



## GD Midea Air-conditioning Equipment Co., Ltd.

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Midea Air Conditioners 2008 | New Refrigerant

# MIDEA

## AIR CONDITIONERS 2008



New  
Refrigerant 50Hz



# Midea Creates A Better Life



## Foreword

Midea has been a world leader in Air Conditioners since its establishment in 1985.

Midea has been exporting Air Conditioners for the last 16 years and has firmly established its footprint worldwide and developed strong partnerships with multinationals. Midea's vertically integrated supply chain enables it to achieve maximum efficiency in production and product development, giving it a competitive edge over other brands.

With over 1000 engineers working round the clock and over 300 new products being developed and 100 new patents filed, Midea is dedicated to continuous improve product quality and excel customer satisfaction. New products account for 30% of total sales volume and 35% of gross profit.

Additionally, Midea provides comprehensive technical training and online customer service to help cater to its clientele worldwide.



# Energy Labeling



## Creates a better life

Midea has established an environmental management system (EMS) for our manufacturing sites based on the internationally recognized ISO 14001 standards. The intention is to further reduce the environmental impact of our activities. But achieving the ISO 14001 certification is not the end of Midea's environmental efforts, we will take all necessary steps to maintain and do better for the environment in the future.

## Comfortable life

Midea products are compliant with the European Directive on the Restriction of the Use of Hazardous Substances in Electrical and Electronic Equipment, also known as the RoHS directive. Besides, Midea established systems for the collection and recycling of waste electrical and electronic products to comply with the WEEE Directive, the directive on Waste Electrical and Electronic Equipment.

Midea also recognizes the importance of energy saving. Therefore, we always promote the use of high efficiency refrigerants. In 2007, Midea acquired the R410A certification, which R410A is a leading ozone-friendly and highly energy saving refrigerant for residential air conditioning.

To create a better life, Midea constantly improve its products to ensure they achieve their highest performance under all situations.



Honeywell  
APPROVED  
R410 A  
Intellectual Property Audit



The label aims at communicating information about the relative efficiency performance of different appliances to consumers, retailers and manufacturers mainly through the use of a categorical efficiency scale (from A to G), thus facilitating the comparison of efficiency between many products by consumers.

The energy label is particularly effective in giving the consumer correct and well-balanced information about the appliance's consumption/performance ratio in an easy to read and understandable format. Indirectly, it spurs the manufacturer to update the product to bring it as far as possible into line with the consumer's motivated choices.

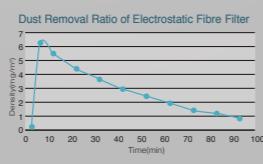
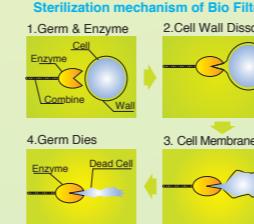
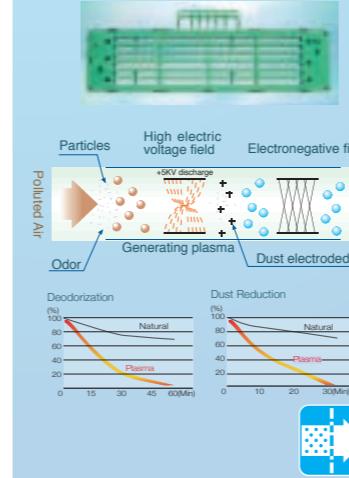
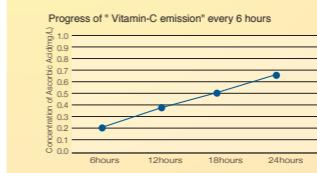
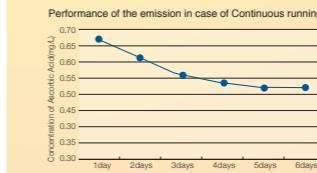
Energy	
Manufacturer	Air-conditioner
Outside unit	
Inside unit	
<b>More efficient</b>	
A	
B	
C	
D	
E	
F	
G	
<b>Less efficient</b>	
Annual energy consumption, kWh in cooling mode <small>(Actual consumption will depend on how the appliance is used and climate)</small>	
Cooling output kW	
Energy efficiency ratio <small>Full load (the higher the better)</small>	
Type	
Cooling only	—
Cooling + Heating	—
Air cooled	—
Water cooled	—
Heat output kW	
Heating performance <small>A: higher G: lower</small>	
Noise <small>(dB(A) re 1 pW)</small>	
Further information is contained in product brochures	
Air-conditioner Energy Label Directive 2002/31/EC	

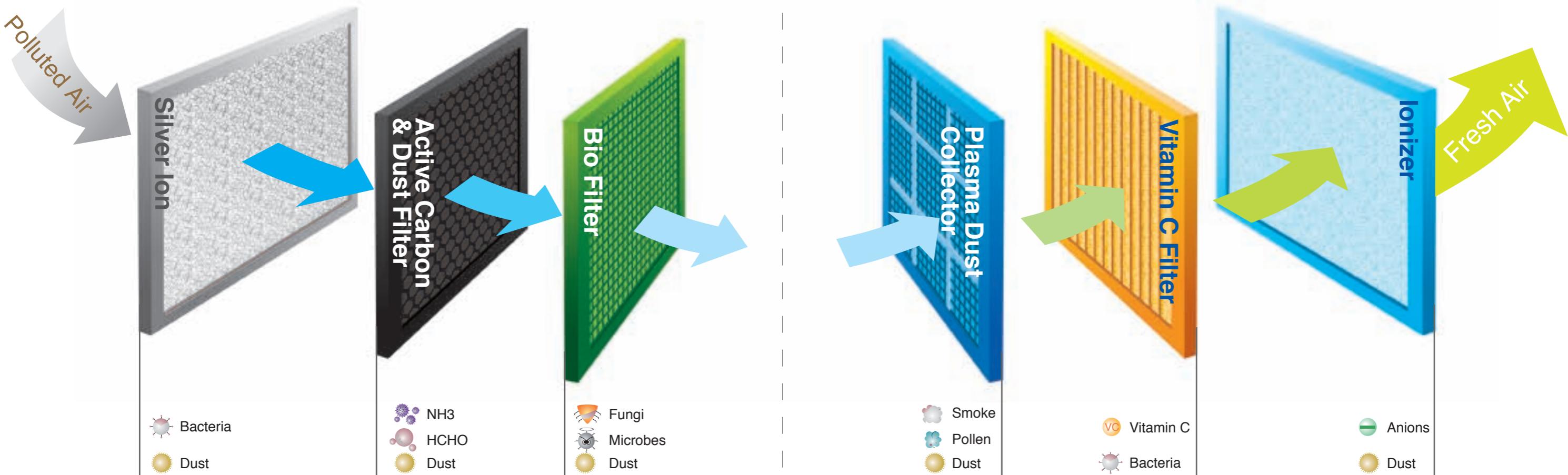
"A" is the most efficient, "G" the least. The more energy efficient an appliance is, the more money you can save, and the more you help the environment.

A	EER > 3.20	A	COP > 3.60
B	3.20 ≥ EER > 3.00	B	3.60 ≥ COP > 3.40
C	3.00 ≥ EER > 2.80	C	3.40 ≥ COP > 3.20
D	2.80 ≥ EER > 2.60	D	3.20 ≥ COP > 2.80
E	2.60 ≥ EER > 2.40	E	2.80 ≥ COP > 2.60
F	2.40 ≥ EER > 2.20	F	2.60 ≥ COP > 2.40
G	2.20 ≥ EER	G	2.40 ≥ COP

EER: Energy efficiency class in cooling mode  
COP: Energy efficiency class in heating mode

Midea's **Fresco Tech** brings you clean and refreshing air and fills your room with the soothing scent of nature.

Silver Ion Filter	Active Carbon	Bio Filter	Plasma Duct collector	Vitamin C Filter	Ionizer															
<p>The Silver ion can kill bacteria or prevent their activity at very low density by destroying their inner-configuration and absorbing their elements in cells. Meanwhile, the Nano Silver attached on the filter release the Silver ion constantly to eliminate bacteria effectively and continuously.</p> 	<p>Active Carbon Electrostatic Fiber Filter is made of Active Carbon and Electrostatic Fiber Filter. Active Carbon Filter eliminates certain kinds of odors such as ammonia (NH3) and deactivates harmful chemical gas such as formaldehyde(HCHO). By forming positive positions on the filter surface, Electrostatic Fiber Filter traps small dust particles, smoke and pet fur to prevent allergic reactions.</p> <p>NH3 Removal Ratio of Active Carbon Filter</p> <table border="1"> <thead> <tr> <th>Time (min)</th> <th>Density of NH3 (mg/m³)</th> <th>NH3 Removal Ratio (mg/m³)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>3.17</td> <td>-</td> </tr> <tr> <td>30</td> <td>0.51</td> <td>83.91</td> </tr> <tr> <td>60</td> <td>0.28</td> <td>91.17</td> </tr> <tr> <td>120</td> <td>0.22</td> <td>93.06</td> </tr> </tbody> </table> <p>Dust Removal Ratio of Electrostatic Fibre Filter</p> 	Time (min)	Density of NH3 (mg/m³)	NH3 Removal Ratio (mg/m³)	0	3.17	-	30	0.51	83.91	60	0.28	91.17	120	0.22	93.06	<p>Bio Filter consists of a specialized biological enzyme and Eco filter. The Eco filter catches very small airborne dust particles and neutrilities bacteria, fungi and microbes. Biological enzyme eliminates bacteria by dissolving their cell wall thus eliminating the problem of re-pollution seen in traditional air conditioners.</p> <p><b>Sterilization mechanism of Bio Filter</b></p>  	<p>The Plasma Dust Collector can generate an ionization zone. The air is converted to plasma as it passes the high voltage ion generator. 95% of the dust, smoke, and pollen particles are attracted to the electrostatic filter.</p> 	<p>The Vitamin C filter fills the air with vitamin C, which softens the skin and reduces stress. The lifetime of the Vitamin C filter is approximately two years.</p> <p>Progress of "Vitamin-C emission" every 6 hours</p>  <p>Performance of the emission in case of Continuous running</p>  <p>The photo is zoomed 3000 times.</p>  	<p><b>Anions can take care of your body</b></p> <p>Anions can stimulate the blood circulation system, improve lung function and effectively prevent respiratory passage illnesses (Such as asthma and pneumonia).</p> <p><b>Anions Eliminate Dust and Smoke:</b></p> <p>When air passes through the ionizer brush, Anions are automatically generated by ionization (3400V high static field). The amount of anions can reach as high as 1,000,000/cm³. The anions deactivate the airborne chemical vapors and dust particles.</p>  
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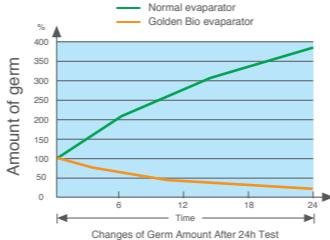
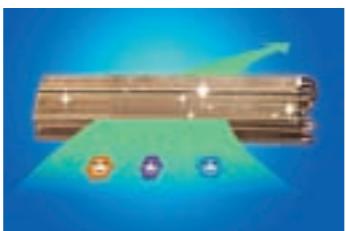


# Features

## Golden Tech

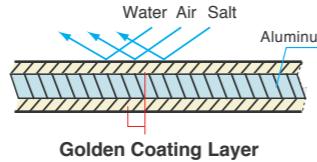
### Golden Bio Evaporator

It can efficiently prevent bacteria from breeding and spreading. It helps create a health and comfortable environment.

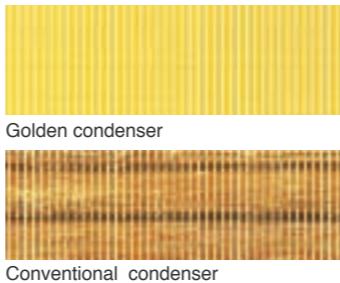


### Golden Anti-corrosive Condenser

The Golden hydrophilic condenser can improve the heating efficiency by accelerating the defrosting process. The unique anti-corrosive golden coating on the condenser can withstand the salty air, rain and other corrosive elements.



Corrosion test results



## Tele Remote Tech

Midea's Tele Remote Control Technology enables you to control your A/C at anytime and anywhere by telephone.

Automatic tone instruction makes it simple for the A/C setting such as the mode setting, temperature setting and fan speed setting.

Password setting ensures a safe operation.



**Anti-Cold Air Function (Heat Pump Only)**  
When the evaporator temperature is warm enough, the fan begins to operate, preventing any cold blasting.

**Free EER Upgrading**  
Most products in the line-up may be freely upgraded to higher class (from "E" up to "A")

**Anti-Rust Cabinet**  
Made from electrolytic zinc steel sheet and anti-rust coated components.

**Auto-Restart Function**  
When the power is off and then on, the unit automatically restores the previous function setting.

**DSP High-speed Chip**  
Midea inverter air-conditioner use the high speed chip by Texas Instruments, it makes response time of air-conditioner 20 times faster than ordinary MCU, and indoor temperature precisely controlled at +0.5°C.

**Easy-cleaned Panel**  
The front panel may be easily removed for periodic cleaning.

**LCD Display**  
Control panel adopt LCD display.

**Fresh Air**  
Midea air conditioner have a pump in the indoor unit, when press the "Fresh Air" button, the pump suck the fresh air from outside, and the indoor polluted air flow out of the room via the air pressure.

**Flexible Wiring Connection**  
Terminal block makes the cable connecting between indoor and outdoor unit much more flexible.

**Follow Me**  
With this technology, a temperature sensor is built in the remote controller. When you stay close to the remote controller, the unit will automatically change the operation mode to supply more comfortable temperature just like the air conditioner is following you.

**Multi-Bend Heat Exchanger**  
Compared with conventional models, Midea's air-conditioners adopt multi-bend heat exchangers. It helps increase the heat-exchange surface so that it improves efficiency.

**Hydrophilic Aluminium Fin**  
In the indoor unit, it improves the cooling efficiency by enabling the unrestricted flow of condensate between the heat exchange fins. In the outdoor unit, it improves the heating efficiency by accelerating the defrosting process.

**Independent Dehumidification**  
The unit will alternately operate in cooling mode or fan only mode, which assures strong dehumidification while not lowering room temperature.

**Intelligence Eye**  
The infrared ray caused by heat-radiancy is released by human body every time. This ray can be apperceived by the sensor in the air-conditioner. The system can be started and turned off automatically by judging the heat-radiancy changing.

**Low Ambient Kit**  
The unit can operate in cooling mode at low ambient temperature conditions.

**Low Noise Air Flow System**  
Large Diameter Cross Flow Fan  
Without decreasing the flow volume, large diameter cross flow fan can greatly reduce the indoor unit's noise level by lowering the fan speed.

**Sleep Mode**  
This function enables the unit to automatically increase (cooling) or decrease (heating) 1°C per hour for the first two hours, then hold steady for the next 5 hours, after that the unit will stop operation. It can maintain the most comfortable temperature and save energy.

**Soft-starter Kit**  
It can keep the starting current within the limit of 45A, which is suitable for some countries such as Australia, and the North European countries.

**Mutually Exchange system**  
Alternation operation mode can be realized via computer, extending the compressor.

**Operating at Full Range Voltage**  
Air Conditioner can run when the voltage is 250V or 160V.

**Oxygen Generating Mechanism**  
The oxygen enrichment membrane in the outdoor unit can increase the oxygen density.

**PTC Heater**  
Safety PTC heating element.

**Self-cleaning**  
This function can be selected by remote controller. When the "CLEAN" button is pressed, the indoor unit will automatically clean the evaporator. This function can restrict the breeding of bacteria in the unit and keep the air fresh.

**Self-diagnosis and Auto-protection Function**  
This function can electronically detect the errors and display the diagnosis by a series of flashing LEDs on the indoor unit. Then the unit will automatically switch to protection mode.

**Two-speed outdoor fan (applicable to models > 21000Btu/h)**  
With 2-speed fan motor, the outdoor unit can operate powerfully at high speed or can be adjusted to quiet and low speed operation at night.

**Two-direction Air Vane Technology**  
In cooling mode, the air vane opens counterclockwise, which directs the air horizontally. It allows for rapid and evenly distributed temperature fall.  
In heating mode, the air vane opens clockwise, which directs the air towards the floor. It allows for rapid and evenly distributed temperature rise.

**Valve Protection Cover**  
It protects the valves and prevents water from dripping.

**Temp. Compensation (Optional)**  
The ceiling temperature is often higher than the floor temperature. This function can automatically eliminate the temperature difference between them.

**Trapeziform Innergroove Copper**  
Compared with the triangular innergroove copper, it allows more adequate refrigerant to go through, improving heat exchange efficiency and lowers power consumption.

**Turbo Mode**  
This function enables the unit to reach the preset temperature in the shortest time.

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# How to Read the Models?

M S H I-12 H R D N1-Q D2 F

## Special Function

F Ionizer	H Fresh Air	J Plasma
L Low Ambient Kit	O Oxygen Generator	P Soft-starter Kit
Q Quicker Connect	U UV Generator	

## EER Code

A0-A9	EER 1.0-1.9
B0-B9	2.0-2.9
C0-C9	3.0-3.9
D0-D9	4.0-4.9

## Power Code

Q	<b>Power Supply (V-Hz-Ph)</b> 220-240V~, 50Hz, 1Phase
R	380-420V~, 50Hz, 3Phase
S	380V~, 50Hz, 3Phase

## Refrigerant

N1 R410A	N2 R407C
N3 R134a	- R22

## Inverter Type

I AC Inverter	D DC Inverter
- Constant Speed	

## Control Mode

W Wire Control	E Electric Control
M Mechanical Control	R Remote Control

## Function Code

C Cooling Only	
H Heat Pump	
A Heat Pump with Auxiliary Electric Heater	
E Cooling & Electric Heater	

## Capacity

Air Conditioner: Cooling/Heating Capacity (x1000Btu/h)  
Dehumidifier: Moisture Removal Volume (L/day)

## Connection Type

I Multi Type	
- Single Type	

## Product Series

<i>Residential</i>	
C Corona Split	E Elite Split
G Glory Split	H Alfa Split
B Bright Split	P Castle Split

## Unit Type

<i>Residential</i>	
S Split Wall-mounted	
W Window	
P Portable	
D Dehumidifier	
O Outdoor unit	

## Midea

# Remote Control



- Applicable to most of Midea's models.
- Button design might be slightly different from the actual one depending on individual models.

# Midea Aircon Model Line Up 2008

	( Btu/h )	7,000	9,000	12,000	18,000	21,000	24,000	28,000	
Castle Family	DC Inverter								
	DC Inverter Multi								
Vertu Family	DC Inverter								
	DC Inverter Multi								
Alfa Family	AC Inverter Multi								
	Single (ON/OFF)								
Corona Family	Multi (ON/OFF)								
	DC Inverter <small>Ultra High Efficiency EER 4.5</small>								
Dorado Family	DC Inverter								
	Single (ON/OFF)								
Elite Eco Family	Single (ON/OFF)								
	Multi (ON/OFF)								
Glory Plus Family	AC Inverter								
	AC Inverter Multi								
	Single (ON/OFF)								
	Multi (ON/OFF)								
	AC Inverter								
	AC Inverter Multi								

## Midea Aircon Model Line Up 2008

	( Btu/h )	7,000	9,000	12,000	18,000	21,000	24,000	28,000	
Aqua									61-62
Vita									63-64
Helit									65-66
Floor Standing									67-68
Portable									70-78
Dehumidifier									79-82
Window									83-84



Castle

Vertu

Alfa

Corona

Dorado

Elite Eco

Glory

Midea Creates A Better Life

#### Features

- Silver Ion Filter
- Bio Filter
- Plasma Duct Collector
- Vitamin C Filter
- Ionizer
- Anti-Rust Cabinet
- Auto-Restart Function
- DSP High-speed Chip
- Easy-cleaned Panel
- Follow Me
- Free EER Upgrading
- Golden Tech
- Hydrophilic Aluminium Fin
- Intelligence Eye
- LCD Display
- Low Ambient Kit
- Multi-Bend Heat Exchanger
- Mutually Exchange System
- Operating at Full Range Voltage
- Oxygen Generating Mechanism
- PTC Heater
- Self-clean
- Self-diagnosis and Auto-protection Function
- Sleep Mode
- Temp. Compensation
- Trapeziform Innergroove Copper
- Turbo Mode
- Two-direction Air Vane Technology
- Two-speed Outdoor Fan (applicable to models > 21000Btu/h)

# Family Resident

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# Midea Aircon Family



With full experience in the air conditioning field, Midea constantly devotes itself into breakthrough of new technology research and development. All family products meet the residential customer demand by possessing of high energy efficiency ratio and it offers a better solution for energy saving and environment protection by using new refrigerant.

Midea releases the concept of Family Product by controlling the international standard production process and managing system. The family which meets each panel can be arranged to five types products: single on/off, DC Inverter, DC Inverter Multi, AC Inverter Multi and Multi on/off.



## Family Combinations

The indoor units of DC type can be matched freely when it is demanded if their capacities match. Midea indoor unit has strong flexibility. Any quantities of indoor unit, even coming from different family, can be droved in one outdoor unit.



