A HEAT PUMP MANUFACTURER-ALL FOCUS ON OEM AND ODM

CAL PRO

Full DC Inverter Heat pump

Variable,Reliable

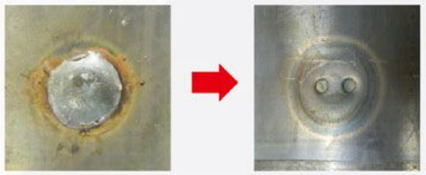
R32
Residential EVI DC Inverter Heat Pump

Main Features of Residential DC Inverter Heat Pump

Down-sizing technology

01 Heat Caulking

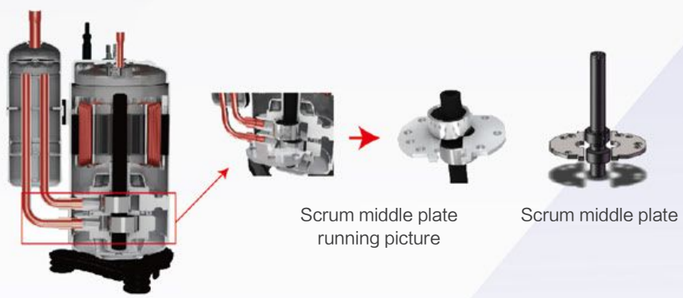
Heat caulking is utilized attaching internal parts instead of conventional arc spot-welding,contributing to minimal distortion and higher efficiency.



Arc spot welding　　Heat caulking

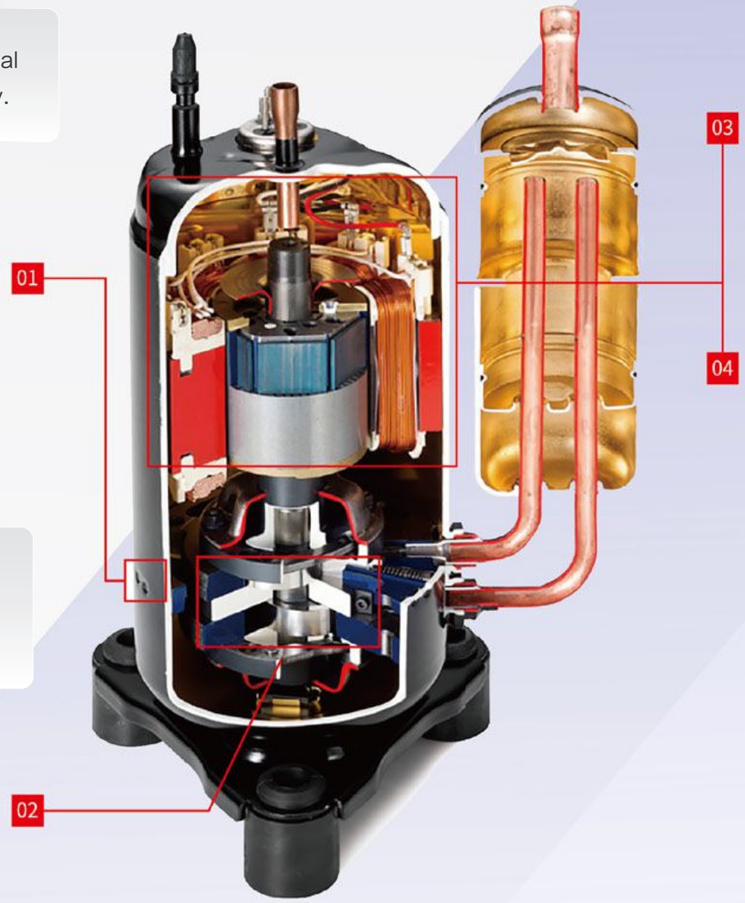
02 Scrum middle plate

It eliminates the clearance between the piston and the middle plate. At the same time,the eccentricity is espanded,so as to achieve the purpose of small size and high output power.



Scrum middle plate running picture　　Scrum middle plate

Technology depend on models



Mitsubishi EVI DC Inverter compressor

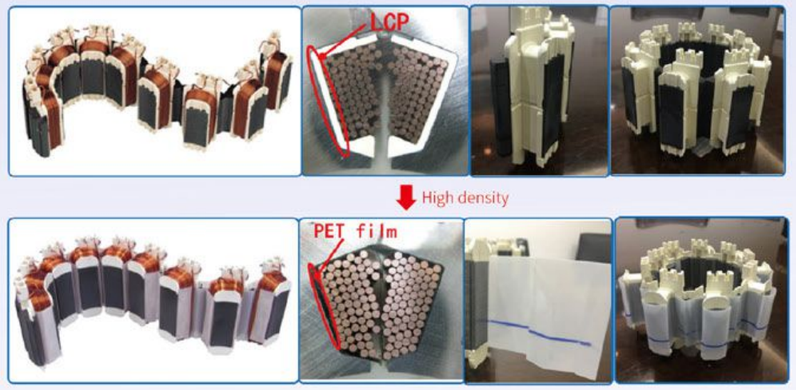
High-efficient motor technology

03 Joint lap motor

Ultrahigh-efficiency motors were developed utilizing the Company's innovative dense winding technology and rare earth magnet,enabling them to provide significantly improved reliability.

04 High density winding

The new motor insulator --PET FILM :wiring more to get higher density that will result in higher motor efficiency.



Main Features of Residential DC Inverter Heat Pump

FULL DC INVERTER TECHNOLOGY

DC Inverter compressor + DC Brushless fan motor

Full DC Inverter Technology

3 functions, 5 modes:

Heating, Cooling, Domestic Hot Water
Heating + DHW, Cooling + DHW

Note: DHW function for option, please let us know in advance.

