

AIROSD

AIROSD MARKET OVERVIEW

Committed to becoming a heat pump brand trusted by global consumers, AIROSD insists on bringing more high-quality experiences to consumers with professional quality and innovative technology that synchronizes with the world. Since production and design are in line with the world trend, so far, our products have been selected by 76 countries and regions around the world.



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A collage of images showing a modern house, a snowy landscape, a bathroom, and a woman in a shower, illustrating the AIROSD 3VF+ heat pump's applications.

AIROSD 3VF+
Heating&Cooling
&DHW Heat Pump

HIGHLY EFFICIENT
COP*
4.46
VARIABLE HEATING CAPACITY

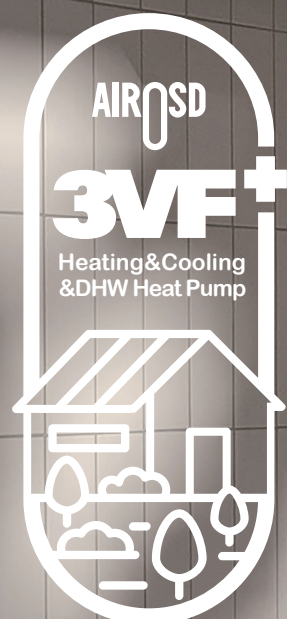
AIROSD
Years
5
Guarantee

A+++ **EVI COMPRESSOR** **-35°C** **R32** **Wi-Fi**
Heating&cooling&dhw 3 In 1 Heat Pump

Heat Pump
AIROSD
Full DC inverter

AIROSD

CE i UL UK CA MCS WRAS Water Mark ETL Intertek GS



Heating&Cooling&DHW 3 In 1 Heat Pump

Be Ready For Low Carbon Life



European A+++
energy saving
certification



EVI
compressor



Working ambient
temperature
down to -35°C



ECO-friendly R32
refrigerant



Controller with WIFI to
realize APP remote
setting. Convenient for
installation and
maintenance.

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Quality-guaranteed Components

AIROSD has a mature supply chain system. International brands such as Mitsubishi and Panasonic have a long history of cooperation with AIROSD and have entered strategy cooperative relationship, which can be one of AIROSD core advantage in product quality and stability.



Company Strength

76+

Countries&Regions
Business Covering

600+

Units
Heat Pump
Daily Capacity

50000+

Square Meters
Two Factory Area

25

Days
Shortest
Lead Time

1000+

People
Total Employees

Manufacturing Center

With 2 production bases (FOSHAN, HENAN), AIROSD manufacturing center monitors all the production lines by MES system to improve the efficiency. As one of the largest heat pump manufacturers in China, our daily production capability can achieve 600 units.

Social Responsibility

Our mission is to let the staff stay happy with us, achieve customer's success, fulfill our social responsibilities. Our values is passion for innovation, cooperation and sharing, honesty and professionalism.

Technology Strength

With a strong technical force of over 100 people and the power of modern technology R&D center, AIROSD has obtained 200+ patents which cover many fields as super low temperature EVI, defrosting, inverter technology, etc. Moreover, our products are certified by the standard of most countries in the world.

Market Strategy

AIROSD mainly cooperates with customers on an OEM/ODM basis. Moreover, in order to satisfy more and more complex and demanding market, customized solution for swimming pool heating, house heating/cooling and hot water application can be made to our partners from high-end market.





AIROSD

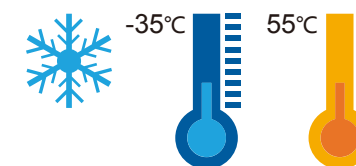


AIROSD "4 + 1" high-tech intelligent R&D platform The highest standard in the industry.