# Castle Family

220-240V~,50Hz



DC Inverter



Ultra High Efficiency  
EER 4.5

Castle Family\_DC Inverter



DC Inverter



DC Inverter



MSP-07HRDN1-QD5

MSP-09HRDN1-QD5

MSP-12HRDN1-QD0

DC Inverter Multi



M20B-18HRDN1

M30A-27HRDN1

M40A-27HRDN1

Features:



MSP-07/09HRDN1-QD5 • • • • • • • • • • • • • • •

MSP-12HRDN1-QD0 • • • • • • • • • • • • • • •

• Standard • Optional

## Specification:

		Cooling Only	Cooling & Heating
	MSP-07HRDN1-QD5		
Capacity			
Cooling	Btu/h	7000(2400-9100)	8500(2600-10500)
	kW	2.1(0.7-2.7)	2.5(0.8-3.1)
Heating	Btu/h	8000(2500-9600)	9000(2700-11100)
	kW	2.3(0.7-2.8)	2.6(0.8-3.3)
Electrical Parts			
Voltage, Frequency, Phase	V~, Hz, Ph	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	450(190-700)	550(210-740)
	Heating	520(200-720)	580(220-800)
Operating Current	Cooling	2.0(0.9-3.2)	2.5(1.0-3.2)
	Heating	2.3(0.9-3.3)	2.6(1.1-3.5)
Performance			
EER	Btu/W.h, W/W	15.6,4.56	15.5,4.53
COP	W/W	4.51	4.55
Energy Rate		A	A
Air Flow Volume	Indoor	m³/h	620
Noise Level	Indoor(Hi/Med/Lo)	dB(A)	37/33/28
	Outdoor	dB(A)	52
Net Dimension & Weight			
Indoor unit	WxHxD	mm	855x296x177
Outdoor unit	WxHxD	mm	760x590x285
Net Weight	Indoor/Outdoor	kg	11/40
Packing Dimension & Gross Weight			
Indoor unit	WxHxD	mm	935x380x260
Outdoor unit	WxHxD	mm	887x655x355
Gross Weight	Indoor/Outdoor	kg	13/44
Piping Connection			
Liquid Side	mm(inch)	Ø6.35	Ø6.35
Gas Side	mm(inch)	Ø9.53	Ø9.53
Applicable Area		m²	12-18
			16-24
Stuffing Quantity			20-30
20'/40'/40'HQ	Set	96/186/236	96/186/236
			80/160/190

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Castle Family\_DC Inverter Multi

### Features:



MSPI-07HRDN1	•	•	•	•	•	•	•	•	•	•	•
MSPI-09HRDN1	•	•	•	•	•	•	•	•	•	•	•
MSPI-12HRDN1	•	•	•	•	•	•	•	•	•	•	•

• Standard • Optional

### Types of Indoor Unit Combinations

Remarks: One outdoor unit can drive 4 free-matched indoor units at most.

9 Types		17 Types		
One Unit	Two Units	One Unit	Two Units	Three Units
7	7+7	9+9	7+7+7	7+9+9
9	7+9	9+12	7+7+9	7+9+12
12	7+12	12+12	7+7+12	7+12+12

30 Types							
One Unit	Two Units	Three Units			Four Units		
7	7+7	9+9	7+7+7	7+9+9	9+9+9	12+12+12	7+7+7+7
9	7+9	9+12	7+7+9	7+9+12	9+9+12		7+7+9+9
12	7+12	12+12	7+7+12	7+12+12	9+12+12		7+7+12+12

### Specification:

■ Cooling Only ■ Cooling & Heating

#### Indoor Unit

Model	MSPI-07HRDN1	MSPI-09HRDN1	MSPI-12HRDN1
Capacity	Cooling/Heating	Btu/h	
Air Flow		m³/h	
Dimension	WxHxD	mm	
Packing	WxHxD	mm	
Net/Gross Weight	kg		
Indoor noise level (Hi/Mi/Lo)	dB(A)		
Liquid side/Gas side	mm	Ø6.35/Ø9.53	Ø6.35/Ø9.53

#### Outdoor Unit

Model	M2OB-18HRDN1	M3OA-27HRDN1	M4OA-27HRDN1			
Power						
Voltage, Frequency, Phase	V-,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1		
Capacity						
Cooling	min.-nom.-max.	Btu/h	7000 - 18000 - 21200	7000 - 27000 - 31400	7000 - 27000 - 38200	
	min.-nom.-max.	kW	2.0 - 5.2 - 6.2	2.0 - 7.8 - 9.2	2.0 - 8.0 - 11.2	
Heating	min.-nom.-max.	Btu/h	7500 - 21000 - 24200	7500 - 30700 - 36900	7500 - 30700 - 39600	
	min.-nom.-max.	kW	2.2 - 6.1 - 7.1	2.2 - 9.0 - 10.8	2.2 - 9.0 - 11.6	
Electrical Data						
Power Input	Cooling	min.-nom.-max.	kW	0.65 - 1.60 - 2.28	0.77 - 2.39 - 3.13	0.82 - 2.47 - 3.85
	Heating	min.-nom.-max.	kW	0.62 - 1.69 - 2.30	0.81 - 2.47 - 3.15	0.80 - 2.48 - 3.97
Operating Current	Cooling	min.-nom.-max.	A	2.9 - 7.0 - 10.1	3.6 - 12.0 - 14.8	3.7 - 11.0 - 17.6
	Heating	min.-nom.-max.	A	2.9 - 8.5 - 10.2	3.5 - 10.5 - 13.9	3.7 - 14.5 - 18.5
Performance						
EER		W/W		3.25-A	3.26-A	3.24-A
COP		W/W		3.61-A	3.64-A	3.62-A
Dimension	WxHxD	mm		845x695x335	845x695x335	895x860x330
Packing	WxHxD	mm		975x772x405	975x772x405	1043x915x395
Net/Gross Weight	kg			61/65	68/72	80/84
Outdoor air flow	m³/h			2500	2500	3500
Outdoor noise level	dB(A)			57	58	61

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.  
2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Vertu Family

220-240V~,50Hz



### Available Colours:



### DC Inverter DC Inverter



■ MSV1-07HRDN1-QC2(A) ■ MSV1-18HRDN1-QC2F  
■ MSV1-09HRDN1-QC2(A) ■ MSV1-24HRDN1-QC0F  
■ MSV1-12HRDN1-QC2(A)

### DC Inverter Multi DC Inverter



■ M2OB-18HRDN1 ■ M3OA-27HRDN1  
■ M4OA-27HRDN1

### AC Inverter Multi



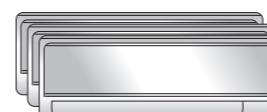
■ M2OA-18HRIN1 ■ M3OA-27HRIN1  
■ M4OA-27HRIN1

### Single (ON/OFF)



■ MSV1-07CRN1 ■ MSV1-09CRN1 ■ MSV1-12CRN1 ■ MSV1-18CRN1-QC0F  
■ MSV1-07HRN1 ■ MSV1-09HRN1 ■ MSV1-12HRN1  
■ MSV1-21CRN1-QB8FW ■ MSV1-24CRN1-QB8FW  
■ MSV1-21HRN1-QB8FW ■ MSV1-24HRN1-QB8FW

### Multi (ON/OFF)



■ M2OA-18HRN1 ■ M2OA-21HRN1  
■ M3OA-27HRN1 ■ M3OA-30HRN1



## Vertu Family\_DC Inverter



MSV1-07/09/12HRDN1-QC2(A)	●	●	●	●	●	●	●	●	●	●	●
MSV1-18HRDN1-QC2F	●	●	●	●	●	●	●	●	●	●	●
MSV1-24HRDN1-QC0F	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

## Specification:

Model		Capacity				
Cooling		Btu/h	7000(2500-9100)	9000(3100-11200)	12000(4000-13800)	17500(6200-20000)
		kW	2.1(0.7-2.7)	2.6(0.9-3.3)	3.5(1.2-4.0)	5.1(1.8-5.9)
Heating		Btu/h	8000(2700-10100)	10000(3200-13000)	13000(4100-14500)	18000(6500-21000)
		kW	2.3(0.9-3.0)	2.9(0.9-3.8)	3.8(1.2-4.2)	5.3(1.9-6.1)
Electrical Parts						
Voltage, Frequency, Phase		V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	620(260-880)	790(230-1080)	1080(350-1400)	1600(530-2040)
	Heating	W	650(270-930)	810(240-1320)	1050(360-1420)	1550(520-2040)
Operating Current	Cooling	A	2.9(1.1-4.2)	3.6(1.0-5.2)	4.9(1.7-6.5)	6.6(2.5-9.5)
	Heating	A	3.0(1.2-4.4)	3.7(1.0-6.0)	4.7(1.8-6.6)	6.5(2.5-9.5)
Performance						
EER	Btu/W.h, W/W		11.3,3.31	11.4,3.34	11.1,3.26	10.9,3.21
COP	W/W		3.61	3.62	3.63	3.40
Energy Rate		A	A	A	A	B
Air Flow Volume	Indoor	m³/h	570	570	700	800
Noise Level	Indoor(Hi/Med/Low)	dB(A)	37/34/27	37/34/27	40/35/28	42/37/32
	Outdoor	dB(A)	52	52	54	56
Net Dimension & Weight						
Indoor unit	WxHxD	mm	795x270x165	795x270x165	845x286x165	995x292x194
Outdoor unit	WxHxD	mm	760x590x285	760x590x285	760x590x285	845x695x335
Net Weight	Indoor/Outdoor	kg	9.0/39.5	9.0/39.5	10.0/39.5	12.5/52
Packing Dimension & Gross Weight						
Indoor unit	WxHxD	mm	850x340x285	850x340x285	905x355x285	1100x415x395
Outdoor unit	WxHxD	mm	887x655x355	887x655x355	887x655x355	965x755x395
Gross Weight	Indoor/Outdoor	kg	12.5/42.5	12.5/42.5	13.5/42.5	15.5/56
Piping Connection						
Liquid Side	mm(inch)		Ø6.35	Ø6.35	Ø6.35	Ø9.53
Gas Side	mm(inch)		Ø9.53	Ø9.53	Ø12.7	Ø16.0
Applicable Area						
	m²		12-18	16-24	20-30	28-40
Stuffing Quantity						
20'/40'/40'HQ	Set		96/198/248	96/198/248	95/189/236	74/150/174
Remarks: 1. The above design and specifications are subject to change without prior notice for product improvement. 2. The values given in the table for the noise level reflect the levels in anechoic chamber.						

■ Cooling Only ■ Cooling & Heating

■ MSV1-07HRDN1-QC2(A) ■ MSV1-09HRDN1-QC2(A) ■ MSV1-12HRDN1-QC2(A) ■ MSV1-18HRDN1-QC2F ■ MSV1-24HRDN1-QC0F  
 ■ MOC-07HDN1-QC2 ■ MOC-09HDN1-QC2 ■ MOC-12HDN1-QC2 ■ MOC-18HDN1-QC2 ■ MOC-24HDN1-QC0



## Vertu Family\_DC Inverter Multi



MSV1I-07HRDN1	●	●	●	●	●	●	●	●	●	●	●
MSV1I-09HRDN1	●	●	●	●	●	●	●	●	●	●	●
MSV1I-12HRDN1	●	●	●	●	●	●	●	●	●	●	●
MSV1I-18HRDN1	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

## Types of Indoor Unit Combinations

Remarks: One outdoor unit can drive 4 free-matched indoor units at most.

### 8 Types

One Unit	Two Units
7	7+7
9	7+9
12	7+12

### 17 Types

One Unit	Two Units	Three Units
7	7+7	9+9
9	7+9	9+12
12	7+12	12+12

### 40 Types

One Unit	Two Units	Three Units	Four Units
7	7+7	9+9	12+12
9	7+9	9+12	12+12
12	7+12	9+18	12+12
18	7+18	12+18	18+18
		7+7+18	7+9+18
		7+12+12	7+9+12
		7+7+7+12	7+9+9+12

## Specification:

■ Cooling Only ■ Cooling & Heating

### Indoor Unit

Model	MSV1I-07HRDN1	MSV1I-09HRDN1	MSV1I-12HRDN1	MSV1I-18HRDN1
Capacity	Btu/h	7000/8500	9000/10000	12000/14000
Air Flow	m³/h	570	570	700
Dimension	WxHxD	795x270x165	795x270x165	845x286x165
Packing	WxHxD	850x340x285	850x340x285	905x355x285
Net/Gross Weight	kg	10.0/11.5	10.0/11.5	10.5/12.0
Indoor noise level (Hi/Mi/Lo)	dB(A)	37	37	40
Liquid side/Gas side	mm	Ø6.35/Ø9.53	Ø6.35/Ø9.53	Ø6.35/Ø12.7

### Outdoor Unit

Model	M2OB-18HRDN1	M3OA-27HRDN1	M4OA-27HRDN1
Power	Voltage, Freqeunce,Phase	V-,Hz,Ph	220-240,50,1
Capacity	Cooling	Btu/h	7000 - 18000 - 21200
	min.-nom.-max.	kW	2.0 - 5.2 - 6.2
	min.-nom.-max.	Btu/h	7500 - 21000 - 24200
	min.-nom.-max.	kW	2.2 - 6.1 - 7.1
Electrical Data	Heating	Btu/h	7000 - 27000 - 31400
	min.-nom.-max.	kW	



## Vertu Family\_AC Inverter Multi



MSV1I-07HRDN1	•	•	•	•	•	•	•	•	•	•	•
MSV1I-09HRDN1	•	•	•	•	•	•	•	•	•	•	•
MSV1I-12HRDN1	•	•	•	•	•	•	•	•	•	•	•
MSV1I-18HRDN1	•	•	•	•	•	•	•	•	•	•	•

• Standard • Optional

### Types of Indoor Unit Combinations

13 Types

One Unit	Two Units
7	7+7
9	9+9
12	12+12
18	18+18

23 Types

One Unit	Two Units	Three Units
7	7+7	9+9 12+12
9	7+9	9+12 12+18
12	7+12	9+18
18	7+18	

40 Types

One Unit	Two Units	Three Units	Four Units
7	7+7	9+9 12+12 7+7+7	7+9+9 9+9+12
9	7+9	9+12 12+18 7+7+9	7+9+12 9+9+12 9+12+18
12	7+12	9+18 7+7+12	7+9+18 9+9+12 12+12+12
18	7+18		7+7+18 7+12+12 9+9+18 7+7+9+9 7+9+12+12

Remarks: One outdoor unit can drive 4 free-matched indoor units at most.

### Specification:

■ Cooling Only ■ Cooling & Heating

#### Indoor Unit

Model	MSV1I-07HRDN1	MSV1I-09HRDN1	MSV1I-12HRDN1	MSV1I-18HRDN1		
Capacity	Cooling/Heating	Btu/h	7000/8500	9000/10000	12000/14000	18000/19000
Air Flow		m³/h	570	570	700	800
Dimension	WxHxD	mm	795x270x165	795x270x165	845x286x165	995x292x194
Packing	WxHxD	mm	850x340x285	850x340x285	905x355x285	1100x415x290
Net/Gross Weight	kg		10.0/11.5	10.0/11.5	10.5/12.0	12.5/15.5
Indoor noise level (Hi/Mi/Lo)	dB(A)		37	37	40	42
Liquid side/Gas side	mm		Ø6.35/Ø9.53	Ø6.35/Ø9.53	Ø6.35/Ø12.7	Ø6.35/Ø12.7

#### Outdoor Unit

Model	M2OA-18HRIN1	M3OA-27HRIN1	M4OA-27HRIN1			
Power						
Voltage, Frequency, Phase	V-,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1		
Capacity						
Cooling	min.-nom.-max.	Btu/h	7000 - 18000 - 26600	7000 - 27000 - 31700	7000 - 27000 - 37200	
	min.-nom.-max.	kW	2.0 - 5.3 - 7.8	2.0 - 7.8 - 9.3	2.0 - 8.0 - 10.9	
Heating	min.-nom.-max.	Btu/h	7500 - 23500 - 28600	7500 - 30700 - 36900	7500 - 32000 - 38200	
	min.-nom.-max.	kW	2.2 - 6.9 - 8.4	2.2 - 9.0 - 10.8	2.2 - 9.3 - 11.2	
Electrical Data						
Power Input	Cooling	min.-nom.-max.	kW	0.75 - 1.87 - 3.07	0.84 - 2.77 - 3.40	0.86 - 2.80 - 4.36
	Heating	min.-nom.-max.	kW	0.75 - 2.15 - 3.17	0.82 - 2.80 - 3.72	0.85 - 2.89 - 4.27
Operating Current	Cooling	min.-nom.-max.	A	3.4 - 11.5 - 14.1	4.0 - 13.5 - 17.0	4.1 - 14.8 - 20.6
	Heating	min.-nom.-max.	A	3.4 - 11.0 - 14.8	3.6 - 13.2 - 17.2	4.0 - 13.9 - 20.2
Performance						
EER		W/W		2.83-C	2.82-C	2.85-C
COP		W/W		3.21-C	3.21-C	3.22-C
Dimension	WxHxD	mm		845x695x335	845x695x335	895x860x330
Packing	WxHxD	mm		975x772x405	975x772x405	1043x915x395
Net/Gross Weight	kg			68/72	72/76	80/84
Outdoor air flow	m³/h			2500	2500	3500
Outdoor noise level	dB(A)			59	59	61

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Vertu Family\_Single



MSV1-07/09/12CRN1	•	•	•	•	•	•	•	•	•	•	•
MSV1-07/09/12HRN1	•	•	•	•	•	•	•	•	•	•	•
MSV1-18CRN1-QC0F	•	•	•	•	•	•	•	•	•	•	•
MSV1-18HRN1-QC0F	•	•	•	•	•	•	•	•	•	•	•
MSV1-21/24CRN1-QB8FW	•	•	•	•	•	•	•	•	•	•	•
MSV1-21/24HRN1-QB8FW	•	•	•	•	•	•	•	•	•	•	•

• Standard • Optional

### Specification:

■ Cooling Only ■ Cooling & Heating

Model	MSV1-07CRN1	MSV1-07HRN1	MSV1-09CRN1	MSV1-09HRN1	MSV1-12CRN1	MSV1-12HRN1
Capacity						
Cooling	Btu/h	7000	7000	9000	9000	12000
	kW	2.1	2.1	2.6	2.6	3.5
Heating	Btu/h	-	8000	-	10300	-
	kW	-	2.3	-	3.0	-
Electrical Parts						
Voltage, Frequency, Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	640	640	820	1090
	Heating	W	-	650	-	1050
Operating Current	Cooling	A	2.8	2.8	3.6	4.8
	Heating	A	-	2.9	-	4.6
Performance						
EER	Btu/W.h, W/W	10.9,3.21	10.9,3.21	11.0,3.22	11.0,3.22	11.0,3.22
COP	W/W	-	3.61	-	3.61	-
Energy Rate		A	A	A	A	A
Air Flow Volume	Indoor	m³/h	450	450	550	650
Noise Level	Indoor(Hi/Med/Low)	dB(A)	36/33/30	36/33/30	38/35/32	40/37/34
	Outdoor	dB(A)	54	54	54	55
Net Dimension & Weight						
Indoor unit	WxHxD	mm	795x270x165	795x270x165	795x270x165	845x286x165
Outdoor unit	WxHxD	mm	700x535x235	700x535x235		



## Vertu Family\_Single

### Specification:

Model			■ Cooling Only	■ Cooling & Heating				
Capacity			■ MSV1-18CRN1-QC0F	■ MSV1-18HRN1-QC0F	■ MSV1-21CRN1-QB8FW	■ MSV1-21HRN1-QB8FW	■ MSV1-24CRN1-QB8FW	■ MSV1-24HRN1-QB8FW
Cooling	Btu/h		18000	18000	21000	21000	24000	24000
	kW		5.3	5.3	6.2	6.2	7.0	7.0
Heating	Btu/h		-	19000	-	24000	-	27000
	kW		-	5.6	-	7.0	-	7.9
Electrical Parts								
Voltage, Frequency, Phase	V~, Hz, Ph		220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	1720	1720	2190	2190	2500	2500
	Heating	W	-	1730	-	2190	-	2470
Operating Current	Cooling	A	7.5	7.5	9.5	9.5	10.9	10.9
	Heating	A	-	7.5	-	9.5	-	10.7
Performance								
EER	Btu/W.h, W/W		10.5,3.07	10.5,3.07	9.6,2.81	9.6,2.81	9.6,2.81	9.6,2.81
COP	W/W		-	3.22	-	3.21	-	3.21
Energy Rate			B	B	C	C	C	C
Air Flow Volume	Indoor	m³/h	800	800	920	920	990	990
Noise Level	Indoor(Hi/Med/Low)	dB(A)	42/38/35	42/38/35	46/42/39	46/42/39	49/45/42	49/45/42
	Outdoor	dB(A)	54	54	55	55	57	57
Net Dimension & Weight								
Indoor unit	WxHxD	mm	995x292x194	995x292x194	1180x330x210	1180x330x210	1180x330x210	1180x330x210
Outdoor unit	WxHxD	mm	845x695x335	845x695x335	845x695x335	845x695x335	845x695x335	845x695x335
Net Weight	Indoor/Outdoor	kg	12.5/52	12.5/52	17/58	17/58	17/62	17/62
Packing Dimension & Gross Weight								
Indoor unit	WxHxD	mm	1100x415x290	1100x415x290	1265x445x305	1265x445x305	1265x445x305	1265x445x305
Outdoor unit	WxHxD	mm	965x755x395	965x755x395	965x755x395	965x755x395	965x755x395	965x755x395
Gross Weight	Indoor/Outdoor	kg	16/56	16/56	21/62	21/62	21/65	21/65
Piping Connection								
Liquid Side	mm(inch)		Ø6.35(1/4")	Ø6.35(1/4")	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")
Gas Side	mm(inch)		Ø12.7(1/2")	Ø12.7(1/2")	Ø16.0(5/8")	Ø16.0(5/8")	Ø16.0(5/8")	Ø16.0(5/8")
Applicable Area								
	m²		28-40	28-40	34-49	34-49	45-56	45-56
Stuffing Quantity								
20/40/40HQ	Set		69/140/166	69/140/166	59/124/143	59/124/143	59/124/143	59/124/143