User-friendly Controller

Touch screen controller, much easier for understanding and operation.

Sanhua 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.

SANHUA

Built-in hydraulic module

The integrated design is adopted, and the water system is fully configured (built-in hydraulic modules such as DC Inverter water pump and water flow switch, with expansion tank and Y-shaped filter), which can effectively reduce the installation time and space of the water system and save installation costs.

DC brushless motor

The high-quality DC speed-regulating motor can intelligently adjust the air volume and air pressure according to the load conditions to ensure good ventilation, and at the same time reduce power consumption by more than 30% compared with AC motors.

Water side heat exchanger

Brazed plate type heat exchanger: High heat transfer efficiency with large surface area. Compact design saves space. Durable due to brazing. Easy maintenance. Cost-effective. Has low fluid hold-up. Adapts to various fluids. Also features a high thermal response rate.

Intelligent defrosting

After careful debugging by our R&D engineers, defrosts as quickly as possible while ensuring that the heating is less affected. At the same time, with the help of the patented technology – "fin bottom heating tube", the possibility of freezing and frosting at the bottom of the fin is reduced.

Low noise

With the help of Full DC Inverter technology and the sound insulation covering of the whole machine greatly reduces the noise of the unit.

Wifi function

Download our App from IOS or Android, Control your heat pump in your smartphone anywhere, anytime.

Product

EcoQuiet series

Full DC Inverter EVI Air to Water Heat Pump
Cooling & Heating & DHW(Monoblock type R32)

EcoQuiet Series Full DC Inverter EVI Air To Water Heat Pump

Model			EQS10I/BPS	EQS15I /BPS	EQS16I/ BPS	EQS20I/ BPS	EQS16II/ BPS	EQS20II/ BPS	EQS27II/ BPS	EQS32II/ BPS
Compressor Brand			Mitsubishi							
Water Pump Brand			DC Inverter "AWMT"						On/Off "Wilo"	
Rated heating 1 (A7 W35)	Heating capacity	kW	10.70	16.00	17.10	21.40	17.10	21.40	28.90	34.20
	Input power	kW	2.56	3.83	4.12	5.16	4.11	5.14	6.91	8.18
	COP	W/W	4.18	4.18	4.15	4.15	4.16	4.16	4.18	4.18
Rated heating 2 (A7 W45)	Heating capacity	kW	10.00	15.00	16.00	20.00	16.00	20.00	27.00	32.00
	Input power	kW	2.81	4.36	4.55	5.70	4.55	5.68	7.65	9.12
	COP	W/W	3.56	3.55	3.52	3.51	3.52	3.52	3.53	3.51
Nominal heating (A-12 W41)	Heating capacity	kW	8.00	10.00	11.50	14.50	11.50	14.50	19.50	22.50
	Input power	kW	3.48	4.48	5.11	6.02	5.11	6.02	7.86	9.34
	COP	W/W	2.30	2.23	2.25	2.41	2.25	2.41	2.48	2.41
Low temp. heating (A-20 W41)	Heating capacity	kW	6.20	9.10	9.40	12.50	9.40	12.50	16.50	18.10
	Input power	kW	3.02	4.44	4.56	6.25	4.56	6.25	7.89	9.28
	COP	W/W	2.05	2.05	2.06	2.00	2.06	2.00	2.09	1.95
Rated cooling (A35 W7)	Cooling capacity	kW	12.00	14.00	15.50	19.50	15.50	19.50	25.00	32.00
	Input power	kW	4.07	4.75	5.34	6.63	5.34	6.63	8.56	10.92
	EER	W/W	2.95	2.95	2.90	2.94	2.90	2.94	2.92	2.93
Power supply		V/Ph/ Hz	220V/1/50Hz				380V/3/50Hz			
Maximum input power (without electric heating)		kW	5.2	5.5	6.6	10.5	6.6	10.5	12.5	14.5
Maximum input current (without electric heating)		A	24	25.5	30	48	12.6	20	23.5	26.5
Maximum outlet water temp. (without electric heating)		℃	58℃							
Operation temp. range		℃	-35 ~ 43℃							
Fan Morot		Type	DC BRUSHLESS							
Refrigerant		Type	R32							
Head outside the unit		m	10.1	8.3	7.8	8	7.8	8	12.4	10
Water flow required		m3/h	1.92	2.32	2.67	3.35	2.67	3.35	4.3	5.5
Water inlet/outlet pipe		DN	DN32							
Unit dimensions		mm	1000X390X860	1000X390X1390					1200X430X1560	
Net weight		kg	95	100	120	155	120	155	180	195
Gross weight		kg	105	110	130	175	130	175	200	215
Noise level		dB(A)	≤ 59	≤ 60	≤ 58	≤ 62	≤ 58	≤ 62	≤ 63	≤ 63

Test conditions:
- Rated heating 1: Inlet/outlet water temperature 30℃ /35℃ . Dry bulb/wet bulb temperature 7℃ /6℃;
- Rated heating 2: Inlet/outlet water temperature 40℃ /45℃ . Dry bulb/wet bulb temperature 7℃ /6℃;
- Nominal heating: water inlet/outlet temperature -/41℃ . Dry bulb/wet bulb temperature -12℃ /-14℃;
- Low temperature heating: water inlet/outlet temperature -/41℃ . Dry bulb/wet bulb temperature -20℃ /--;
- Rated cooling: water inlet/outlet temperature 12℃ /7℃ . Dry bulb temperature 35℃ .