In order to ensure the stable use of products in extremely harsh environments and the quality and efficiency of units, AIROSD Foshan factory has built four laboratories and one test center, which have been assessed as qualified by the National Air Conditioning Equipment Quality Supervision and Inspection Center & The National Compressor Refrigeration Equipment Supervision and Inspection Center:

1. "National - 35 °C Ultra-low Ambient Temperature Calibration Laboratory"
2. "Air Conditioner And Heat Pump Dryer Laboratory"
3. "Long Term Reliability Operating Laboratory"
4. "Simulated Vibration (Stress) Test Bench"
5. "Product Online Automatic Intelligent Testing Center"

In each laboratory, it simulates the operation under extreme weather conditions and natural conditions such as sun, rain, thunder and lightning to ensure the optimal performance of the unit under various application environments.



Test environment temperature range: - 35~55 °C, the test environment is more demanding than the actual use environment. Test the performance of the unit under more severe test conditions, including: cooling capacity, heating capacity, maximum operating conditions, defrosting, ultra-low temperature operation, etc



Each product technology has passed more than 100 different tests. In this process, data on relevant material characteristics, vibration (stress), noise, long-term fatigue operation, enthalpy difference of heat pump, etc. will be obtained. This data is particularly important for the performance and quality of products, and is also an important guarantee for the quality of units.

Heating&Cooling&DHW 3 In 1 Heat Pump

A+++

European A+++
energy saving
certification



EVI
compressor



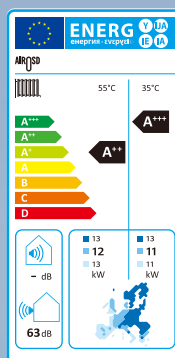
Working ambient
temperature down to
-35°C



ECO- friendly R32
refrigerant



Controller with WIFI to
realize APP remote
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maintenance.