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Vertu Family\_Multi

### Specification:

Features:																
MSV1I-09HRN1	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MSV1I-12HRN1	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

### Specification:

Indoor Unit			■ MSV1I-09HRN1	■ MSV1I-12HRN1
Model	Capacity	Cooling/Heating	Btu/h	
Capacity			9000/10000	12000/13000
Air Flow			550	650
Dimension	WxHxD	mm	795x270x165	845x286x165
Packing	WxHxD	mm	850x340x285	905x355x285
Net/Gross Weight		kg	10/12.5	10.5/13.5
Indoor noise level (Hi/Mi/Lo)	dB(A)		38	40
Liquid side/Gas side		mm	Ø6.35/Ø9.53	Ø6.35/Ø12.7

Outdoor Unit			M2OA-18HRN1	M2OA-21HRN1	M3OA-27HRN1	M3OA-30HRN1
Model	Capacity		Btu/h			
Cooling/Heating			9000x2/10000x2	9000+12000/10000+14000	9000x3/10000x3	9000x2+12000/10000x2+14000
			2.6x2/2.9x2	2.6+3.5/2.9+4.1	2.6x3/2.9x3	2.6x2+3.5/2.9x2+4.1
Electrical Data			V~,Hz,Ph			
Voltage, Frequency, Phase			220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	Cooling/Heating	W	840x2/840x2	850+1150/860+1190	1600+970/1700+1000	1800+1080/1900+1170
Operating Current	Cooling/Heating	A	4.0x2/4.0x2	4.0+5.7/4.1+5.7	8.0+5.1/8.1+5.2	8.3+5.4/8.6+5.6
Performance						
EER		W/W		3.10-B	3.04-B	3.03-B
COP		W/W		3.45-B	3.42-B	3.22-C
Dimension	WxHxD	mm		895x655x345	895x655x345	860x830x330
Packing	WxHxD	mm		1045x700x470	1045x700x470	1000x985x425
Net/Gross Weight		kg		76/82	76/82	81/90
Outdoor air flow		m³/h		2200	2200	3200
Outdoor noise level		dB(A)		56	56	58

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

# Alfa Family

220-240V~,50Hz



DC Inverter



Ultra High Efficiency COP 4.2

Alfa Family\_DC Inverter

Features:

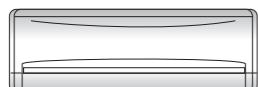


MSH-07/09HRDN1-QD0 • • • • • • • • • • • • • • •

MSH-12HRDN1-QC6 • • • • • • • • • • • • • • •

• Standard • Optional

DC Inverter Ultra High Efficiency COP 4.2 DC Inverter

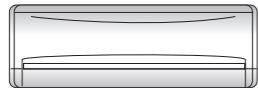


DC Inverter



- MSH-07HRDN1-QD0
- MSH-09HRDN1-QD0
- MSH-12HRDN1-QC6

DC Inverter DC Inverter

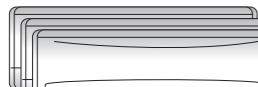


DC Inverter



- MSH-07HRDN1-QC2(A)
- MSH-18HRDN1-QC2
- MSH-09HRDN1-QC2(A)
- MSH-24HRDN1-QC0
- MSH-12HRDN1-QC2(A)

DC Inverter Multi DC Inverter

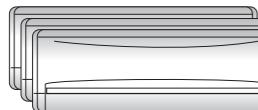


DC Inverter Multi



- M20B-18HRDN1
- M30A-27HRDN1
- M40A-27HRDN1

AC Inverter Multi



- M20A-18HRIN1
- M30A-27HRIN1
- M40A-27HRIN1

Single ( ON/OFF )



- |                   |                   |              |              |
|-------------------|-------------------|--------------|--------------|
| ■ MSH-07CRN1      | ■ MSH-09CRN1      | ■ MSH-12CRN1 | ■ MSH-18CRN1 |
| ■ MSH-07HRN1      | ■ MSH-09HRN1      | ■ MSH-12HRN1 | ■ MSH-18HRN1 |
| ■ MSH-21CRN1-QB8W | ■ MSH-24CRN1-QB8W |              |              |
| ■ MSH-21HRN1-QB8W | ■ MSH-24HRN1-QB8W |              |              |

Multi ( ON/OFF )



- M20A-18HRN1
- M20A-21HRN1
- M30A-27HRN1
- M30A-30HRN1

Specification:

■ Cooling Only ■ Cooling & Heating

Model		■ MSH-07HRDN1-QD0 ■ MOC-07HDN1-QD0	■ MSH-09HRDN1-QD0 ■ MOC-09HDN1-QD0	■ MSH-12HRDN1-QC6 ■ MOC-12HDN1-QC6
Cooling	Btu/h	7000(2300-9500)	9000(3100-11200)	12000(3800-14700)
	kW	2.1(0.7-2.8)	2.6(0.9-3.3)	3.5(1.1-4.3)
Heating	Btu/h	9000(2500-9600)	10000(3300-12300)	13000(4000-15200)
	kW	2.6(0.9-3.6)	2.9(1.0-3.6)	3.8(1.2-4.5)
Electrical Parts				
Voltage, Frequency, Phase	V~Hz, Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling W	510(190-700)	660(300-1100)	970(400-1480)
	Heating W	620(230-820)	690(310-1150)	950(390-1460)
Operating Current	Cooling A	2.2(0.9-3.1)	2.9(1.3-4.8)	4.3(1.8-6.5)
	Heating A	2.7(1.0-3.6)	3.0(1.4-5.0)	4.2(1.7-6.2)
Performance				
EER	Btu/W.h, W/W	13.6,4.0	13.6,4.0	12.4,3.62
COP	W/W	4.2	4.2	4.0
Energy Rate		A	A	A
Air Flow Volume	Indoor m³/h	650	650	700
Noise Level	Indoor(Hi/Med/Low) dB(A)	38/34/28	38/34/28	40/36/29
	Outdoor dB(A)	52	52	54
Net Dimension & Weight				
Indoor unit	WxHxD mm	815x280x215	815x280x215	815x280x215
Outdoor unit	WxHxD mm	760x590x285	760x590x285	760x590x285
Net Weight	Indoor/Outdoor kg	9.5/40.5	9.5/40.5	9.5/40.5
Packing Dimension & Gross Weight				
Indoor unit	WxHxD mm	915x360x290	915x360x290	915x360x290
Outdoor unit	WxHxD mm	887x655x355	887x655x355	887x655x355
Gross Weight	Indoor/Outdoor kg	11.5/43	11.5/43	11.5/43
Piping Connection				
Liquid Side	mm(inch)	Ø6.35	Ø6.35	Ø6.35
Gas Side	mm(inch)	Ø9.53	Ø9.53	Ø12.7
Applicable Area				
	m²	12-18	16-24	20-30
Stuffing Quantity				
20'/40'/40'HQ	Set	94/199/232	94/199/232	94/199/232

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.



## Alfa Family\_DC Inverter



MSH-07/09/12HRDN1-QC2(A)	●	●	●	●	●	●	●	●	●	●	●	●
MSH-18HRDN1-QC2	●	●	●	●	●	●	●	●	●	●	●	●
MSH-24HRDN1-QC0	●	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

## Specification:

Model		Cooling Only					Cooling & Heating				
<b>Capacity</b>											
Cooling	Btu/h	7000(2500-9000)	9000(3100-11400)	12000(4000-13800)	17500(5300-23000)	24000(7500-30000)					
	kW	2.1(0.8-2.6)	2.6(0.9-3.3)	3.5(1.2-4.0)	5.1(1.6-6.7)	7.0(2.2-8.8)					
Heating	Btu/h	8000(2500-10500)	10000(3200-13500)	13000(4100-14500)	17000(5100-22000)	25000(7800-32000)					
	kW	2.3(0.8-3.0)	2.9(0.9-4.0)	3.8(1.2-4.2)	5.0(1.5-6.4)	7.3(2.3-9.4)					
<b>Electrical Parts</b>											
Voltage, Frequency, Phase	V~, Hz, Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1					
Power Input	Cooling	W	620(210-840)	800(230-1080)	1080(350-1400)	1600(400-2300)	2330(650-2830)				
	Heating	W	650(220-880)	810(240-1380)	1050(360-1420)	1460(360-2100)	2150(620-2780)				
Operating Current	Cooling	A	2.8(0.9-3.7)	3.7(1.2-5.4)	4.9(1.7-6.5)	7.0(1.8-10.4)	10.3(2.9-12.5)				
	Heating	A	2.9(1.0-3.9)	3.8(1.2-6.2)	4.7(1.8-6.6)	6.5(1.6-9.5)	9.5(2.7-12.3)				
<b>Performance</b>											
EER	Btu/W.h, W/W	11.3, 3.31	11.2, 3.30	11.1, 3.26	10.9, 3.21	10.3, 3.01					
COP	W/W	3.61	3.62	3.63	3.41	3.41					
Energy Rate		A	A	A	A	B					
Air Flow Volume	Indoor	m³/h	570	570	700	800	1080				
Noise Level	Indoor(Hi/Med/Low)	dB(A)	39/35/29	39/35/29	41/37/30	43/40/37	45/42/39				
	Outdoor	dB(A)	52	52	54	56	58				
<b>Net Dimension &amp; Weight</b>											
Indoor unit	WxHxD	mm	750x250x205	750x250x205	815x280x215	920x292x224	1080x330x235				
Outdoor unit	WxHxD	mm	760x590x285	760x590x285	760x590x285	845x695x335	895x860x330				
Net Weight	Indoor/Outdoor	kg	8.0/39.5	8.0/39.5	9.5/39.5	11.5/52	17/64				
<b>Packing Dimension &amp; Gross Weight</b>											
Indoor unit	WxHxD	mm	830x335x285	830x335x285	915x360x290	1020x385x320	1165x445x330				
Outdoor unit	WxHxD	mm	887x655x355	887x655x355	887x655x355	965x755x395	1043x915x395				
Gross Weight	Indoor/Outdoor	kg	10.0/42.5	10.0/42.5	11.5/42.5	14.5/56	21/68				
<b>Piping Connection</b>											
Liquid Side	mm(inch)		Ø6.35	Ø6.35	Ø6.35	Ø6.35	Ø9.53				
Gas Side	mm(inch)		Ø9.53	Ø9.53	Ø12.7	Ø12.7	Ø16.0				
<b>Applicable Area</b>											
	m²		12-18	16-24	20-30	28-40	40-56				
<b>Stuffing Quantity</b>											
20'/40'/40'HQ	Set		102/207/255	102/207/255	94/199/232	74/148/180	56/128/140				

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.



## Alfa Family\_DC Inverter Multi



MSHI-07HRIN1	●	●	●	●	●	●	●	●	●	●	●
MSHI-09HRIN1	●	●	●	●	●	●	●	●	●	●	●
MSHI-12HRIN1	●	●	●	●	●	●	●	●	●	●	●
MSHI-18HRDN1	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

## Types of Indoor Unit Combinations

Remarks: One outdoor unit can drive 4 free-matched indoor units at most.

8 Types		17 Types			40 Types			
One Unit	Two Units	One Unit	Two Units	Three Units	One Unit	Two Units	Three Units	Four Units
7	7+7	9+9	7+7+7	7+9+9	9+9+9	7	7+7	9+9
9	7+9	9+12	7+7+9	7+9+12	9+9+12	9	7+9	9+12
12	7+12		7+7+12	7+9+12	9+9+12	12	7+12	9+18

## Specification:



### Indoor Unit

Model		MSHI-07HRIN1	MSHI-09HRIN1	MSHI-12HRIN1	MSHI-18HRDN1
Capacity	Btu/h	7000/8500	9000/11000	12000/14000	18000/19000
Air Flow	m³/h	570	570	675	850
Dimension	WxHxD	750x250x205	750x250x205	815x280x215	920x292x224
Packing	WxHxD	830x336x285	830x336x285	915x360x290	1020x385x320
Net/Gross Weight	kg	8.0/10.0	8.5/10.0	10.0/12.0	11.5/14.5
Indoor noise level (Hi/Mi/Lo)	dB(A)	40	40	41	43
Liquid side/Gas side	mm	Ø6.35/Ø9.53	Ø6.35/Ø9.53	Ø6.35/Ø12.7	Ø6.35/Ø12.7

### Outdoor Unit

Model		M2OB-18HRDN1	M3OA-27HRDN1	M4OA-27HRDN1

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## Alfa Family\_AC Inverter Multi

### Features:



MSHI-07HRIN1	●	●	●	●	●	●	●	●	●	●	●
MSHI-09HRIN1	●	●	●	●	●	●	●	●	●	●	●
MSHI-12HRIN1	●	●	●	●	●	●	●	●	●	●	●
MSHI-18HRDN1	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

### Types of Indoor Unit Combinations

13 Types

One Unit	Two Units
7	7+7
9	9+9
12	12+12
18	7+18

23 Types

One Unit	Two Units	Three Units
7	7+7	9+9 12+12
9	7+9	9+12 12+18
12	7+12	9+18
18	7+18	

40 Types

One Unit	Two Units	Three Units	Four Units
7	7+7	9+9 12+12 7+7+7	7+9+9 9+9+12
9	7+9	9+12 12+18 7+7+9	7+9+12 9+9+12 9+12+18
12	7+12	9+18 7+7+12	7+9+18 9+9+12 12+12+12
18	7+18		7+7+18 7+12+12 9+9+18 7+7+9+9 7+9+12+12

Remarks: One outdoor unit can drive 4 free-matched indoor units at most.

### Specification:

■ Cooling Only ■ Cooling & Heating

#### Indoor Unit

Model	MSHI-07HRIN1	MSHI-09HRIN1	MSHI-12HRIN1	MSHI-18HRDN1		
Capacity	Cooling/Heating	Btu/h	7000/8500	9000/11000	12000/14000	18000/19000
Air Flow		m³/h	570	570	675	850
Dimension	WxHxD	mm	750x250x205	750x250x205	815x280x215	920x292x224
Packing	WxHxD	mm	830x336x285	830x336x285	915x360x290	1020x385x320
Net/Gross Weight		kg	8.0/10.0	8.5/10	10.0/12.0	11.5/14.5
Indoor noise level (Hi/Mi/Lo)	dB(A)		40	40	41	43
Liquid side/Gas side		mm	Ø6.35/Ø9.53	Ø6.35/Ø9.53	Ø6.35/Ø12.7	Ø6.35/Ø12.7

#### Outdoor Unit

Model	M2OA-18HRIN1	M3OA-27HRIN1	M4OA-27HRIN1			
Power						
Voltage, Frequency, Phase	V-,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1		
Capacity						
Cooling	min.-nom.-max.	Btu/h	7000 - 18000 - 26600	7000 - 27000 - 31700	7000 - 27000 - 37200	
	min.-nom.-max.	kW	2.0 - 5.3 - 7.8	2.0 - 7.8 - 9.3	2.0 - 8.0 - 10.9	
Heating	min.-nom.-max.	Btu/h	7500 - 23500 - 28600	7500 - 30700 - 36900	7500 - 32000 - 38200	
	min.-nom.-max.	kW	2.2 - 6.9 - 8.4	2.2 - 9.0 - 10.8	2.2 - 9.3 - 11.2	
Electrical Data						
Power Input	Cooling	min.-nom.-max.	kW	0.75 - 1.87 - 3.07	0.84 - 2.77 - 3.40	0.86 - 2.80 - 4.36
	Heating	min.-nom.-max.	kW	0.75 - 2.15 - 3.17	0.82 - 2.80 - 3.72	0.85 - 2.89 - 4.27
Operating Current	Cooling	min.-nom.-max.	A	3.4 - 11.5 - 14.1	4.0 - 13.5 - 17.0	4.1 - 14.8 - 20.6
	Heating	min.-nom.-max.	A	3.4 - 11.0 - 14.8	3.6 - 13.2 - 17.2	4.0 - 13.9 - 20.2
Performance						
EER		W/W		2.83-C	2.82-C	2.85-C
COP		W/W		3.21-C	3.21-C	3.22-C
Dimension	WxHxD	mm		845x695x335	845x695x335	895x860x330
Packing	WxHxD	mm		975x772x405	975x772x405	1043x915x395
Net/Gross Weight		kg		68/72	72/76	80/84
Outdoor air flow		m³/h		2500	2500	3500
Outdoor noise level		dB(A)		59	59	61

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.  
2.The values given in the table for the noise level reflect the levels in anechoic chamber.

### Features:



MSH-07/09/12/18CRN1	●	●	●	●	●	●	●	●	●	●	●
MSH-07HRN1	●	●	●	●	●	●	●	●	●	●	●
MSH-09/12/18HRN1	●	●	●	●	●	●	●	●	●	●	●
MSH-21/24CRN1-QB8W	●	●	●	●	●	●	●	●	●	●	●
MSH-21/24HRN1-QB8W	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

### Specification:

■ Cooling Only

■ Cooling & Heating

Model	MSH-07CRN1	MSH-07HRN1	MSH-09CRN1	MSH-09HRN1	MSH-12CRN1	MSH-12HRN1
Capacity						
Cooling	Btu/h	7000	7000	9000	9000	12000
	kW	2.1	2.1	2.6	2.6	3.5
Heating	Btu/h	-	8500	-	11000	-
	kW	-	2.5	-	3.2	-
Electrical Parts						
Voltage, Frequency, Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	640	640	820	1090
	Heating	W	-	690	-	1050
Operating Current	Cooling	A	2.8	2.8	3.8	4.8
	Heating	A	-	3.0	-	4.0
Performance						
EER	Btu/W.h, W/W	10.9,3.21	10.9,3.21	11.0,3.22	11.0,3.22	11.0,3.22
COP	W/W	-	3.61	-	3.62	-
Energy Rate		A	A	A	A	A
Air Flow Volume	Indoor	m³/h	450	450	500	680
Noise Level	Indoor(Hi/Med/Low)	dB(A)	34/32/30	34/32/30	36/34/32	39/36/33
	Outdoor	dB(A)	50	50	52	53
Net Dimension & Weight						
Indoor unit	WxHxD	mm	750x250x205	750x250x205	750x250x205	815x280x215
Outdoor unit	WxHxD	mm	700x535x235	700x535x235	780x540x250	760x590x285
Net Weight	Indoor/Outdoor	kg	8/31	8/32	8/36	10/40
Packing Dimension & Gross Weight					</td	



## Alfa Family\_Single

### Specification:

Model		■ Cooling Only	■ Cooling & Heating				
Capacity		■ MSH-18CRN1	■ MSH-18HRN1	■ MSH-21CRN1-QB8W	■ MSH-21HRN1-QB8W	■ MSH-24CRN1-QB8W	■ MSH-24HRN1-QB8W
Cooling	Btu/h	18000	18000	21000	21000	24000	24000
	kW	5.3	5.3	6.2	6.2	7.0	7.0
Heating	Btu/h	-	19000	-	24000	-	27000
	kW	-	5.6	-	6.7	-	7.9
Electrical Parts							
Voltage,Frequency,Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	1720	1720	2190	2190	2500
	Heating	W	-	1630	-	2190	2470
Operating Current	Cooling	A	7.5	7.5	9.5	9.5	10.9
	Heating	A	-	7.1	-	9.5	10.7
Performance							
EER	Btu/W.h, W/W	10.5,3.07	10.5,3.07	9.6,2.81	9.6,2.81	9.6,2.81	9.6,2.81
COP	W/W	-	3.42	-	3.21	-	3.21
Energy Rate		B	B	C	C	C	C
Air Flow Volume	Indoor	m³/h	850	850	920	920	990
Noise Level	Indoor(Hi/Med/Lo)	dB(A)	43/40/37	43/40/37	47/43/41	47/43/41	49/46/43
	Outdoor	dB(A)	54	54	57	57	59
Net Dimension & Weight							
Indoor unit	WxHxD	mm	920x293x224	920x293x224	1080x330x235	1080x330x235	1080x330x235
Outdoor unit	WxHxD	mm	845x695x335	845x695x335	845x695x335	845x695x335	845x695x335
Net Weight	Indoor/Outdoor	kg	13.5/52	13.5/52	17/58	17/58	17/62
Packing Dimension & Gross Weight							
Indoor unit	WxHxD	mm	1020x385x320	1020x385x320	1165x445x320	1165x445x320	1165x445x320
Outdoor unit	WxHxD	mm	965x755x395	965x755x395	965x755x395	965x755x395	965x755x395
Gross Weight	Indoor/Outdoor	kg	15.5/56	15.5/56	21/62	21/62	21/65
Piping Connection							
Liquid Side	mm(inch)	Ø6.35(1/4")	Ø6.35(1/4")	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")
Gas Side	mm(inch)	Ø12.7(1/2")	Ø12.7(1/2")	Ø16.0(5/8")	Ø16.0(5/8")	Ø16.0(5/8")	Ø16.0(5/8")
Applicable Area							
	m²	28-40	28-40	34-49	34-49	45-56	45-56
Stuffing Quantity							
20/40/40HQ	Set	68/141/166	68/141/166	60/132/142	60/132/142	60/132/142	60/132/142

