AOKOL

AOKOL ENVIRONMENT TECHNOLOGY CO.,LTD
NINGBO AOKOL HEAT PUMP TECHNOLOGY CO.,LTD
Add: No. 550 Kangzhuang South Road Jiangbei Ningbo Zhejiang China
Tel: +86-574-87579986
WhatsApp：+86 18922220087
E-mail: 008@aokol.com
- cell phone /wechat:+86 18922220087
- Skype： 44b1c9803375ebad
- http://www.aokol.com

★ All data have double checked, if the real products have any difference with the catalogue, Pls refer to the real products directly, we do not afford the lose if there is any mistake for the printing.
★ if there is any update, all the past parameter would canceled; AOKOL reserves the final interpretation of the data (July 2022).

AOKOL

Air to Water Heat Pump

EVI Full DC Inverter Model

R32 REFRIGERANT HEAT PUMP CATALOGUE

AOKOL heat pump FR and MR Series products use green R32 refrigerant. The R32 refrigerant is the best combination of economy, safety, environmental protection and reliability. The R32 refrigerant improves the efficiency of the heat pump system and further reduces emissions. R32 refrigerant is the current trend of heat pump industry, and has been widely used in the market.

Refrigerant

R32 VS **R410A**

75%

Reduce global impact with R32 heating

R32 Main characteristics of refrigerant

Environmental protection

The R32 refrigerant has a GWP of 675, which is one of the lowest GWP products available. It also does not damage the ozone layer and has a 75% lower global warming impact than R410A.

Security

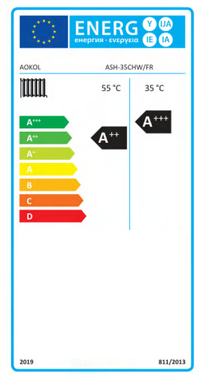
R32 refrigerant has low toxicity and is not flammable. Even if a system leak occurs, as long as it does not come into contact with an open flame, there is no risk to life and health.

The Erp directive indicates the energy efficiency rating of AOKOL heat pumps

Energy efficiency rating

Heat pump products sold in the EU market are labeled with energy. This is regulated by EU Directive 2010/30EU. The label informs the user about the energy efficiency of the product. Energy efficiency is expressed by seasonal space heating efficiency. This value is based on the seasonal performance coefficient (SCOP).

The ErP instruction indicates the energy efficiency rating of the AOKOL heat pump
Achieve A+++ energy efficiency rating at 35˚C water temperature
Achieve A++ energy efficiency rating at 55˚C water temperature



EVI DC INVERTER COMPRESSOR

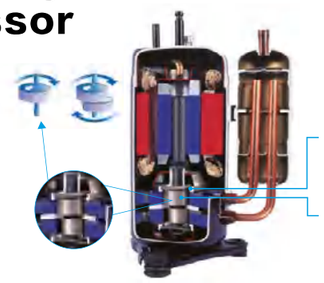
Inverter II Compressor

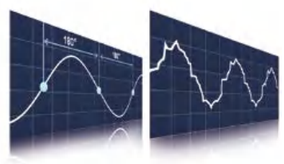
INVERTER II COMPRESSOR

The DC inverter technology in the AOKOL units reduces power consumption, which is related to the reduction of room cooling and heating costs. Its use translates to the quiet operation of the unit and faster achievement of the desired temperature, By using durable and high-pressure resistant materials, the compressor in AOKOL heat pumps is extremely reliable. In addition, which is why it can operate in extreme conditions in 24-hour mode and reach temperatures of up to 60°C.

Twin Rotary Compressor

The high performance of the compressor ensures the highest efficiency. The unique design minimizes vibration of moving parts and effectively reduces noise levels.





Better balance and very low vibration:
Double eccentric CAM
2 balance blocks
Compressor drive technology optimization:
Extremely strong bearings.
Compact design

DC Inverter Fan Motor

Dc inverter fan motor, according to the running state of the system, to achieve stepless speed regulation, reduce energy consumption. Large diameter low noise fan blades reduce operating noise and ensure that the system is always in optimal condition.