Cooling



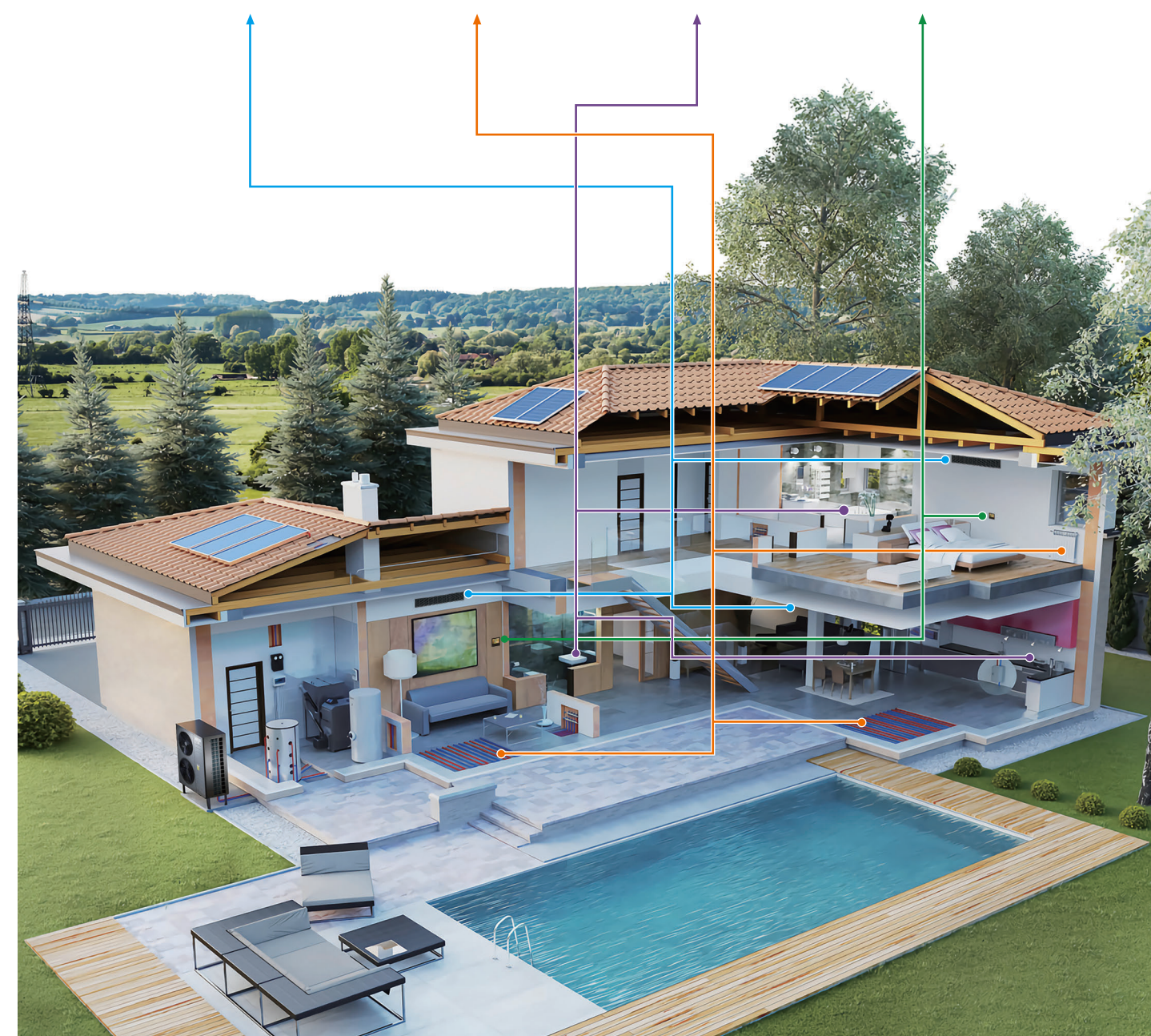
Heating



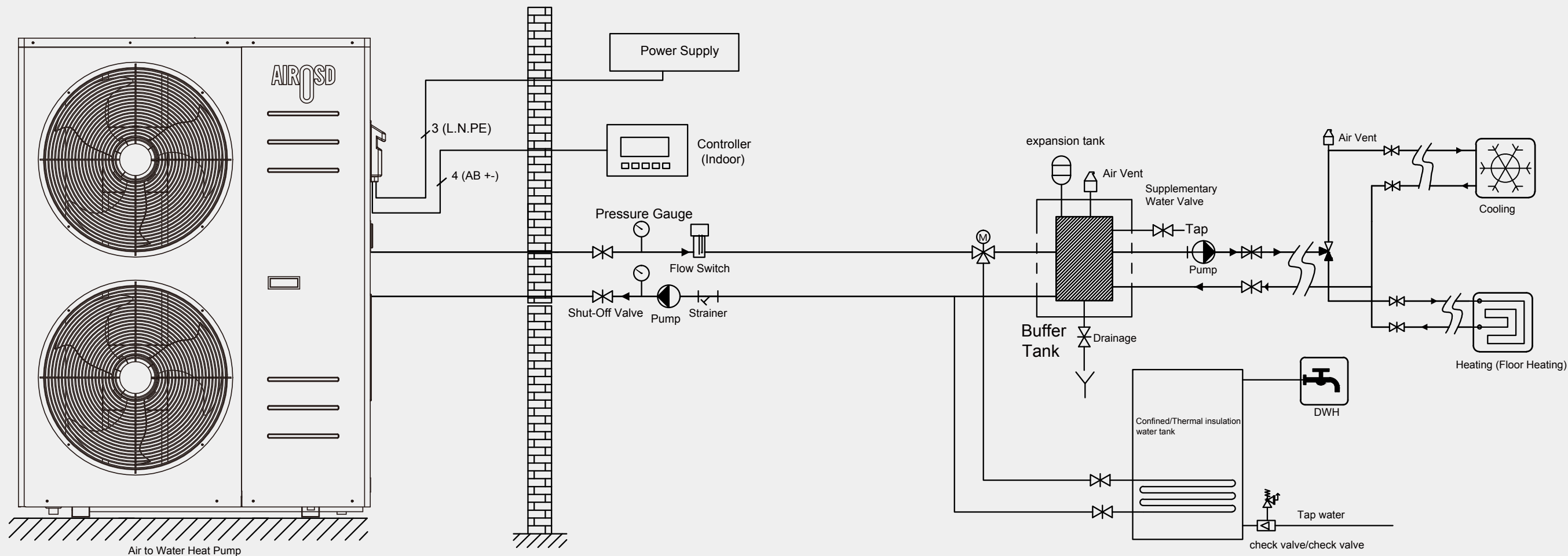
Hot Water



Control



Hydraulic System Schema HEATING & COOLING & DHW



Full DC inverter
DC inverter compressor
+DC inverter fan.



Eco-friendly refrigerant
The use of environmentally friendly R32 refrigerant without pollution to the ozone layer, CDP ozone depletion potential value is zero, safe and environmentally friendly.



Enhance vapor injection(EVI)
The use of EVI strong heating technology can significantly improve the heating capacity in ultra-low temperature environments, making low-temperature heating more efficient.



Heating Cooling & DHW 3 in 1
Cooling in summer and heating in winter, DHW is used for 4 seasons. The end can be connected to fan coil, floor heating pipe and domestic hot water water tank.



Energy saving and high efficiency
Meet requirements of EU Erp A+++.



High water temperature
Meet energy saving requirements and obtain A+++certification



WIFI remote control
Remote setting via APP, convenient for installation and maintenance.



-35°C powerful heating
Design for ambient temp. -35°C-43°C. Stable operation in severe cold and high temperature conditions.



Smart Defrosting
Smart and precise defrosting via parameters from outdoor temperature sensor & heat exchange temperature sensor.



Prevent Secondary Icing Technology