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.  
2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Alfa Family\_Multi

### Features:



MSHI-09HRN1



MSHI-12HRN1



● Standard ● Optional

### Specification:

■ Cooling Only ■ Cooling & Heating

#### Indoor Unit

Model	■ MSHI-09HRN1	■ MSHI-12HRN1
Capacity	9000/10000	12000/14000
Air Flow	m³/h	500
Dimension	WxHxD	750x250x205
Packing	WxHxD	830x336x285
Net/Gross Weight	kg	8.5/10.0
Indoor noise level (Hi/Mi/Lo)	dB(A)	36
Liquid side/Gas side	mm	Ø6.35/Ø9.53

#### Outdoor Unit

Model	■ M2OA-18HRN1	■ M2OA-21HRN1	■ M3OA-27HRN1	■ M3OA-30HRN1	
Capacity					
Cooling/Heating	Btu/h	9000x2/10000x2	9000+12000/10000+14000	9000x3/10000x3	9000x2+12000/10000x2+14000
	kW	2.6x2/2.9x2	2.6+3.5/2.9+4.1	2.6x3/2.9x3	2.6x2+3.5/2.9x2+4.1
Electrical Data					
Voltage,Frequency,Phase	V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	Cooling/Heating	W	840x2/840x2	850+1150/860+1190	1600+970/1700+1000
Operating Current	Cooling/Heating	A	4.0x2/4.0x2	4.0+5.7/4.1+5.7	8.0+5.1/8.1+5.2
Performance					
EER	W/W	3.10-B	3.04-B	3.03-B	3.02-B
COP	W/W	3.45-B	3.42-B	3.22-C	3.22-C
Dimension	WxHxD	895x655x345	895x655x345	860x830x330	860x830x330
Packing	WxHxD	1050x700x470	1050x700x470	1000x985x425	1000x985x425
Net/Gross Weight	kg	76/82	76/82	81/90	81/90
Outdoor air flow	m³/h	2200	2200	3200	3200
Outdoor noise level	dB(A)	56	56	58	58

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

# Corona Family

220-240V~,50Hz



DC Inverter



Ultra High Efficiency COP 4.2

Corona Family\_DC Inverter

Features:



MSC-07/09HRDN1-QD0 • • • • • • • • • • • • • • •

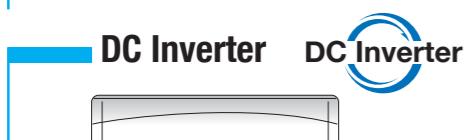
MSC-12HRDN1-QC6 • • • • • • • • • • • • • • •

• Standard • Optional



DC Inverter

- MSC-07HRDN1-QD0
- MSC-09HRDN1-QD0
- MSC-12HRDN1-QC6



DC Inverter

- MSC-07HRDN1-QC2(A)
- MSC-18HRDN1-QC2
- MSC-09HRDN1-QC2(A)
- MSC-24HRDN1-QC0
- MSC-12HRDN1-QC2(A)



DC Inverter

- M20B-18HRDN1
- M30A-27HRDN1
- M40A-27HRDN1



AC Inverter

- M20A-18HRIN1
- M30A-27HRIN1
- M40A-27HRIN1



Single ( ON/OFF )

- |              |              |              |              |
|--------------|--------------|--------------|--------------|
| ■ MSC-07CRN1 | ■ MSC-09CRN1 | ■ MSC-12CRN1 | ■ MSC-18CRN1 |
| ■ MSC-07HRN1 | ■ MSC-09HRN1 | ■ MSC-12HRN1 | ■ MSC-18HRN1 |
| ■ MSC-21CRN1 | ■ MSC-24CRN1 | ■ MSC-28CRN1 |              |
| ■ MSC-21HRN1 | ■ MSC-24HRN1 | ■ MSC-28HRN1 |              |



Multi ( ON/OFF )

- M20A-18HRN1
- M20A-21HRN1
- M30A-27HRN1
- M30A-30HRN1

## Specification:

Model		Cooling Only	Cooling & Heating
Capacity		■ MSC-07HRDN1-QD0 ■ MOC-07HDN1-QD0	■ MSC-09HRDN1-QD0 ■ MOC-09HDN1-QD0
Cooling	Btu/h	7000(2300-9500)	9000(3100-11200)
	kW	2.1(0.7-2.8)	2.6(0.9-3.3)
Heating	Btu/h	9000(2500-9600)	10000(3300-12300)
	kW	2.6(0.9-3.6)	2.9(1.0-3.6)
Electrical Parts			
Voltage, Frequency, Phase	V~, Hz, Ph	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling W	510(190-700)	660(300-1100)
	Heating W	620(230-820)	690(310-1150)
Operating Current	Cooling A	2.2(0.9-3.1)	2.9(1.3-4.8)
	Heating A	2.7(1.0-3.6)	3.0(1.4-5.0)
Performance			
EER	Btu/W.h, W/W	13.6, 4.0	13.6, 4.0
COP	W/W	4.2	4.2
Energy Rate		A	A
Air Flow Volume	Indoor m³/h	590	590
Noise Level	Indoor(Hi/Med/Low) dB(A)	39/33/27	39/33/27
	Outdoor dB(A)	52	52
Net Dimension & Weight			
Indoor unit	WxHxD mm	790x265x195	790x265x195
Outdoor unit	WxHxD mm	760x590x285	760x590x285
Net Weight	Indoor/Outdoor kg	9/40.5	9/40.5
Packing Dimension & Gross Weight			
Indoor unit	WxHxD mm	875x375x285	875x375x285
Outdoor unit	WxHxD mm	887x655x355	887x655x355
Gross Weight	Indoor/Outdoor kg	11/43	11/43
Piping Connection			
Liquid Side	mm(inch)	Ø6.35	Ø6.35
Gas Side	mm(inch)	Ø9.53	Ø9.53
Applicable Area			
	m²	12-18	16-24
Stuffing Quantity			
20'/40'/40'HQ	Set	92/184/225	92/184/225
92/184/225		92/184/225	92/184/225

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.  
2.The values given in the table for the noise level reflect the levels in anechoic chamber.



## Corona Family\_DC Inverter

### Features:



MSC-07/09/12HRDN1-QC2(A)	●	●	●	●	●	●	●	●	●	●	●	●
MSC-18HRDN1-QC2	●	●	●	●	●	●	●	●	●	●	●	●
MSC-24HRDN1-QC0	●	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

### Specification:

Model			Cooling Only	Cooling & Heating
Cooling	Btu/h	7000(2500-9000)	9000(2050-11200)	12000(4000-13800)
	kW	2.1(0.7-2.6)	2.6(0.6-3.3)	3.5(1.2-4.0)
Heating	Btu/h	9000(3400-11000)	10000(3200-13200)	13000(4100-14500)
	kW	2.6(1.0-3.2)	2.9(0.9-3.9)	3.8(1.2-4.2)
Electrical Parts			One Unit	
Voltage, Frequency, Phase	V~, Hz, Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	630(210-860)	810(240-1080)
	Heating	W	730(250-1050)	810(240-1340)
Operating Current	Cooling	A	2.8(0.9-3.9)	3.8(1.2-5.4)
	Heating	A	3.2(1.1-4.6)	3.8(1.2-6.1)
Performance			Two Units	
EER	Btu/W.h, W/W	11.1, 3.26	11.1, 3.26	11.1, 3.26
COP	W/W	3.61	3.62	3.63
Energy Rate		A	A	A
Air Flow Volume	Indoor	m³/h	570	570
Noise Level	Indoor(Hi/Med/Low)	dB(A)	38/33/29	38/33/29
	Outdoor	dB(A)	52	52
Gross Weight	Indoor/Outdoor	kg	54	56
Net Dimension & Weight			Three Units	
Indoor unit	WxHxD	mm	710x250x195	710x250x195
Outdoor unit	WxHxD	mm	760x590x285	760x590x285
Net Weight	Indoor/Outdoor	kg	9.0/39.5	9.0/39.5
Packing Dimension & Gross Weight			Four Units	
Indoor unit	WxHxD	mm	800x340x270	800x340x270
Outdoor unit	WxHxD	mm	887x655x355	887x655x355
Gross Weight	Indoor/Outdoor	kg	11.0/42.5	11.0/42.5
Piping Connection			One Unit	
Liquid Side	mm(inch)	Ø6.35	Ø6.35	Ø6.35
Gas Side	mm(inch)	Ø9.53	Ø9.53	Ø12.7
Applicable Area			Two Units	
	m²	12-18	16-24	20-30
Stuffing Quantity			Three Units	
20'/40'/40'HQ	Set	105/207/256	105/207/256	92/184/225
Remarks: 1. The above design and specifications are subject to change without prior notice for product improvement.				
2. The values given in the table for the noise level reflect the levels in anechoic chamber.				



## Corona Family\_DC Inverter Multi

### Features:



MSCI-07HRIN1	●	●	●	●	●	●	●	●	●	●	●	●
MSCI-09HRIN1	●	●	●	●	●	●	●	●	●	●	●	●
MSCI-12HRIN1	●	●	●	●	●	●	●	●	●	●	●	●
MSCI-18HRDN1	●	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

### Types of Indoor Unit Combinations

8 Types

One Unit	Two Units
7	7+7
9	7+9
12	7+12

17 Types

One Unit	Two Units	Three Units
7	7+7	9+9
9	7+9	9+12
12	7+12	12+12

40 Types

One Unit	Two Units	Three Units	Four Units
7	7+7	9+9	12+12
9	7+9	9+12	12+12
12	7+12	9+18	12+12
18	7+18	12+12	18+18

Remarks: One outdoor unit can drive 4 free-matched indoor units at most.

### Specification:

■ Cooling Only ■ Cooling & Heating

#### Indoor Unit

Model		MSCI-07HRIN1	MSCI-09HRIN1	MSCI-12HRIN1	MSCI-18HRDN1
Capacity		Btu/h	7000/8500	9000/11000	12000/14000
Air Flow		m³/h	570	570	620
Dimension		mm	710x250x195	710x250x195	790x265x195
Packing		mm	800x340x270	800x340x270	875x375x285
Net/Gross Weight		kg	8.0/9.5	8.0/9.5	9.0/11.0
Indoor noise level (Hi/Mi/Lo)		dB(A)	38	38	42
Liquid side/Gas side		mm	Ø6.35/Ø9.53	Ø6.35/Ø9.53	Ø6.35/Ø12.7

#### Outdoor Unit

Model		M2OB-18HRDN1	M3OA-27HRDN1	M4OA-27HRDN1
Power	Voltage, Frequency, Phase	V., Hz, Ph	220-240, 50, 1	220-240, 50, 1
Cooling	min.-nom.-max.	Btu/h	7000 - 18000 - 21200	7000 - 27000 - 31400
		kW	2.0 - 5.2 - 6.2	2.0 - 7.8 - 9.2
Heating	min.-nom.-max.	Btu/h	7500 - 21000 - 24200	7500 - 30700 - 36900
		kW	2.2 - 6.1 - 7.1	2.2 - 9.0 - 10.8
Electrical Data				
Power Input	Cooling	min.-nom.-max.	kW	0.65 - 1.60 - 2.28
	Heating	min.-nom.-max.	kW	0.62 - 1.69 - 2.30
Operating Current	Cooling	min.-nom.-max.	A	2.9 - 7.0 - 10.1
	Heating	min.-nom.-max.	A	2.9 - 8.5 - 10.2
Performance				
EER			W/W	3.25-A
COP			W/W	3.61-A
Dimension			mm	845x695x335
Packing			mm	975x772x405
Net/Gross Weight			kg	61/65
Outdoor air flow			m³/h	2500
Outdoor noise level			dB(A)	57

Remarks: 1. The above design and specifications are subject to change without prior notice for product improvement.

2. The values given in the table for the noise level reflect the levels in anechoic chamber.

## Corona Family AC Inverter Multi



# Corona Family\_Single

## Features:



- Standard
- Optional

## **Types of Indoor Unit Combinations -**

Remarks: One outdoor unit can drive 4 free-matched indoor units at most.

13 Types				23 Types				40 Types																	
One Unit		Two Units		One Unit				Two Units		Three Units				One Unit		Two Units		Three Units				Four Units			
7	7+7	9+9	12+12	7	7+7	9+9	12+12	7+7+7	7+9+9	9+9+12	7	7+7	9+9	12+12	7+7+7	7+7+9+9	9+9+9+9								
9	7+9	9+12	12+18	9	7+9	9+12	12+18	7+7+9	7+9+12	9+12+12	9	7+9	9+12	12+18	7+7+9	7+7+9+12	9+9+9+12								
12	7+12	9+18		12	7+12	9+18		7+7+12	7+12+12		12	7+12	9+18		7+7+12	7+9+9+9	7+7+12+12								
18	7+18			18	7+18			7+7+18	9+9+9		18	7+18			7+7+18	7+9+9+12	7+9+12+12								

- Standard
- Optional

## Specification:

 Cooling Only       Cooling & Heating

Indoor Unit			■ MSCI-07HRIN1	■ MSCI-09HRIN1	■ MSCI-12HRIN1	■ MSCI-18HRDN1
Model	Capacity	Cooling/Heating	Btu/h			
Capacity			7000/8500	9000/11000	12000/14000	18000/19000
Air Flow		m³/h	570	570	620	800
Dimension	WxHxD	mm	710x250x195	710x250x195	790x265x195	920x292x225
Packing	WxHxD	mm	800x340x270	800x340x270	875x375x285	1015x368x295
Net/Gross Weight		kg	8.0/9.5	8.0/9.5	9.0/11.0	11.5/15
Indoor noise level (Hi/Mi/Lo)		dB(A)	38	38	42	44
Liquid side/Gas side		mm	Ø6.35/Ø9.53	Ø6.35/Ø9.53	Ø6.35/Ø12.7	Ø6.35/Ø12.7

## **Outdoor Unit**

Model			M2OA-18HRIN1	M3OA-27HRIN1	M4OA-27HRIN1	
<b>Power</b>						
Voltage, Frequency, Phase		V,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	
<b>Capacity</b>						
Cooling	min.-nom.-max.	Btu/h	7000 - 18000 - 26600	7000 - 27000 - 31700	7000 - 27000 - 37200	
	min.-nom.-max.	kW	2.0 - 5.3 - 7.8	2.0 - 7.8 - 9.3	2.0 - 8.0 - 10.9	
Heating	min.-nom.-max.	Btu/h	7500 - 23500 - 28600	7500 - 30700 - 36900	7500 - 32000 - 38200	
	min.-nom.-max.	kW	2.2 - 6.9 - 8.4	2.2 - 9.0 - 10.8	2.2 - 9.3 - 11.2	
<b>Electrical Data</b>						
Power Input	Cooling	min.-nom.-max.	kW	0.75 - 1.87 - 3.07	0.84 - 2.77 - 3.40	0.86 - 2.80 - 4.36
	Heating	min.-nom.-max.	kW	0.75 - 2.15 - 3.17	0.82 - 2.80 - 3.72	0.85 - 2.89 - 4.27
Operating Current	Cooling	min.-nom.-max.	A	3.4 - 11.5 - 14.1	4.0 - 13.5 - 17.0	4.1 - 14.8 - 20.6
	Heating	min.-nom.-max.	A	3.4 - 11.0 - 14.8	3.6 - 13.2 - 17.2	4.0 - 13.9 - 20.2
<b>Performance</b>						
EER		W/W		2.83-C	2.82-C	2.85-C
COP		W/W		3.21-C	3.21-C	3.22-C
Dimension	WxHxD		mm	845x695x335	845x695x335	895x860x330
Packing	WxHxD		mm	975x772x405	975x772x405	1043x915x395
Net/Gross Weight		kg		68/72	72/76	80/84
Outdoor air flow		m³/h		2500	2500	3500
Outdoor noise level		dB(A)		59	59	61

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

Remarks: 1. The above design and specifications are subject to change without prior notice for products.  
2. The values given in the table for the noise level reflect the levels in anechoic chamber.

## Features:



- Standard
- Optional

## Specification:

■ Cooling Only      ■ Cooling & Heating

Model		MSC-07CRN1	MSC-07HRN1	MSC-09CRN1	MSC-09HRN1	MSC-12CRN1	MSC-12HRN1	MSC-18CRN1	MSC-18HRN1
Capacity									
Cooling	Btu/h	7000	7000	9000	9000	12000	12000	18000	18000
	kW	2.1	2.1	2.6	2.6	3.5	3.5	5.3	5.3
Heating	Btu/h	-	8500	-	11000	-	13000	-	19000
	kW	-	2.5	-	3.2	-	3.8	-	5.6
Electrical Parts									
Voltage, Frequency, Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	640	640	820	820	1090	1090	1720
	Heating	W	-	690	-	890	-	1050	-
Operating Current	Cooling	A	2.8	2.8	3.8	3.8	4.8	4.8	7.5
	Heating	A	-	3.0	-	4.0	-	4.6	-
Performance									
EER	Btu/W.h, W/W	10.9,3.21	10.9,3.21	11.0,3.22	11.0,3.22	11.0,3.22	11.0,3.22	10.5,3.07	10.5,3.07
COP	W/W	-	3.61	-	3.62	-	3.63	-	3.42
Energy Rate		A	A	A	A	A	A	B	B
Air Flow Volume	Indoor	m³/h	450	450	500	500	580	580	850
Noise Level	Indoor(Hi/Med/Low)	dB(A)	35/32/30	35/32/30	37/34/31	37/34/31	40/37/34	40/37/34	42/39/37
	Outdoor	dB(A)	49	49	50	50	50	50	52
Net Dimension & Weight									
Indoor unit	WxHxD	mm	710x250x195	710x250x195	710x250x195	710x250x195	790x265x195	790x265x195	920x292x225
Outdoor unit	WxHxD	mm	700x535x235	700x535x235	780x540x250	780x540x250	780x540x250	780x540x250	845x695x335
Net Weight	Indoor/Outdoor	kg	8/27	8/28.5	8/30	8/31	9/34	9/38	13/52
Packing Dimension & Gross Weight									
Indoor unit	WxHxD	mm	800x340x270	800x340x270	800x340x270	800x340x270	875x375x285	875x375x285	1015x368x295
Outdoor unit	WxHxD	mm	815x580x325	815x580x325	910x575x335	910x575x335	910x575x335	910x575x335	965x755x395
Gross Weight	Indoor/Outdoor	kg	9.5/30	9.5/30.5	9.5/33	9.5/34	11/37	11/41	15/56
Piping Connection									
Liquid Side	mm(inch)	Ø6.35(1/4")							
Gas Side	mm(inch)	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")	Ø12.7(1/2")	Ø12.7(1/2")	Ø12.7(1/2")	Ø12.7(1/2")
Applicable Area									
	m²	10-14	10-14	14-21	14-21	18-26	18-26	28-40	28-40
Stuffing Quantity									
20'/40'/40'HC	Set	126/272/298	126/272/298	113/238/274	113/238/274	94/199/232	94/199/232	70/148/170	70/148/170

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

- The above design and specifications are subject to change without prior notice for production.
- The values given in the table for the noise level reflect the levels in anechoic chamber.



