

Commercial Air Source Heat Pump Hot Water



SM60 series

Air source heat pump water heater



SM80 series

High temperature air source heat pump water heater



Professional compressor for heat pump water heater: Adopt Copeland or Panasonic top quality scroll compressor specially for heat pump water heater, with much wider operation range for different ambient temperature. Special design for high suction & exhaust temperature, and system high condensing temperature & pressure, Higher efficiency, Lower noise, Higher reliability, Longer service life.



Multiple protection functions

To ensure the safe operation of the system, a modular structure is adopted, and the units are started in stages to reduce the impact of the starting current of the units on the power grid. The unit is equipped with high and low pressure switches, antifreeze protection devices, water flow switches, overload protection devices, power supply phase sequence protection devices, etc., and is equipped with an operation control device. When a fault occurs, the controller will automatically alarm in real time.



Fan motor

Large air volume, low noise blades; High torque, high efficiency motor. High efficiency and low noise.



Reservoir

Large liquid receiver is used to store the condensed liquid refrigerant to prevent the liquid refrigerant from affecting the heat exchange of the heat exchanger, reduce the system pressure, and ensure more reliable system operation.



Wide running range, from -7°C to 52°C (SM80 series) .



Wifi function for option

Control your heat pump in your smartphone anywhere, anytime.



High precision electronic expansion valve

High precision electronic expansion valve: use electronic expansion valve for controlling, reach 500 steps adjustment, adjust super heat degrees accurately, achieve high efficiency operation system.



Water side heat exchanger

High-efficiency coaxial heat exchanger with both cooling and heating is adopted, with water in the copper tube. Bigger water loop diameter, higher heat exchange efficiency, excellent water quality, strong antifreeze ability, stable and reliable.



Electric control

The electric control adopts famous and high-quality components, and the quality is guaranteed; at the same time, the electric control box is set on the front, which is quick to install and easy to maintain.



R410A refrigerant or R134A refrigerant, ODP=0

Note: R410A for SM60 series; R134A for SM80 series



SM60 series (Air source heat pump water heater)												
		SM6-12I	SM6-19II	SM6-25II	SM6-38II	SM6-50II	SM6-75II	SM6-90II	SM6-110II	SM6-175II	SM6-210II	
Rated heating capacity	kW	12	19	25	38	50.0	75	90	110	175	210	
Rated input power	kW	2.81	4.50	5.84	8.94	11.74	17.52	21.13	25.76	41.37	49.53	
Performance coefficient(COP)	/	4.27	4.22	4.28	4.25	4.26	4.28	4.26	4.27	4.23	4.24	
Maximum input power	kW	4.40	7.31	9.68	11.47	17.38	27.20	31.28	39.11	49.58	66.15	
Maximum input current	A	23.28	12.15	18.42	22.36	29.53	51.23	59.15	73.96	94.34	126.11	
Rated hot water output temp.	℃	55										
Max. hot water output temp.	℃	60										
Rated hot water produce capacity	L/H	258	408.5	537.5	817	1075	1612.5	1935	2365	3762.5	4515	
Power supply	1N 220V/50Hz		3N 380V/50Hz									
Compressor	Type	Hermetic scroll type										
	Start Mode	Directly start										
	Quantity	Set	1	1	1	2	2	2	2	2	2	4
Water side heat exchanger	Type	Shell & coil(tube) heat exchanger										
	Water flow	m ³ /h	2.06	3.27	4.3	6.54	8.6	12.9	15.48	18.92	30.1	36.12
	Water Pressure	kPa	≤50	≤55	≤55	<60	<70	<70	<72	<72	<75	<75
Pipe size	DN	DN25	DN25	DN25	DN40	DN40	DN50	DN65	DN65	DN80	DN80	
Protections	1. High pressure and low pressure protection, 2. Anti-freezing protection, 3. High temperature protection, 4. Too big of the water temperature difference for outlet and inlet protection, 5. Overload protection, 6. Lack phase protection, 7. Reverse phase protection, etc..											
Refrigerant / Throttle Type	R410A / Electronic expansion valve											
Noise	DB(A)	≤55	≤63	≤68	≤68	≤68	≤69	≤69	≤70	≤74	≤75	
Dimension	mm	710	750	750	1450	854	1850	2000	2347	2546	2546	
		/710	/750	/750	/755	/854	/1000	/1100	/1100	/1306	/1306	
		/860	/1060	/1060	/1100	/1830	/1950	/1950	/2223	/2475	/2475	
Net Weight	kg	90	135	160	245	290	447	510	610	1250	1280	
Testing conditions:												
1. Application side initial water temperature: 15℃ , end temperature 55℃ , max. temperature 60℃ .												
2. Ambient temperature dry bulb 20℃ , wet bulb 15℃ .												
The above parameters are based on Refrigerant R410a, for parameters based on other refrigerant please contact us.												
The above parameters may have some differences from the final product because of products updating, so above information is not the provision of any business contract. Please refer												