DC drive plate

Intelligent IPM DC frequency conversion chip realizes the automatic adjustment and intelligent control of high and low frequency operation of compressor, and comprehensively improves the stability and high energy efficiency of the system.

Pressure Sensor

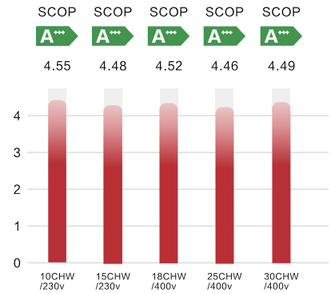
The Sensata Pressure Sensor, built with a ceramic core, is corrosion resistant, and the system pressure is converted into a signal source to ensure stable operation of the system.

DC inverter Water pump

DC inverter efficient shielding type circulating water pump, high efficiency, energy consumption is 20% lower than the previous products, noise is 30% lower than the previous fixed frequency water pump, quiet energy saving, to ensure the long-term use of the unit reliable operation.

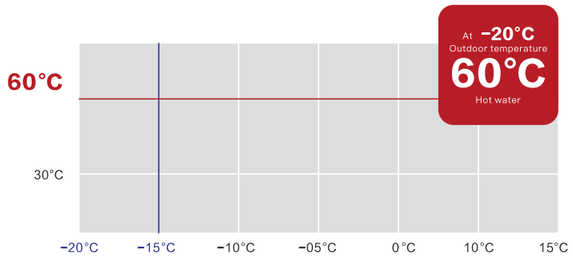
High Scop

The data were checked in accordance with EN14825 in a SGS approved low temperature air – water heat pump laboratory. And issued the ErP energy efficiency test report.



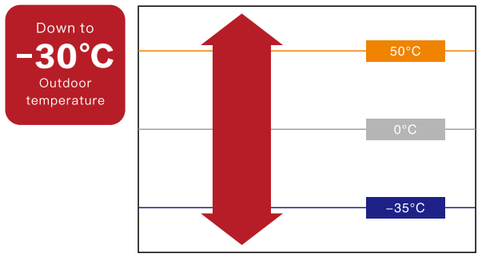
High Water Temperature

Without the use of electric auxiliary heating, outdoor temperature –20℃ environment heating can reach the highest temperature of 60℃.



Wide-Range Operation

Low temperature DC inverter compressor, extended heat exchanger, optimized system design, AOKOL heat pump can operate in the outdoor ambient temperature of –30˚C~50˚C.



Heated floor

Inside, the low temperature geothermal medium creates a good temperature gradient from the soles of the feet to the head, making people feel warm feet and cold head. The comfort principle of "warm feet and cool feet" in traditional Chinese medicine is supported by radiant floor heating. It is the most comfortable way to heat your home and a representative of the contemporary quality of life.

Control By Wifi As Standard

AOKOL devices include a number of features that enhance user comfort. For instance, new WI-FI control choices have been added to make managing a heat pump easier and more convenient than ever before.

Utilizing a smart phone or tablet application, remote control features include monitoring current device status, zone switching supply, and temperature management. displaying error details showing current energy use.

Weather-Responsive Control

Climate curves -32 Meteorological temperature curves are pre-set as the norm, and the water temperature is automatically adjusted based on the outside temperature. In order to accommodate various temperature requirements, custom curves are also available.

Design Innovation For Lower Noise Level

When employing AOKOL heat pumps, complete comfort is guaranteed by the use of inverter compressors in outdoor units and the incredibly silent operation. The outdoor unit's small size, strong performance, and low noise level.

Security Of Use

The purpose of the intelligent automation system is to protect the heat pump against damage. the use of special explosion-proof electronic systems, maximizes operational safety, allowing the stable use of ecological R32 refrigerant, which is not only particularly environmentally friendly but also more efficient under extreme conditions.

