COMMERCIAL AIR CONDITIONERS

Air Source Heat Pump

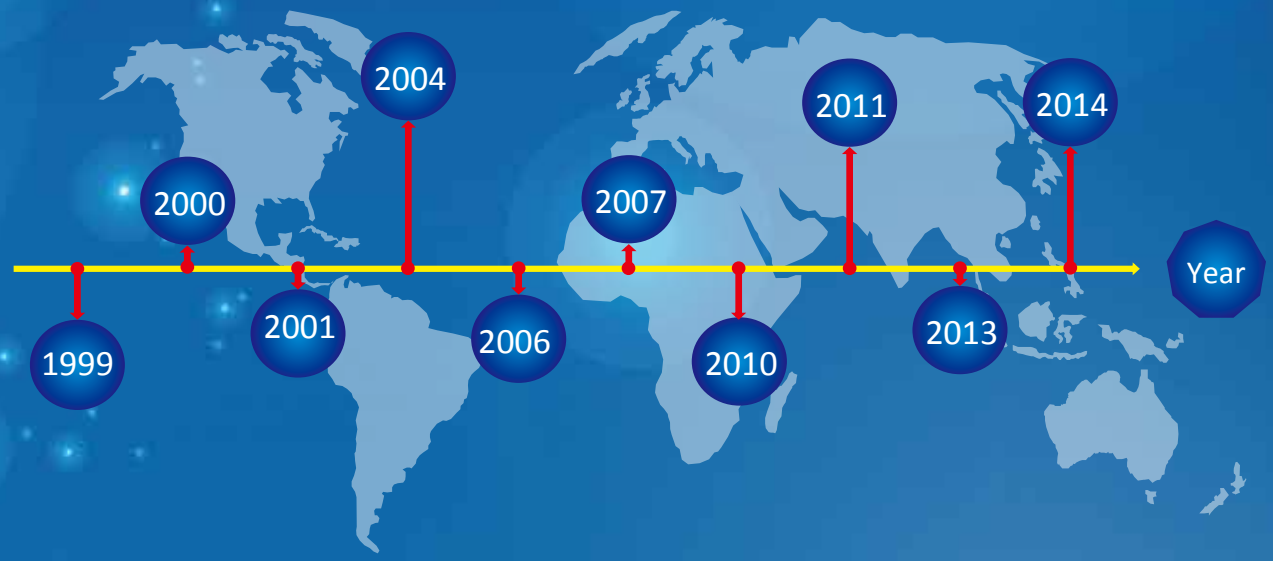

Factory
Testing room
Customer training
Reference project

Midea CAC (MCAC)

As a key subsidiary of Midea Group, the Midea Central Air Conditioner (MCAC) business unit has emerged as a leading supplier of commercial solutions. Since 1999 MCAC has contributed to the R&D and innovation of technologically-based commercial solutions. Cooperation with leading global enterprises coupled with independent R&D has enabled MCAC to implement thousands of commercial air-conditioning projects worldwide.

At present, MCAC is one of the globally leading product suppliers, underpinned by a mature marketing, sales, and project design framework.

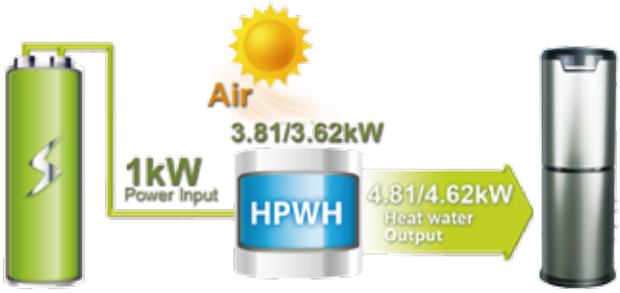
There are three production bases in Shunde, Chongqing and Hefei.
MCAC Shunde: 38 product lines focusing on VRF (DC inverters and digital scroll products), split products, heat pump water heaters, and AHU/FCU.
MCAC Chongqing: 14 product lines focusing on water cooled centrifugal/screw/scroll chillers, air cooled screw/scroll chillers, and AHU/FCU.
MCAC Hefei: 11 product lines focusing on VRF, chillers, and heat pump water heaters.

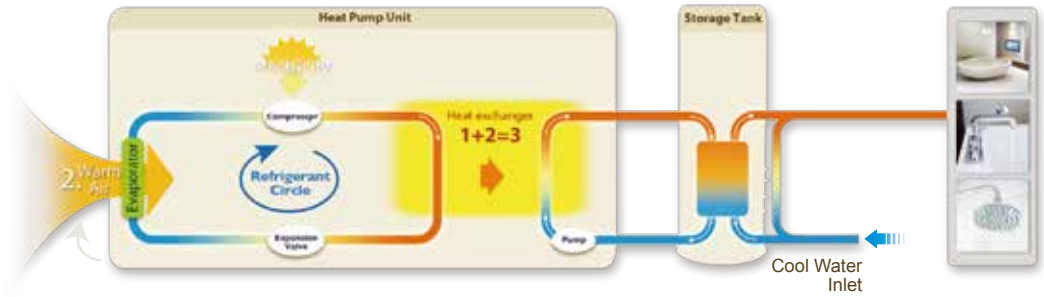


2014 Launched the All DC Inverter V5X globally
2013 Launched the super high efficiency centrifugal chiller with full falling film technology
2011 Launched the DC Inverter V4 Plus globally
2010 Built the 3rd manufacturing base in Hefei
2007 Won the first Midea centrifugal chiller project oversea
2006 Launched the first VSD centrifugal chiller
2004 Acquired MGRE entered the chiller industry
2001 Partnered with Copeland to develop the digital scroll VRF system
2000 Developed the first inverter VRF With Toshiba
1999 Entered the CAC field

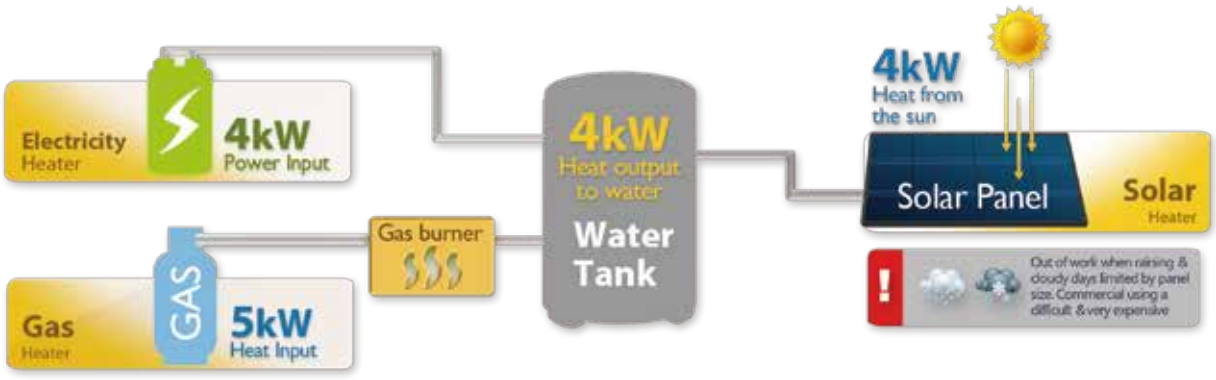
Renewable

Heat pump is renewable and energy saving.





Why select HPWH?



Comparison of the power needed to heat 1 ton water from 15˚C to 55˚C under the same conditions (Data from Midea)

	Midea HPWH	Gas Water Heater	Electric Water Heater	Boiler	Solar Water Heater
Energy Resource	Air,electricity	Gas	Electricity	Diesel oil	Solar,electricity
Calorific Value	860kcal/kW.h	24000kcal/m^3	860kcal/kW.h	10200kcal/kg	860kcal/kW.h
Average Efficiency	4.6	0.8	0.95	0.7	2.7 (1/3 weather need Auxiliary Heater)
Consumption	10kW.h	2.08m^3	48.9kW.h	5.6kg	17.22kW.h
Running Cost(USD)	0.9	5.9	4.3	6.5	1.5
Merit/Demerit	Green,safe,energy saving,friendly for environment and easy for installation	Risk of fire and explosion, emits CO_2 .	Risk of electric shocks.	Risk of fire and explosion, emits CO_2 .	Difficult to install, takes up a lot of space, water tank capacity is limited.

Lineup

Sanitary Hot Water 7-30

1.5~7.2kW

M-Thermal 29-40

6~14kW

Pool/Spa 41-43

6~14kW

Commercial Application 44-51

10~38kW

Contents →


Sanitary Hot Water 07


M-Thermal 29


Dedicated Pool Series 41


Commercial Applications 44


Reference Projects 52

Combo Type 150L(50Hz)

RSJ-15/190RDN3-C

COP: 3.5
(A15/12, W15/45)
Ambient: -20˚C～43˚C

DISINFECT

Combo Type Nomenclature

RSJ - 15 / 150 R D N3 - C

- C: Design Code
- N3: Refrigerant Type
  N3: R134a
- D: Function
  D: E-Heater
- R: Refrigerant Cycle-heating Type
- 150: Water Storage (Unit: L)
- 15: Heating Capacity (Unit: ×100W)
- RSJ: Midea Heat Pump Water Heater

Features

- R134a gas, environmentally friendly.
- Output water temperature: 38°C~70 °C.
- Multi modes: Economy, Hybrid and E-heater.
- CE, StandardsMark, WaterMark and SAA approval.
- Automatic weekly disinfect function.
- Multiple protection: PTR valve, double high water temperature protection switches.(Manual/Automatic)
- The condenser coil is wrapped around outside the tank. No contamination potential.
- Close refrigerant circuit, easy for plumber installation.
- The model with wire controller(model:KJRH-90A/E) can be customized.

Specifications

Model			RSJ-15/150RDN3-C		
Running mode			Economy	Hybrid	E-heater
Running ambient temperature			5°C~43°C	-20°C~43°C	-20°C~43°C
Output water temperature			Default 60°C, 38°C~70°C		
Power supply			220~240V 1Ph~ 50Hz		
Storage size		Ltr	150		
Water heating	Capacity	kW	1.50	Heat pump: 1.50; E-heater: 2.15	2.15
	COP	kW/kW	3.50	Heat pump: 3.50; E-heater: 1.00	1.00
	Max. current	A	3.4	12.1	9.3
Dimension (D×H)		mm	Φ568×1,430		
Packing (W×H×D)		mm	730×1,535×700		
Net/gross weight		kg	87/98		
Noise level		dB(A)	48		
Refrigerant type/quantity		kg	R134a/0.8		
Refrigerant design pressure		MPa	3.0/1.2		
Tank design pressure		MPa	0.15~1.2		
System protection			TCO, ATCO, PTR valve, etc.		
Air flow		m³/h	300		
Compressor	Type		Rotary		
	Brand		GMCC		
	Capacity	kW	1.390		
	Input	kW	0.515		
Fan motor	Brand		Welling		
	Input (H/M/L)	W	35.5/26.5/23		
	Speed (H/M/L)	r/min	890/580/380		
Water pipeline	Water inlet pipe	mm	DN20		
	Water outlet pipe	mm	DN20		
	Drainage pipe	mm	DN20		
	PTR valve joint	mm	DN20		
	Max. operating pressure	MPa	0.65		
Heat exchanger			Dividing wall type heat exchanger		
E-heater		kW	2.15×1		
Hot water yield		m³/h	0.043	-	0.062
Applicable persons			2~3		
Loading quantity	20'/40'/40'HQ	Pcs	24/51/51		

Remark:

1. The heating capacity is tested under ambient temperature 15˚C/12˚C (DB/WB), initial water temperature in the unit is 15˚C, terminate water temperature is 45˚C.
2. The specifications may be changed for product improvement, please refer to the nameplate.

Combo Type 190L(50Hz)

RSJ-15/190RDN3-C

COP: 3.5
(A15/12, W15/45)
Ambient: -20˚C～43˚C

CE

DISINFECT

Combo Type Nomenclature

RSJ - 15 / 190 R D N3 - C

- C: Design Code
- N3: Refrigerant Type
  N3: R134a
- D: Function
  D: E-Heater
- R: Refrigerant Cycle-heating Type
- 190: Water Storage (Unit: L)
- 15: Heating Capacity (Unit: ×100W)
- RSJ: Midea Heat Pump Water Heater

Features

- R134a gas, environmentally friendly.
- Output water temperature: 38°C~70 °C.
- Multi modes: Economy, Hybrid and E-heater.
- CE, StandardsMark, WaterMark and SAA approval.
- Automatic weekly disinfect function.
- Multiple protection: PTR valve, double high water temperature protection switches.(Manual/Automatic)
- The condenser coil is wrapped around outside the tank. No contamination potential.
- Close refrigerant circuit, easy for plumber installation.
- The model with wire controller(model:KJRH-90A/E) can be customized.