## Corona Family\_Single

### Specification:

Model		MSC-21CRN1	MSC-21HRN1	MSC-24CRN1	MSC-24HRN1	MSC-28CRN1	MSC-28HRN1
<b>Capacity</b>							
Cooling	Btu/h	21000	21000	23000	23000	26000	26000
	kW	6.2	6.2	6.7	6.7	7.6	7.6
Heating	Btu/h	-	24000	-	27000	-	29000
	kW	-	6.7	-	7.9	-	8.5
<b>Electrical Parts</b>							
Voltage, Frequency, Phase	V~, Hz, Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	2190	2190	2400	2400	2710
	Heating	W	-	2190	-	2470	2650
Operating Current	Cooling	A	9.5	9.5	10.4	10.4	11.8
	Heating	A	-	9.5	-	10.7	11.5
<b>Performance</b>							
EER	Btu/W.h, W/W	9.6.2.81	9.6.2.81	9.6.2.81	9.6.2.81	9.6.2.81	9.6.2.81
COP	W/W	-	3.21	-	3.21	-	3.21
Energy Rate		C	C	C	C	C	C
Air Flow Volume	Indoor	m³/h	1020	1020	1020	1020	1080
Noise Level	Indoor(Hi/Med/Low)	dB(A)	45/42/39	45/42/39	45/42/39	47/44/41	47/44/41
	Outdoor	dB(A)	55	55	55	59	59
<b>Net Dimension &amp; Weight</b>							
Indoor unit	WxHxD	mm	1080x330x225	1080x330x225	1080x330x235	1080x330x235	1080x330x235
Outdoor unit	WxHxD	mm	845x695x335	845x695x335	845x695x335	845x695x335	845x695x335
Net Weight	Indoor/Outdoor	kg	17/59	17/60	17/59	17/60	17/61
<b>Packing Dimension &amp; Gross Weight</b>							
Indoor unit	WxHxD	mm	1165x445x320	1165x445x320	1165x445x320	1165x445x320	1165x445x320
Outdoor unit	WxHxD	mm	965x755x395	965x755x395	965x755x395	965x755x395	965x755x395
Gross Weight	Indoor/Outdoor	kg	21/63	21/64	21/63	21/64	21/65
<b>Piping Connection</b>							
Liquid Side	mm(inch)	mm(inch)	09.53(3/8")	09.53(3/8")	09.53(3/8")	09.53(3/8")	09.53(3/8")
Gas Side	mm(inch)	mm(inch)	016.0(5/8")	016.0(5/8")	016.0(5/8")	016.0(5/8")	016.0(5/8")
<b>Applicable Area</b>							
	m²	34-49	34-49	45-56	45-56	50-68	50-68
<b>Stuffing Quantity</b>							
20/40/40HQ	Set	64/126/148	64/126/148	64/126/148	64/126/148	64/126/148	64/126/148

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.  
2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Corona Family\_Multi

### Specification:



### Features:

MSCI-09HRN1	●	●	●	●	●	●	●	●	●	●	●	●
MSCI-12HRN1	●	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

### Specification:



#### Indoor Unit

Model	MSCI-09HRN1	MSCI-12HRN1
Capacity	9000/10000	12000/14000
Air Flow	m³/h	500
Dimension	WxHxD	710x250x195
Packing	WxHxD	800x340x270
Net/Gross Weight	kg	8.0/9.5
Indoor noise level (Hi/Mi/Lo)	dB(A)	37
Liquid side/Gas side	mm	Ø6.35/Ø9.53

#### Outdoor Unit

Model	M2OA-18HRN1	M2OA-21HRN1	M3OA-27HRN1	M3OA-30HRN1	
Capacity					
Cooling/Heating	Btu/h	9000x2/10000x2	9000+12000/10000+14000	9000x3/10000x3	9000x2+12000/10000x2+14000
	kW	2.6x2/2.9x2	2.6+3.5/2.9+4.1	2.6x3/2.9x3	2.6x2+3.5/2.9x2+4.1
<b>Electrical Data</b>					
Voltage, Frequency, Phase	V~, Hz, Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling/Heating	W	840x2/840x2	850+1150/860+1190	1600+970/1700+1000
Operating Current	Cooling/Heating	A	4.0x2/4.0x2	4.0+5.7/4.1+5.7	8.0+5.1/8.1+5.2
<b>Performance</b>					
EER	W/W	3.10-B	3.04-B	3.03-B	3.02-B
COP	W/W	3.45-B	3.42-B	3.22-C	3.22-C
Dimension	WxHxD	895x655x345	895x655x345	860x830x330	860x830x330
Packing	WxHxD	1050x700x470	1050x700x470	1000x985x425	1000x985x425
Net/Gross Weight	kg	76/82	76/82	81/90	81/90
Outdoor air flow	m³/h	2200	2200	3200	3200
Outdoor noise level	dB(A)	56	56	58	58

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

# Dorado Family

220-240V~,50Hz



## Dorado Family\_DC Inverter

### Features:



MSJ-07HRDN1-QC2



MSJ-09HRDN1-QC2



MSJ-12HRDN1-QC2



● Standard ● Optional

### Specification:

Cooling Only Cooling & Heating

	MSJ-07HRDN1-QC2 MOC-07HDN1-QC2	MSJ-09HRDN1-QC2 MOC-09HDN1-QC2	MSJ-12HRDN1-QC2 MOC-12HDN1-QC2
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Model	MSJ-07HRDN1-QC2 MOC-07HDN1-QC2	MSJ-09HRDN1-QC2 MOC-09HDN1-QC2	MSJ-12HRDN1-QC2 MOC-12HDN1-QC2
<b>Capacity</b>			
Cooling	Btu/h	7000(2500-9000)	9000(3100-11200)
	kW	2.1(0.7-2.6)	2.6(0.9-3.3)
Heating	Btu/h	8000(2800-10000)	10000(3300-12400)
	kW	2.3(0.9-2.9)	2.9(1.1-3.6)
<b>Electrical Parts</b>			
Voltage,Frequency,Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling W	630(260-880)	820(290-1080)
	Heating W	650(270-930)	810(280-1110)
Operating Current	Cooling A	2.9(1.2-4.2)	4.0(1.5-5.2)
	Heating A	3.0(1.2-4.4)	4.0(1.5-5.3)
<b>Performance</b>			
EER	Btu/W.h, W/W	11.1,3.26	11.0,3.22
COP	W/W	3.61	3.62
Energy Rate		A	A
Air Flow Volume	Indoor m³/h	520	520
Noise Level	Indoor(Hi/Med/Low) dB(A)	37/34/30	37/34/30
	Outdoor dB(A)	52	52
<b>Net Dimension &amp; Weight</b>			
Indoor unit	WxHxD mm	760x250x190	760x250x190
Outdoor unit	WxHxD mm	760x590x285	760x590x285
Net Weight	Indoor/Outdoor kg	8.5/35	8.5/35
<b>Packing Dimension &amp; Gross Weight</b>			
Indoor unit	WxHxD mm	825x325x255	825x325x255
Outdoor unit	WxHxD mm	887x655x355	887x655x355
Gross Weight	Indoor/Outdoor kg	10/37.5	10/37.5
<b>Piping Connection</b>			
Liquid Side	mm(inch)	Ø6.35	Ø6.35
Gas Side	mm(inch)	Ø9.53	Ø12.7
<b>Applicable Area</b>	m²	12-18	16-24
<b>Stuffing Quantity</b>	Set	99/216/256	99/216/256
20'/40'/40'HQ		100/199/238	

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Dorado Family\_Single

### Features:



MSJ-07/09/12 /18CRN1-QB8 • • • • • • • • • • • •

MSJ-07/09/12 /18HRN1-QB8 • • • • • • • • • • • •

• Standard • Optional

### Specification:

■ Cooling Only ■ Cooling & Heating

Model		MSJ-07CRN1-QB8 MSJ-07HRN1-QB8 MSJ-09CRN1-QB8 MSJ-09HRN1-QB8 MSJ-12CRN1-QB8 MSJ-12HRN1-QB8 MSJ-18CRN1-QB8 MSJ-18HRN1-QB8									
Capacity		Btu/h	7000	7000	9000	9000	12000	12000	17000	17000	
Cooling		kW	2.1	2.1	2.6	2.6	3.5	3.5	5.0	5.0	
Heating		Btu/h	-	8000	-	10000	-	13000	-	18500	
		kW	-	2.3	-	2.9	-	3.8	-	5.4	
Electrical Parts		Voltage,Frequency,Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	
Power Input	Cooling	W	700	700	920	920	1200	1200	1770	1770	
	Heating	W	-	700	-	910	-	1150	-	1690	
Operating Current	Cooling	A	3.1	3.1	4.0	4.0	5.5	5.5	8.0	8.0	
	Heating	A	-	3.1	-	4.0	-	5.0	-	7.3	
Performance		EER	Btu/W.h, W/W	10.0,2.93	10.0,2.93	9.8,2.87	9.8,2.87	10.0,2.93	10.0,2.93	9.6,2.81	9.6,2.81
COP		W/W	-	3.35	-	3.21	-	3.44	-	3.21	
Energy Rate		C	C	C	C	C	C	C	C		
Air Flow Volume	Indoor	m³/h	370	370	420	420	600	600	850	850	
Noise Level	Indoor(Hi/Med/Low)	dB(A)	36/32/29	36/32/29	37/32/29	37/32/29	40/35/32	40/35/32	44/41/38	44/41/38	
	Outdoor	dB(A)	53	53	54	54	55	55	58	58	
Net Dimension & Weight											
Indoor unit	WxHxD	mm	750x250x198	750x250x198	750x250x198	750x250x198	790x265x204	790x265x204	920x293x227	920x293x227	
Outdoor unit	WxHxD	mm	700x535x235	700x535x235	700x535x235	700x535x235	780x540x250	780x540x250	760x590x285	760x590x285	
Net Weight	Indoor/Outdoor	kg	8/26	8/27	8/27	8/28	9.5/34	9.5/35	11.5/41	11.5/42	
Packing Dimension & Gross Weight											
Indoor unit	WxHxD	mm	840x340x270	840x340x270	840x340x270	840x340x270	875x375x285	875x375x285	1005x305x370	1005x305x370	
Outdoor unit	WxHxD	mm	815x580x325	815x580x325	815x580x325	815x580x325	910x575x335	910x575x335	872x640x340	872x640x340	
Gross Weight	Indoor/Outdoor	kg	10/28	10/29	10/29	10/30	11.5/36	11.5/37	15/44	15/45	
Piping Connection											
Liquid Side	mm(inch)	Ø6.35(1/4")	Ø6.35(1/4")	Ø6.35(1/4")	Ø6.35(1/4")	Ø6.35(1/4")	Ø6.35(1/4")	Ø6.35(1/4")	Ø6.35(1/4")		
Gas Side	mm(inch)	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")	Ø12.7(1/2")	Ø12.7(1/2")	Ø12.7(1/2")	Ø12.7(1/2")		
Applicable Area		m²	10-14	10-14	14-21	14-21	18-26	18-26	28-40	28-40	
Stuffing Quantity		Set	132/250/292	132/250/292	132/250/292	132/250/292	108/218/270	108/218/270	83/179/215	83/179/215	

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Elite Eco Family

220-240V~,50Hz

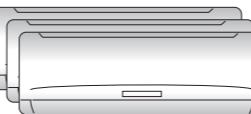


### Single (ON/OFF)



- MSE-07CRN2
- MSE-09CRN2
- MSE-12CRN2
- MSE-18CRN2
- MSE-07HRN2
- MSE-12HRN2
- MSE-18HRN2
- MSE-21CRN2
- MSE-24CRN2
- MSE-28CRN2
- MSE-21HRN2
- MSE-24HRN2
- MSE-28HRN2

### Multi (ON/OFF)



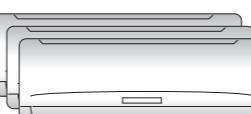
- M20A-18HRN2
- M20A-21HRN2
- M30A-27HRN2
- M30A-30HRN2

### AC Inverter



- MSE-07HRIN2
- MSE-09HRIN2
- MSE-12HRIN2

### AC Inverter Multi



- M20A-18HRIN2
- M30A-27HRIN2



## Elite Eco Family\_Single



MSE-07/09CRN2	●	●	●	●	●	●	●	●	●	●	●
MSE-12CRN2	●	●	●	●	●	●	●	●	●	●	●
MSE-18CRN2	●	●	●	●	●	●	●	●	●	●	●
MSE-21/24CRN2	●	●	●	●	●	●	●	●	●	●	●
MSE-28CRN2	●	●	●	●	●	●	●	●	●	●	●
MSE-07/09HRN2	●	●	●	●	●	●	●	●	●	●	●
MSE-12HRN2	●	●	●	●	●	●	●	●	●	●	●
MSE-18HRN2	●	●	●	●	●	●	●	●	●	●	●
MSE-21/24HRN2	●	●	●	●	●	●	●	●	●	●	●
MSE-28HRN2	●	●	●	●	●	●	●	●	●	●	●

● Standard ● Optional

## Specification:

■ Cooling Only ■ Cooling & Heating

Model	MSE-07CRN2	MSE-07HRN2	MSE-09CRN2	MSE-09HRN2	MSE-12CRN2	MSE-12HRN2	MSE-18CRN2	MSE-18HRN2
<b>Capacity</b>								
Cooling	Btu/h	7000	7000	9000	9000	12000	12000	18000
	kW	2.1	2.1	2.6	2.6	3.5	3.5	5.3
Heating	Btu/h	-	8000	-	10000	-	14000	-
	kW	-	2.3	-	2.9	-	4.1	-
<b>Electrical Parts</b>								
Voltage,Frequency,Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	760	760	1000	1000	1300	1300
	Heating	W	-	780	-	1010	-	1370
Operating Current	Cooling	A	3.5	3.5	4.5	4.5	5.9	5.9
	Heating	A	-	3.7	-	4.6	-	6.2
<b>Performance</b>								
EER	Btu/W.h, W/W	9.2, 2.70	9.2, 2.70	9.0, 2.64	9.0, 2.64	9.2, 2.71	9.2, 2.71	9.0, 2.64
COP	W/W	-	2.93	-	2.90	-	3.01	-
Energy Rate		D	D	D	D	D	D	D
Air Flow Volume	Indoor	m³/h	400	400	450	450	580	580
Noise Level	Indoor(Hi/Med/Low)	dB(A)	35/32/30	35/32/30	37/34/32	37/34/32	37/34/32	42/40/38
	Outdoor	dB(A)	50	50	51	51	54	53
<b>Net Dimension &amp; Weight</b>								
Indoor unit	WxHxD	mm	710x250x195	710x250x195	710x250x195	710x250x195	790x265x195	790x265x195
Outdoor unit	WxHxD	mm	700x535x235	700x535x235	700x535x235	700x535x235	780x540x250	780x540x250
Net Weight	Indoor/Outdoor	kg	8/25.5	8/26	8/27.5	8/28.5	9.0/34	9.0/36
<b>Packing Dimension &amp; Gross Weight</b>								
Indoor unit	WxHxD	mm	800x340x270	800x340x270	800x340x270	800x340x270	875x375x285	875x375x285
Outdoor unit	WxHxD	mm	815x580x325	815x580x325	815x580x325	815x580x325	910x575x335	910x575x335
Gross Weight	Indoor/Outdoor	kg	9.5/28	9.5/28	9.5/30	9.5/31	11/37	11.5/39
<b>Piping Connection</b>								
Liquid Side	mm(inch)	06.35(1/4")	06.35(1/4")	06.35(1/4")	06.35(1/4")	06.35(1/4")	06.35(1/4")	06.35(1/4")
Gas Side	mm(inch)	09.53(3/8")	09.53(3/8")	09.53(3/8")	09.53(3/8")	012.7(1/2")	012.7(1/2")	012.7(1/2")
<b>Applicable Area</b>								
	m²	10-14	10-14	14-21	14-21	18-26	18-26	28-40
<b>Stuffing Quantity</b>								
20'/40'/40'HQ	Set	126/272/298	126/272/298	126/272/298	126/272/298	108/226/266	108/226/266	84/180/201
20'/40'/40'HQ	Set	126/272/298	126/272/298	126/272/298	126/272/298	108/226/266	108/226/266	84/180/201

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Specification:

## Elite Eco Family\_Single

■ Cooling Only ■ Cooling & Heating

Model	MSE-21CRN2	MSE-21HRN2	MSE-24CRN2	MSE-24HRN2	MSE-28CRN2	MSE-28HRN2
<b>Capacity</b>						
Cooling	Btu/h	20000	20000	23000	23000	26000
	kW	5.9	5.9	6.7	6.7	7.6
Heating	Btu/h	-	22000	-	28000	-
	kW	-	6.4	-	8.2	-
<b>Electrical Parts</b>						
Voltage, Frequency, Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	2200	2200	2680	3050
	Heating	W	-	2300	-	3200
Operating Current	Cooling	A	10.1	10.1	12.5	13.9
	Heating	A	-	10.5	-	14.8
<b>Performance</b>						
EER	Btu/W.h, W/W	9.1, 2.67	9.1, 2.67	8.6, 2.51	8.6, 2.51	8.5, 2.50
COP	W/W	-	2.81	-	2.81	-
Energy Rate		D	D	E	E	E
Air Flow Volume	Indoor	m³/h	800	800	1020	1080
Noise Level	Indoor(Hi/Med/Low)	dB(A)	45/42/39	45/42/39	45/42/39	47/44/41
	Outdoor	dB(A)	55	55	55	57
<b>Net Dimension &amp; Weight</b>						
Indoor unit	WxHxD	mm	920x292x225	920x292x225	1080x330x225	1080x330x225
Outdoor unit	WxHxD	mm	845x695x335	845x695x335	845x695x335	845x695x335
Net Weight	Indoor/Outdoor	kg	13/52	13/55	17/59	17/62
<b>Packing Dimension &amp; Gross Weight</b>						
Indoor unit	WxHxD	mm	1015x370x295	1015x370x295	1165x445x320	1165x445x320
Outdoor unit	WxHxD	mm	970x770x395	970x770x395	970x770x395	970x770x395
Gross Weight	Indoor/Outdoor	kg	15/57	15/60	21/63	21/66
<b>Piping Connection</b>						
Liquid Side	mm(inch)	09.53(3/8")	09.53(3/8")	09.53(3/8")	09.53(3/8")	09.53(3/8")
Gas Side	mm(inch)	016.0(5/8")	016.0(5/8")	016.0(5/8")	016.0(5/8")	016.0(5/8")
<b>Applicable Area</b>						
	m²	34-49	34-49	45-56	45-56	50-68
<b>Stuffing</b>						

## Elite Eco Family Multi



## **Elite Eco Family AC Inverter**

## Features:



- Standard
- Optional

## Specification:

 Cooling Only       Cooling & Heating

## Indoor Unit

Model			MSEI-09HRN2	MSEI-12HRN2
Capacity	Cooling/Heating	Btu/h	9000/10000	12000/14000
Air Flow		m³/h	450	580
Dimension	WxHxD	mm	710x250x190	790x265x195
Packing	WxHxD	mm	800x340x270	875x375x285
Net/Gross Weight		kg	8.0/9.5	9.0/11.5
Indoor noise level (Hi/Mi/Lo)		dB(A)	37	37
Liquid side/Gas side		mm	Ø6.35/Ø9.53	Ø6.35/Ø12.7

## **Outdoor Unit**

Model		M2OA-18HRN2	M2OA-21HRN2	M3OA-27HRN2	M3OA-30HRN2
<b>Capacity</b>					
Cooling/Heating	Btu/h	9000x2/10000x2	9000+12000/10000+13000	9000x3/10000x3	9000x2+12000/10000x2+13000
	kW	2.6x2/2.9x2	2.6+3.5/2.9+3.8	2.6x3/2.9x3	2.6x2+3.5/2.9x2+3.8
<b>Electrical Data</b>					
Voltage, Frequency, Phase	V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	Cooling/Heating	W	990x2/1000x2	980+1320/1000+1350	1940+1050/1950+1100
Operating Current	Cooling/Heating	A	4.8x2/4.9x2	4.8+6.4/4.9+6.6	9.4+5.1/9.5+5.4
<b>Performance</b>					
EER	W/W	2.63-D	2.68-D	2.61-D	2.62-D
COP	W/W	2.90-D	2.85-D	2.85-D	2.86-D
Dimension	WxHxD	mm	895x655x345	895x655x345	860x830x330
Packing	WxHxD	mm	1050x780x470	1050x780x470	1000x985x425
Net/Gross Weight	kg	73/77	79/83	90/94	90/94
Outdoor air flow	m³/h	2000	2000	2900	2900
Outdoor noise level	dB(A)	55	55	58	58

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2. The values given in the table for the noise level reflect the levels in anechoic chamber.

## Features:



MSE-07HRIN2

MSE-09HRIN2

MSE-12HRIN2

- Standard
- Optional

## Specification:

■ Cooling Only      ■ Cooling & Heating

Model			MSE-07HRIN2	MSE-09HRIN2	MSE-12HRIN2
<b>Capacity</b>					
Cooling	Btu/h		7000(2300-9000)	9000(2900-10600)	12000(3400-14100)
	kW		2.1(0.7-2.6)	2.6(0.8-3.1)	3.5(1.0-4.1)
Heating	Btu/h		9000(2700-11100)	12000(3300-14000)	15000(4200-17600)
	kW		2.6(0.8-3.3)	3.5(1.0-4.1)	4.4(1.2-5.2)
<b>Electrical Parts</b>					
Voltage, Frequency, Phase	V~, Hz, Ph		220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	780(310-1010)	1010(350-1220)	1350(380-1590)
	Heating	W	940(320-1180)	1240(360-1490)	1560(440-1830)
Operating Current	Cooling	A	3.6(1.5-4.8)	4.6(1.5-5.6)	6.2(1.8-7.5)
	Heating	A	4.3(1.5-5.6)	5.7(1.7-7.2)	7.1(2.1-8.6)
<b>Performance</b>					
EER	Btu/W.h, W/W		9.0, 2.63	8.1, 2.61	8.1, 2.61
COP	W/W		2.81	2.82	2.81
Energy Rate			D	D	D
Air Flow Volume	Indoor	m³/h	450	500	580
Noise Level	Indoor(Hi/Med/Low)	dB(A)	36/33/29	36/33/29	38/34/30
	Outdoor	dB(A)	52	52	53
<b>Net Dimension &amp; Weight</b>					
Indoor unit	WxHxD	mm	710x250x195	710x250x195	790x265x195
Outdoor unit	WxHxD	mm	780x540x250	780x540x250	780x540x250
Net Weight	Indoor/Outdoor	kg	8/35	8/35	9/39
<b>Packing Dimension &amp; Gross Weight</b>					
Indoor unit	WxHxD	mm	800x340x270	800x340x270	875x375x285
Outdoor unit	WxHxD	mm	910x575x325	910x575x325	910x575x325
Gross Weight	Indoor/Outdoor	kg	9.5/38	9.5/38	11/42
<b>Piping Connection</b>					
Liquid Side	mm(inch)		Ø6.35(1/4")	Ø6.35(1/4")	Ø6.35(1/4")
Gas Side	mm(inch)		Ø9.53(3/8")	Ø9.53(3/8")	Ø12.7(1/2")
<b>Applicable Area</b>					
	m²		10-14	14-21	18-26
<b>Stuffing Quantity</b>					
20'/40'/40'HQ	Set		120/252/288	120/252/288	111/228/265

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2. The values given in the table for the noise level reflect the levels in anechoic chamber.