Domestic

Range of the **devices**

CAPACITY (kW) A7W35

Split Type Heat Pump

with water pump
optional expansion tank

FR series

8kw	10kw	15kw	18kw	25kw	30kw
					
ASH-25CHW/FR	ASH-35CHW/FR	ASH-55CHW/FR	ASH-65CHW/FR	ASH-85CHW/FR	ASH-105CHW/FR

Monobloc Type Heat Pump

without water pump
without expansion tank

MR series

8kw	10kw	15kw	18kw	25kw	30kw
					
ASH-25CHW/MR	ASH-35CHW/MR	ASH-55CHW/MR	ASH-65CHW/MR	ASH-85CHW/MR	ASH-105CHW/MR

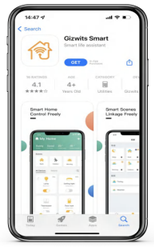
Domestic

Split Type
Heat Pump

FR series

Function
a. Heating mode
b. Hot water mode
c. Cooling mode
d. Heating and hot water modes
e. Cooling and hot water modes
Domestic hot water is preferred when heating and hot water modes are selected

Touchscreen control



Wifi control

Thare ain components of the split indoor unit include:

W ter pump, differential pressure water flow switch, electric three-way valve, controller, electrical pa ts, brazed plate heat exchanger, auxiliary heating and other parts.

Features Of Split Heat Pump

★ Split design, to meet the cold areas in winter heating, summer refrigeration and domestic hot water demand all year round.
★ The indoor and outdoor units are connected by copper pipe, which is fashionable in design, compact in structure, multiple sound insulation protection and low noise in operation.
★ Simple, flexible and convenient installation, indoor unit can be installed in the kitchen, bathroom or basement. Making sure to reduce energy loss can also prevent water pipes from freezing in the cold winter and basking in the sun in the hot summer.

OKOL

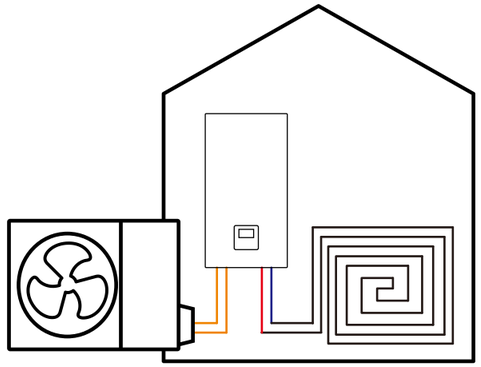
Compact design, separate interior units, and flexible installation make split heat pumps ideal for owners of homes, stores, offices, and retail Spaces.

The cooling connection system between the outdoor unit and the indoor unit can prevent freezing even in the case of a prolonged power failure.

Domestic

Split Type
Heat Pump

FR series



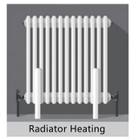
Air-water heat pump for comfortable heating. Hot water and cooling

AOKOL heat pump can realize more types of heating modes, such as floor heating, radiator, central air conditioning, floor heating + radiator + central air conditioning, as well as intelligent operation mode, can connect a variety of terminal equipment. Use the rapid heating system, which combines the floor heating + radiator + central air conditioning, after the temperature reaches the floor heating and radiator to maintain a comfortable temperature in the room.