Specifications

Model			RSJ-15/190RDN3-C		
Running mode			Economy	Hybrid	E-heater
Running ambient temperature			5°C~43°C	-20°C~43°C	-20°C~43°C
Output water temperature			Default 60°C, 38°C~70°C		
Power supply			220~240V 1Ph~ 50Hz		
Storage size		Ltr	190		
Water heating	Capacity	kW	1.50	Heat pump: 1.50; E-heater: 2.15	2.15
	COP	kW/kW	3.50	Heat pump: 3.50; E-heater: 1.00	1.00
	Max. current	A	3.4	12.1	9.3
Dimension (D×H)		mm	Φ568×1,580		
Packing (W×H×D)		mm	730×1675×700		
Net/gross weight		kg	90/101		
Noise level		dB(A)	48		
Refrigerant type/quantity		kg	R134a/0.8		
Refrigerant design pressure		MPa	3.0/1.2		
Tank design pressure		MPa	0.2~0.8		
System protection			TCO, ATCO, PTR valve, etc.		
Air flow		m³/h	300		
Compressor	Type		Rotary		
	Brand		GMCC		
	Capacity	kW	1.390		
	Input	kW	0.515		
Fan motor	Brand		Welling		
	Input (H/M/L)	W	35.5/26.5/23		
	Speed (H/M/L)	r/min	890/580/380		
Water pipeline	Water inlet pipe	mm	DN20		
	Water outlet pipe	mm	DN20		
	Drainage pipe	mm	DN20		
	PTR valve joint	mm	DN20		
	Max. operating pressure	MPa	0.8		
Heat exchanger			Dividing wall type heat exchanger		
E-heater		kW	2.15×1		
Hot water yield		m³/h	0.043	-	0.062
Applicable persons			3~4		
Loading quantity	20'/40'/40'HQ	Pcs	24/51/51		

Remark:
1. The heating capacity is tested under ambient temperature 15˚C/12˚C (DB/WB), initial water temperature in the unit is 15˚C, terminate water temperature is 45˚C.
2. The specifications may be changed for product improvement, please refer to the nameplate.

Combo Type 190L(50Hz)

RSJ-15/190RDN3-D

COP: 3.6
(A15/12, W15/45)
Ambient: -20°C~43 °C

CE

DISINFECT

Features

- R134a gas, environmentally friendly.
- Water output temperature: 38ºC~70ºC.
- No contamination potential, the condenser coil is wrapped around outside the tank.
- Multi protection： PTR valve, double high water temperature protection switches (Manual and Automatic).
- Auto mode selection & Vocation mode.
- Automatic weekly disinfect function.
- Four-way valve for automatic defrosting.
- Close refrigerant circuit, easy for plumber installation.
- User-friendly LCD display for easy interaction.
- 15 Pa air outlet pressure enables a duct length up to 5 meters.

Flexible duct installation

Living room

Dining room

Cellar

Storage room

Specifications

Model			RSJ-15/190RDN3-D	
Heat source			Heat pump	E-heater
Running ambient temperarure			-7°C~43°C	-20°C~43°C
Outlet water temperarure			Default 60°C,38°C~70°C	
Power supply			220~240V 1Ph~ 50Hz	
Storage size		Ltr	190	
Water heating	Capacity	kW	1.45	3.00
	COP	kW/kW	3.60	1.00
	Max. current	A	17.0	
Dimension (D×H)		mm	Φ560×1,680	
Packing (W×H×D)		mm	695×1,725×685	
Net/gross weight		kg	94/110	
Noise level		dB(A)	41	
Refrigerant type/quantity		kg	R134a/0.9	
Refrigerant design pressure		MPa	3.0/1.2	
Tank design pressure		MPa	0.15~1.2	
System protection			TCO, ATCO, PTR valve, over-load protector, etc.	
Air flow (H/M/L)		m^3/h	218/202/178	
Compressor	Type		Rotary	
	Brand		GMCC	
	Capacity	kW	1.390	
	Input	kW	0.515	
Fan motor	Input (H/M/L)	W	28/26/26	
	Speed (H/M/L)	r/min	900/815/680	
Water pipeline	Water inlet pipe	mm	DN20	
	Wate outlet pipe	mm	DN20	
	Drainage pipe	mm	DN20	
	PTR valve joint	mm	DN20	
	Max. operating pressure	MPa	1.0	
Heat exchanger			Dividing wall type heat exchanger	
E-heater			3.0	
Hot water yield		m^3/h	0.043	0.086
Applicable persons			3~4	
Loading quantity	20'/40'/40'HQ	Pcs	24/51/51	

Remark:
1. The heating capacity is tested under ambient temperature 15˚C/12˚C (DB/WB), initial water temperature in the unit is 15˚C, terminate water temperature is 45˚C.
2. The specifications may be changed for product improvement, please refer to the nameplate.

Combo Type 300L(50Hz)

RSJ-35/300RDN3-B
RSJ-35/300RDN3-C(1*)

COP: 3.6
(A15/12, W15/45)
Ambient: -30°C~43°C

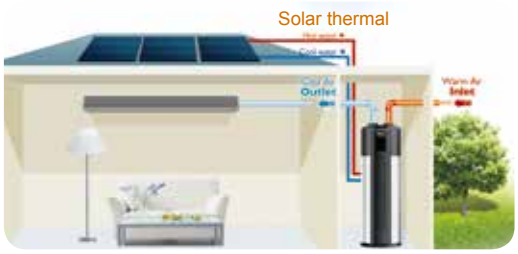
CE

Features

- R134a gas, environmentally friendly.
- Water output temperature: 38°C~60 °C.
- Multiple modes: Economy, Hybrid and E-heater.
- Built-in heater exchanger, compatible to solar thermal or boilers.(Optional)
- Four-way valve for automatic defrosting.
- Multi protection: PTR valve, double high water temperature protection switches.(Manual/Automatic).
- No contamination potential, the condenser coil is wrapped around outside the tank.
- Close refrigerant circuit, easy for plumber installation.
- 25Pa air outlet pressure enables a duct length up to 10 meters.
- The model with wire controller(model:KJRH-90A/E) can be customized.

Flexible duct installation

Living room



Dining room

Cellar

Storage room

Specifications

Model			RSJ-35/300RDN3-B			RSJ-35/300RDN3-C		
Running mode			Economy	Hybrid	E-heater	Economy	Hybrid	E-heater
Running ambient temperature			-7°C~43°C	-30°C~43°C	-30°C~43°C	-7°C~43°C	-30°C~43°C	-30°C~43°C
Outlet water temperature			Default 55°C,38°C~60°C					
Power supply			220~240V 1Ph~ 50Hz					
Storage size		Ltr	300					
Water heating	Capacity	kW	3.00	3.00	3.00	3.00	3.00	3.00
	COP	kW/kW	3.60	3.60	1.00	3.60	3.60	1.00
	Max. current	A	6.5	18.7	13.0	6.5	18.7	13.0
Dimension (D×H)		mm	Φ650×1,920					
Packing (W×H×D)		mm	750×2,150×780					
Net/gross weight		kg	133/160			130/156.5		
Noise level		dB(A)	48					
Refrigerant type/quantity		kg	R134a/1.2					
Refrigerant design pressure		MPa	3.0/1.2					
Tank design pressure		MPa	0.15~1.2					
Throttling type			Electric expansion valve					
System protection			TCO, ATCO, PTR valve, high-pressure protector, over-load protector, etc.					
Air flow (H/M/L)		m^3/h	414/355/312					
Compressor	Type		Rotary					
	Brand		Mitsubishi					
	Capacity	kW	2.785					
	Input	kW	0.985					
Fan motor	Input (H/M/L)	W	68/56/50					
	Speed (H/M/L)	r/min	620/530/465					
Water pipeline	Water inlet pipe	mm	DN20					
	Water outlet pipe	mm	DN20					
	Drainage pipe	mm	DN20					
	PTR valve joint	mm	DN20					
	Max.operating pressure	MPa	1.0					
Heat exchanger			Dividing wall type heat exchanger					
Solar heat exchanger	Water inlet pipe	mm	DN20			/		
	Water outlet pipe	mm	DN20			/		
	Material		Stainless steel SUS316L			/		
	Dim.×Length	mm	Φ22×10,000			/		
	Max. pressure	MPa	0.7			/		
E-heater		kW	3.0					
Hot water yield		m^3/h	0.086					
Applicable persons			5~6					
Loading quantity	20'/40'/40'HQ	Pcs	21/45/45					

Remark:
1. The heating capacity is tested under ambient temperature 15˚C/12˚C (DB/WB), initial water temperature in the unit is 15˚C, terminate water temperature is 45˚C.
2. The specifications may be changed for product improvement, please refer to the nameplate.
Note:
(1*)RJS-35/300RDN3-B with solar coil RJS-35/300RDN3-C without solar coil

Combo Type 300L(50Hz)

RSJ-35/300RDN3-D
RSJ-35/300RDN3-D(S)(1*)

COP: 3.6
(A15/12, W15/45)
Ambient: -20°C~43°C

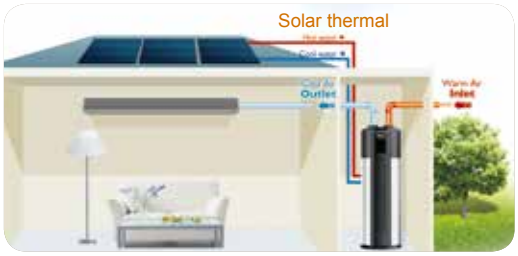
DISINFECT

Features

- R134a gas, environmentally friendly.
- Water output temperature: 38°C~60 °C.
- Auto mode selection & Vocation mode.
- CE approval. StandardsMark, WaterMark and SAA approval for RSJ-35/300RDN3-D.
- Built-in heater exchanger, compatible to solar thermal or boilers.(Optional)
- Automatic weekly disinfect function.
- Multi protection: PTR valve, double high water temperature protection switches.(Manual/Automatic).
- Four-way valve for automatic defrosting.
- No contamination potential, the condenser coil is wrapped around outside the tank.
- Close Refrigerant circuit, easy for plumber installation.
- 25Pa air outlet pressure enables a duct length up to 10 meters.

Flexible duct installation

Living room



Dining room

Cellar

Storage room

Specifications

Model			RSJ-35/300RDN3-D(S)		RSJ-35/300RDN3-D	
Heat source			Heat pump	E-heater	Heat pump	E-heater
Running ambient temperature			-7°C~43°C	-20°C~43°C	-7°C~43°C	-20°C~43°C
Outlet water temperature			Default 55°C, 38°C~60°C			
Power supply			220~240V 1Ph~ 50Hz			
Storage size		Ltr	300			
Water heating	Capacity	kW	3.00	3.00	3.00	3.00
	COP	kW/kW	3.60	1.00	3.60	1.00
	Max. current	A	18.7		18.7	
Dimension (D×H)		mm	Φ650×1,920			
Packing (W×H×D)		mm	750×2,150×780			
Net/gross weight		kg	133/160		130/156.5	
Noise level		dB(A)	48			
Refrigerant type/quantity		kg	R134a/1.2			
Refrigerant design pressure		MPa	3.0/1.2			
Tank design pressure		MPa	0.15~1.2			
Throttling type			Electric expansion valve			
System protection			TCO, ATCO, PTR valve, automatic defrosting, high-pressure protector, over-load protector, etc.			
Air flow (H/M/L)		m^3/h	414/355/312			
Compressor	Type		Rotary			
	Brand		Mitsubishi			
	Capacity	kW	2.785			
	Input	kW	0.895			
Fan motor	Input (H/M/L)	W	68/56/50			
	Speed (H/M/L)	r/min	620/530/465			
Water pipeline	Water inlet pipe	mm	DN20			
	Water outlet pipe	mm	DN20			
	Drainage pipe	mm	DN20			
	PT valve joint	mm	DN20			
	Max.operating pressure	MPa	1.0			
Heat exchanger			Dividing wall type heat exchanger			
Solar heat exchanger	Water inlet pipe	mm	DN20		/	
	Water outlet pipe	mm	DN20		/	
	Material		Stainless steel SUS316L		/	
	Dim.×Length	mm	Φ22×10,000		/	
	Max. pressure	MPa	0.7		/	
E-heater		kW	3.0			
Hot water yield		m^3/h	0.086			
Applicable persons			5~6			
Loading quantity	20'/40'/40'HQ	Pcs	21/45/45			

Remark:
1. The heating capacity is tested under ambient temperature 15˚C/12˚C (DB/WB), initial water temperature in the unit is 15˚C, terminate water temperature is 45˚C.
2. The specifications may be changed for product improvement, please refer to the nameplate.
Note:
(1*)RJS-35/300RDN3-D(S) with solar coil RJS-35/300RDN3-D without solar coil

Combo Type 300L(50Hz)

RSJ-35/300RDN3-E1

COP: 3.76
(A15/12, W15/45)
Ambient: -20°C~43°C

DISINFECT

Features

- Environmental friendly refrigerant R134a is used.
- Water output temperature: 38°C~65 °C.
- Enamel water tank is adopted. Water and metal are completely isolated.
- No contamination potential, the condenser coil is wrapped around outside the tank.
- Multi protection: PTR valve, TCO&ATCO double high water temperature protection switches.
- Multiple modes: Economy, Hybrid and E-heater.
- Automatic defrost by reversing refrigerant cycle.
- Disinfect automatically every week.
- 25 Pa external static pressure enables air duct up to 10m.
- Close refrigerant circuit, easy for plumber installation.
- Independent heat exchanger kit is optional for the integration of other heat source.