## Elite Eco Family\_AC Inverter Multi

# Glory Family

220-240V~,50Hz

### Features:



MSEI-07HRIN2	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MSEI-09HRIN2	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MSEI-12HRIN2	•	•	•	•	•	•	•	•	•	•	•	•	•	•

• Standard • Optional

### Types of Indoor Unit Combinations

Remarks: One outdoor unit can drive 3 free-matched indoor units at most.

#### 9 Types

One Unit	Two Units
7	7+7
9	7+9
12	7+12

#### 18 Types

One Unit	Two Units	Three Units		
		7	7+7	9+9
7	7+9	7+7+7	7+9+9	9+9+9
9	9+12	7+7+9	7+9+12	9+9+12
12	12+12	7+7+12	7+12+12	9+12+12

### Specification:

#### Indoor Unit

Model	MSEI-07HRIN2	MSEI-09HRIN2	MSEI-12HRIN2
Capacity	Cooling/Heating	Btu/h	7000/8500
Air Flow		m³/h	520
Dimension	WxHxD	mm	710x250x190
Packing	WxHxD	mm	800x340x270
Net/Gross Weight		kg	8.0/9.5
Indoor noise level (Hi/Mi/Lo)	dB(A)		40
Liquid side/Gas side		mm	Ø6.35/Ø9.53
			Ø6.35/Ø9.53
			Ø6.35/Ø12.7

#### Outdoor Unit

Model	M2OA-18HRIN2	M3OA-27HRIN2		
Power				
Voltage, Frequency, Phase	V-,Hz,Ph	220-240,50,1		
Capacity				
Cooling	min.-nom.-max.	Btu/h	5459 - 18084 - 22519	
		kW	1.6 - 5.3 - 6.6	
Heating	min.-nom.-max.	Btu/h	7848 - 23543 - 25249	
		kW	2.3 - 6.9 - 7.4	
Electrical Data				
Power Input	Cooling	min.-nom.-max.	kW	0.65 - 2.02 - 2.73
	Heating	min.-nom.-max.	kW	0.78 - 2.44 - 3.30
Operating Current	Cooling	min.-nom.-max.	A	3.08 - 9.56 - 12.93
	Heating	min.-nom.-max.	A	3.40 - 10.65 - 14.40
Performance				
EER		W/W		2.62-D
COP		W/W		2.83-D
Dimension	WxHxD	mm	845x695x335	
Packing	WxHxD	mm	975x772x405	
Net/Gross Weight		kg	71/74	
Outdoor air flow		m³/h	2500	
Outdoor noise level		dB(A)	56	
			58	

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.  
2.The values given in the table for the noise level reflect the levels in anechoic chamber.



### Single (ON/OFF)



MSG-07CRN2

MSG-09CRN2

MSG-12CRN2

MSG-18CRN2

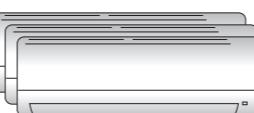
MSG-07HRN2

MSG-09HRN2

MSG-12HRN2

MSG-18HRN2

### Multi (ON/OFF)



M2OA-18HRN2

M2OA-21HRN2

M3OA-27HRN2

M3OA-30HRN2

### AC Inverter



MSG-07HRIN2

MSG-09HRIN2

MSG-12HRIN2

### AC Inverter Multi



M2OA-18HRIN2

M3OA-27HRIN2



## Glory Family\_Single

### Features:



MSG-07/09/12CRN2	●	●	●	●	●	●	●	●	●	●	●	●
MSG-07/09/12HRN2	●	●	●	●	●	●	●	●	●	●	●	●
MSG-18/21/24/30/36CRN2	●	●	●	●	●	●	●	●	●	●	●	●
MSG-18/21/24/30/36HRN2	●	●	●	●	●	●	●	●	●	●	●	●
	● Standard	● Optional										

### Specification:

Model												
Capacity		MSG-07CRN2	MSG-07HRN2	MSG-09CRN2	MSG-09HRN2	MSG-12CRN2	MSG-12HRN2	MSG-18CRN2	MSG-18HRN2			
Cooling	Btu/h	7000	7000	9000	9000	12000	12000	17000	17000			
	kW	2.1	2.1	2.6	2.6	3.5	3.5	5.0	5.0			
Heating	Btu/h	-	8000	-	11000	-	14000	-	19000			
	kW	-	2.3	-	3.2	-	4.1	-	5.6			
Electrical Parts												
Voltage, Frequency, Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1			
Power Input	Cooling	W	780	780	1000	1000	1330	1330	1890	1890		
	Heating	W	-	800	-	1100	-	1400	-	1900		
Operating Current	Cooling	A	3.5	3.5	4.4	4.4	6.0	6.0	8.6	8.6		
	Heating	A	-	3.6	-	4.9	-	6.3	-	8.7		
Performance												
EER	Btu/W.h, W/W	9.0, 2.63	9.0, 2.63	9.0, 2.64	9.0, 2.64	9.0, 2.64	9.0, 2.64	9.0, 2.63	9.0, 2.63			
COP	W/W	-	2.93	-	2.93	-	2.93	-	2.93			
Energy Rate		D	D	D	D	D	D	D	D			
Air Flow Volume	Indoor	m³/h	430	430	470	470	500	500	800	800		
Noise Level	Indoor(Hi/Med/Lo)	dB(A)	35/32/30	35/32/30	36/32/30	36/32/30	40/36/34	40/36/34	42/40/38	42/40/38		
	Outdoor	dB(A)	50	50	51	51	52	52	53	53		
Net Dimension & Weight												
Indoor unit	WxHxD	mm	750x250x188	750x250x188	750x250x188	750x250x188	750x250x188	750x250x188	906x286x235	906x286x235		
Outdoor unit	WxHxD	mm	700x535x235	700x535x235	700x535x235	700x535x235	780x540x250	780x540x250	760x590x285	760x590x285		
Net Weight	Indoor/Outdoor	kg	8.5/29	8.5/30	8.5/31	8.5/32	11/34	11/36	13.5/41	13.5/41.5		
Packing Dimension & Gross Weight												
Indoor unit	WxHxD	mm	830x336x280	830x336x280	830x336x280	830x336x280	830x336x280	1020x380x328	1020x380x328			
Outdoor unit	WxHxD	mm	815x580x325	815x580x325	815x580x325	815x580x325	910x575x335	910x575x335	965x770x395	965x770x395		
Gross Weight	Indoor/Outdoor	kg	10.5/33	10.5/33	10.5/35	10.5/36	10/37	10/39	16.5/45	16.5/45.5		
Piping Connection												
Liquid Side	mm(inch)	Ø6.35(1/4")	Ø6.35(1/4")									
Gas Side	mm(inch)	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")	Ø12.7(1/2")	Ø12.7(1/2")	Ø12.7(1/2")	Ø12.7(1/2")	Ø12.7(1/2")		
Applicable Area												
	m²	10-14	10-14	14-21	14-21	18-26	18-26	28-40	28-40			
Stuffing Quantity												
20'/40'/40'HQ	Set	130/270/295	130/270/295	130/270/295	130/270/295	116/244/270	116/244/270	80/178/208	80/178/208			

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

### Specification:

Model	MSG-21CRN2	MSG-21HRN2	MSG-24CRN2	MSG-24HRN2	MSG-30CRN2	MSG-30HRN2	MSG-30CRN2	MSG-30HRN2
Cooling	Btu/h	18000	18000	23000	23000	27000	27000	28000
	kW	5.3	5.3	6.7	6.7	7.9	7.9	8.2
Heating	Btu/h	-	23000	-	26000	-	32000	-
	kW	-	6.7	-	7.6	-	9.4	-
Electrical Parts								
Voltage, Frequency, Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	2080	2080	2650	2650	3230	3300
	Heating	W	-	2350	-	2570	-	3290
Operating Current	Cooling	A	9.6	9.6	12.1	12.1	14.8	14.8
	Heating	A	-	10.7	-	11.7	-	15.1
Performance								
EER	Btu/W.h, W/W	8.7, 2.54	8.7, 2.54	8.7, 2.54	8.7, 2.54	8.4, 2.45	8.4, 2.45	8.5, 2.49
COP	W/W	-	2.87	-	2.96	-	2.85	-
Energy Rate		E	E	E	E	E	E	E
Air Flow Volume	Indoor	m³/h	800	800	1050	1050	1150	1150
Noise Level	Indoor(Hi/Med/Lo)	dB(A)	41/37/35	41/37/35	43/40/37	43/40/37	45/42/39	45/42/39
	Outdoor	dB(A)	54	54	56	56	57	57
Net Dimension & Weight								
Indoor unit	WxHxD	mm	906x286x235	906x286x235	1080x330x222	1080x330x222	1080x330x222	1080x330x222
Outdoor unit	WxHxD	mm	845x695x335	845x695x335	845x695x335	845x695x335	845x695x335	845x695x335
Net Weight	Indoor/Outdoor	kg	13.5/52	13.5/55	17/61	17/62	17/63	17/64
Packing Dimension & Gross Weight								
Indoor unit	WxHxD	mm	1020x380x328	1020x380x328	1165x445x320	1165x445x320	1165x445x320	1165x445x320
Outdoor unit	WxHxD	mm	970x770x395	970x770x395	970x770x395	970x770x395	970x770x395	970x770x395
Gross Weight	Indoor/Outdoor</td							



## Glory Family\_Multi



MSGI-09HRN2 • • • • • • • • • • • •

MSGI-12HRN2 • • • • • • • • • • • •

• Standard • Optional

### Specification:

■ Cooling Only ■ Cooling & Heating

#### Indoor Unit

Model			MSGI-09HRN2	MSGI-12HRN2
Capacity			9000/10000	12000/14000
Air Flow			470	500
Dimension			750x250x188	750x250x188
Packing			830x336x280	830x336x280
Net/Gross Weight			8.0/9.5	9.0/11.5
Indoor noise level (Hi/Mi/Lo)			36	38
Liquid side/Gas side			Ø6.35/Ø9.53	Ø6.35/Ø12.7

#### Outdoor Unit

Model		M2OA-18HRN2	M2OA-21HRN2	M3OA-27HRN2	M3OA-30HRN2
Capacity	Btu/h	9000x2/10000x2	9000+12000/10000+13000	9000x3/10000x3	9000x2+12000/10000x2+13000
	kW	2.6x2/2.9x2	2.6+3.5/2.9+3.8	2.6x3/2.9x3	2.6x2+3.5/2.9x2+3.8
Electrical Data					
Voltage, Frequency, Phase	V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	Cooling/Heating	W	990x2/1000x2	980+1320/1000+1350	1940+1050/1950+1100
Operating Current	Cooling/Heating	A	4.8x2/4.9x2	4.8+6.4/4.9+6.6	9.4+5.1/9.5+5.4
Performance					
EER	W/W	2.63-D	2.68-D	2.61-D	2.62-D
COP	W/W	2.9-D	2.85-D	2.85-D	2.86-D
Dimension	WxHxD	mm	895x655x345	895x655x345	860x830x330
Packing	WxHxD	mm	1050x780x470	1050x780x470	1000x985x425
Net/Gross Weight	kg	73/77	79/83	90/94	90/94
Outdoor air flow	m³/h	2000	2000	2900	2900
Outdoor noise level	dB(A)	55	55	58	58

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Glory Family\_AC Inverter



MSG-07HRIN2 • • • • • • • • • • •

MSG-09HRIN2 • • • • • • • • • • •

MSG-12HRIN2 • • • • • • • • • • •

• Standard • Optional

### Specification:

■ Cooling Only ■ Cooling & Heating

Model		MSG-07HRIN2	MSG-09HRIN2	MSG-12HRIN2
Capacity	Btu/h	7000(2500-9000)	9000(2900-10600)	12000(3400-14100)
	kW	2.1(0.7-2.6)	2.6(0.8-3.1)	3.5(1.0-4.1)
Heating	Btu/h	9000(2700-11100)	12000(3300-14000)	15000(4200-17600)
	kW	2.6(0.8-3.3)	3.5(1.0-4.1)	4.4(1.2-5.2)
Electrical Parts				
Voltage, Frequency, Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	780(310-1010)	1010(350-1220)
	Heating	W	940(320-1180)	1240(360-1490)
Operating Current	Cooling	A	3.6(1.5-4.8)	4.6(1.5-5.6)
	Heating	A	4.3(1.5-5.6)	5.7(1.7-7.2)
Performance				
EER	Btu/W.h, W/W	9.0, 2.63	8.1, 2.61	8.1, 2.61
COP	W/W	2.81	2.82	2.81
Energy Rate		D	D	D
Air Flow Volume	Indoor	m³/h	450	500
Noise Level	Indoor(Hi/Med/Lo)	dB(A)	36/33/30	36/33/30
	Outdoor	dB(A)	51	51
Net Dimension & Weight				
Indoor unit	WxHxD	mm	750x250x188	750x250x188
Outdoor unit	WxHxD	mm	780x540x250	780x540x250
Net Weight	Indoor/Outdoor	kg	8.5/37	8.5/37
Packing Dimension & Gross Weight				
Indoor unit	WxHxD	mm	830x336x280	830x336x280
Outdoor unit	WxHxD	mm	910x575x325	910x575x325
Gross Weight	Indoor/Outdoor	kg	11/40	11/40
Piping Connection				
Liquid Side	mm(inch)	Ø6.35(1/4")	Ø6.35(1/4")	Ø6.35(1/4")
Gas Side	mm(inch)	Ø9.53(3/8")	Ø9.53(3/8")	Ø12.7(1/2")
Applicable Area		m²	10-14	14-21
Stuffing Quantity			18-26	
20'/40'40HQ	Set		113/238/274	113/238/274
			108/226/264	108/226/264

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Glory Family\_AC Inverter Multi



MSGI-07HRIN2	•	•	•	•	•	•	•	•	•	•
MSGI-09HRIN2	•	•	•	•	•	•	•	•	•	•
MSGI-12HRIN2	•	•	•	•	•	•	•	•	•	•

• Standard • Optional

### Types of Indoor Unit Combinations

Remarks: One outdoor unit can drive 3 free-matched indoor units at most.

9 Types

One Unit	Two Units
7	7+7
9	7+9
12	7+12

18 Types

One Unit	Two Units	Three Units
7	7+7	9+9
9	7+9	9+12
12	7+12	12+12

### Specification:

■ Cooling Only ■ Cooling & Heating

#### Indoor Unit

Model			MSGI-07HRIN2	MSGI-09HRIN2	MSGI-12HRIN2
Capacity	Cooling/Heating	Btu/h	7000/8500	9000/11000	12000/14000
Air Flow		m³/h	500	520	560
Dimension	WxHxD	mm	750x250x188	750x250x188	815x280x195
Packing	WxHxD	mm	830x336x280	830x336x280	915x360x275
Net/Gross Weight		kg	8.5/11.0	8.5/11.0	11.0/14.0
Indoor noise level (Hi/Mi/Lo)	dB(A)		35	36	37
Liquid side/Gas side		mm	Ø6.35/Ø9.53	Ø6.35/Ø9.53	Ø6.35/Ø12.7

#### Outdoor Unit

Model			M2OA-18HRIN2	M3OA-27HRIN2
<b>Power</b>		V-,Hz,Ph	220-240,50,1	220-240,50,1
<b>Capacity</b>				
Cooling	min.-nom.-max.	Btu/h	5459 - 18084 - 22519	9383 - 26614 - 31732
	min.-nom.-max.	kW	1.6 - 5.3 - 6.6	2.75 - 7.8 - 9.3
Heating	min.-nom.-max.	Btu/h	7848 - 23543 - 25249	10714 - 30708 - 36850
	min.-nom.-max.	kW	2.3 - 6.9 - 7.4	3.14 - 9.0 - 10.8
<b>Electrical Data</b>				
Power Input	Cooling	min.-nom.-max.	kW	0.65 - 2.02 - 2.73
	Heating	min.-nom.-max.	kW	0.78 - 2.44 - 3.30
Operating Current	Cooling	min.-nom.-max.	A	3.08 - 9.56 - 12.93
	Heating	min.-nom.-max.	A	3.40 - 10.65 - 14.40
<b>Performance</b>				
EER		W/W		2.62-D
COP		W/W		2.83-D
Dimension	WxHxD	mm	845x695x335	845x695x335
Packing	WxHxD	mm	975x772x405	975x772x405
Net/Gross Weight		kg	71/74	72/76
Outdoor air flow		m³/h	2500	2500
Outdoor noise level		dB(A)	56	58

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.





■ MSQ3-07HRDN1-QC2   ■ MSQ3-09HRDN1-QC2   ■ MSQ3-12HRDN1-QC2  
■ MOC-07HDN1-QC2   ■ MOC-09HDN1-QC2   ■ MOC-12HDN1-QC2



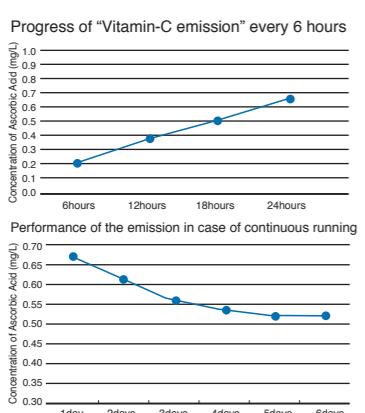
### Fresh Air

Midea air conditioner have a pump in the indoor unit, when press the "Fresh Air" button, the pump suck the fresh air from outside, and the indoor polluted air flow out of the room via the air pressure.



### Temp. Compensation (Optional)

The ceiling temperature is often higher than the floor temperature. For example, floor temp. is 21°C, while ceiling temp may be 25°C. By adopting temp. compensation function, the temperature difference can be eliminated. So if you set temp for 21°C, the air-conditioner may make intelligent temp compensation, setting the ceiling temp for 25°C, to ensure the floor temp of 21°C.



### Vitamin C Filter (Optional)

Vitamin C is one of necessary material for human being, and it is also good for human skin. Vitamin C Filter is made of Vitamin C Emission material. When the air flows through it, the Vitamin C will be taken everywhere in the room.

### Features:



MSQ3-07/09/12HRDN1-QC2	•	•	•	•	•	•	•	•	•	•	•	•	•
MOC-07/09/12HDN1-QC2	•	•	•	•	•	•	•	•	•	•	•	•	•

• Standard   • Optional

### Specification:

Model	Cooling Only			Cooling & Heating		
	MSQ3-07HRDN1-QC2 MOC-07HDN1-QC2	MSQ3-09HRDN1-QC2 MOC-09HDN1-QC2	MSQ3-12HRDN1-QC2 MOC-12HDN1-QC2	MSQ3-07HRDN1-QC2 MOC-07HDN1-QC2	MSQ3-09HRDN1-QC2 MOC-09HDN1-QC2	MSQ3-12HRDN1-QC2 MOC-12HDN1-QC2
<b>Capacity</b>						
Cooling	Btu/h	7000(2500-9100)	9000(3100-11200)	12000(4000-15500)		
	kW	2.1(0.7-2.6)	2.6(0.9-3.3)	3.5(1.2-4.5)		
Heating	Btu/h	8000(2700-10000)	10000(3200-12400)	13000(4100-16700)		
	kW	2.3(0.9-2.9)	2.9(0.9-3.6)	3.8(1.2-4.9)		
<b>Electrical Parts</b>						
Voltage,Frequency,Phase	V~,Hz,Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1		
Power Input	Cooling	W	630(250-870)	810(290-1080)	1090(390-1360)	
	Heating	W	650(270-920)	800(280-1110)	1050(380-1400)	
Operating Current	Cooling	A	2.9(1.2-4.3)	4.0(1.3-5.2)	5.0(2.2-6.2)	
	Heating	A	3.0(1.2-4.4)	4.0(1.3-5.3)	4.8(2.0-6.3)	
<b>Performance</b>						
EER	Btu/W.h, W/W	11.1,3.26	11.0,3.26	11.0,3.23		
COP	W/W	3.61	3.66	3.63		
Energy Rate		A	A	A		
Air Flow Volume	Indoor	m³/h	520	520	620	
Noise Level	Indoor (Hi/Med/Lo)	dB(A)	36/33/29	36/33/29	38/35/30	
	Outdoor	dB(A)	52	52	55	
<b>Net Dimension &amp; Weight</b>						
Indoor unit	WxHxD	mm	805x270x205	805x270x205	855x285x205	
Outdoor unit	WxHxD	mm	760x590x285	760x590x285	760x590x285	
Net Weight	Indoor/Outdoor	kg	10.5/35	10.5/35	12/38	
<b>Packing Dimension &amp; Gross Weight</b>						
Indoor unit	WxHxD	mm	900x385x305	900x385x305	955x385x305	
Outdoor unit	WxHxD	mm	887x655x355	887x655x355	887x655x355	
Gross Weight	Indoor/Outdoor	kg	12.5/37.5	12.5/37.5	14/40	
<b>Piping Connection</b>						
Liquid Side		mm(inch)	Ø6.35	Ø6.35	Ø6.35	
Gas Side		mm(inch)	Ø9.53	Ø9.53	Ø12.7	
<b>Applicable Area</b>						
		m²	12-18	16-24	20-30	
<b>Stuffing Quantity</b>						
20'/40'/40'HQ	Set		90/191/230	90/191/230	90/189/221	

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

220-240V~,50Hz



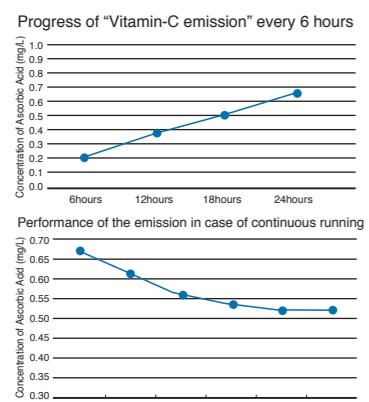
CSU-09YHR3BA

CSU-12YHR3BA

CSU-18YHR3AB

CSU-21YHR3AA

CSU-24YHR3AA



### Vitamin C Filter (Optional)

Vitamin C is one of necessary material for human being, and it is also good for human skin. Vitamin C Filter is made of Vitamin C Emission material. When the air flows through it, the Vitamin C will be taken everywhere in the room.