AIROSD patented technology of prevent secondary icing melts the bottom ice more thoroughly, ensuring that the host always maintains superior performance.



WAR intelligent control system
The WAR intelligent control system accurately allocates all components in real time, and links the three major converter technologies of WATER, AIR and REFRIGERANT to bring about more efficient and stable operation.



SAC refrigerant circuit technology
The innovative SAC refrigerant circuit technology effectively solves the precise distribution of energy supply in partial loads and achieves the lowest system operating cost.

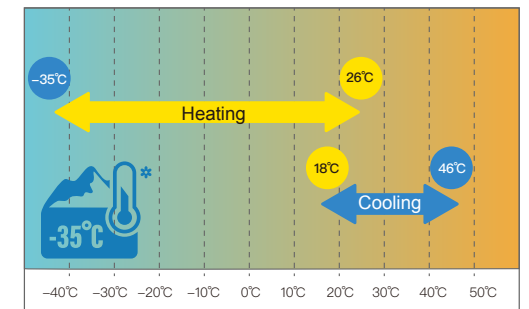
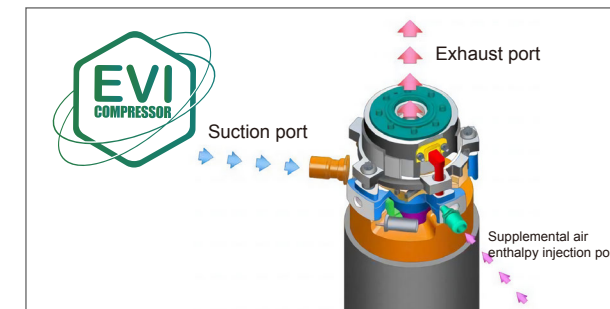


Working ambient
temperature down to -35°C



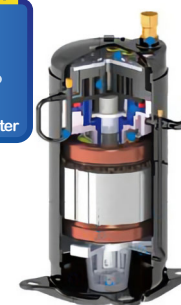
Powerful heating for a wide range of applications

The Enhance vapor injection(EVI) compression technology is adopted to improve the refrigerant circulation system. During the system circulation process, the refrigerant flow is increased through the intermediate air supplementary enthalpy increase, which greatly increases the heating capacity and improves the stability and heating capacity of the system operation under low temperature conditions. In the low temperature state of -35°C, it can ensure efficient heating, wide operating range, and effectively solve the heating problem in cold areas.