35°C

Floor Heating

55°C



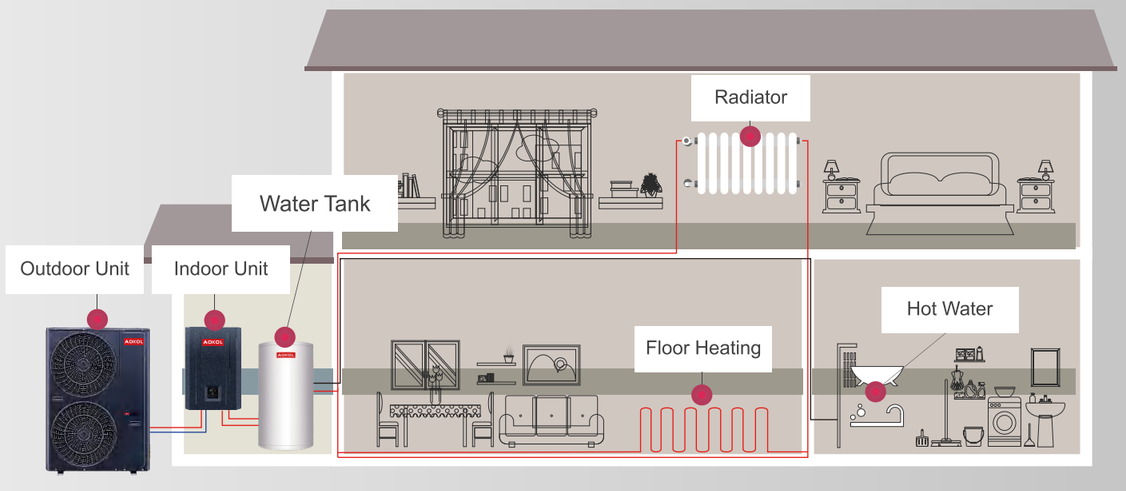
Radiator Heating

60°C

Domestic Hot Water

7°C

Fan Coil Cooling



Note: Reference only

Model			ASH-25CHW/FR	ASH-35CHW/FR	ASH-55CHW/FR	ASH-65CHW/FR	ASH-85CHW/FR	ASH-105CHW/FR
Power Supply		V/Hz	220~240/50	220~240/50	220~240/50	380~415/50	380~415/50	380~415/50
ErP Level		35°C	A+++	A+++	A+++	A+++	A+++	A+++
ErP Level		55°C	A++	A++	A++	A++	A++	A++
Nominal Heating Capacity(A7°C/W35°C)		kW	8	10	15	18	25	30
Heating (A7°C/6°C) (W30°C~35°C)	Heating Capacity Range	kW	3.31~8.35	3.54~10.50	5.35~15.8	5.86~18.20	9.43~25.30	11.20~30.10
	Heating Input Power Range	kW	0.69~1.96	0.75~2.51	1.12~3.73	1.24~4.34	1.99~5.97	2.39~7.49
	COP Range	w/w	4.78~4.25	4.72~4.18	4.76~4.24	4.71~4.19	4.75~4.24	4.68~4.02
Heating (A7°C/6°C) (W50°C~55°C)	Heating Capacity Range	kW	3.08~7.34	3.25~8.95	4.82~13.65	5.56~15.80	8.54~22.30	10.50~26.40
	Heating Input Power Range	kW	0.81~2.86	0.87~3.54	1.28~5.29	1.49~6.22	2.23~8.71	2.85~11.06
	COP Range	w/w	3.82~2.57	3.74~2.53	3.78~2.58	3.73~2.54	3.83~2.56	3.69~2.48
Hot Water (A20°C/15°C) (W15°C~55°C)	Heating Capacity Range	kW	3.98~10.10	4.25~11.82	6.45~18.94	6.94~20.20	11.53~30.32	13.45~35.85
	Heating Input Power Range	kW	0.77~2.34	0.85~2.83	1.26~4.47	1.37~4.99	2.25~7.34	2.73~9.24
	COP Range	w/w	5.15~4.32	5.02~4.17	5.10~4.24	5.08~4.05	5.12~4.13	4.92~3.88
Cooling (A35°C/24°C) (W12°C~7°C)	Cooling Capacity Range	kW	2.85~7.42	3.28~8.20	5.85~12.30	6.15~13.10	9.40~18.50	11.50~22.40
	Cooling Input Power Range	kW	0.93~2.78	1.10~3.24	1.89~4.52	2.04~4.91	3.08~6.83	3.89~8.89
	EER Range	w/w	3.06~2.67	2.98~2.53	3.10~2.72	3.02~2.67	3.05~2.71	2.96~2.52
Max.Rated Input Power		kW/h	6.3	7.1	9.1	10.2	13.1	15.8
Max.Pressure at high Pressure Side		Mpa	4.2	4.2	4.2	4.2	4.2	4.2
Max.Pressure at low Pressure Side		Mpa	2.2	2.2	2.2	2.2	2.2	2.2
Water Flowrate		m^3/h	1.2	1.2	1.89	2.06	3.1	3.96
Refrigerant Type / Input		kg	R32 /1.5	R32 /1.5	R32 /2.3	R32 /2.3	R32 /3.5	R32 /3.8
CO2 Equivalent		Tonnes	1.02	1.02	1.56	1.56	2.37	2.57
Compressor		Type	DC Inverter+EVI					
Fan Motor		Type	DC Inverter					
Water Pump		Type	DC Inverter					
Heating & Hot Water Temp		℃	30~60					
Outdoor Temperature limit		℃	-30~45					
Indoor Unit	Auxiliary Heating Power Input	kW	3	3	3	3	3	3
	Water Connection	Inch	1.2/DN32	1.2/DN32	1.2/DN32	1.2/DN32	1.2/DN32	1.2/DN32
	Copper Pipe Connection	Inch	3/8+5/8	3/8+5/8	1/2+3/4	1/2+3/4	5/8+3/4	5/8+3/4
	Noise Level	dB(A)	32	32	32	32	35	35
	Net Weight	kg	46	47	50	52	55	58
	Net Dimension(L*W*H)	mm	550*430*800	590*430*890	550*430*800	550*430*800	550*430*800	550*430*800
Outdoor Unit	Noise Level	dB(A)	55	55	57	58	62	63
	Net Weight	kg	69	75	102	110	151	164
	Net Dimension(L*W*H)	mm	1000x390x860	1000x390x860	1000x390x1380	1000x390x1380	1200*430*1550	1200*430*1550