### Silver Ion Filter (Optional)

The Silver ion can kill bacteria or prevent their activity at very low density by destroying their inner- configuration and absorbing their elements in cells. Meanwhile, the Nano Silver attached on the filter release the Silver ion constantly to eliminate bacteria effectively and continuously.

### Features:



CSU-09/12YHR3BA

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CSU-18YHR3AB

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CSU-21/24YHR3AA

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• Standard • Optional

### Specification:

■ Cooling Only ■ Cooling & Heating

Model		CSU-09YHR3BA	CSU-12YHR3BA	CSU-18YHR3AB	CSU-21YHR3AA	CSU-24YHR3AA
<b>Capacity</b>						
Cooling	Btu/h	9000	12000	17000	19000	21000
	kW	2.6	3.5	5.0	5.6	6.1
<b>Heating</b>						
Btu/h		10000	13000	18000	20000	21000
	kW	2.9	3.8	5.3	5.9	6.1
<b>Electrical Parts</b>						
Voltage, Frequency, Phase	V~, Hz, Ph	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1	220-240, 50, 1
Power Input	Cooling	W	760	1060	1580	1930
	Heating	W	810	1000	1510	1840
Operating Current	Cooling	A	3.6	5.0	7.4	8.8
	Heating	A	3.9	4.5	7.3	8.4
<b>Performance</b>						
EER	Btu/W.h, W/W	11.3,3.30	11.3,3.30	10.5,3.10	9.9,2.90	9.9,2.90
COP	W/W	3.50	3.50	3.30	3.20	3.10
Energy Rate		A	A	B	C	C
Air Flow Volume	Indoor	m³/h	480	480	700	700
Noise Level	Indoor (Hi/Med/Lo)	dB(A)	37/32/28	37/32/28	43/38/34	43/38/34
	Outdoor	dB(A)	52	52	53	53
<b>Net Dimension &amp; Weight</b>						
Indoor unit	WxHxD	mm	815x290x203	815x290x203	1015x320x190	1015x320x190
Outdoor unit	WxHxD	mm	780x540x255	780x540x255	780x540x255	850x605x290
Net Weight	Indoor/Outdoor	kg	9/35	9/39	14/40	14/47
<b>Packing Dimension &amp; Gross Weight</b>						
Indoor unit	WxHxD	mm	850x345x300	850x345x300	1050x370x290	1050x370x290
Outdoor unit	WxHxD	mm	920x615x390	920x615x390	920x615x390	1010x695x430
Gross Weight	Indoor/Outdoor	kg	12/39	12/44	17/44	17/51
<b>Piping Connection</b>						
Liquid Side	mm(inch)	Ø6.35(1/4")	Ø6.35(1/4")	Ø6.35(1/4")	Ø9.53(3/8")	Ø9.53(3/8")
Gas Side	mm(inch)	Ø9.53(3/8")	Ø12.7(1/2")	Ø12.7(1/2")	Ø16.0(5/8")	Ø16.0(5/8")
<b>Applicable Area</b>						
	m²	14-21	18-26	28-40	34-49	45-56
<b>Stuffing Quantity</b>						
20'/40' HQ	Set	90/188/210	90/188/210	84/186/205	70/140/170	70/140/170

Remarks: 1. The above design and specifications are subject to change without prior notice for product improvement.

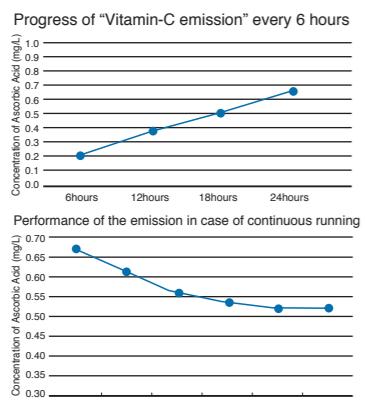
2. The values given in the table for the noise level reflect the levels in anechoic chamber.

# Helit

220-240V~50Hz



- CSU-07HHR3AA
- CSU-09HHR3AB
- CSU-12HHR3AB
- CSU-18HHR3AB
- CSU-21HHR3AA
- CSU-24HHR3AA



## Vitamin C Filter (Optional)

Vitamin C is one of necessary material for human being, and it is also good for human skin. Vitamin C Filter is made of Vitamin C Emission material. When the air flows through it, the Vitamin C will be taken everywhere in the room.

#### **Silver Ion Filter** (Optional)

The Silver ion can kill bacteria or prevent their activity at very low density by destroying their inner- configuration and absorbing their elements in cells. Meanwhile, the Nano Silver attached on the filter release the Silver ion constantly to eliminate bacteria effectively and continuously.



## Features



The figure shows a timeline from January 2007 to December 2021. Three data series are plotted as colored dots:

- CSU-07HHR3AA** (Blue dots): Present from January 2007 to December 2010.
- CSU-09/12/18HHR3AB** (Red dots): Present from January 2007 to December 2010.
- CSU-21/24HHR3AA** (Green dots): Present from January 2007 to December 2021.

Legend: Blue dot = CSU-07HHR3AA; Red dot = CSU-09/12/18HHR3AB; Green dot = CSU-21/24HHR3AA.

- Standard
- Optional

## Specification:

 Cooling Only       Cooling & Heating

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.  
2.The values given in the table for the noise level reflect the levels in anechoic chamber.

# J Floor-standing

220-240V~,380V~,50Hz



## J Floor-standing

- MFJ-24ARN1-QB8
- MFJ-48ARN1-RB6



Features:

MFJ-24ARN1-QB8	•	•	•	•	•	•	•	•	•
MFJ-48ARN1-RB6	•	•	•	•	•	•	•	•	•

• Standard • Optional

## Specification:

■ Cooling Only ■ Cooling & Heating

Model			■ MFJ-24ARN1-QB8	■ MFJ-48ARN1-RB6
Capacity				
Cooling/Heating	Btu/h		24000/27000+7200	48000/49000+12000
	kW		7.1/7.9+2.1	14.0/14.4+3.5
Electrical Data				
Voltage, Frequency, Phase	Ph, V~, Hz		220-240, 50, 1	380, 50, 3
Power Input	Cooling/Heating	W	2500/2450/2640+2100	5400/5100+3500
Operating Current	Cooling/Heating	A	12/11.5+10	8.6/8.5+5.8
Performance				
EER	Btu/W.h, W/W		9.6/2.8	8.9/2.6
COP	W/W		3.2	2.8
Air Flow Volume	Indoor	m³/h	1100	1750
Noise Level	Indoor (Hi/Med/Low)	dB(A)	48/42	50/44
	Outdoor	dB(A)	60	62
Net Dimension & Weight				
Indoor unit	WxHxD	mm	500x1700x290	540x1825x410
Outdoor unit	WxHxD	mm	840x695x335	940x1245x360
Net Weight	Indoor/Outdoor	kg	41.5/60	58/104
Packing Dimension & Gross Weight				
Indoor unit	WxHxD	mm	615x1805x415	655x1935x555
Outdoor unit	WxHxD	mm	965x755x395	1018x1380x435
Gross Weight	Indoor/Outdoor	kg	58.5/63	75/115
Piping Connection				
Liquid Side	mm(inch)		Ø9.53(3/8")	Ø12.7(1/2")
Gas Side	mm(inch)		Ø16.0(5/8")	Ø19.0(3/4")
Applicable Area		m²	40-56	80-112
Stuffing Quantity			20'/40'/40'HQ	Set
			35/76/89	16/36/51

Remarks: 1. The above design and specifications are subject to change without prior notice for product improvement.

2. The values given in the table for the noise level reflect the levels in anechoic chamber.

# S2 Floor-standing

220-240V~,380V~,50Hz



## S2 Floor-standing

- MFS2-24CRN2
- MFS2-24CRN2
- MFS2-24HRN2
- MFS2-24ARN2
- MFS2-24ARN2
- MFS2-48CRN2
- MFS2-48ARN2



Features:

MFS2-24C(H)RN2	•	•	•	•	•	•	•	•	•
MFS2-24ARN2	•	•	•	•	•	•	•	•	•
MFS2-48C(A)RN2	•	•	•	•	•	•	•	•	•

• Standard • Optional

## Specification:

■ Cooling Only ■ Cooling & Heating

Model		MFS2-24CRN2	MFS2-24CRN2	MFS2-24HRN2	MFS2-24ARN2	MFS2-24ARN2	MFS2-48CRN2	MFS2-48ARN2
Capacity		24000	24000	24000/29000	24000/29000+7200	24000/29000+8500	48000	48000/53000+12000
Cooling/Heating	Btu/h	7.1	7.1	7.1/8.5	7.1/8.5+2.1	7.1/8.5+2.5	14.0	14.0/15.5+3.5
	kW							
Electrical Data								
Voltage, Frequency, Phase	Ph, V~, Hz	220-240, 50, 1	380, 50, 3	220-240, 50, 1	220-240, 50, 1	380, 50, 3	380, 50, 3	380, 50, 3
Power Input	Cooling/Heating	W	2900	2900	2900/2900+2100	2900/2900+2500	5500	5500/5500+3500
Operating Current	Cooling/Heating	A	12.5	5.2	12.5/12.5	12.5/12.5+10	5.2/5.2+4.4	9
Performance								
EER	Btu/W.h, W/W		8.3/2.4	8.3/2.4	8.3/2.4	8.3/2.4	8.3/2.4	8.3/2.4
COP	W/W				2.8	2.8	2.8	2.8
Air Flow Volume	Indoor	m³/h	1000	1000	1000	1000	2000	2000
Noise Level	Indoor (Hi/Med/Low)	dB(A)	45	45	45	45	48	48
	Outdoor	dB(A)	58	58	58	58	60	60
Net Dimension & Weight								
Indoor unit	WxHxD	mm	500x1665x273	500x1665x273	500x1665x273	500x1665x273	540x1775x379	540x1775x379
Outdoor unit	WxHxD	mm	840X695X335	840X695X335	840X695X335	840X695X335	940x1245x360	940x1245x360
Net Weight	Indoor/Outdoor	kg	46/63	46/66	46/64	46/64	56/99	58/110
Packing Dimension & Gross Weight								
Indoor unit	WxHxD	mm	585x1805x380	585x1805x380	585x1805x380	585x1805x380	665x1915x475	665x1915x475
Outdoor unit	WxHxD	mm	965x772x395	965x772x395	965x772x395	965x772x395	1018x1380x434	1018x1380x434
Gross Weight	Indoor/Outdoor	kg	57/67	57/70	57/68	57/68	71/109	73/120
Piping Connection								
Liquid Side	mm(inch)		Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")	Ø9.53(3/8")	Ø12.7(1/2")	Ø12.7(1/2")
Gas Side	mm(inch)		Ø16.0(5/8")	Ø16.0(5/8")	Ø16.0(5/8")	Ø16.0(5/8")	Ø19.0(3/4")	Ø19.0(3/4")
Applicable Area		m²	40-56	40-56	40-56	40-56	80-112	80-112
Stuffing Quantity			20'/40'/40'HQ	Set	43/87/97	43/87/97	43/87/97	22/46/54
					43/87/97	43/87/97	43/87/97	22/46/54

Remarks: 1. The above design and specifications are subject to change without prior notice for product improvement.

2. The values given in the table for the noise level reflect the levels in anechoic chamber.

# M3 Portable

220-240V~50Hz



## Electronic Control

- MPM3-09CEN1-QB6
- MPM3-09EEN1-QB6
- MPM3-12CEN1-QB4
- MPM3-12EEN1-QB4

## Remote Control

- MPM3-09CRN1-QB6
- MPM3-09ERN1-QB6
- MPM3-12CRN1-QB4
- MPM3-12ERN1-QB4

## Features:



## Specification:

■ Cooling Only    ■ Cooling & Electric Heater

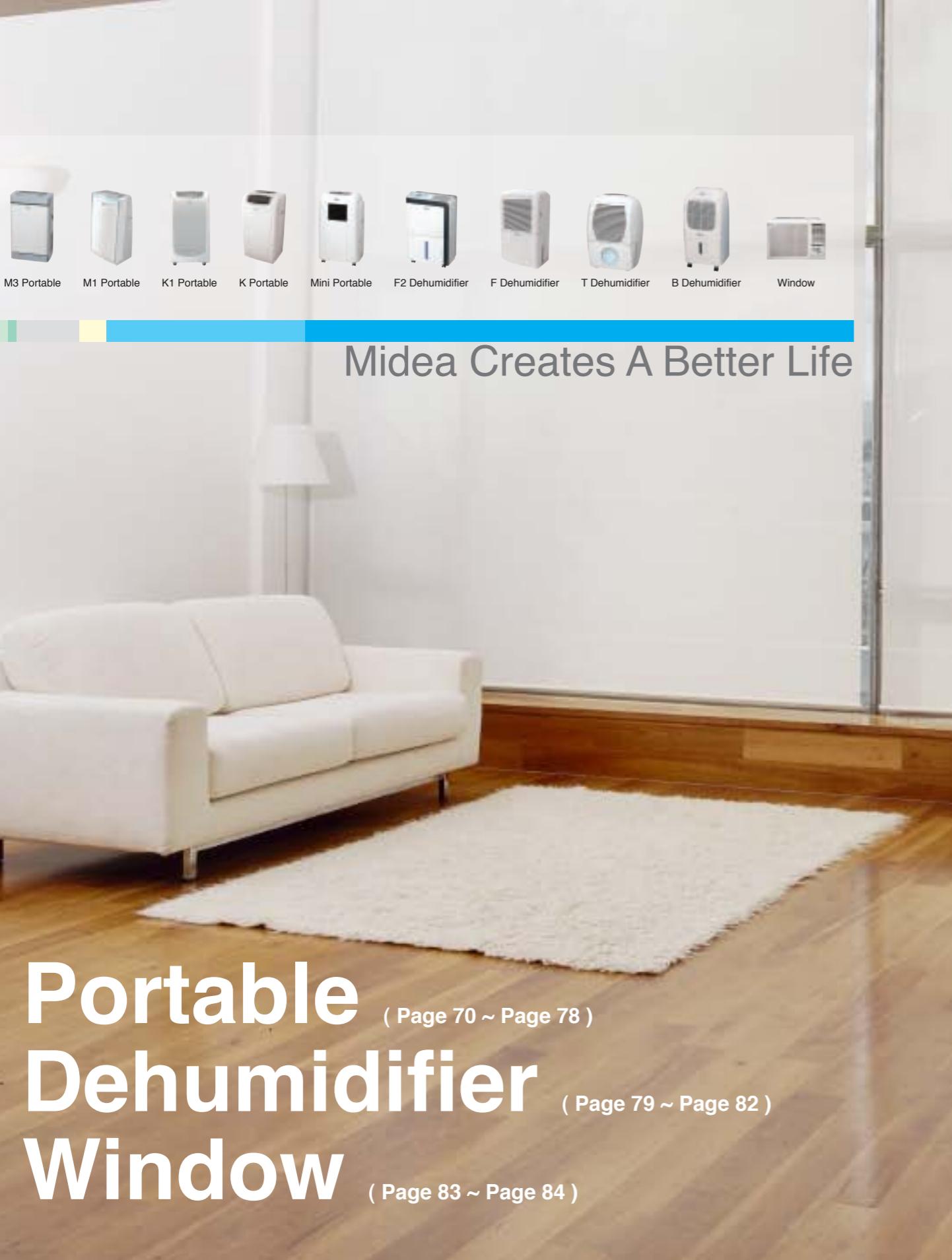
■ MPM3-09CEN1-QB6    ■ MPM3-09EEN1-QB6    ■ MPM3-12CEN1-QB4    ■ MPM3-12EEN1-QB4  
■ MPM3-09CRN1-QB6    ■ MPM3-09ERN1-QB6    ■ MPM3-12CRN1-QB4    ■ MPM3-12ERN1-QB4

Model					
<b>Capacity</b>					
Cooling/Heater	Btu/h	9000	9000/6000	12000	12000/6000
	kW	2.6	2.6/1.7	3.5	3.5/1.7
<b>Electrical Data</b>					
Power Supply	V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	Cooling/Heater	W	950	950/1800	1380
Operating Current	Cooling/Heater	A	4.3	4.3/7.8	6.1
<b>Performance</b>					
EER	Btu/W.h	9.5	9.5	8.7	8.7
	W/W	2.77	2.77	2.54	2.54
Energy Rate		A	A	B	B
Moisture Removal		I/h	1.6	1.6	1.8
Air Flow Volume	Indoor	m³/h	460	460	520
Noise Level	Hi/Med/Lo	dB(A)	54/51/49	54/51/49	56/52/50
<b>Dimension &amp; Weight</b>					
Net Dimension	WxHxD	mm	480/836/385	480/836/385	480/836/385
Packing Dimension	WxHxD	mm	725x885x460	725x885x460	725x885x460
Net/Gross Weight		kg	40/52	40/52	43/55
<b>Applicable Area</b>					
		m²	14-21	14-21	18-26
<b>Stuffing Quantity</b>					
20'/40'/HQ	Set		80/245	80/245	80/245

Remarks: 1. The above design and specifications are subject to change without prior notice for product improvement.  
2. The noise level reflect the levels in anechoic chamber.

# Portable Dehumidifier Window

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( Page 79 ~ Page 82 )  
( Page 83 ~ Page 84 )



# M1 Portable

220-240V~50Hz



## Electronic Control

- |                   |                   |
|-------------------|-------------------|
| ■ MPM1-07CEN1-QB6 | ■ MPM1-12CEN1-QB4 |
| ■ MPM1-07EEN1-QB6 | ■ MPM1-12EEN1-QB4 |
| ■ MPM1-09CEN1-QB6 |                   |
| ■ MPM1-09EEN1-QB6 |                   |

## Remote Control

- |                   |                   |
|-------------------|-------------------|
| ■ MPM1-07CRN1-QB6 | ■ MPM1-12CRN1-QB4 |
| ■ MPM1-07ERN1-QB6 | ■ MPM1-12ERN1-QB4 |
| ■ MPM1-09CRN1-QB6 |                   |
| ■ MPM1-09ERN1-QB6 |                   |

## Features:



## Specification:

■ Cooling Only   ■ Cooling & Electric Heater

■ MPM1-07CEN1-QB6 ■ MPM1-07EEN1-QB6 ■ MPM1-09CEN1-QB6 ■ MPM1-09EEN1-QB6 ■ MPM1-12CEN1-QB4 ■ MPM1-12EEN1-QB4  
■ MPM1-07CRN1-QB6 ■ MPM1-07ERN1-QB6 ■ MPM1-09CRN1-QB6 ■ MPM1-09ERN1-QB6 ■ MPM1-12CRN1-QB4 ■ MPM1-12ERN1-QB4

Model		
Capacity		
Cooling/Heater	Btu/h	
	7000	7000/6000
	kW	2.0
	2.0/1.7	
Electrical Data		
Power Supply	V~,Hz,Ph	220-240,50,1
Power Input	Cooling/Heater	W
750	750/1800	950
Operating Current	Cooling/Heater	A
3.3	3.3/7.8	4.2
Performance		
EER	Btu/W.h	9.3
	W/W	2.73
Energy Rate		9.47
A	A	2.77
Moisture Removal	I/h	9.47
1.5	1.5	2.77
Air Flow Volume	Indoor	m³/h
410	410	460
Noise Level	Hi/Med/Lo	dB(A)
53/50/48	53/50/48	54/51/49
		54/51/49
		56/52/50
Dimension & Weight		
Net Dimension	WxHxD	mm
480x836x385	480x836x385	480x836x385
Packing Dimension	WxHxD	mm
725x885x460	725x885x460	725x885x460
Net/Gross Weight	kg	
38/50	38/50	40/52
		40/52
		43/55
Applicable Area		
	m²	
10-14	10-14	14-21
		14-21
Stuffing Quantity		
20'/40'HQ	Set	80/245
		80/245
		80/245

Remarks: 1. The above design and specifications are subject to change without prior notice for product improvement.