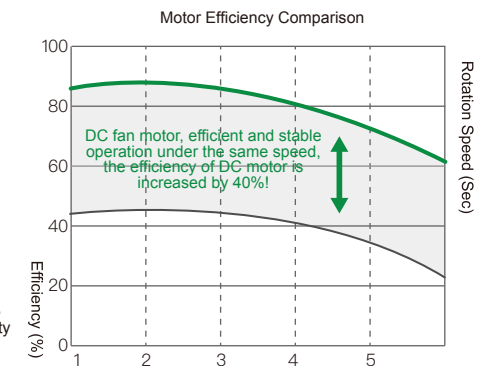


High Efficiency Full DC Inverter Compressor

Adopt DC inverter compressor and DC brushless fan motor, which can realize 20%-120% stepless capacity adjustment. During operation, the speed of compressor and fan can be automatically and intelligently adjusted according to the actual needs of users, so as to reduce the energy consumption of compressor and fan. Make the unit run at the optimal level to achieve the energy saving purpose of output on demand.

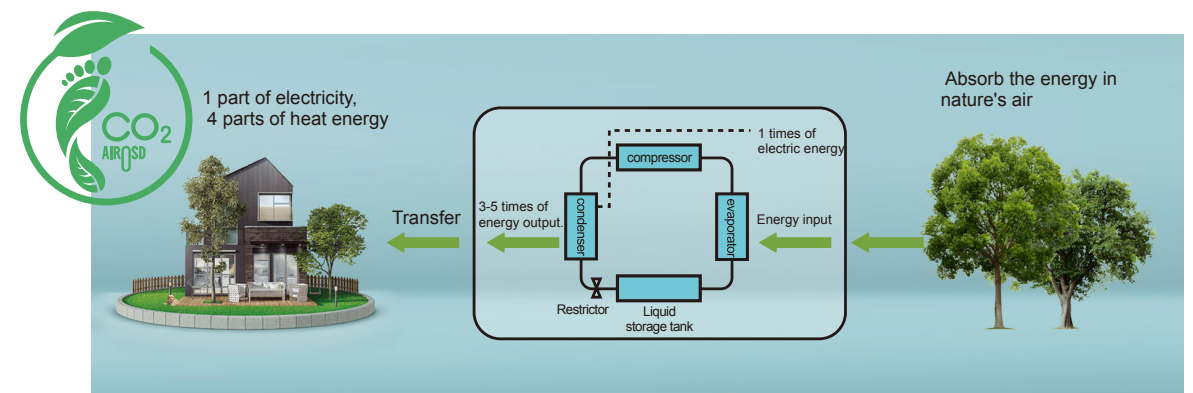


Energy saving and quiet
DC brushless fan motor
significantly reduce energy consumption,
improve wind pressure and motor durability
at the same time



High efficiency and energy saving, green and environmental protection

Using advanced air source heat pump technology, it consumes a small amount of electric energy to drive the machine to run, easily absorb a large amount of free heat energy in the outdoor air, transport it to the room for release, and create a comfortable home life for you. That is, Using 1 part of electricity, you can get more than 3 parts of free air energy from the outdoor air, and get more than 4 parts of heat energy income, which is more energy-saving and efficient.



Comfortable DC inverter, precise temperature control and more energy saving

Precise temperature control, constant temperature and comfort

When the system is started, the full DC frequency conversion technology accelerates the compressor speed to make the indoor temperature reach the set value, and then controls the compressor speed, accurately and effectively maintains the indoor temperature, reduces temperature fluctuations, and avoids sudden cooling and sudden heating. Feel more comfortable.

