



Heating for future

D DC inverter heat pump

CA-RE DC inverter heat pump is developed for house heating and hot water, with outstanding features of high SCOP and ultra quiet operation. The operation modes with heating, cooling and hot water extends the heat pump utility to the whole year. The intelligent controller offers simple and trouble-free operation for users.



Details



Main functions

• Heating, cooling and hot water

There are 3 modes: heating, cooling and hot water. The combination of the modes extends the utilization of CA-RE DC inverter heat pumps to the whole year. Users can choose the following modes.

- Heating
- Hot water
- Heating+hot water
- Cooling
- Cooling +hot water

• Adjustable defrosting setting

The climate is different in temperature and humidity in different area. CA-RE DC inverter heat pump controller offers adjustable defrosting setting to fit local climate, in order to reach the best balance between humidity and defrosting efficiency.

• DC inverter variable fan speed

The DC inverter fans offer full range variable air volume to fit the heating demands, and optimize the efficiency. Besides, DC fan motors have lower noise than AC fan motors.

• Heating Curves

The inbuilt heating curves help to create the more comfortable indoor temperature for users. The heating curves can be adjustable by users according to their living habit. Also, heating curves help to save more energy.

• AUTO Sterilization for hot water

The hot water mode contains the AUTO sterilization function once every week, heating the hot water by electric heater up to 65DegC and keeping 15min. This function is enabled when hot water mode is enabled and runs fully automatically.

• Works with heating demand signal

One heating system would contain different types of heating, and choose the suitable heater for energy saving as per condition changes. CA-RE DC inverter heat pump controller receives a remote ON/OFF signal of 230V to start/standby. This ON/OFF signal can be from solar controller, room thermostat, or the master controller of the house heating system.

- Adjustable operation ambient temperature range

The operation ambient temperature range can be adjustable according to the practical combination of the whole heating system, in order to achieve the best heating output and efficiency of the whole heating system. All the protecting functions in the controller still operate to protect the heat pump system.

- Settable electric heater function

The indoor heating system can be different, example floor heating, fan coil units, or radiators with different heating water temperature. The conditions for boosting the electric heater could be adjustable, to fit different types of indoor heating.

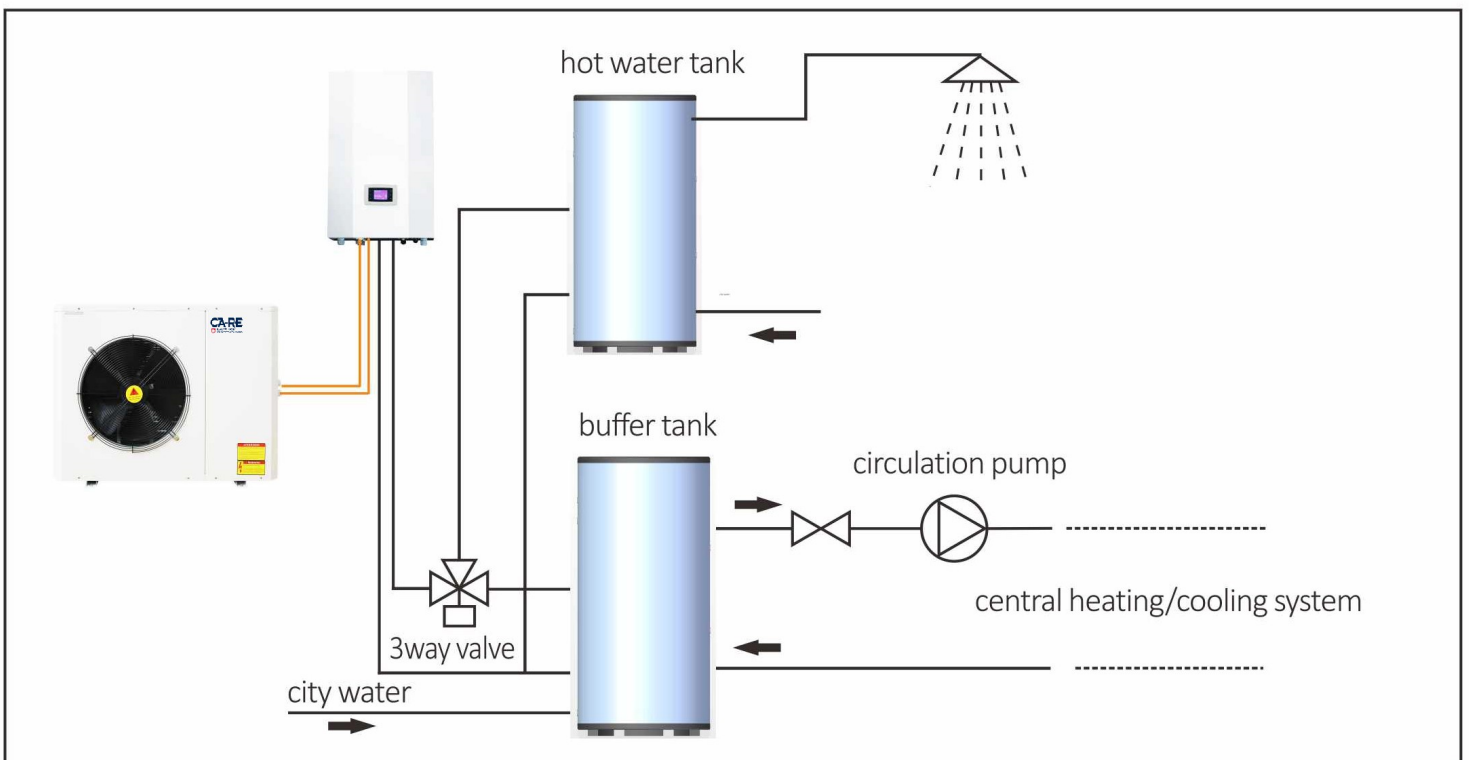
- Circulation pump setting for heating / cooling