◆The technical data above is compliant with the guidelines specified in the following standards: EN 14511,EN 14825.
◆The above data is for reference only;specific data is subject to the product nameplate.

outer shell material: steel + powder coating + dark gray
with water pump
optional expansion tank

Domestic

Monobloc Type
Heat Pump

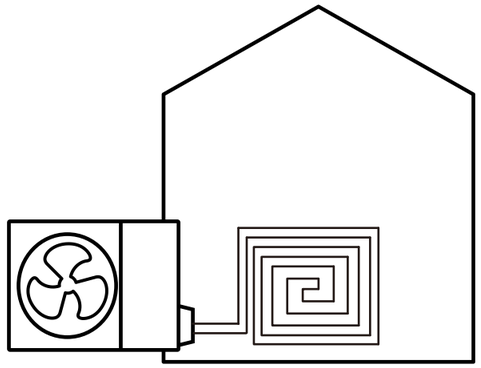
MR series

★ Integral equipment includes: low–temperature DC frequency conversion compressor, DC frequency conversion driving plate, DC frequency conversion motor, DC frequency conversion water pump, differential pressure water switch, electronic expansion valve, four–way valve, pressure sensor, hydrophilic aluminum foil and inner slot copper evaporator, brazed plate heat exchanger, deicing heater and other components.

Domestic

Monobloc Type
Heat Pump

MR series

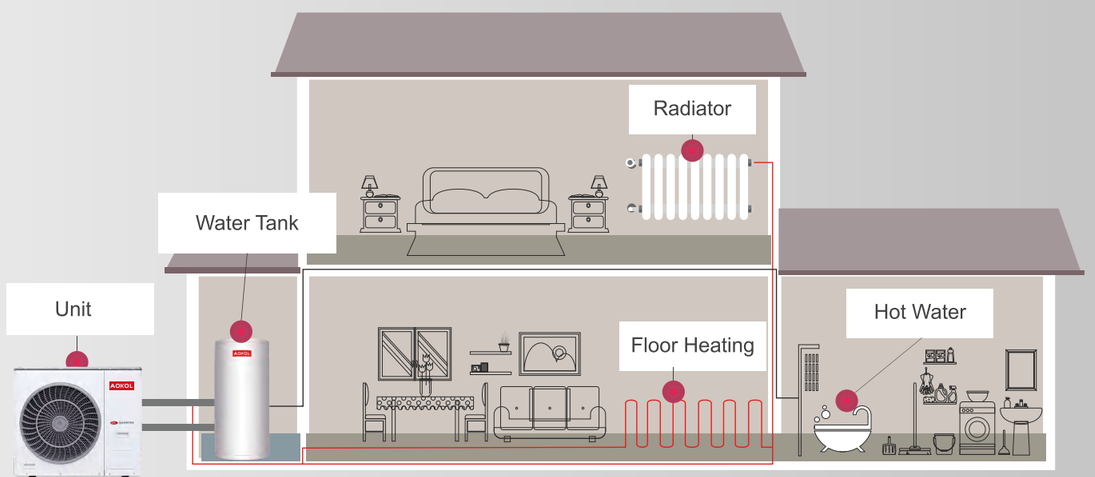


Features of Monobloc heat pump

★Monoblock design, easy to install, flexible and convenient.

