

# Direct & Cycle Heating (R410A)

Ambient: -15°C~43°C

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

RSJ-380/SN1-820-D

RSJ-380/PN1-820(60Hz)



## Nomenclature

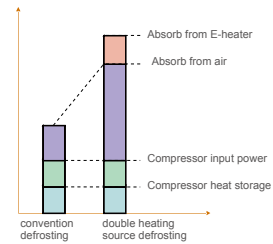
**RSJ - 380 / P N1 - 820**

- Design Code
- Refrigerant Type  
N1: R410A
- Power Supply Code  
S: 380-415V~, 3Ph, 50Hz  
P: 380V~, 3Ph, 60Hz  
Omit: 220-240V~, 1Ph, 50Hz
- Heating Capacity (Unit: × 100W)
- Midea Heat Pump Water Heater

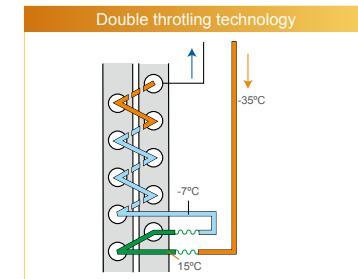
## Features

- 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.  
For 50Hz units, Copeland's efficient scroll compressor.  
For 60Hz unit, Danfoss's efficient scroll compressor.  
Flexible design, low temperature design guarantees performance.
- Proprietary gas balance and fluid balance design to ensure the unit operates reliably.
- Hot water valve supplies hot water at a stable temperature and expands the life of compressor.
- 50Hz units are CE certified.

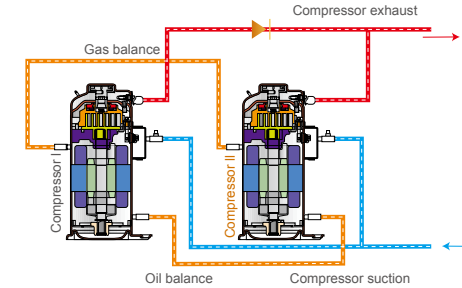
- Each units applies refrigerant heating technology to increase the total energy absorb.



- Double throttling technology ensures the temperature of the base plate.

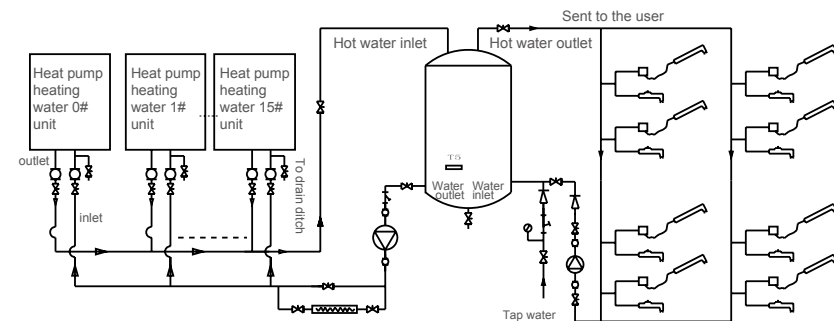


## Compressor Parallel technology (Avaliable for RSJ-380/SN1-820-D)



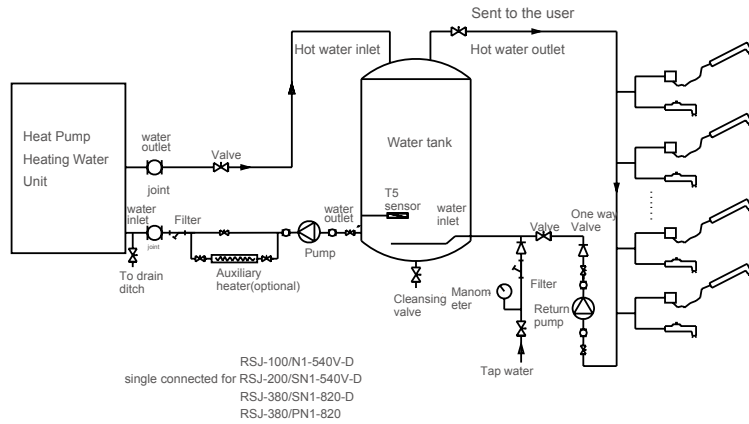
## Simple refrigerating system diagram

- Heat pump units schematic diagram



A maximum of 16 heat pump heating water units can be connected in parallel. (Except RSJ-380/PN1-820 is 4 units.)