Flexible duct installation

Living room

Dining room

Cellar

Storage room

Specifications

Model			RSJ-35/300RDN3-E1		
Running mode			Economy	Hybrid	E-heater
Running ambient temperature			-7°C~43°C	-20°C~43°C	-20°C~43°C
Outlet water temperature			Default 55°C,38°C~65°C		
Power supply			220~240V 1Ph~ 50Hz		
Storage size		Ltr	300		
Water heating	Capacity	kW	3.00	3.00	3.00
	COP	kW/kW	3.76	3.76	1.00
	Max. current	A	6.5	18.7	13.0
Dimension (D×H)		mm	Φ650×1,920		
Packing (W×H×D)		mm	750×2,150×780		
Net/gross weight		kg	145.5/175.5		
Noise level		dB(A)	45		
Refrigerant type/quantity		kg	R134a/1.2		
Refrigerant design pressure		MPa	3.0/1.2		
Max. tank design pressure		MPa	1.0		
Throttling type			Electric expansion valve		
System protection			TCO, ATCO, PTR valve, high-pressure protector, over-load protector, etc.		
Air flow (H/M/L)		m^3/h	414/355/312		
Compressor	Type		Rotary		
	Brand		GMCC		
	Capacity	kW	3.000		
	Input	kW	1.000		
Fan motor	Input (H/M/L)	W	68/56/50		
	Speed (H/M/L)	r/min	620/530/465		
Water pipeline	Water inlet pipe	mm	DN20		
	Water outlet pipe	mm	DN20		
	Drainage pipe	mm	DN20		
	PTR valve joint	mm	DN20		
	Max.operating pressure	MPa	1.0		
Heat exchanger			Dividing wall type heat exchanger		
Solar heat exchanger	Water inlet pipe	mm	/		
	Water outlet pipe	mm	/		
	Material		/		
	Dim.×Length	mm	/		
	Max. pressure	MPa	/		
E-heater		kW	3.0		
Hot water yield		m^3/h	0.086		
Applicable persons			5~6		
Loading quantity	20'/40'/40'HQ	Pcs	21/45/45		

Remark:
1. The heating capacity is tested under ambient temperature 15˚C/12˚C (DB/WB), initial water temperature in the unit is 15˚C, terminate water temperature is 45˚C.
2. The specifications may be changed for product improvement, please refer to the nameplate.

Combo Type 300L(50Hz)

RSJ-35/300RDN3-F1

COP: 3.76
(A15/12, W15/45)
Ambient: -20°C~43°C

DISINFECT

Features

- Environmental friendly refrigerant R134a is used.
- Water output temperature: 38°C~65 °C.
- Enamel water tank is adopted. Water and metal are completely isolated.
- No contamination potential, the condenser coil is wrapped around outside the tank.
- Multi protection: PTR valve, TCO&ATCO double high water temperature protection switches.
- Automatic mode select & Vocation mode.
- Automatic defrost by reversing refrigerant cycle.
- Automatic disinfect every week.
- 25 Pa external static pressure enables air duct up to 10m.
- User-friendly LCD display for easy interaction.
- Close refrigerant circuit, easy for plumber installation.
- Independent heat exchanger kit is optional for the integration of other heat source.

Flexible duct installation

Living room

Dining room

Cellar

Storage room

Specifications

Model			RSJ-35/300RDN3-F1	
Heat source			Heat pump	E-heater
Running ambient temperature			-7°C~43°C	-20°C~43°C
Outlet water temperature			Default 55°C, 38°C~60°C	
Power supply			220~240V 1Ph~ 50Hz	
Storage size		Ltr	300	
Water heating	Capacity	kW	3.00	
	COP	kW/kW	3.76	
	Max. current	A	18.7	
Dimension (D×H)		mm	Φ650×1,920	
Packing (W×H×D)		mm	750×2,150×780	
Net/gross weight		kg	145.5/175.5	
Noise level		dB(A)	45	
Refrigerant type/quantity		kg	R134a/1.2	
Refrigerant design pressure		MPa	3.0/1.2	
Max. tank design pressure		MPa	1.0	
Throttling type			Electric expansion valve	
System protection			TCO, ATCO, PTR valve, automatic defrosting, high-pressure protector, over-load protector, etc.	
Air flow (H/M/L)		m^3/h	414/355/312	
Compressor	Type		Rotary	
	Brand		GMCC	
	Capacity	kW	3.000	
	Input	kW	1.000	
Fan motor	Input (H/M/L)	W	68/56/50	
	Speed (H/M/L)	r/min	620/530/465	
Water pipeline	Water inlet pipe	mm	DN20	
	Water outlet pipe	mm	DN20	
	Drainage pipe	mm	DN20	
	PT valve joint	mm	DN20	
	Max.operating pressure	MPa	1.0	
Heat exchanger			Dividing wall type heat exchanger	
Solar heat exchanger	Water inlet pipe	mm	/	
	Water outlet pipe	mm	/	
	Material		/	
	Dim.×Length	mm	/	
	Max. pressure	MPa	/	
E-heater		kW	3.0	
Hot water yield		m^3/h	0.086	
Applicable persons			5~6	
Loading quantity	20'/40'/40'HQ	Pcs	21/45/45	

Remark:
1. The heating capacity is tested under ambient temperature 15˚C/12˚C (DB/WB), initial water temperature in the unit is 15˚C, terminate water temperature is 45˚C.
2. The specifications may be changed for product improvement, please refer to the nameplate.

Combo Type 300L(60Hz)

RSJ-35/300RDN3

COP: 3.5
(A15/12, W15/45)
Ambient: -20°C~43°C

DISINFECT

Features

- R134a gas, environmentally friendly.
- Water output temperature: 38°C~60 °C.
- Auto mode selection & Vocation mode.
- Automatic weekly disinfect function.
- User-friendly LCD display for easy interaction.
- Multiple protection: PTR valve, double high water temperature protection switches.(Manual/Automatic).
- No contamination potential, the condenser coil is wrapped around outside the tank.
- Close refrigerant circuit, easy for plumber installation.
- 25Pa air outlet pressure enables a duct length up to 10 meters.

Flexible duct installation

Living room

Dining room

Cellar

Storage room

Specifications

Model			RSJ-35/300RDN3	
Heat source			Heat pump	E-heater
Running ambient temperature			-7°C~43°C	-20°C~43°C
Outlet water temperature			Default 55°C, 38°C~60°C	
Power supply			220V 1Ph~ 60Hz	
Storage size		Ltr	300	
Water heating	Capacity	kW	3.40	3.00
	COP	kW/kW	3.50	1.00
	Max. currrent	A	20.6	
Dimension (D×H)		mm	Φ650×1,920	
Packing (W×H×D)		mm	750×2,150×780	
Net/gross weight		kg	117/148	
Noise level		dB(A)	48	
Refrigerant type/quantity		kg	R134a/1.2	
Refrigerant design pressure		MPa	3.0/1.2	
Tank design pressure		MPa	0.15~1.2	
Throttling type			Electric expansion valve	
System protection			TCO, ATCO, PTR valve, over-load protector, etc.	
Air flow (H/M/L)		m^3/h	414/355/312	
Compressor	Type		Rotary	
	Brand		Mitsubishi	
	Capacity	kW	2.785	
	Input	kW	0.895	
Fan motor	Input (H/M/L)	W	68/56/50	
	Speed (H/M/L)	r/min	620/530/465	
Water pipeline	Water inlet pipe	mm	DN20	
	Water outlet pipe	mm	DN20	
	Drainage pipe	mm	DN20	
	PTR valve joint	mm	DN20	
	Max. operating pressure	MPa	1.0	
Heat exchanger			Dividing wall type heat exchanger	
E-heater		kW	3.0	
Hot water yield		m^3/h	0.094	0.086
Applicable persons			5~6	
Loading quantity	20'/40'/40'HQ	Pcs	21/45/45	

Remark:

1. The heating capacity is tested under ambient temperature 15˚C/12˚C (DB/WB), initial water temperature in the unit is 15˚C, terminate water temperature is 45˚C.
2. The specifications may be changed for product improvement, please refer to the nameplate.

Split Type (Water Cycle)

RSJF-32/CN1-B
RSJF-50/CN1-B
RSJF-72/CN1-B1

Ambient: -7°C~43°C

Features

- R410A gas, environmentally friendly.
- Max. water output temperature: 60°C.
- Automatic startup and shutdown, automatic defrost.
- Built-in water pump.
- Double-wall heat exchanger is used to prevent refrigerant leakage.
- New touch-style key wired controller KJR-51/BMKE-A is used for easy operation.
- Close refrigerant circuit, easy for plumber installation.

Double-wall heat exchanger

Specifications

Model			RSJF-32/CN1-B	RSJF-50/CN1-B	RSJF-72/CN1-B1
Power supply			220~240V 1Ph~ 50Hz	220~240V 1Ph~ 50Hz	220~240V 1Ph~ 50Hz
Ambient temperature			-7°C~43°C	-7°C~43°C	-7°C~43°C
Outlet water temperature			Default 50°C, 40°C~60°C		
Storage size of optional water tank		Ltr	200/300/350/400		
Water heating	Capacity	kW	3.00	4.30	6.50
	Input	kW	0.81	1.11	1.80
	COP	kW/kW	3.70	3.87	3.61
	Max. current	A	7.5	8.3	15.3
Dimension (W×H×D)		mm	790×765×275	790×765×275	845×945×335
Packing (W×H×D)		mm	905×807×355	905×807×355	965×1,009×395
Net/gross weight		kg	56/60	62/66	81/86.5
Outdoor noise level		dB(A)	53	55	55
Refrigerant type/quantity		kg	R410A/0.95	R410A/1.2	R410A/1.3
Refrigerant design pressure		MPa	4.4/2.6	4.4/2.6	4.4/2.6
Tank design pressure		MPa	0.2~0.7		
Throttling type			Electric expansion valve		
Water side heat exchanger			Double-wall heat exchanger		
Air flow		m³/h	2,000	2,000	3,200
Compressor	Type		Rotary	Rotary	Rotary
	Brand		GMCC	GMCC	GMCC
	Capacity	kW	2.780	3.910	5.870
	Input	kW	0.955	1.350	1.985
Fan motor	Input (H/L)	W	74/51	74/51	134/60
	Speed (H/L)	r/min	770/480	770/480	830/450
Pump	Max. lift	m	5.5	5.5	5.5
Water pipeline	Water inlet pipe	mm	DN20	DN20	DN20
	Water outlet pipe	mm	DN20	DN20	DN20
	Water circulating pipe	mm	DN20	DN20	DN20
Wired controller			KJR-51/BMKE-A	KJR-51/BMKE-A	KJR-51/BMKE-A
Storage size of suggested water tank		Ltr	100~300	150~350	300~500
Hot water yield		m³/h	0.074	0.107	0.155
Loading quantity	20'/40'/40'HQ	Pcs	76/160/240	76/160/240	64/134/134

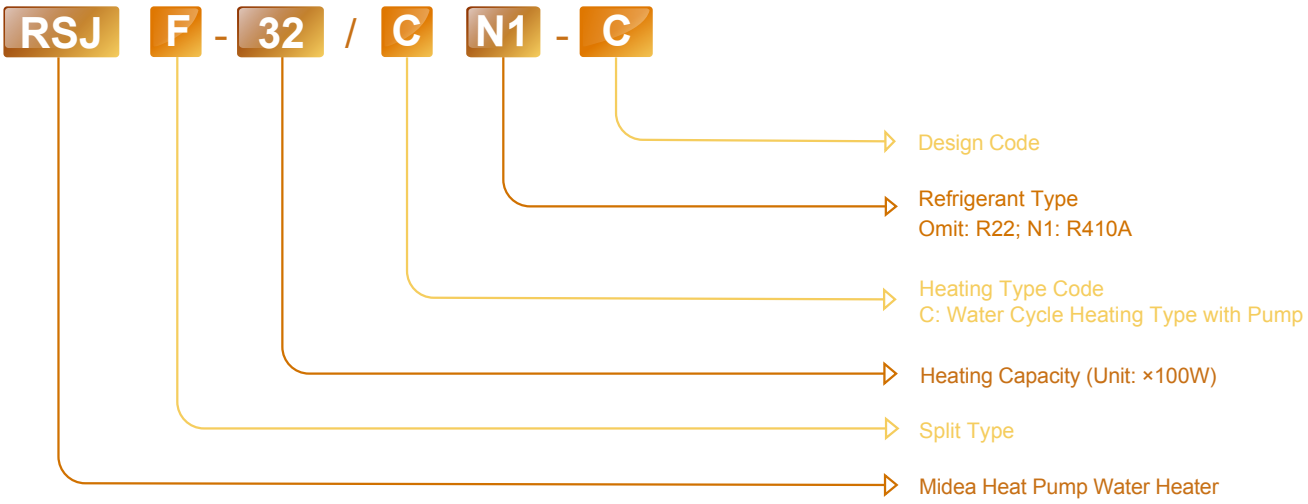
Remark:
1. The test conditions: outdoor temperature 7/6°C(DB/WB), inlet water temperature 30°C, outlet water temperature 35°C.
2. The test conditions of hot water yield : outdoor temperature 20/15°C(DB/WB), inlet water temperature 15°C, outlet water temperature 55°C.
3. The specifications may be changed for product improvement, please refer to the nameplate.

