19 °C Wet Bulb (WB) and outdoor 35 °C DB, for a pipe length of 5 m and with no height difference.
[2] Nominal heating conditions: indoor 20 °C DB, 15 °C WB and outdoor 7 °C DB, for a pipe length of 5 m and with no height difference.
[3] Pressure noise level measured in a semi-anechoic chamber at 1 m frontal distance and 1.3 m height.
[4] Pipe length when outdoor unit is installed higher than the indoor units.
[5] The specified diameters are for the service valves, this does not mean that the pipe must have this diameter.
[6] Recommended power wiring for L < 20 m. For longer distances, it should be recalculated.

* Data measured under EUROVENT EN 14825 conditions, at 100 % simultaneity.
** All the data and specifications are subject to modifications without previous notice.

Features Description

MUNDOCLIMA

Comfort

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.

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

TURBO OPERATION
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.

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 %.

VENTILATION FUNCTION
Allows operation with only ventilation.

THERMOSTAT
It automatically maintains the set temperature.

DEHUMIDIFICATION
Humidity reduction helps restore an optimum temperature in wet areas.

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

SILENCE
This function allows you to select the ultra-quiet speed, so that the sound level of the equipment is very low.

CONTROL PANEL
A control panel is added to run the machine without any wireless remote 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.

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.

INDIVIDUAL FLAP CONTROL
Possibility to adjust the angle of the 4 flaps independently.

120°
The upper slat allows an adjustment at 120°.

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

HEATING 8 °C
The unit automatically switches to heating mode when the ambient temperature is below 8 °C, thus preventing the room temperature from being too low when we are not at home.

Connectivity

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

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

DOMOTICS
Possibility of connection with the main manufacturers of home automation systems (Consult).

Energy efficiency

ENERGY LABELLING FOR COOLING A+++

ENERGY LABELLING FOR COOLING A++

ENERGY LABELLING FOR COOLING A+

ENERGY LABELLING FOR COOLING A

ENERGY LABELLING FOR HEATING A+++

ENERGY LABELLING FOR HEATING A++

ENERGY LABELLING FOR HEATING A+

ENERGY LABELLING FOR HEATING A

STANDBY FUNCTION (ONLY 1W IN STANDBY)
The outdoor unit is automatically disconnected from the power supply when the unit is in standby, that way the consumption in standby mode is only 1W.

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

Refrigerant

R410A
Equipment using refrigerant R410A with a GWP of 2088.

R32
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.

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

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.

Features Description

MUNDOCLIMA

Easy installation and maintenance

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.

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.

POWER SUPPLY ONLY TO OUTDOOR UNIT
The indoor unit is powered by the same interconnection cable with the outdoor unit.

SINGLE-FAN OUTDOOR UNITS
Optimize outdoor space thanks to outdoor units with lower height.

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.

REMOTE SIGNALS (CP)
The indoor unit has an ON/OFF input.

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.

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.

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

ENGINEERING MODE
Function adjustment and operating parameters query using the control.

EXTRA FLAT DUCT
Indoor unit height between 200 and 300 mm.

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 use of the air conditioner immediately.

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 600×600 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.

BLUE FIN
Heat exchanger with treatment that protects the equipment against corrosion and the growth of bacteria and mold.

AUTOMATIC REFRIGERANT REFILL
Allows the system to be refilled with refrigerant gas without having to do any additional calculation.

HORIZONTAL / VERTICAL
Equipment that can be installed in both horizontal and vertical position.

META FUNCTION
Advanced air conditioning technology that optimizes temperature, refrigerant and air flow to save energy and maximize the comfort.

Technology

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.

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

EVI COMPRESSOR
High efficiency asymmetric scroll compressor with steam injection technology.

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

0-10V OUTPUT
Equipment with 0-10V output for the control of an auxiliary valve.

7 SPEED FAN
Unit with DC fan motor with 7 speeds.

EXTERNAL FAN DIFFERENT SPEEDS
Accurate adjustment of fan speed thanks to the DC motor.

EXV
Equipment with an electronic expansion valve that adjusts the capacity of the equipment in a more stable way.

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.