★ Fashion design, compact structure, multiple sound insulation protection, low running noise.

★Meet the cold area heating in winter, summer refrigeration and year-round domestic hot water demand.



Note: Reference only

Model			ASH-25CHW/MR	ASH-35CHW/MR	ASH-55CHW/MR	ASH-65CHW/MR	ASH-85CHW/MR	ASH-105CHW/MR
Power Supply		V/Hz	220~240/50	220~240/50	220~240/50	380~415/50	380~415/50	380~415/50
ErP Level		35°C	A+++	A+++	A+++	A+++	A+++	A+++
ErP Level		55°C	A++	A++	A++	A++	A++	A++
Nominal Heating Capacity(A7°C/W35°C)		kW	8	10	15	18	25	30
Heating (A7°C/6°C) (W30°C~35°C)	Heating Capacity Range	kW	3.31~8.35	3.54~10.50	5.35~15.8	5.86~18.20	9.43~25.30	11.20~30.10
	Heating Input Power Range	kW	0.69~1.96	0.75~2.51	1.12~3.73	1.24~4.34	1.99~5.97	2.39~7.49
	COP Range	w/w	4.78~4.25	4.72~4.18	4.76~4.24	4.71~4.19	4.75~4.24	4.68~4.02
Heating (A7°C/6°C) (W50°C~55°C)	Heating Capacity Range	kW	3.08~7.34	3.25~8.95	4.82~13.65	5.56~15.80	8.54~22.30	10.50~26.40
	Heating Input Power Range	kW	0.81~2.86	0.87~3.54	1.28~5.29	1.49~6.22	2.23~8.71	2.85~11.06
	COP Range	w/w	3.82~2.57	3.74~2.53	3.78~2.58	3.73~2.54	3.83~2.56	3.69~2.48
Hot Water (A20°C/15°C) (W15°C~55°C)	Heating Capacity Range	kW	3.98~10.10	4.25~11.82	6.45~18.94	6.94~20.20	11.53~30.32	13.45~35.85
	Heating Input Power Range	kW	0.77~2.34	0.85~2.83	1.26~4.47	1.37~4.99	2.25~7.34	2.73~9.24
	COP Range	w/w	5.15~4.32	5.02~4.17	5.10~4.24	5.08~4.05	5.12~4.13	4.92~3.88
Cooling (A35°C/24°C) (W12°C~7°C)	Cooling Capacity Range	kW	2.85~7.42	3.28~8.20	5.85~12.30	6.15~13.10	9.40~18.50	11.50~22.40
	Cooling Input Power Range	kW	0.93~2.78	1.10~3.24	1.89~4.52	2.04~4.91	3.08~6.83	3.89~8.89
	EER Range	w/w	3.06~2.67	2.98~2.53	3.10~2.72	3.02~2.67	3.05~2.71	2.96~2.52
Max.Rated Input Power		kW/h	3.3	4.1	6.2	7.2	10.1	12.8
Max.Pressure at high Pressure Side		Mpa	4.2	4.2	4.2	4.2	4.2	4.2
Max.Pressure at low Pressure Side		Mpa	2.2	2.2	2.2	2.2	2.2	2.2
Water Flowrate		m^3/h	1.2	1.2	1.89	2.06	3.1	3.96
Refrigerant Type / Input		kg	R32 /1.5	R32 /1.5	R32 /2.3	R32 /2.3	R32 /3.5	R32 /3.8
CO2 Equivalent		Tonnes	1.02	1.02	1.56	1.56	2.37	2.57
Compressor		Type	DC Inverter+EVI					
Fan Motor		Type	DC Inverter					
Water Pump		Type	DC Inverter					
Heating & Hot Water Temp		℃	30~60					
Outdoor Temperature limit		℃	-30~45					
Water Connection		Inch	1.2/DN32	1.2/DN32	1.2/DN32	1.2/DN32	1.2/DN32	1.2/DN32
Noise Level		dB(A)	55	55	57	58	62	63
Net Weight		kg	81	86	115	123	162	175
Net Dimension(L*W*H)		mm	1000x390x860	1000x390x860	1000x390x1380	1000x390x1380	1200*430*1550	1200*430*1550