Split Type (Water Cycle)

RSJF-32/CN1-C
RSJF-50/CN1-C
RSJF-72/CN1-C

Tank: 260/300/350/400L
Ambient: -7°C~43°C

Split Type Nomenclature



Features

- Environmentally friendly refrigerant R410A is used.
- Max. water output temperature: 60°C.
- Automatic startup and shutdown, automatic defrost.
- Built-in water pump.
- New touch-style key wired controller KJR-51/BMKE-A is used for easy operation.
- Close refrigerant circuit, easy for plumber installation.

Specifications

Model			RSJF-32/CN1-C	RSJF-50/CN1-C	RSJF-72/CN1-C
Power supply			220~240V 1Ph~ 50Hz	220~240V 1Ph~ 50Hz	220~240V 1Ph~ 50Hz
Ambient temperature			-7°C~43°C	-7°C~43°C	-7°C~43°C
Outlet water temperature			Default 50°C, 40°C~60°C		
Storage size of optional water tank		Ltr	200/300/350/400		
Water heating	Capacity	kW	3.00	4.30	6.50
	Input	kW	0.87	1.22	1.72
	COP	kW/kW	3.45	3.53	3.78
	Max. current	A	6.8	8.5	12.4
Dimension (W×H×D)		mm	790×765×275	790×765×275	845×945×335
Packing (W×H×D)		mm	905×807×355	905×807×355	965×1,009×395
Net/gross weight		kg	48/52	55/58	68.5/74
Outdoor noise level		dB(A)	53	55	55
Refrigerant type/quantity		kg	R410A/0.7	R410A/0.9	R410A/1.0
Refrigerant design pressure		MPa	4.4/2.6	4.4/2.6	4.4/2.6
Tank design pressure		MPa	0.2~0.7		
Throttling type			Electric expansion valve		
Water side heat exchanger			Single-wall heat exchanger		
Air flow		m³/h	2,000	2,000	3,200
Compressor	Type		Rotary	Rotary	Rotary
	Brand		GMCC	GMCC	GMCC
	Capacity	kW	2.780	3.910	5.870
	Input	kW	0.955	1.350	1.985
Fan motor	Input (H/L)	W	74/51	74/51	134/60
	Speed (H/L)	r/min	770/480	770/480	830/450
Pump	Max. lift	m	5.5	5.5	5.5
Water pipeline	Water inlet pipe	mm	DN20	DN20	DN20
	Water outlet pipe	mm	DN20	DN20	DN20
	Water circulating pipe	mm	DN20	DN20	DN20
Wired controller			KJR-51/BMKE-A	KJR-51/BMKE-A	KJR-51/BMKE-A
Storage size of suggested water tank		Ltr	100~300	150~350	300~500
Hot water yield		m³/h	0.074	0.107	0.155
Loading quantity	20'/40'/40'HQ	Pcs	76/160/240	76/160/240	64/134/134

Remark:

1. The test conditions: outdoor temperature 7/6°C(DB/WB), inlet water temperature 30°C, outlet water temperature 35°C.
2. The test conditions of hot water yield : outdoor temperature 20/15°C(DB/WB), inlet water temperature 15°C, outlet water temperature 55°C.
3. The specifications may be changed for product improvement, please refer to the nameplate.

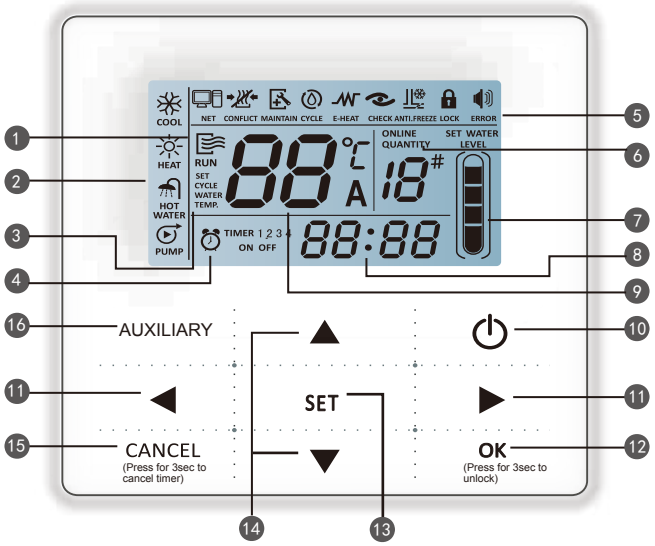
Wired Controller (KJR-51/BMKE-A)

Features

- Touch key operation.
- LCD displays operation parameters.
- Multiple timers.
- Real-time clock function.
- Power-off memory function.
- It can be applied to most of the Midea HPWH models by properly setting.

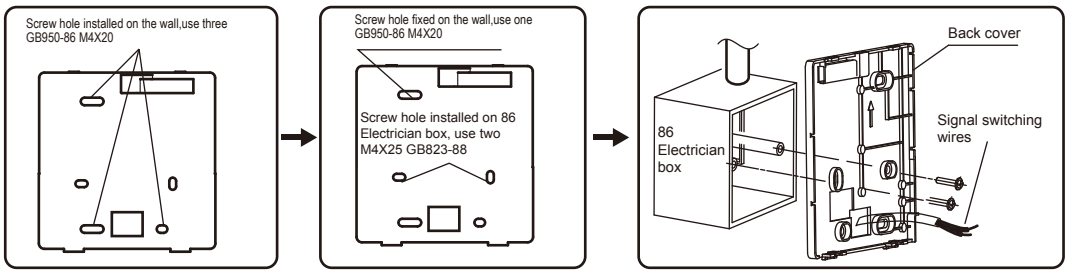
Overview of wire controller

1. Operation Icon
2. Mode Area
3. Setting Temperature
4. Timing On/Off
5. Function Icon
6. On-line Unit Qty. Indication
7. Water Level Indication
8. Clock
9. Water Temperature
10. ON/OFF Key
11. Left/Right Key
12. OK Key
13. Set Key
14. Add & Reduce Key
15. Cancel Key
16. Auxiliary Key

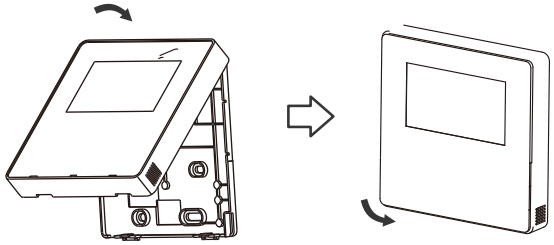


Installation Procedure

Back cover installation

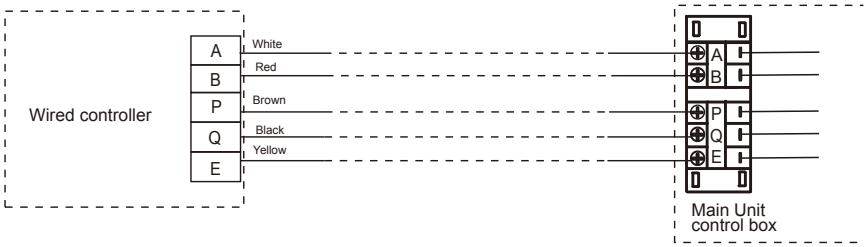


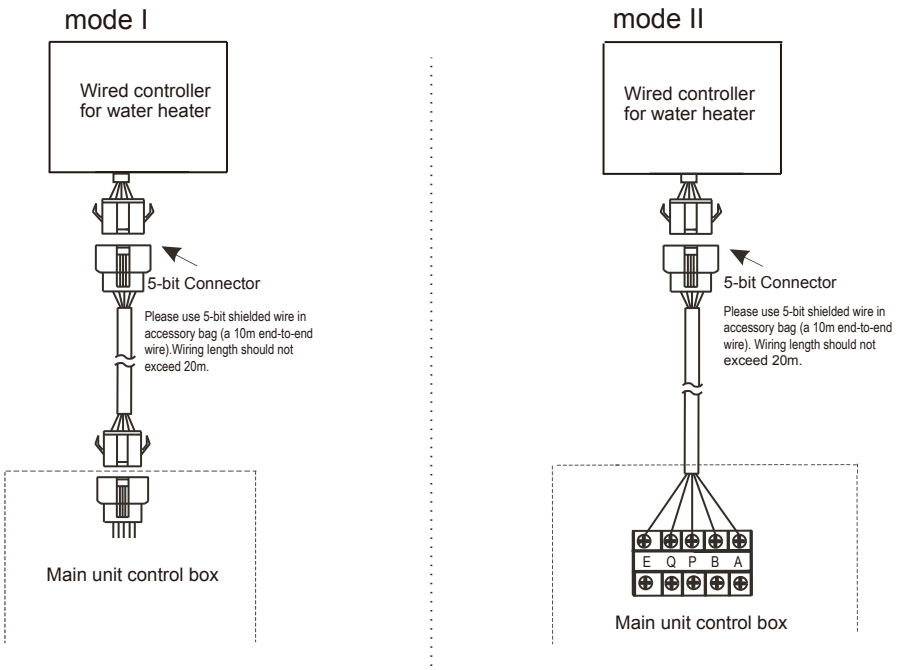
Front cover installation



Wiring

There are two wiring modes for KJR-51/BMKE-A.
Choose the wiring mode according to your actual model.



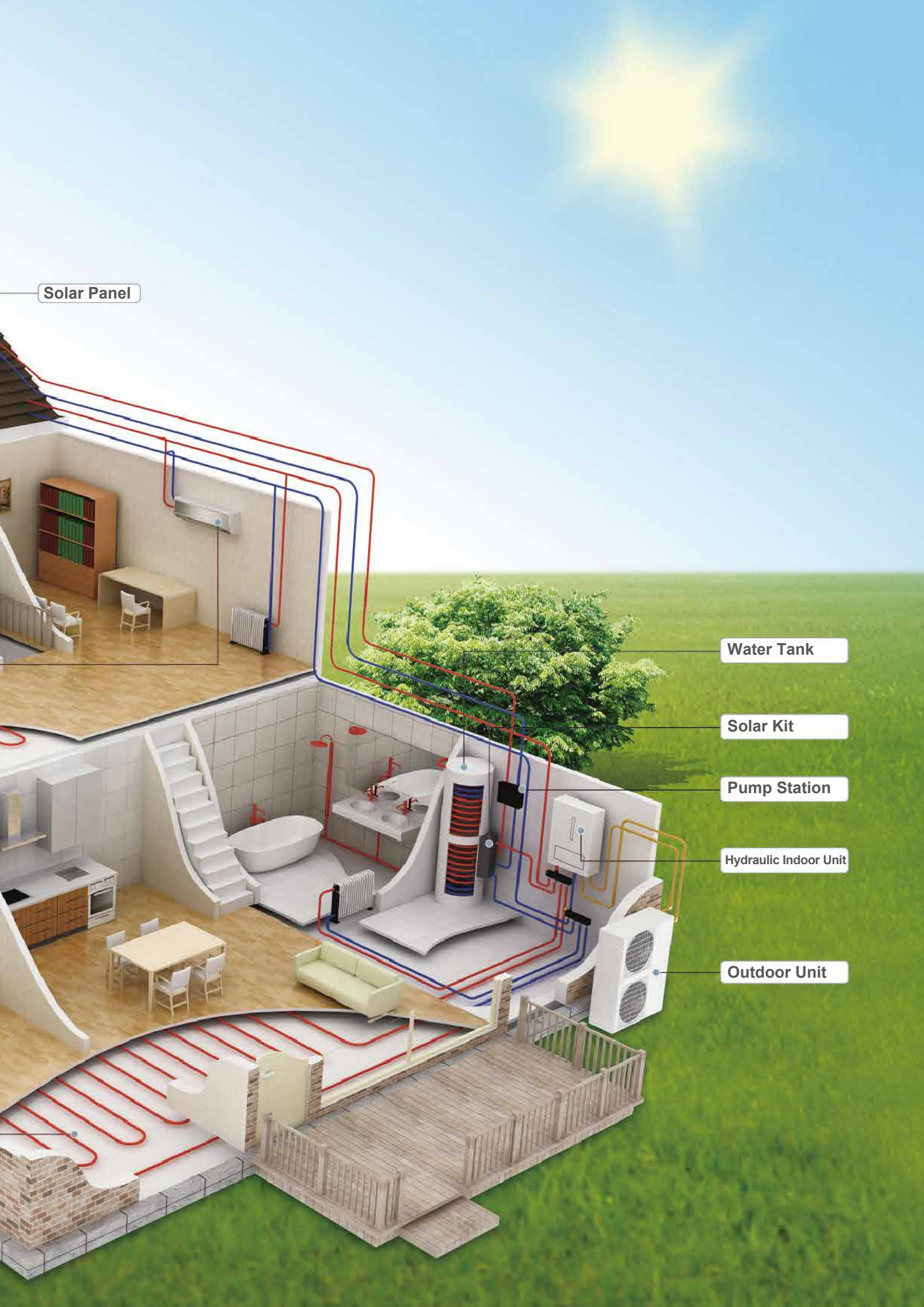


Matching unit models

Wire controller setting		Matching unit models
Setting type	Setting value	
Manual	1	Direct heating series models: RSJ-100/N1-540V-D RSJ-200/SN1-540V-D RSJ-380/PN1-820
Manual	2	Split-type water circulation series models: RSJF-32/CN1-B RSJF-32/CN1-C RSJF-50/CN1-B RSJF-50/CN1-C RSJF-72/CN1-B1 RSJF-72/CN1-C
Automatic	1	Direct heating series models: RSJ-420/SZN1-H RSJ-800/SZN1-H RSJ-800/PZN1-H
		Cycle heating series models: RSJ-300/MSN1-G