### ■ Schematic diagram of single connected heat pump system



### Specifications

Model		RSJ-100/N1-540V-D	RSJ-200/SN1-540V-D	RSJ-380/SN1-820-D	RSJ-380/PN1-820	
Power supply	V-Ph-Hz	220-240~ -1-50	380-415~ -3-50	380-415~ -3-50	380~ -3-60	
Running ambient temperature	°C	-15~43				
Outwater temperature	°C	Default 56°C, 40°C~60°C				
Water Heating	Capacity	kW	11.2	20.4	43.0	42.0
	Input	kW	2.98	5.23	10.40	10.70
	COP	kW/kW	3.76	3.90	4.13	3.93
	Max. input current	A	17.8	13.0	28.0	26.0
	Dimension (W×H×D)	mm	750×1,100×700	750×1,100×750	992×1,750×893	997×1,771×894
Outdoor unit	Packing (W×H×D)	mm	770×1,145×770	770×1,145×770	1,100×1,965×920	1,100×1,965×920
	Net/gross weight	kg	121 / 135	148 / 163	305 / 328	283 / 310
Outdoor noise level	dB(A)	59	63	65	65	
Refrigerant type/quantity	kg	R410A/1.5	R410A/2.8	R410A/5.7	R410A/5.0	
Design pressure	MPa	4.4/2.6	4.4/2.6	4.4/2.6	3.7/2.2	
	Type/quantity	Scroll/1	Scroll/1	Scroll/2	Scroll/1	
Compressor	Brand	Copeland	Copeland	Copeland	Danfoss	
	Capacity	kW	8.8	16.2	16.2	32.1
	Input	kW	2.94	5.20	5.20	9.957
Outdoor fan motor	Brand	Welling	Yonggan or Dayang	Yonggan	Dayang	
	Input×quantity	W	237/156 ×1	294/250 ×1	865/725×1	850/730×1
	Speed	r/min	735 / 530	930 / 770	830 / 710	780/660
Outdoor air flow (0Pa)	m³/h	4,618	5,929	10,342	8,644	
Water pipeline	water inlet pipe	mm	DN25	DN25	DN25	DN25
	water outlet pipe	mm	DN25	DN25	DN25	DN25
	Max. resisting pressure	Mpa	1.0	1.0	1.0	1.0
	Min. resisting pressure	Mpa	0.12	0.12	0.12	0.12
Wire controller		KJRH-16C-A/E	KJRH-16C-A/E	KJRH-16C-A/E	KJRH-16C-A/E	
Hot water yield	m³/h	0.25	0.45	0.92	0.89	
Loading quantity	20'/40'/40H	Pcs	214/2/84	214/2/84	12/26/26	12/26/26

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.

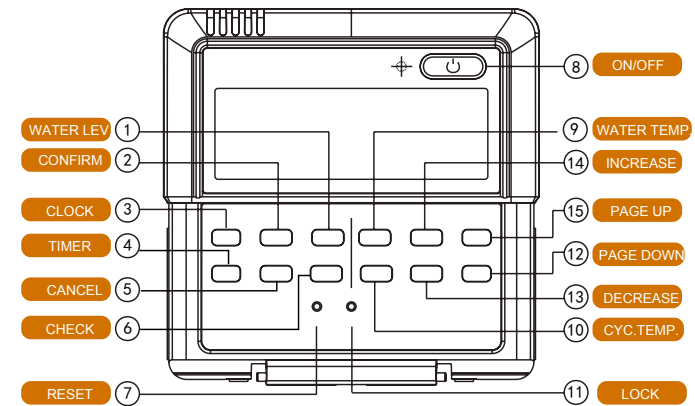
## Wired Controller (KJRH-16C-A/E)