◆The technical data above is compliant with the guidelines specified in the following standards: EN 14511,EN 14825.
◆The above data is for reference only;specific data is subject to the product nameplate.

outer shell material: steel + powder coating + white and dark gray

without water pump

without expansion tank

◆ AOKOL ENVIRONMENT TECHNOLOGY CO., LTD.The Factory is located in China's Home Appliance Manufacturing base and the largest Port city - Ningbo.

◆ AOKOL has a standardized technology research and development center, modern manufacturing workshop, low-temperature heat pump product performance laboratory and perfect production and testing equipment. The technical development and quality management personnel are professionals in the industry.

◆ AOKOL heat pump has obtained CE certification, Keymark certification, ErP energy efficiency report issued by TUV and SGS, ROHS certification, CCC certification, ISO9001 quality management certification, ISO14001 environmental management certification, ISO45001 health and safety management certification.

◆ AOKOL's annual output of heat pumps is about 200000 units. We have rich OEM and ODM product production experience. More than 60% of our heat pumps are sold to more than 50 countries, including Europe. We have the right to import and export.

◆ AOKOL is a leading Air to water heat pump manufacturer in China.

MDS Series | Monobloc Type EVI Inverter | Air to Water Heat Pump Product Introduction

◆ Unit Mainly Components Includes： Panasonic DC Inverter Compressor、Danfoss Brand Electric Expansion Valve、SANHUA Brand Four way valve、Sensata Brand Pressure Transducer、Dc Motor、Hydrophilic Aluminium foil & Inner-Grooved Copper Evaporator、Refrigerant valve and De-Ice Heater so on parts.

Commercial

Monoblic type

MDS series

A+++

R32

Model		ASH-45CHW-MDS	ASH-75CHW-MDS	ASH-150CHW-MDS
Power Supply		380~415V/50Hz	380~415V/50Hz	380~415V/50Hz
ErP Level | 35°C		A+++	A+++	A+++
ErP Level | 55°C		A++	A++	A++
Heating (A7°C/W35°C)	Heating Capacity	45.0kW	75.0kW	150.0kW
	Heating Input Power	10.34kW	17.40kW	34.97kW
	COP	4.35	4.31	4.29
Heating (A7°C/W55°C)	Heating Capacity	38.5kW	63.0kW	120.0kW
	Heating Input Power	14.86kW	24.23kW	46.69kW
	COP	2.59	2.60	2.57
Heating (A-12°C/W41°C)	Heating Capacity	31.5kW	48.0kW	95.0kW
	Heating Input Power	12.70kW	18.32kW	36.54kW
	COP	2.48	2.62	2.60
Cooling (A35°C/W7°C)	Cooling Capacity	33.0kW	58.0kW	115.0kW
	Cooling Input Power	11.87kW	20.35kW	40.64kW
	EER	2.78	2.85	2.83
Water Flowrate		7.74m³/h	12.9m³/h	25.8m³/h
Refrigerant Type		R32		
Compressor Type		DC/1 set	DC/2 set	DC/4 set
Fan Motor Type		AC/1 set	AC/1 set	AC/2 set
Heating & Hot Water Temp		30~60℃		
Outdoor Temperature limit		-30~45℃		
Water Connection		DN40	DN50	DN60
Noise Level		64dB(A)	67dB(A)	71dB(A)
Net Weight		275kg	515kg	1050kg
Net Dimension(L*W*H)		1030×999×1935mm	1160×1200×2150mm	2252×1200×2150mm

★According to EN14825, the data was tested in GSG approved AOKOL low temperature air to water heat pump laboratory.

outer shell material: steel + powder coating + white

What's the next ?

--**ASA** plastic

-- Domestic

-- R290 or R32