M -Thermal

GREEN SOLUTION FOR SPACE HEATING AND SANITARY HOT WATER


Solar Panel
Water Tank
Solar Kit
Pump Station
Hydraulic Indoor Unit
Outdoor Unit

M-Thermal

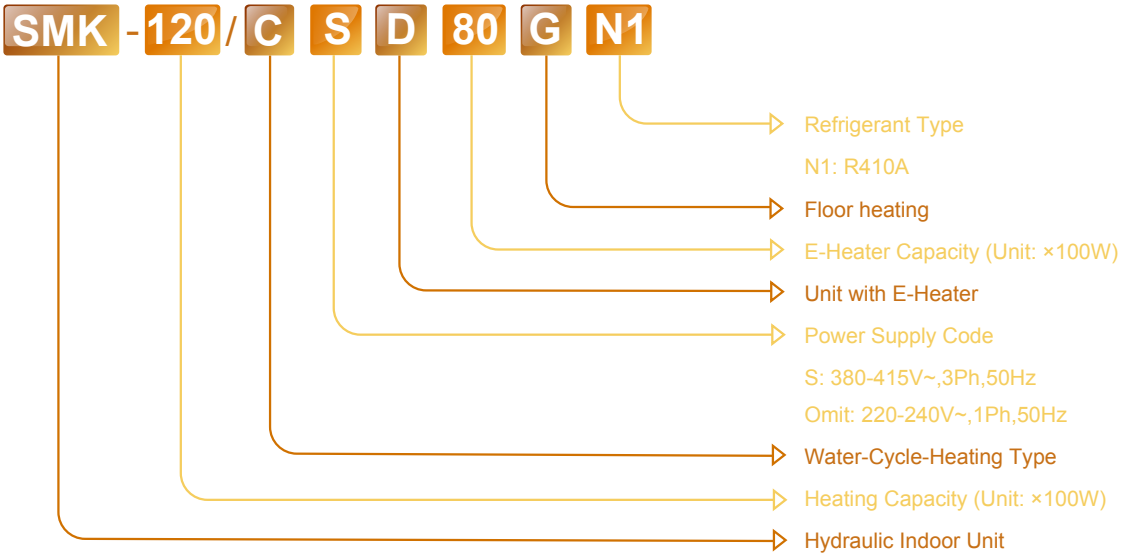
M-Thermal Nomenclature

DC Inverter Outdoor Unit

L RSJ F - V 120 / S N1 - 610

- 610 — Design Code
- N1 — Refrigerant Type
  N1: R410A
- S — Power Supply Code
  S: 380-415V, 3Ph~, 50Hz
  Omit: 220-240V, 1Ph~, 50Hz
- 120 — Heating Capacity (Unit: ×100W)
- V — Inverter Type
- F — Split Type
- RSJ — Midea Heat Pump Water Heater
- L — Unit with Cooling Function

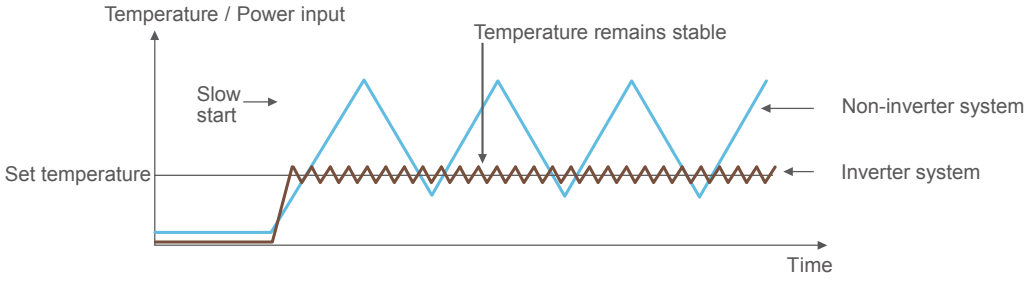
Hydraulic indoor unit



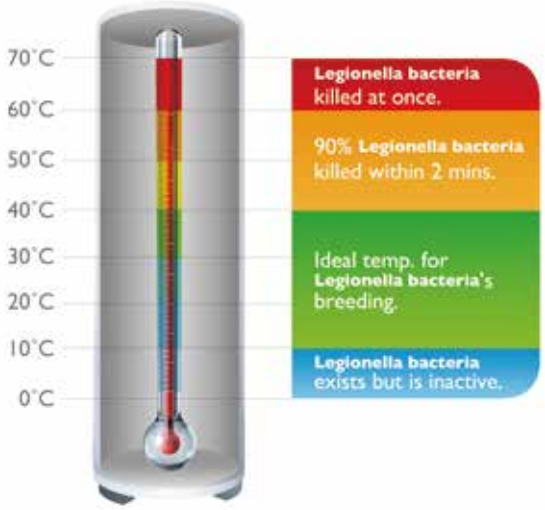
Features

- R410A gas, environmentally friendly.
- DC Inverter Technology.

The advancement of the inverter technology creates more quiet, economical and powerful air conditioning systems.



- Automatic Weekly Anti-legionella Function



Compatible with Solar Thermal and Boilers

Total Heating Solution

When floor heating is conducted in a house, warm air spreads gently across the house, making it comfortable and enabling the use of broad space without necessitating radiators or FCU.

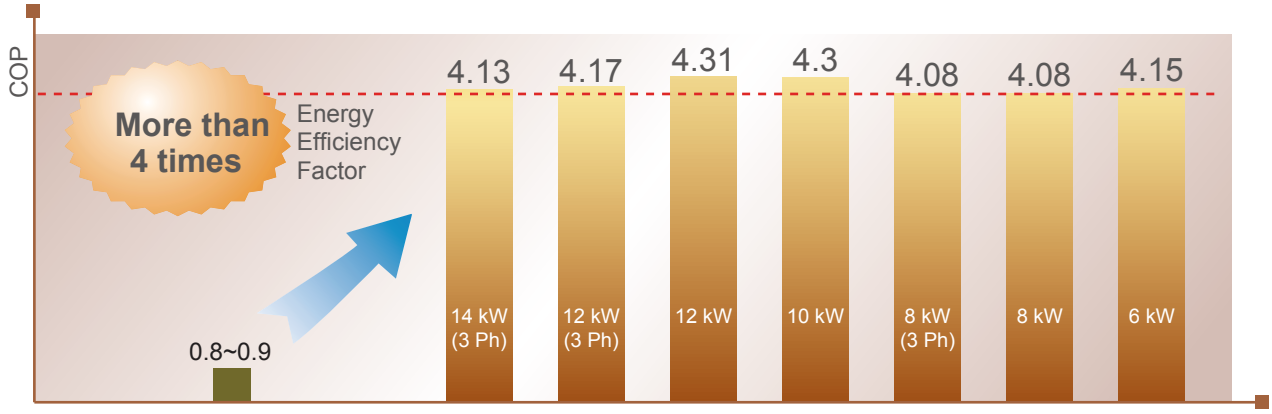
Low Running Costs

When you use a gas or oil boiler, or an electric radiator, you can get exactly the same effect based on your input. The price of electricity is stable relative to those of oil or gas, thus cutting more costs as the time passes.

Best Heating Efficiency

M-thermal, with the application of the same amount of energy, emits more than four energy items, which can be used. This is the strength of the Air to Water Heat pump to which inverter technology is applied.

Energy Efficiency Comparison



Other Heating System Electric Heater, Boiler

Convenient and Reliable System

1. M-thermal uses the Easy Controller to check detailed operational information and a change in temperature of the whole system.
2. Easy to handle and install.
3. Reliable Performance at lower temperatures.

Comfort System

1. When floor heating is applied, warm air spreads gently across the house, making it comfortable. The system can help blood circulation and metabolism, further boosting our health.
2. The System is a four-season solution that can provide a heating solution in general and at the same time it also provides a cooling solution in summer.
3. M-Thermal does not require oil or gas, making the household surrounding neat and safe, enabling the use of more space, and avoiding refueling.

Hydraulic Indoor Unit			SMK-120/CD30GN1	SMK-100/CD30GN1	SMK-80/CD30GN1	SMK-60/CD30GN1
Power supply			220~240V 1Ph~ 50Hz	220~240V 1Ph~ 50Hz	220~240V 1Ph~ 50Hz	220~240V 1Ph~ 50Hz
Function	Type		Heating & Cooling	Heating & Cooling	Heating & Cooling	Heating & Cooling
	Space heating		15°C~55°C	15°C~55°C	15°C~55°C	15°C~55°C
	Space cooling		7°C~22°C	7°C~22°C	7°C~22°C	7°C~22°C
	Sanitary hot water		35°C~60°C	35°C~60°C	35°C~60°C	35°C~60°C
	Max. current	A	13.5	13.5	13.5	13.5
Noise level		dB(A)	32	32	32	32
Dimension (W×H×D)		mm	500×900×375	500×900×375	500×900×375	500×900×375
Packing (W×H×D)		mm	1,110×610×510	1,110×610×510	1,110×610×510	1,110×610×510
Net/gross weight		kg	63/75	63/75	63/75	63/75
E-heater	Size	kW	1.5+1.5	1.5+1.5	1.5+1.5	1.5+1.5
	Quantity	Pcs	2	2	2	2
Water pipeline	Water inlet pipe	mm	DN32	DN32	DN32	DN32
	Water outlet pipe	mm	DN32	DN32	DN32	DN32
Loading quantity	20'/40'/40'HQ	Pcs	66/138/184	66/138/184	66/138/184	66/138/184

DC Inverter Outdoor Unit			LRSJF-V120/N1-610	LRSJF-V100/N1-610	LRSJF-V80/N1-310	LRSJF-V60/N1-310
Power supply			220~240V 1Ph~ 50Hz	220~240V 1Ph~ 50Hz	220~240V 1Ph~ 50Hz	220~240V 1Ph~ 50Hz
Max. current		A	23	22	15	14
Heating	Capacity	kW	12	10	8	6
	COP	kW/kW	4.31	4.3	4.08	4.15
	Ambient temperature		-15°C~43°C	-15°C~43°C	-15°C~43°C	-15°C~43°C
Cooling	Capacity	kW	9.0	8.5	6.3	5.5
	EER	kW/kW	2.45	2.45	2.23	2.45
	Ambient temperature		15°C~43°C	15°C~43°C	15°C~43°C	15°C~43°C
Dimension (W×H×D)		mm	900×1,327×348	900×1,327×348	895×862×313	895×862×313
Packing (W×H×D)		mm	1,030×1,456×435	1,030×1,456×435	1,025×910×410	1,025×910×410
Net/gross weight		kg	89/101	89/101	66/70	66/70
Noise level		dB(A)	58	58	58	58
Refrigerant	Type/quantity	kg	R410A/2.7	R410A/2.7	R410A/2.4	R410A/2.4
	System pressure	MPa	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6
Compressor	Type		Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary
	Brand		Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi
	Capacity	kW	9.88	9.88	7.13	7.13
Fan motor	Input	W	107+107	107+107	168/146	168/146
	Speed	r/min	800	800	877/749	877/749
Loading quantity	20'/40'/40'HQ	Pcs	28/58/58	28/58/58	60/126/126	60/126/126

The testing Condition:

1. Heating: Outdoor temperature 7/6°C(DB/WB), inlet water temperature 30°C, outlet water temperature 35°C.
2. Cooling: Outdoor temperature 35/24°C(DB/WB), inlet water temperature 12°C, outlet water temperature 7°C.
3. The specifications may be changed for product improvement, please refer to the nameplate.