SM80 series (High temperature air source heat pump water heater)												
Model		SM8-13I	SM8-13II	SM8-18II	SM8-26II	SM8-35II	SM8-55II	SM8-65II	SM8-78II	SM8-130II	SM8-150II	
Rated heating capacity	kW	13.5	13.5	17.8	26.1	34.7	55.2	64.3	78.5	129.5	153.7	
Rated input power	kW	3.98	3.95	5.26	7.65	10.21	16.32	19.13	23.56	38.09	45.88	
Rated input current	A	17.56	7.52	9.99	14.55	19.35	30.95	36.33	44.71	72.34	87.14	
Maximum input power	kW	5.17	5.13	6.84	9.95	13.27	21.22	24.88	30.63	47.62	57.36	
Maximum input current	A	23.23	9.75	13.02	19.13	24.98	40.25	46.88	57.96	90.44	108.94	
Performance coefficient(COP)	/	3.39	3.42	3.38	3.41	3.40	3.38	3.36	3.33	3.40	3.35	
Rated hot water output temp.	℃	75										
Maximum hot water output temp.	℃	80										
Rated hot water production	△ t40	L/H	289.3	289.3	381.4	559.3	743.6	1182.9	1377.9	1682.1	2795.0	3440.0
	△ t60	L/H	192.9	192.9	254.3	372.9	495.7	788.6	918.6	1121.4	1863.3	2293.4
Power supply	1N 220V/50Hz		3N 380V/50Hz									
Compressor	Type	Hermetic scroll type										
	Start Mode	Directly start(Soft start for option)										
	Quantity	Set	1	1	1	2	2	2	2	2	4	4
Water side heat exchanger	Type	Shell & coil(tube) heat exchanger										
	Water flow	m ³ /h	2.3	2.3	3.1	4.5	6.0	9.5	11.2	13.8	22.4	27.6
	Water Pressure	kPa	≤53	<55	<57	<60	<70	<70	<72	<72	<75	<75
Pipe size	mm	DN25	DN25	DN25	DN32	DN32	DN50	DN50	DN50	DN80	DN80	
Protections	1. High pressure and low pressure protection, 2. Anti-freezing protection, 3. High temperature protection, 4. Too big of the water temperature difference for outlet and inlet protection, 5. Overload protection, 6. Lack phase protection, 7. Reverse phase protection, etc..											
Refrigerant	Type	R134a										
	Throttle Type	Electronic expansion valve										
Noise	DB(A)	≤63	≤63	≤65	≤68	≤68	≤70	≤70	≤72	≤74	≤75	
Dimension	mm	750	750/	854	1450	854	1850	2000	2347	2546	2546	
		/750	750	/854	/755	/854	/1000	/1100	/1100	/1306	/1306	
		/1060	/1060	/1830	/1100	/1830	/1950	/1950	/2223	/2475	/2475	
Net Weight	kg	160	150	180	255	290	447	510	610	1250	1280	
Testing conditions:												
1. Application side initial water temperature: 15℃ , end temperature 75℃ , max. temperature 80℃ .												
2. Ambient temperature dry bulb 20℃ , wet bulb 15℃ .												
The above parameters are based on Refrigerant R134a, for parameters based on other refrigerant please contact us.												