The circulation pump working mode in heating / cooling circuit can be adjustable according to practical conditions of the heating system.

- Other functions

- Works with solar system.
- Memory function.
- Displays all symbols on controller screen.
- All protections for refrigerant system.
- All protections for water circuits.

Installation Diagram



Model			SHAW-07DM1	SHAW-09DM1	SHAW-11DM1	SHAW-13DM1	SHAW-16DM1	SHAW-19DS1	SHAW-19DM3
Power Supply	V/Ph/Hz		220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	380-400/3/50	220-240/1/50	380-400/3/50
Max. Heating Capacity	KW		7.0	9.1	11.5	13	16.1	18.7	18.7
Min. Heating Capacity	KW		2.7	3.1	4.5	4.7	6.3	6.3	6.3
Heating Input Power	W		700~1750	920~2290	1250~2920	1340~3460	1670~4260	1750~4910	1750~4910
COP	W/W		3.86~4.5	3.37~4.23	3.6~4.32	3.5~4.5	3.77~4.53	3.6~4.5	3.6~4.5
Max. Cooling Capacity	KW		6.7	8.5	10.8	11.3	14.5	16.6	16.6
Min. Cooling Capacity	KW		2.5	3	4.4	4.6	7	7	7
Cooling Input Power	W		760~2250	1050~2980	1590~3600	1680~4160	2180~5300	2180~6280	2180~6280
EER	W/W		3.29~3.57	2.86~3.42	2.77~3.6	2.72~3.72	2.73~3.37	2.64~3.17	2.64~3.17
Max. hot water temperature	°C		55	55	55	55	55	55	55
Applicable ambient temp.	°C		-25~+43	-25~+43	-25~+43	-25~+43	-25~+43	-25~+43	-25~+43
Compressor			Twin rotary	Twin rotary	Twin rotary	Twin rotary	Twin rotary	Twin rotary	Twin rotary
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A
Water Connection	inch		3/4"F	1"F	1"F	1"F	1"F	1"F	1"F
Water Flow Volume	m ³ /h		1.2	1.6	2	2.3	2.8	3.2	3.2
Water Pressure Drop	kpa		12	12	13	14	16	20	20
Water side heat exchanger			Plate type	Plate type	Plate type	Plate type	Plate type	Plate type	Plate type
Circulation pump			DC inverter	DC inverter	DC inverter	DC inverter	DC inverter	DC inverter	DC inverter
Circulation pump efficiency class			A	A	A	A	A	A	A
Circulation pump head	m		6	7	8	8	10	10	10
Built-in water flow switch			Paddle type	Paddle type	Paddle type	Paddle type	Paddle type	Paddle type	Paddle type
Expansion tank in indoor unit			1.8L	1.8L	1.8L	1.8L	1.8L	1.8L	1.8L
Fan type			DC inverter	DC inverter	DC inverter	DC inverter	DC inverter	DC inverter	DC inverter
Fan Quantity			1	1	1	1	2	2	2
Air flow	m ³ /h		2700	3300	3500	4200	6000	6000	6000
Fan direction			Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Noise	Outdoor unit	dB(A)	48	49	49	53	53	53	53
	Indoor unit	dB(A)	30	30	30	30	30	30	30
Net weight	Outdoor unit	Kg	71	83	95	106	128	128	128
	Indoor unit	Kg	32	35	36	38	41	42	42
Net Dimension (W*D*H)	Outdoor unit	mm	1105*460*695	1105*460*695	1110*460*850	1080*450*940	1110*460*1250	1110*460*1250	1110*460*1250
	Indoor unit	mm	500*255*600	500*255*800	500*255*800	500*255*800	500*255*800	500*255*800	500*255*800

Test Condition:

Heating(A7/W35): ambient Temp. DB/WB 7/6°C, water inlet /outlet Temp. 30/35°C.

Cooling(A35/W7): ambient Temp. DB/WB 35/24°C, water inlet/outlet Temp. 12/7°C.