2. The values given in the table for the noise level reflect the levels in anechoic chamber.

# K1 Portable

220-240V~50Hz



## Electronic Control

- |                   |                   |
|-------------------|-------------------|
| ■ MPK1-07CEN1-QB6 | ■ MPK1-10CEN1-QB6 |
| ■ MPK1-07EEN1-QB6 | ■ MPK1-10EEN1-QB6 |
| ■ MPK1-09CEN1-QB4 | ■ MPK1-12CEN1-QB4 |
| ■ MPK1-09EEN1-QB4 | ■ MPK1-12EEN1-QB4 |
| ■ MPK1-09CRN1-QB6 | ■ MPK1-10CRN1-QB6 |
| ■ MPK1-09ERN1-QB6 | ■ MPK1-10ERN1-QB6 |

## Remote Control

- |                   |                   |
|-------------------|-------------------|
| ■ MPK1-07CRN1-QB6 | ■ MPK1-10CRN1-QB6 |
| ■ MPK1-07ERN1-QB6 | ■ MPK1-10ERN1-QB6 |
| ■ MPK1-09CRN1-QB4 | ■ MPK1-12CRN1-QB4 |
| ■ MPK1-09ERN1-QB4 | ■ MPK1-12ERN1-QB4 |
| ■ MPK1-09CRN1-QB6 | ■ MPK1-10CRN1-QB6 |
| ■ MPK1-09ERN1-QB6 | ■ MPK1-10ERN1-QB6 |

## Features:



## Specification:

■ Cooling Only   ■ Cooling & Electric Heater

■ MPK1-07CEN1-QB6 ■ MPK1-07EEN1-QB6 ■ MPK1-09CEN1-QB4 ■ MPK1-09EEN1-QB6 ■ MPK1-09CRN1-QB6 ■ MPK1-09ERN1-QB6  
■ MPK1-07CRN1-QB6 ■ MPK1-07ERN1-QB6 ■ MPK1-09CRN1-QB6 ■ MPK1-09ERN1-QB6 ■ MPK1-10CRN1-QB6 ■ MPK1-10ERN1-QB6

Model		
Capacity		
Cooling/Heater	Btu/h	
	7000	7000/6000
	kW	2.0
	2.0/1.7	
Electrical Data		
Power Supply	V~,Hz,Ph	220-240,50,1
Power Input	Cooling/Heater	W
770	770/1800	1030
Operating Current	Cooling/Heater	A
3.3	3.3/7.8	4.5
Performance		
EER	Btu/W.h	9.1
	W/W	2.66
Energy Rate		9.47
A	A	2.77
Moisture Removal	I/h	9.47
1.5	1.5	2.77
Air Flow Volume	Indoor	m³/h
360	360	360
Noise Level	Hi/Med/Lo	dB(A)
52/50/48	52/50/48	54/51/49
Dimension & Weight		
Net Dimension	WxHxD	mm
460x840x325	460x840x325	460x840x325
Packing Dimension	WxHxD	mm
680x880x400	680x880x400	680x880x400
Net/Gross Weight	kg	
33/44	33/44	34/45
Applicable Area		
	m²	
10-14	10-14	14-21
		14-21
Stuffing Quantity		
20'/40'HQ	Set	96/295
		96/295
		96/295

Remarks: 1. The above design and specifications are subject to change without prior notice for product improvement.

2. The values given in the table for the noise level reflect the levels in anechoic chamber.

# K Portable

220-240V~50Hz



## Specification:

Model			Cooling Only	Cooling & Electric Heater
Capacity				
Cooling/Heater	Btu/h	10000	10000/6000	12000
	kW	3.0	3.0/1.7	3.5
Electrical Data				
Power Supply	V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	Cooling/Heater	W	1040	1040/1800
Operating Current	Cooling/Heater	A	4.6	4.6/7.8
Performance				
EER	Btu/W.h	9.6	9.6	8.7
	W/W	2.81	2.81	2.54
Energy Rate		A	A	B
Moisture Removal	l/h	1.7	1.7	1.8
Water Tank Volume	L	3.5	3.5	3.5
Air Flow Volume	Indoor	m³/h	460	460
Noise Level	Hi/Med/Lo	dB(A)	53/50/48	53/50/48
Dimension & Weight				
Net Dimension	WxHxD	mm	460x840x370	460x840x370
Packing Dimension	WxHxD	mm	705x885x455	705x885x455
Net/Gross Weight		kg	39/50	39/50
Applicable Area		m²	15-25	15-25
Stuffing Quantity			82/250	82/250
20'/40'HQ	Set		82/250	82/250

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.



## Electronic Control

MPK-07CEN1-QB6	MPK2-09CEN1-QB6
MPK-07EEN1-QB6	MPK2-09EEN1-QB6
MPK-09CEN1	MPK2-10CEN1-QB6
MPK-09EEN1	MPK2-10EEN1-QB6
MPK-12CEN1-QB4	MPK2-12CEN1-QB4
MPK-12EEN1-QB4	MPK2-12EEN1-QB4

## Remote Control

MPK-07CRN1-QB6	MPK2-09CRN1-QB6
MPK-07ERN1-QB6	MPK2-09ERN1-QB6
MPK-09CRN1	MPK2-10CRN1-QB6
MPK-09ERN1	MPK2-10ERN1-QB6
MPK-12CRN1-QB4	MPK2-12CRN1-QB4
MPK-12ERN1-QB4	MPK2-12ERN1-QB4

## Features:



## Specification:

Model			Cooling Only	Cooling & Electric Heater
Capacity			MPK-07CEN1-QB6	MPK-07EEN1-QB6
Cooling/Heater	Btu/h	7000	7000/6000	9000
	kW	2.0	2.0/1.7	2.6
Electrical Data			MPK-07CRN1-QB6	MPK-07ERN1-QB6
Power Supply	V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	Cooling/Heater	W	770	770/1800
Operating Current	Cooling/Heater	A	3.3	3.3/7.8
Performance			MPK-09CEN1	MPK-09EEN1
EER	Btu/W.h	9.1	9.1	8.7
	W/W	2.66	2.66	2.53
Energy Rate		A	A	B
Moisture Removal	l/h	1.5	1.5	1.6
Water Tank Volume	L	3.5	3.5	3.5
Air Flow Volume	Indoor	m³/h	360	360
Noise Level	Hi/Med/Lo	dB(A)	52/50/48	52/50/48
Dimension & Weight			MPK-09CRN1	MPK-09ERN1
Net Dimension	WxHxD	mm	460x840x325	460x840x325
Packing Dimension	WxHxD	mm	680x880x400	680x880x400
Net/Gross Weight		kg	33/44	33/44
Applicable Area		m²	10-14	10-14
Stuffing Quantity			14-21	14-21
20'/40'HQ	Set		96/295	96/295

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

# K Portable

## Features:



## Specification:

Model							
Capacity							
Cooling/Heater		Btu/h					
		9000	9000/6000	10000	10000/6000	12000	12000/6000
		kW	2.6	2.6/1.7	3.0	3.0/1.7	3.5
Electrical Data							
Power Supply		V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	Cooling/Heater	W	950	950/1800	1040	1040/1800	1380
Operating Current	Cooling/Heater	A	4.2	4.2/7.8	4.6	4.6/7.8	6.1
Performance							
EER		Btu/W.h	9.5	9.5	9.6	9.6	8.7
		W/W	2.77	2.77	2.81	2.81	2.54
Energy Rate			A	A	A	B	B
Moisture Removal		I/h	1.7	1.7	1.8	1.8	2.0
Water Tank Volume		L	3.5	3.5	3.5	3.5	3.5
Air Flow Volume	Indoor	m³/h	460	460	460	460	520
Noise Level	Hi/Med/Lo	dB(A)	53/50/48	53/50/48	53/50/48	54/50/48	54/50/48
Dimension & Weight							
Net Dimension	WxHxD	mm	460x840x370	460x840x370	460x840x370	460x840x370	460x840x370
Packing Dimension	WxHxD	mm	705x885x455	705x885x455	705x885x455	705x885x455	705x885x455
Net/Gross Weight		kg	38/50	38/50	38/50	38/50	40/51
Applicable Area		m²	14-21	14-21	15-25	15-25	18-26
Stuffing Quantity			82/250	82/250	82/250	82/250	82/250
20'/40'HQ	Set						

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

220-240V~,50Hz



## Electronic Control

- MPK-10CEN2
- MPK-10EEN2

## Remote Control

- MPK-10CRN2
- MPK-10ERN2

## Features:



## Specification:

■ Cooling Only   ■ Cooling & Electric Heater

Model			
Capacity		Btu/h	
Cooling/Heater		10000	10000/6000
		kW	3.0
Electrical Data			
Power Supply		V~,Hz,Ph	220-240,50,1
Power Input	Cooling/Heater	W	1160
Operating Current	Cooling/Heater	A	5.1
Performance			
EER		Btu/W.h	8.6
		W/W	2.52
Energy Rate			C
Moisture Removal		I/h	1.6
Water Tank Volume		L	3.5
Air Flow Volume	Indoor	m³/h	380
Noise Level	Hi/Med/Lo	dB(A)	52/50/48
Dimension & Weight			
Net Dimension	WxHxD	mm	460x840x325
Packing Dimension	WxHxD	mm	680x880x400
Net/Gross Weight		kg	34/41
Applicable Area		m²	34/41
Stuffing Quantity			34/41
20'/40'HQ	Set		96/295

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

# Mini Portable

220-240V~,50Hz



## Electronic Control

- MPM-07CEN1-QB4
- MPT-09CEN1-QB6

## Remote Control

- MPM-07CRN1-QB4
- MPT-09CRN1-QB6

# Mini Portable

220-240V~,50Hz



## Electronic Control

- MPM-07CEN2-QB2
- MPT-09CEN2-QB4

## Remote Control

- MPM-07CRN2-QB2
- MPT-09CRN2-QB4

## Features:



## Specification:

■ Cooling Only   ■ Cooling & Electric Heater

Model			■ MPM-07CEN1-QB4 ■ MPM-07CRN1-QB4	■ MPT-09CEN1-QB6 ■ MPT-09CRN1-QB6
Capacity				
Cooling/Heater	Btu/h		7000	9000
	kW		2.0	2.6
Electrical Data				
Power Supply	V~,Hz,Ph		220-240,50,1	220-240,50,1
Power Input	Cooling/Heater	W	800	1000
Operating Current	Cooling/Heater	A	3.5	4.4
Performance				
EER	Btu/W.h		8.6	9.0
	W/W		2.56	2.63
Energy Rate			B	A
Moisture Removal	I/h		1.5	1.6
Water Tank Volume	L		3	4
Air Flow Volume	Indoor	m³/h	280	380
Noise Level	Hi/Med/Lo	dB(A)	52/49/47	54/51/49
Dimension & Weight				
Net Dimension	WxHxD	mm	454x739x339	462x778x362
Packing Dimension	WxHxD	mm	515x880x390	680x855x400
Net/Gross Weight	kg		29/35	34/45
Applicable Area		m²	10-14	14-21
Stuffing Quantity		Set	134/400	96/300
20'/40'HQ				

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Features:



## Specification:

■ Cooling Only   ■ Cooling & Electric Heater

Model			■ MPM-07CEN2-QB2 ■ MPM-07CRN2-QB2	■ MPT-09CEN2-QB4 ■ MPT-09CRN2-QB4
Capacity				
Cooling/Heater	Btu/h		7000	9000
	kW		2.0	2.6
Electrical Data				
Power Supply	V~,Hz,Ph		220-240,50,1	220-240,50,1
Power Input	Cooling/Heater	W	890	1100
Operating Current	Cooling/Heater	A	3.9	4.8
Performance				
EER	Btu/W.h		7.9	8.2
	W/W		2.3	2.4
Energy Rate			C	B
Moisture Removal	I/h		1.5	1.6
Water Tank Volume	L		3	4
Air Flow Volume	Indoor	m³/h	280	380
Noise Level	Hi/Med/Lo	dB(A)	52/49/47	54/51/49
Dimension & Weight				
Net Dimension	WxHxD	mm	454x739x339	462x778x362
Packing Dimension	WxHxD	mm	515x880x390	680x855x400
Net/Gross Weight	kg		29/35	34/45
Applicable Area		m²	10-14	14-21
Stuffing Quantity		Set	134/400	96/300
20'/40'HQ				

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

# F2 Dehumidifier

220-240V~50Hz



## Electronic Control

MDF2-08DEN3  
MDF2-10DEN3  
MDF2-16DEN3  
MDF2-20DEN3

# F Dehumidifier

220-240V~50Hz



## Mechanical Control

MDF-09DMN3  
MDF-12DMN3

## Electronic Control

MDF-09DEN3  
MDF-12DEN3

## Features:



## Specification:

Model		MDF2-08DEN3	MDF2-10DEN3	MDF2-16DEN3	MDF2-20DEN3	
Moisture Removal	30°C, RH80%	L/day	8	10	16	20
Power Supply		V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	30°C, RH80%	W	220	260	300	370
Operating Current	30°C, RH80%	A	1	1.2	1.3	1.7
Air Flow Volume		m³/h	100	100	200	200
Water Tank Volume		L	2.9	2.9	3.1	3.1
Noise Level		dB(A)	43	43	48	50
Net Dimension	WxHxD	mm	325x480x225	325x480x225	340x480x235	340x480x235
Packing Dimension	WxHxD	mm	405x535x290	405x535x290	405x535x290	405x535x290
Net/Gross Weight		kg	11/13	11/13	12/14	12/14
Applicable Area		m²	8~14	10~17	15~26	18~30
Stuffing Quantity	20'/40'HQ	Set	440/1160	440/1160	440/1160	440/1160

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Features:



## Specification:

Model		MDF-09DMN3	MDF-09DEN3	MDF-12DMN3	MDF-12DEN3	
Moisture Removal	30°C, RH80%	L/day	9	9	12	12
Power Supply		V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	30°C, RH80%	W	210	210	240	240
Operating Current	30°C, RH80%	A	1.3	1.3	1.4	1.4
Air Flow Volume		m³/h	100	100	120	120
Water Tank Volume		L	2.7	2.7	2.7	2.7
Noise Level		dB(A)	40	40	40	40
Net Dimension	WxHxD	mm	315x505x235	315x505x235	315x505x235	315x505x235
Packing Dimension	WxHxD	mm	385x590x315	385x590x315	385x590x315	385x590x315
Net/Gross Weight		kg	13.5/15	13.5/15	15.5/17	15.5/17
Applicable Area		m²	9~15	9~15	12~20	12~20
Stuffing Quantity	20'/40'HQ	Set	440/905	440/905	440/905	440/905

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

# T Dehumidifier

220-240V~50Hz



## Knob Control

MDT-08DKN3

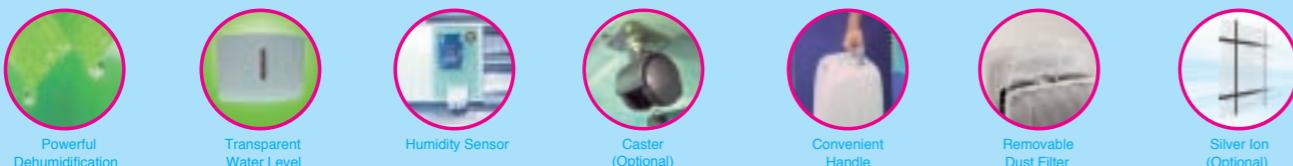
MDT-10DKN3

## Electronic Control

MDT-08DEN3

MDT-10DEN3

## Features:



## Specification:

Model		MDT-08DKN3	MDT-08DEN3	MDT-10DKN3	MDT-10DEN3
Moisture Removal	30°C, RH80%	L/day	8	8	10
Power Supply	V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	30°C, RH80%	W	220	220	230
Operating Current	30°C, RH80%	A	1.2	1.2	1.3
Air Flow Volume	m³/h		100	100	120
Water Tank Volume	L		1.5	1.5	1.5
Noise Level	dB(A)		45	45	45
Net Dimension	WxHxD	mm	330x420x260	330x420x260	330x420x260
Packing Dimension	WxHxD	mm	360x525x300	360x525x300	370x525x310
Net/Gross Weight	kg		12/15	12/15	13/16
Applicable Area	m²		8~14	8~14	10~17
Stuffing Quantity	20'/40'HQ	Set	485/1280	485/1280	480/1220

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

# B Dehumidifier

220-240V~50Hz



## Mechanical Control

MDB-14DMN3

MDB-20DMN3

## Electronic Control

MDB-14DEN3

MDB-20DEN3

## Features:



## Specification:

Model		MDB-14DMN3	MDB-14DEN3	MDB-20DMN3	MDB-20DEN3
Moisture Removal	30°C, RH80%	L/day	14	14	20
Power Supply	V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Power Input	30°C, RH80%	W	300	300	400
Operating Current	30°C, RH80%	A	1.8	1.8	2
Air Flow Volume	m³/h		130	130	150
Water Tank Volume	L		4	4	4
Noise Level	dB(A)		43	43	44
Net Dimension	WxHxD	mm	320x620x280	320x620x280	320x620x280
Packing Dimension	WxHxD	mm	385x660x350	385x660x350	385x660x350
Net/Gross Weight	kg		20/22	20/22	20/22
Applicable Area	m²		12~24	12~24	18~30
Stuffing Quantity	20'/40'HQ	Set	288/808	288/808	288/808

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

# Window



220-240V~,50Hz



■ MWF-09CMN2   ■ MWF-09HMN2  
■ MWF-12CMN2   ■ MWF-12HMN2  
■ MWF-16CMN2   ■ MWF-16HMN2  
■ MWF-18CMN2   ■ MWF-18HMN2  
■ MWF-21CMN2

■ MWF-09CRN2   ■ MWF-09HRN2  
■ MWF-12CRN2   ■ MWF-12HRN2  
■ MWF-16CRN2   ■ MWF-16HRN2  
■ MWF-18CRN2   ■ MWF-18HRN2  
■ MWF-21CRN2

## Features:



Unique Quiet Design



Easy Removed Panel



Fresh Air Switch



Sliding Chassis



Two Drainage Methods



Slinger-Up System



Silver Ion (Optional)

## Specification:

■ Cooling Only   ■ Cooling & Heating

Model		MWF-09HMN2	MWF-12HMN2	MWF-16HMN2	MWF-18HMN2
		MWF-09HRN2	MWF-12HRN2	MWF-16HRN2	MWF-18HRN2
Cooling/Heating	Btu/h	9000/9000	12000/1100	16000/16000	18000/18000
	kW	2.6/2.6	3.5/3.2	4.7/4.7	5.3/5.3
Electrical Data					
Power Supply	V~,Hz,Ph	220-230,50,1	220-230,50,1	220-230,50,1	220-230,50,1
Power Input	Cooling/Heating	W	1050/980	1411/1207	1873/1728
Operating Current	Cooling/Heating	A	4.70/4.26	6.13/5.25	8.17/7.51
Performance					
EER	Btu/W.h	8.46/2.48	8.46/2.48	8.56/2.51	8.56/2.51
COP	W/W	2.65	2.65	2.72	2.72
Energy Rate	Cooling/Heating	D/D	D/D	D/D	D/D
Air Flow Volume	Indoor	m³/h	420	530	660
Noise Level	Indoor(Hi/Lo)	dB(A)	51/45	53/47	55/50
Dimension & Weight					
Net Dimension	WxHxD	mm	450x346x535	600x380x560	660x435x640
Packing Dimension	WxHxD	mm	495x435x580	690x445x620	750x520x740
Net/Gross Weight		kg	36/40	44/48	56/61
Applicable Area			m²	14-20	18-26
Stuffing Quantity				21-35	30-40
20'/40'HQ	Set		220/572	136/345	94/240
20'/40'HQ	Set			94/240	94/240

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.

## Specification:

■ Cooling Only   ■ Cooling & Heating

Model			MWF-09CMN2	MWF-12CMN2	MWF-16CMN2	MWF-18CMN2	MWF-21CMN2
			MWF-09CRN2	MWF-12CRN2	MWF-16CRN2	MWF-18CRN2	MWF-21CRN2
<b>Capacity</b>							
Cooling	Btu/h		9000	12000	16000	18000	21000
	kW		2.6	3.5	4.7	5.3	6.2
<b>Electrical Data</b>							
Power Supply	V~,Hz,Ph		220-230,50,1	220-230,50,1	220-230,50,1	220-230,50,1	220-230,50,1
Power Input	Cooling	W	1050	1350	1918	2163	2531
Operating Current	Cooling	A	4.7	5.8	8.34	9.41	11
<b>Performance</b>							
EER	Btu/W.h		8.46	8.84	8.36	8.36	8.36
COP	W/W		2.48	2.59	2.45	2.45	2.45
Energy Rate	Cooling		D	D	D	D	D
Air Flow Volume	Indoor	m³/h	420	530	660	660	920
Noise Level	Indoor(Hi/Lo)	dB(A)	51/45	53/47	55/50	55/50	59/55
<b>Dimension &amp; Weight</b>							
Net Dimension	WxHxD	mm	450x346x535	600x380x560	660x435x640	660x435x640	660x435x640
Packing Dimension	WxHxD	mm	495x435x580	690x445x620	750x520x740	775x518x917	775x518x917
Net/Gross Weight		kg	35/39	43/47	55/60	55/60	68/77
<b>Applicable Area</b>							
	m²		14-20	18-26	21-35	30-40	35-50
<b>Stuffing Quantity</b>							
20'/40HQ	Set		220/572	136/345	94/240	94/240	72/192

Remarks: 1.The above design and specifications are subject to change without prior notice for product improvement.

2.The values given in the table for the noise level reflect the levels in anechoic chamber.