### Features

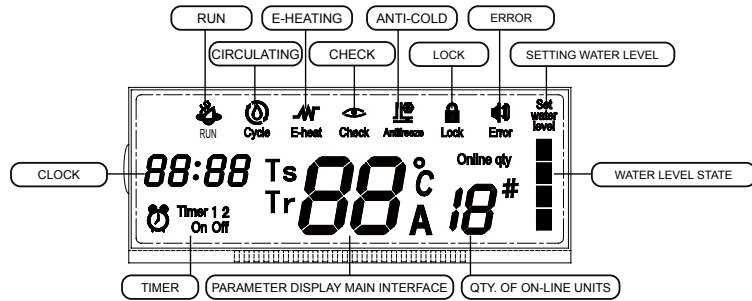
- Easy control.
- The timing startup function.
- Set outlet water temperature from 40°C to 60°C .
- LCD display.
- Display the clock and timing startup time signal.
- Power-off memory function.
- Display error code and check operation parameter.

### Name of Keys on the Wire Controller



Number	Name	Function
1	WATER LEV.	Set the outdoor water level.
2	CONFIRM	Confirm and finish the last operation.
3	CLOCK	Set or adjust the clock.
4	TIMER	Set timer on or timer off.
5	CANCEL	Cancel all the timing hours, the related timing display will be disappeared.
6	CHECK	Query the status information of any units. Even under defaults, press it to query the aspecific unit.
7	RESET	Cancel the current setting, the wire controller enters the reset status.
8	ON/OFF	In the power-off status, press this key once to startup the unit. In the startup status, press it to shutdown the unit.
9	WATER TEMP.	Press this key to enter the procedure of setting water temperature signals.
10	CYC. TEMP.	This key is used to set the inlet temperature of the circulating heating water.
11	LOCK	Press this botun to lock the current setting, and press it again to unlock.

## Name and function description of LCD screen of wired controller

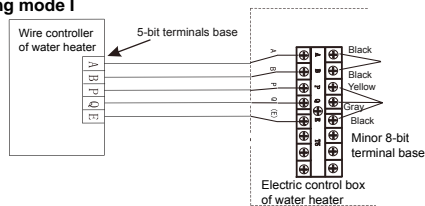


## Installation Procedure

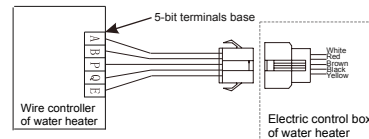
The wiring procedure and principles are shown in the figure:

Choose the wiring mode according to your actual model.

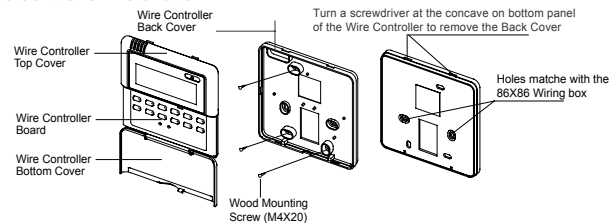
### Wiring mode I



### Wiring mode II



### The whole wire controller installation



## Fault Code List

E0	Inlet water pressure detection fault(Only main equipment).
E1	Power supply wire phase fault.
E2	Communication fault.
E3	Error of outlet water temperature.
E4	Error of the water temperature sensor inner the water tank.
E5	Error of the pipe of condenser temperature.
E6	Error of a outdoor ambient temperature.
E7	Error of a electric heater temperature.
E8	Error of detecting circulating water pressure.
EE	Communication error of function locking module and main board.
EF	EEPROM error.
P0	System low pressure protection.
P1	System high pressure protection.
P2,P3	System current protection.
P8	Over high outlet water temperature protection.
PF	Function locking module is under locking state.

## 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