Specifications

Hydraulic Indoor Unit			SMK-140/CSD80GN1	SMK-120/CSD80GN1	SMK-80/CSD80GN1
Power supply			380~415V 3Ph~ 50Hz	380~415V 3Ph~ 50Hz	380~415V 3Ph~ 50Hz
Function	Type		Cooling & Heating	Cooling & Heating	Cooling & Heating
	Space heating		15°C~55°C	15°C~55°C	15°C~55°C
	Space cooling		7°C~22°C	7°C~22°C	7°C~22°C
	Sanitary hot water		35°C~60°C	35°C~60°C	35°C~60°C
	Max. current	A	20	20	20
Noise level		dB(A)	32	32	32
Dimension (W×H×D)		mm	500×900×375	500×900×375	500×900×375
Packing (W×H×D)		mm	1,110×610×510	1,110×610×510	1,110×610×510
Net/gross weight		kg	63/75	63/75	64/77
E-heater	Size	kW	4.0+4.0	4.0+4.0	4.0+3.5
	Quantity	Pcs	2	2	2
Water pipeline	Water inlet pipe	mm	DN32	DN32	DN32
	Water outlet pipe	mm	DN32	DN32	DN32
Loading quantity	20'/40'/40'HQ	Pcs	66/138/184	66/138/184	66/138/184

DC Inverter Outdoor Unit			LRSJF-V140/SN1-610	LRSJF-V120/SN1-610	LRSJF-V80/SN1-310-B
Power supply			380~415V 3Ph~ 50Hz	380~415V 3Ph~ 50Hz	380~415V 3Ph~ 50Hz
Max. current		A	9.0	9.0	16
Heating	Capacity	kW	14	12	8
	COP	kW/kW	4.13	4.17	4.08
	Ambient temperature		-20°C~43°C	-20°C~43°C	-20°C~43°C
Cooling	Capacity	kW	8.8	8.8	6.3
	EER	kW/kW	2.28	2.22	2.33
	Ambient temperature		15°C~43°C	15°C~43°C	15°C~43°C
Dimension (W×H×D)		mm	900×1,327×348	900×1,327×348	895×862×313
Packing (W×H×D)		mm	1,030×1,456×435	1,030×1,456×435	1,025×910×410
Net/gross weight		kg	89/101	89/101	63/67
Noise level		dB(A)	58	58	58
Refrigerant	Type/quantity	kg	R410A/2.7	R410A/2.7	R410A/2.4
	System pressure	MPa	4.4/2.6	4.4/2.6	4.4/2.6
Compressor	Type		Twin-rotary	Twin-rotary	Twin-rotary
	Brand		Mitsubishi	Mitsubishi	Mitsubishi
	Capacity	kW	9.88	9.88	7.13
Fan motor	Input	W	107+107	107+107	168/146
	Speed	r/min	800	800	877/749
Loading quantity	20'/40'/40'HQ	Pcs	28/58/58	28/58/58	60/126/126

The testing Condition:
1. Heating: Outdoor temperature 7/6°C(DB/WB), inlet water temperature 30°C, outlet water temperature 35°C.
2. Cooling: Outdoor temperature 35/24°C(DB/WB), inlet water temperature 12°C, outlet water temperature 7°C.
3. The specifications may be changed for product improvement, please refer to the nameplate.

Operation Temperature Range

- Set the system at the following temperatures for maximum efficiency. The maximum operating temperature of the heat pump. (Cooling/Heating)

Model	Outdoor temperature	Water temperature
Cooling operating	15ºC~43ºC	7ºC ~ 22ºC
Heating operating (Single phase)	-15ºC~43ºC	15ºC~55ºC
Heating operating (Three phase)	-20ºC~43ºC	15ºC~55ºC

ACCESSORIES

Outdoor Unit

	Name	Shape	Quantity
INSTALLATION FITTINGS	Outdoor unit installation manual		1
	Outdoor unit owner's manual		1
	Outflow connecting tube		1
	Waterproof rubber cap		1

Hydraulic Indoor Unit

Accessory name	Shape	Quantity
Owner's & Installation Manual		1
Mounting bracket		1
Two-way valve		3
M4 screw	—	2
Water tank temperature sensor	—	1
Y-style filter Floor heating inlet		1
Temperature sensor, T1B	—	1
Drain pan kit		1
M8 expansion screw	—	5

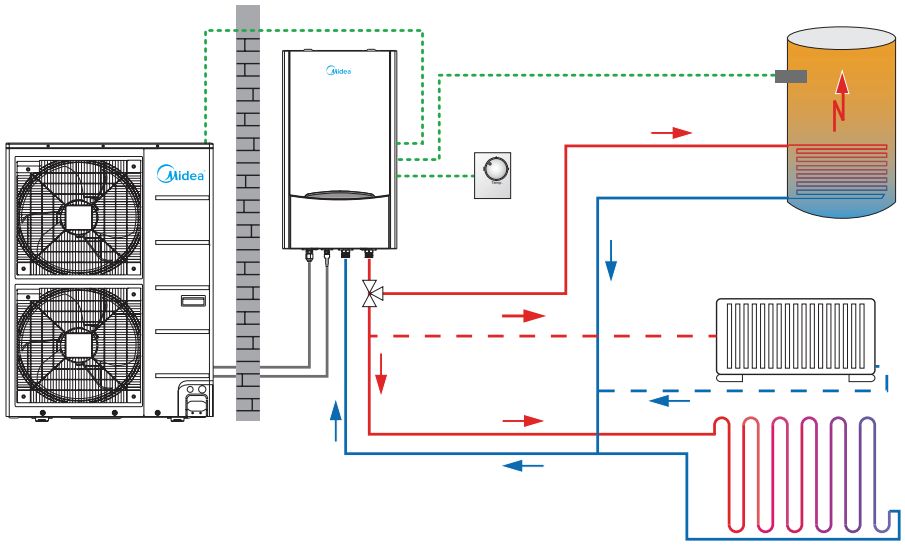
Solar Kit

Accessory name	Shape	Quantity	Purpose
Installation & Owner's Manual		1	
adapter		2	Connection the solar kit and the sanitary hot water tank.
Sealing		6	Pipe connection seal.
Screw		2	Fixed left and right epp casing.
Washer		2	Fixed left and right epp casing.

Installation Diagram

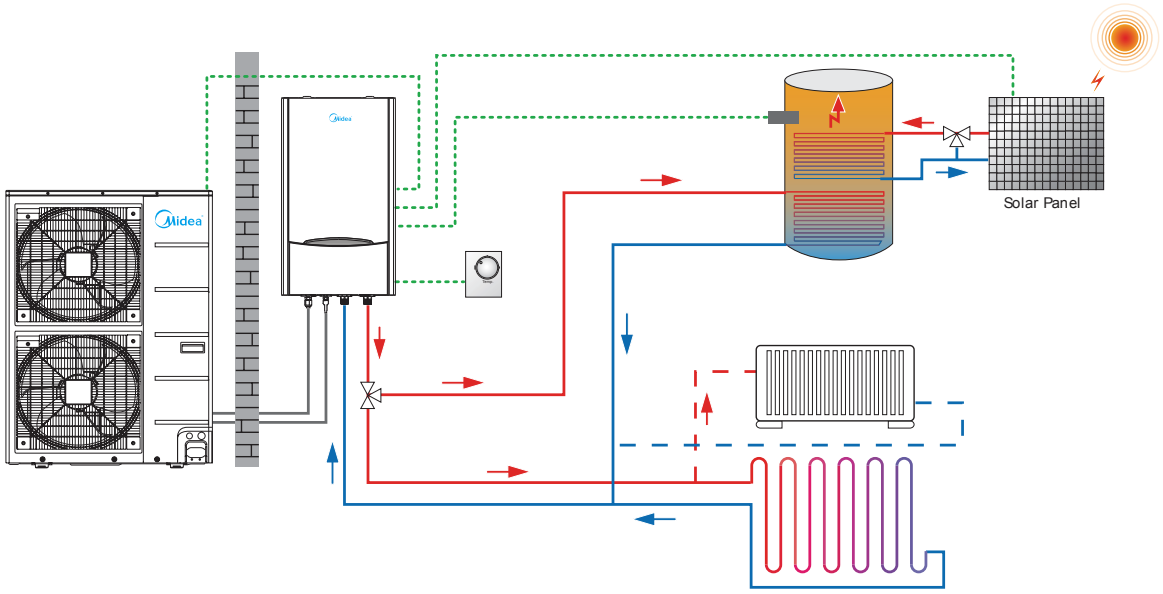
M-thermal+ Underfloor Heating(Radiator) + Sanitary Tank
The system can be combined with:

1. Underfloor Heating or Radiator
2. Low temperature radiators to provide the maximize comfort for users.
3. A sanitary hot water tank to supply hot water needs.



M-thermal + Underfloor Heating(Radiator) + Sanitary Tank + Solar Panel
The system can be combined with:

1. Underfloor Heating or Radiator
2. Low temperature radiators to provide the maximize comfort for users.
3. A sanitary hot water tank to supply hot water needs.
4. Solar collectors with optional solar kit, to compliment the production of hot water.



Wired controller (KJRH-120A/BT-E)

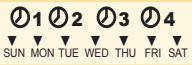
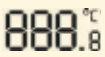
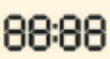
Features

- Turning the unit ON/OFF.
- Operation mode change-over:
  - Space heating
  - Space cooling
  - Sanitary water heating
  - Space heating & Sanitary water heating
  - Space cooling & Sanitary water heating
- Selection of features:
  - Silent mode
  - Run test function
  - Air purge function
- Temperature set point adjustment.
- The clock functions are:
  - 24 hours real time clock
  - Day of the week indicator
- Schedule timer function.

Name and Function of Buttons

Button	Name	Function
	Cooling/Heating ON/OFF button.	Starts or stops the heating or cooling function of the unit.
	Weekly schedule timer button.	Enable /disable the schedule time and use to program the controller.
	Silent mode button.	Enable or disable silent mode.
	Clock setting button.	Enable or disenable clock setting.
	Sanitary water heating button.	Enable or disable heating of the sanitary water.
	Sanitary hot water temperature setting button.	enable or disable sanitary water temperature setting.
	Space cooling/Space heating button.	This button allows manual switching between cooling or heating mode.
	Space cooling/Space heating temperature setting button.	Enable or disable space cooling/space heating temperature setting.
	Menu button.	Enable and disable menu setting function of the controller.
	Check button.	Enables and disenable the checking function of the controller.
Prev	Page up button.	This button is used for page up function.
Next	Page down button.	This button is used for page down function.
	Increasing button.	This button is used for increasing the current value.
	Decreasing button.	This button is used for decreasing the current value.
OK	Confirm button.	Press this button to confirm the change.
lock	Lock button.	Press this button for locking all other buttons.
Reset	Reset button.	Reset the wire controller and return to factory default settings.

Name and Function of Icons

Icon	Function
	This icon indicates the current operation mode is space cooling.
	This icon indicates the current operation mode is space heating.
	This icon indicates the current operation mode is sanitary water heating.
	This icon indicates that the circulation pump is running.
	This icon indicates that the compressor in the outdoor unit is active.
	This icon indicates the current operation mode is silent mode.
	This icon indicates that the disinfection mode is active.
	This icon indicates that the defrost mode is active.
	This icon indicates that the anti-freezing mode is active.
	These icons indicate the operation and the date of the weekly schedule timer.
	This icon indicates that the electric heater of the sanitary water tank is active.
	This icon indicates that the first stage auxiliary heater of the indoor unit is operating when there is a high demand for heating capacity.
	This icon indicates that the second stage auxiliary heater of the indoor unit is operating when there is a high demand for heating capacity.
	The display shows the current set temperature of the installation.
	The display also used to shows the water outlet temperature of indoor unit when there is no button press operation.
	These icons indicate that external heat source(s) is (are) installed.
	This icon indicates that an external room thermostat with higher priority is controlling your installation.
	The clock display shows the current time.
	The first code and the second represent the first level and the second level menu from the field set list. The last two numbers indicate the value of the first and the second code.
	The operation lamp lights in each one mode.
	This icon indicates the checking parameter is the inlet temperature of floor heating.
	These two icons indicate the current operation mode are space cooling and sanitary water heating.
	These two icons indicate the current operation mode are space heating and sanitary water heating.
	This icon indicates all the operations of the schedule timer are inactive.
	This icon indicates all the buttons of the controller are locked except lock button.
Not Available	This icon is displayed whenever non-installed option is addressed or a function is not available.