Freely adjustment, better comfort

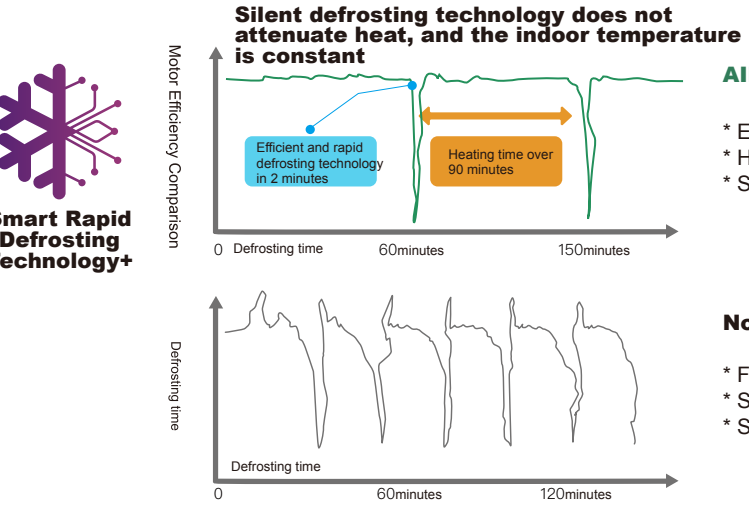
The full DC frequency conversion technology realizes the experience of high energy efficiency, economic operation and comfort. It can accurately adjust the temperature according to the system capacity, and reflect the comfortable indoor environment with a smoother temperature curve.



Smart Rapid Defrosting Technology+ Prevent Secondary Icing Technology

The outdoor unit uses a temperature sensor to accurately grasp the defrosting time, effectively solving the problem of "incomplete defrosting and frost free defrosting".

At the same time, it is equipped with AIROSD's patented technology - Prevent Secondary Icing Technology. When heating in winter, it can ensure that there is no frost at the bottom of the outdoor heat exchanger. At the same time, during defrosting, the ice water mixture left along the fins can be fully heated to liquid state and discharged through the bottom drain hole to avoid the poor heating effect caused by the accumulation of ice frost at the bottom.



AIROSD Heat Pump Defrosting Graph

- * Efficient and rapid defrosting technology in 2 minutes
- * Heating time over 90 minutes
- * Smooth and comfortable indoor temperature

Normal Heat Pump Defrosting Graph

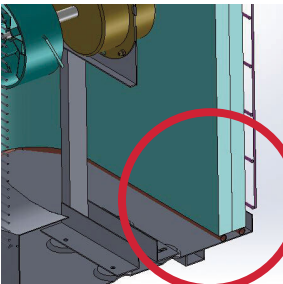
- * Frequent defrosting
- * Short of heating time, in indoor temperature can not rise
- * Shock cooling and heating.



Prevent Secondary Icing Technology



Normal heat pump outdoor unit



AIROSD heat pump outdoor unit

AIROSD patented technology, prevent base plate from secondary icing

R32 refrigerant, energy saving and environmental protection

To reduce carbon emission to the environment and curb global warming, AIROSD develops R32 air to water heat pump. With many advantages such as low carbon emission and high efficiency, and help achieve the global goal of carbon neutrality.



Environmentally friendly refrigerant



Reliable water system, long-term and safety

Reliable operation and long-term protection

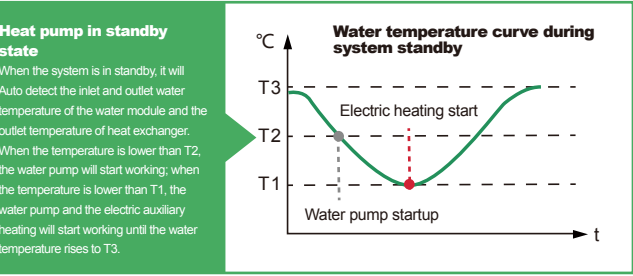
The closed water system is set with an automatic anti-adhesion control function, which effectively prevents the water containing fine impurities and scale generated by long-term operation, or the action of the pump, three-way valve or other waterway parts due to long-term non-operation, ensuring long-term operation. reliable operation.