Error Code List

Error code	Meaning
E0	Flow switch error(continuous for 3 times, and should be reset without power supply)
E1	T2 error
E2	UI communication error
E3	Outdoor unit communication error
E4	T2B error
E5	T5 error
E6	T1 error
E7	T1B error
E8	Flow switch(one time)
E9	TW_in error
EA	TW_out error
Eb	T4 error
Ed	Phase protection
EE	Eeprom error
P0	T2 high temperature protection
P1	T2B low temperature protection
P2	TW_out high temperature protection
P3	TW_out low temperature protection
P4	TW_in high temperature protection
P5	T1 high temperature protection
P6	T1B high temperature protection
P7	Outdoor unit protection
P8	Sanitary hot water tank electric heater protection
P9	Auxiliary heater protection
Pb	Anti-freezing protection
Pc	Temperature controller error(result from the conflict between cool mode and heat mode)
t0~t7	Run test
dF	Defrost
d0	Oil return function

Dedicated Pool Series →

Domestic Pools & Spas

LRSJ-60/NYN1-A1
LRSJ-80/NYN1-A1
LRSJ-120/NYN1-A1
LRSJ-140/NYN1-A1

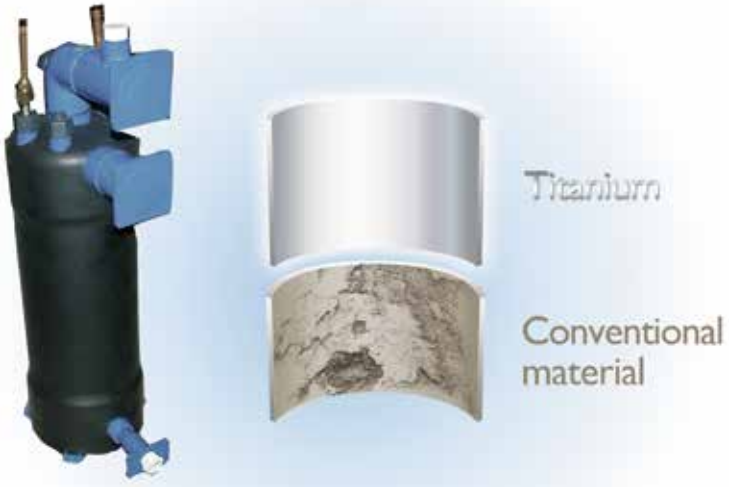
Ambient
Heating: -7°C~38°C
Cooling: 15°C~43°C

Nomenclature

L RSJ - 60 / N Y N1 - A1

- A1 — Design Code
- N1 — Refrigerant Type N1: R410A
- Y — Available for Pool
- N — Water Cycle without Water Pump
- 60 — Heating Capacity (Unit: ×100W)
- RSJ — Midea Heat Pump Water Heater
- L — Unit with Cooling Function

Titanium Heat Exchanger



Features

- Titanium Heat exchanger.
- LCD display.
- CE approved.
- Automatic defrosting function.
- Heating and cooling mode.

Operation Temperature Range

Water cooling	Outdoor temperature	15°C~43°C
Water heating	Outdoor temperature	-7°C~38°C

Unit Selection

Capacity(kW)	6	8	12	14
Applicable range(m^3)	20	25	40	45~50

Remarks:

Outdoor temperature: 33.5°C, design water temperature of pool: 28°C, temperature of water supply: 16°C, quantity of water supply: 3%, wind speed on the water surface: 0.35m/s, system-loss-factor: 5%, the first water-heating time: 24h~48h.

Specifications

Model			LRSJ-60/NYN1A1	LRSJ-80/NYN1-A1	LRSJ-120/NYN1-A1	LRSJ-140/NYN1-A1
Power supply			220~240V 1Ph~50Hz	220~240V 1Ph~50Hz	220~240V 1Ph~50Hz	220~240V 1Ph~50Hz
Outlet water temperature	Heating mode		Default 28°C, 20°C~35°C			
	Cooling mode		Default 28°C, 10°C~30°C			
Max. current		A	6.3	8.0	13.7	16.0
Heating	Capacity	kW	6.0	8.0	11.7	13.6
	Input	kW	1.15	1.52	2.35	2.55
	Ambient temperature		-7°C~38°C	-7°C~38°C	-7°C~38°C	-7°C~38°C
	COP	kW/kW	5.22	5.27	4.98	5.33
Cooling	Capacity	kW	4.0	5.8	8.3	10.4
	Input	kW	1.3	1.5	2.5	2.9
	Ambient temperature		15°C~43°C	15°C~43°C	15°C~43°C	15°C~43°C
	EER	kW/kW	3.20	3.87	3.30	3.57
Dimension (W×H×D)		mm	1,015×705×385	1,015×705×385	1,015×855×315	1,015×855×315
Packing (W×H×D)		mm	1,095×840×445	1,095×840×445	1,160×980×410	1,160×980×410
Net/gross weight (W×H×D)		kg	64/73	66/75	75/85	75/85
Max. input		kW	1.45	1.9	3.3	3.5
Outdoor noise level		dB(A)	58	58	58	58
Refrigerant type/quantity		kg	R410A/1.0	R410A/1.25	R410A/1.6	R410A/1.85
Water side	Heat exchanger material		Titanium-bube			
	Water inlet pipe	mm	Φ50	Φ50	Φ50	Φ50
	Water outlet pipe	mm	Φ50	Φ50	Φ50	Φ50
	Drain pipe diameter	mm	Φ25	Φ25	Φ25	Φ25
	Max. pressure	MPa	0.4	0.4	0.4	0.4
Wired controller			KJRH-90B/E	KJRH-90B/E	KJRH-90B/E	KJRH-90B/E
Loading quantity	20'/40'/40'HQ	Pcs	52/108/162	52/108/162	56/116/116	56/116/116

Remark:

1. The test conditions:
   Water Heating: outdoor temperature 24/19°C(DB/WB), inlet water temperature 27°C, outlet water temperature 29°C
   Water Cooling: outdoor temperature 35/24°C(DB/WB), inlet water temperature 27°C, the water flow volumn is same in both cooling and heating mode.
2. The specifications may be changed for product improvement, please refer to the nameplate.

Commercial Applications →

Direct Heating (R410A 50Hz)

Ambient: -15°C~43°C

RSJ-100/N1-540V-D
RSJ-200/SN1-540V-D

RSJ-420/SZN1-H

RSJ-800/SZN1-H

Nomenclature

RSJ - 420 / S Z N1 - H

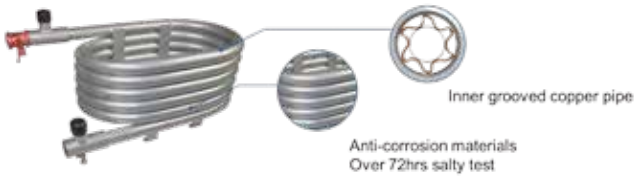
- H: Design Code
- N1: Refrigerant Type
  N1: R410A
- Z: Heating Type
  Z & Omit: Direct heating
- S: Power Supply
  S: 380~415V, 3Ph~, 50Hz
  Omit: 220~240V. 1Ph~, 50Hz
- 420: Nominal Heating Capacity (Unit: ×100W)
- RSJ: Midea Heat Pump Water Heater

Features

- R410A gas, environmentally friendly.
- Free modular combination.
- Unique defrosting flow path.
  Air side reserved special defrosting flow path, when the system is defrosting, the four-way valve is reversing , the system will absorb energy from special defrosting flow path, the defrosting progress will have no impact on water temperature.
- High efficiency compressor.
  Efficient scroll compressor, from Copeland or Danfoss.
  Flexible design, low temperature design guarantees performance.
- Proprietary gas balance and fluid balance design to ensure the unit operates reliably.
- Electric water flow valve supplies hot water at a stable temperature and expands the life of compressor.
- 50Hz units are CE certified.

High efficiency tube-in-tube heat exchanger

- Inner grooved copper pipe, increase area of heat exchanger, improve efficient.
- Anti-corrosion shell increases the useful life of heat exchanger.

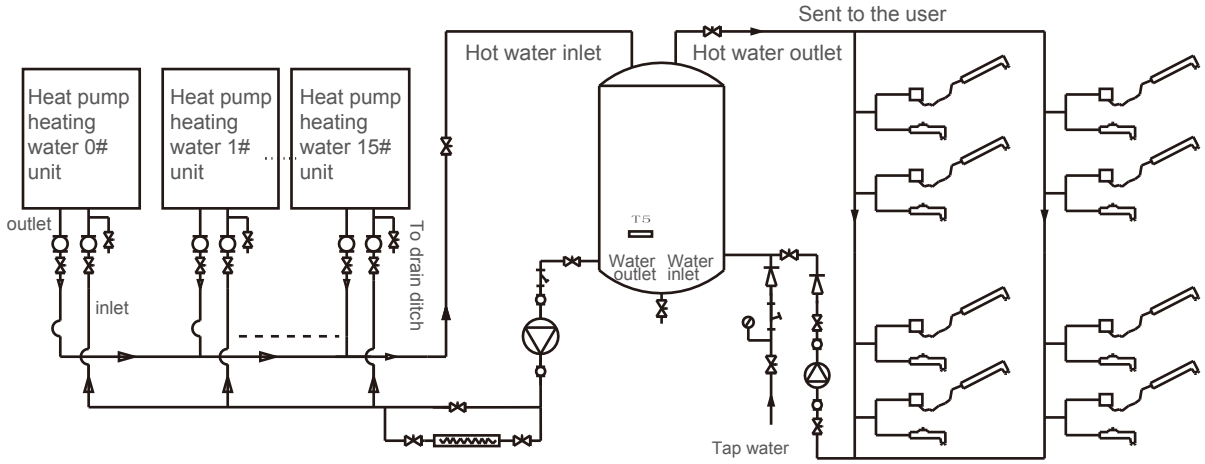


Optimized fan blade edge

- Optimized fan blade edge by CFD programs with analyzing air pressure distribution.
- Adopt copper-fin exchanger with V or G shape to optimeize air flow system of unit.

Simple refrigeranting system diagram

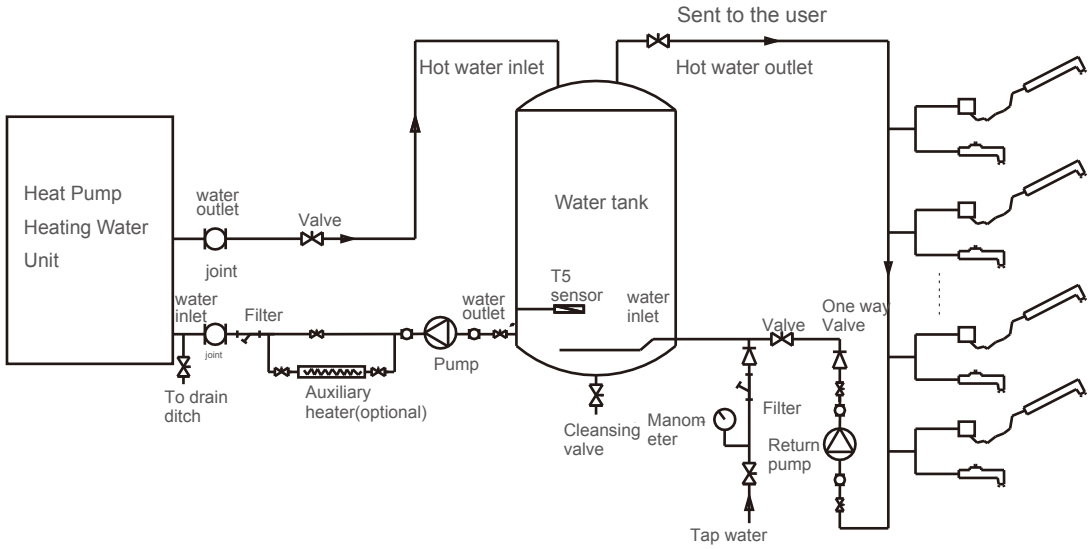
Heat pump units schematic diagram



Model	Max. quantity of combination
RSJ-100/N1-540V-D	16
RSJ-200/SN1-540V-D	16

Model	Max. quantity of combination
RSJ-420/SZN1-H	4
RSJ-800/SZN1-H	2

Schematic diagram of single connected heat pump system



Specifications

Model			RSJ-100/N1-540V-D	RSJ-200/SN1-540V-D
Power supply			220~240V 1Ph~ 50Hz	380~415V 3Ph~ 50Hz
Running ambient temperature			-15°C~43°C	
Outlet water temperature			Default 56°C, 40°C~60°C	
Heating	Capacity	kW	11.2	20.4
	Input	kW	2.98	5.23
	COP	kW/kW	3.76	3.90
	Max. input current	A	17.8	13.0
Dimension (W×H×D)		mm	750×1,100×700	750×1,100×700
Packing (W×H×D)		mm	770×1,145×770	770×1,145×770
Net/gross weight		kg	121/135	148/163
Outdoor noise level		dB(A)	59	63
Refrigerant type/quantity		kg	R410A/1.5	R410A/2.8
Design pressure		MPa	4.4/2.6	4.4/2.6
Compressor	Type/quantity		Scroll/1	Scroll/1
	Brand		Copeland	Copeland
	Capacity	kW	8.8	16.2
	Input	kW	2.94	5.20
Outdoor fan motor	Input×quantity	W	237/156×1	294/250×1
	Speed (H/L)	r/min	735/530	930/770
Outdoor air flow (0Pa)		m^3/h	4,618	5,929
Water pipeline	Water inlet pipe	mm	DN25	DN25
	Water outlet pipe	mm	DN25	DN25
Wired controller			KJR-51/BMKE-A	KJR-51/BMKE-A
Hot water yield		m^3/h	0.25	0.45
Loading quantity	20'/40'/40'HQ	Pcs	42/90/90	42/90/90

Model			RSJ-420/SZN1-H	RSJ-800/SZN1-H
Power supply			380~415V 3Ph~ 50Hz	380~415V 3Ph~ 50Hz
Running ambient temperature			-15°C~46°C	
Outlet water temperature			Default 56°C, 40°C~60°C	
Heating	Capacity	kW	39.0	80.0
	Input	kW	9.65	20.00
	COP	kW/kW	4.04	4.00
	Max. input current	A	24.0	34.0
Dimension (W×H×D)		mm	1,015×1,775×1,026	1,995×1,770×1,025
Packing (W×H×D)		mm	1,070×1,900×1,030	2,080×1,895×1,120
Net/gross weight		kg	323/343	599/627
Outdoor noise level		dB(A)	66	68
Refrigerant type/quantity		kg	R410A/4.5	R410A/4.4×2
Design pressure		MPa	3.7/2.2	4.4/2.7
Compressor	Type/quantity		Scroll/1	Scroll/2
	Brand		Copeland	Danfoss
	Capacity	kW	29.2	29.95
	Input	kW	9.2	9.462
Outdoor fan motor	Input×quantity	W	810/680×1	810/680×2
	Speed (H/L)	r/min	850/750	850/750
Outdoor air flow (0Pa)		m^3/h	≥12,000	≥25,000
Water pipeline	Water inlet pipe	mm	DN32	DN50
	Water outlet pipe	mm	DN32	DN50
Wired controller			KJR-51/BMKE-A	KJR-51/BMKE-A
Hot water yield		m^3/h	0.85	1.72
Loading quantity	20'/40'/40'HQ	Pcs	10/20/20	5/10/10

Remark:

1. The test conditions: outdoor temperature 20/15°C(DB/WB), inlet water temperature 15°C, outlet water temperature 55°C.
2. The specifications may be changed for product improvement, please refer to the nameplate.

Direct Heating (R410A 60Hz)

Ambient: -15°C~43°C

RSJ-380/PN1-820

RSJ-820/PZN1-H

Nomenclature

RSJ - 820 / P Z N1 - H

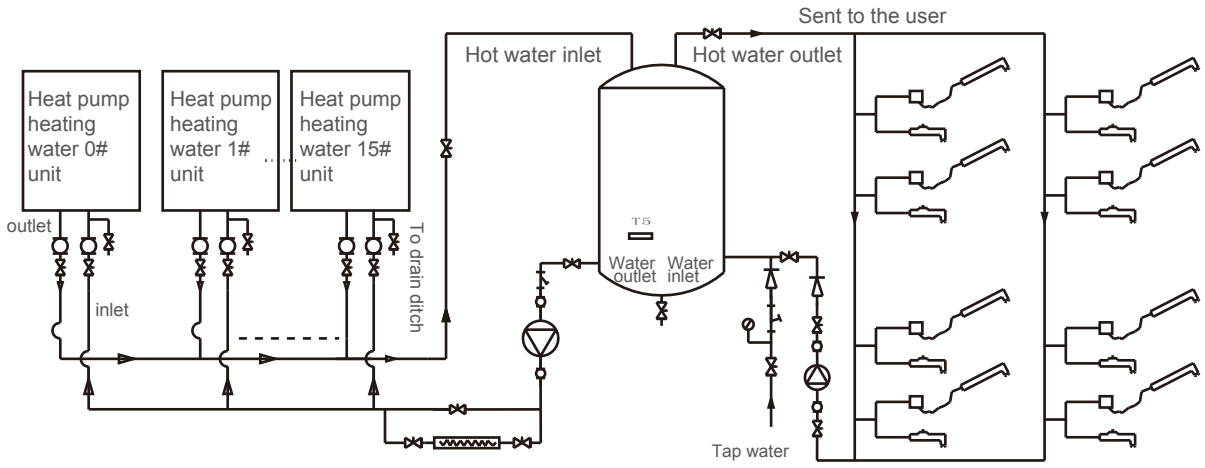
- H: Design Code
- N1: Refrigerant Type
  N1: R410A
- Z: Heating Type
  Z & Omit: Direct heating
- P: Power Supply
  P: 380V, 3Ph~, 60Hz
- 820: Nominal Heating Capacity (Unit: ×100W)
- RSJ: Midea Heat Pump Water Heater

Features

- R410A gas, environmentally friendly.
- Free modular combination.
- Unique defrosting flow path.
  Air side reserved special defrosting flow path, when the system is defrosting, the four-way valve is reversing , the system will absorb energy from special defrosting flow path, the defrosting progress will have no impact on water temperature.
- High efficient compressor.
  Efficient scroll compressor from Danfoss.
  Flexible design, low temperature design guarantees performance.
- Proprietary gas balance and fluid balance design to ensure the unit operates reliably.
- Electric water flow valve supplies hot water at a stable temperature and expands the life of compressor.
- High efficient tube-in-tube heat exchanger.
- Optimized fan blade edge, higher air volume and lower noise level.

Simple refrigeranting system diagram

Heat pump units schematic diagram



Model	Max. quantity of combination
RSJ-380/PN1-820	4
RSJ-820/PZN1-H	2

Specifications

Model			RSJ-380/PN1-820	RSJ-820/PZN1-H
Power supply			380V 3Ph~ 60Hz	380V 3Ph~ 60Hz
Running ambient temperature			-15°C~43°C	-15°C~46°C
Outlet water temperature			Default 56°C, 40°C~60°C	
Heating	Capacity	kW	42.0	82.5
	Input	kW	10.7	21.1
	COP	kW/kW	3.93	3.91
	Max. input current	A	26.0	47.8
Dimension (W×H×D)		mm	997×1,771×894	1,995×1,770×1,025
Packing (W×H×D)		mm	1,100×1,965×920	2,080×1,895×1,120
Net/gross weight		kg	283/310	592/613
Outdoor noise level		dB(A)	65	68
Refrigerant type/quantity		kg	R410A/5.0	R410A/4.4×2
Design pressure		MPa	3.7/2.2	3.7/2.2
Compressor	Type/quantity		Scroll/1	Scroll/2
	Brand		Danfoss	Danfoss
	Capacity	kW	27.1	27.1
	Input	kW	8.569	8.569
Outdoor fan motor	Input×quantity	W	850/730×1	850/730×1
	Speed (H/L)	r/min	780/660	780/660
Outdoor air flow (0Pa)		m^3/h	8,644	25,000
Water pipeline	Water inlet pipe	mm	DN25	DN50
	Water outlet pipe	mm	DN25	DN50
Wired controller			KJR-51/BMKE-A	KJR-51/BMKE-A
Hot water yield		m^3/h	0.89	0.45
Loading quantity	20'/40'/40'HQ	Pcs	12/26/26	5/10/10

Remark:
1. The test conditions: outdoor temperature 20/15°C(DB/WB), inlet water temperature 15°C, outlet water temperature 55°C.
2. The specifications may be changed for product improvement, please refer to the nameplate.

Cycle Heating (R410A 50Hz)

Nomenclature

RSJ - 300 / M S N1 - G

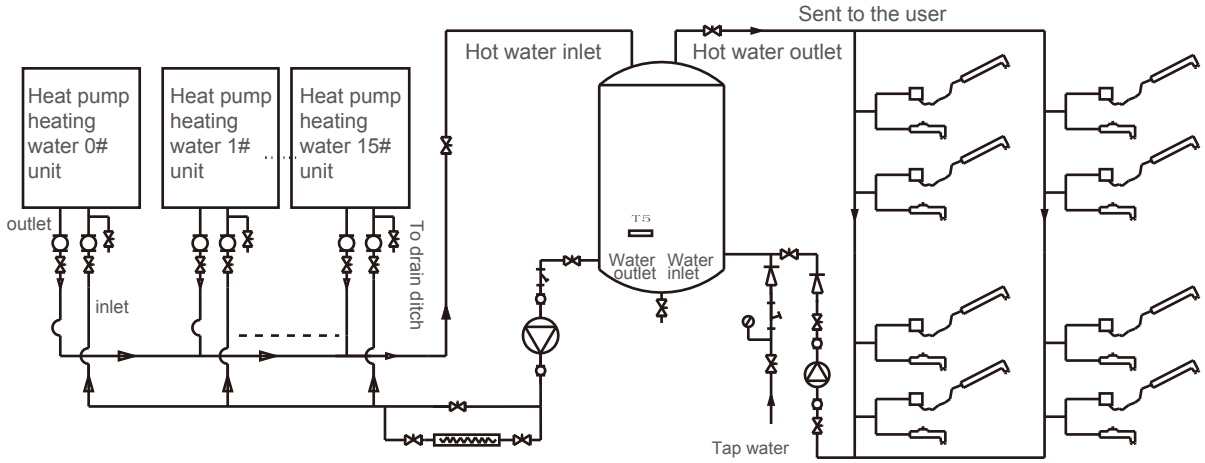
- G: Design Code
- N1: Refrigerant Type
  N1: R410A
- S: Power Supply
  S: 380~415V, 3Ph~, 50Hz
- M: Heating Type
  M: Cycle heating type
- 300: Nominal Heating Capacity (Unit: ×100W)
- RSJ: Midea Heat Pump Water Heater

Features

- R410A gas, environmentally friendly.
- Free modular combination.
- High efficiency compressor.
- Efficient scroll compressor, from Copeland.
  Flexible design, low temperature design guarantees performance.
  Proprietary gas balance and fluid balance design to ensure the unit operates reliably.
- CE certified.
- High efficient tube-in-tube heat exchanger.

Simple refrigeranting system diagram

■ Heat pump units schematic diagram



Model	Max. quantity of combination
RSJ-300MSN1-G	6

Specifications

Model			RSJ-300/MSN1-G
Power supply			380~415V 3Ph~ 50Hz
Running ambient temperature			-10°C~46°C
Outlet water temperature			Default 50°C, 20°C~55°C
Heating	Capacity	kW	27.0
	Input	kW	6.40
	COP	kW/kW	4.22
	Max. input current	A	16.5
Dimension (W×H×D)		mm	970×1,565×990
Packing (W×H×D)		mm	995×1,700×1,010
Net/gross weight		kg	249/256
Outdoor noise level		dB(A)	58
Refrigerant type/quantity		kg	R410A/3.3
Design pressure		MPa	3.7/2.2
Compressor	Type/quantity		Scroll/1
	Brand		Copeland
	Capacity	kW	21.9
	Input	kW	6.950
Outdoor fan motor	Input×quantity	W	360/260×1
	Speed (H/L)	r/min	610/465
Outdoor air flow (0Pa)		m^3/h	≥10,000
Water pipeline	Water inlet pipe	mm	DN32
	Water outlet pipe	mm	DN32
Wired controller			KJR-51/BMKE-A
Hot water yield		m^3/h	0.58
Loading quantity	20'/40'/40'HQ	Pcs	12/22/22

Remark:
1. The test conditions: outdoor temperature 20/15°C(DB/WB), inlet water temperature 15°C, outlet water temperature 55°C.
2. The specifications may be changed for product improvement, please refer to the nameplate.

6. Reference Projects

Project: Zhongshan University
Model: RSJ-350/S-810x13
Water Yield: 130 Ton/day

Project: Ningbo University of Technology
Model: RSJ-380/S-820x15
Water Yield: 150 Ton/day

Project: Foshan Global International Hotel
Model: RSJ-380/S-820x13
Water Yield: 130 Ton/day

Project: Zhejiang Shipbuilding Co.,Ltd
Model: RSJ-380/S-820x36
Water Yield: 360 Ton/day

Project: Cixi Experiment Senior Middle School
Model: RSJ-380/S-820x12
Water Yield: 120 Ton/day

Project: Shenzhen University
Model: RSJ-380/S-820x10
Water Yield: 90Ton/day

Project: FED International Corporation
Model: RSJ-380/S-820x8
RSJ-200/S-540Vx2
Water Yield: 90 Ton/day

Project: Jiaxing Nanhu Technology Center
Model: RSJ-380/S-820x2
RSJ-200/S-540Vx2
Water Yield: 30 Ton/day

Project: Dali Hongyuan Gymnasium
Model: RSJ-450M/A x12
Water Yield: 150 Ton/day

Project: Shunde Polo Swimming Pool
Model: RSJ-450M/A x10
Water Yield: 120 Ton/day

Project: Zhongshan Hawaii Hydropathical Center
Model: RSJ-450M/A x10
Water Yield: 120 Ton/day

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GD Midea Heating & Ventilating Equipment Co., Ltd.
Is certified under the ISO 14001 International standard
for environmental management.
Certificate No.15912E10020R0L

GD Midea Heating & Ventilating Equipment Co., Ltd.
Is certified under the ISO 9001 International standard
for quality assurance.
NO.01 100 019209

GD Midea Heating & Ventilating Equipment Co., Ltd.
Certificate of Occupational Health and Safety Management System
Certificate No. 15912S20006R0L-1.

Dealer information

Commercial Air Conditioner Business Units
Midea Group
Add: West Region of Midea Commercial Air Conditioner Department, Industry Avenue, Beijiao, Shunde, Foshan, Guangdong, P. R. China
Postal code: 528311
Tel: +86-757-26338346 Fax: +86-757-22390205
http://global.midea.com.cn
http://www.midea.com
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