Water system safety protection

The water system is not only equipped with safety valve and exhaust valve, but also installed with water flow switch and low water pressure switch, which can effectively avoid water leakage, water shortage and dry burning.

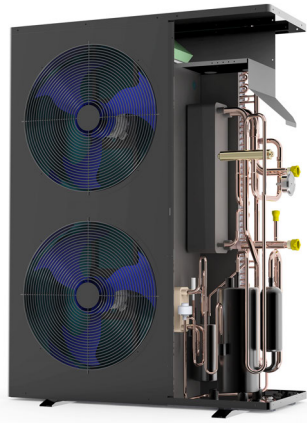
Intelligent antifreeze protection

In winter, the system will start the anti freezing function, which can prevent water pipe from freezing crack, water leakage and other accidents



Built-in hydraulic module

Main accessories: water pump (optional), expansion tank, water flow switch, Auto pressure relief valve, compressor, heat exchanger, Auto exhaust valve, which will keep the system balanced at all times.



Stainless Steel Multistage Centrifugal Pump



Expansion tank



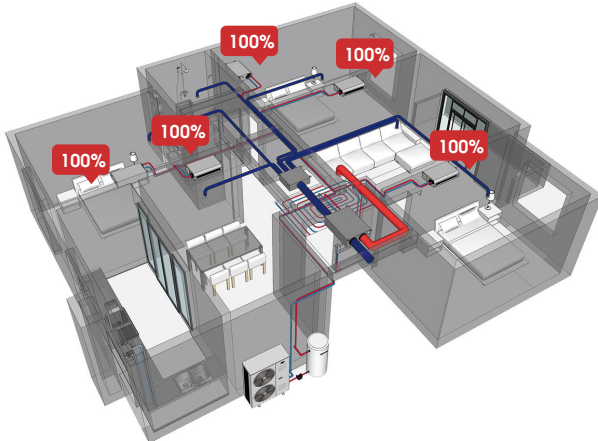
Flow switch



Automatic pressure relief valve



Auto exhaust valve



No pipe length attenuation

The indoor heating / cooling is provided by the water circuit, outdoor host with built-in expansion tanks and other hydraulic modules to ensure the normal operation of maximum height difference between indoor and outdoor units.



Intelligent remote app control, and online self-diagnosis function

- * Remotely view and control the temperature and water level parameters of water tank.
- * Remote control of pipeline water circulation, water return, anti-freezing and defrosting;
- * Remote control of pipeline water circulation, water return, anti-freezing and defrosting;
- * Remotely control water pump mode ; Remotely / Manually / Automatically control ON/OFF ;
- * Fault warning and display panel, support the storage and query of historical record of monitoring, controlling, alarming and operation





Heating&Cooling&DHW 3 in 1 heat pump series

MODEL			QBKFXFC-006SRI	QBKFXFC-009SRI	QBKFXFC-012SRI	QBKFXFC-014SRI
<div><div>A+++</div><div>EVI</div><div>R32</div><div>-35℃</div><div></div><div>CE</div></div>						
Heating capacity range		kW	3.0~8.0	3.5~10.0	4.5~14.0	5.5~16.0
DHW heating capacity	Heating capacity	kW	8	10	14	16
	Water yield	L/H	172	215	301	344
	Input power	kW	1.86	2.31	3.24	3.76
	COP	-	4.3	4.32	4.32	4.26
	Operating current	A	8.3	10.4	14.5	16.8
Heating capacity A7w35	Heating capacity	kW	6	9	12	14
	Input power	kW	1.36	2.02	2.63	3.17
	COP	-	4.42	4.46	4.56	4.42
	Operating current	A	6.1	9.0	11.8	14.2
Heating capacity A7w45	Heating capacity	kW	6	9	12	14
	Input power	kW	1.75	2.61	3.31	3.94
	COP	-	3.43	3.45	3.62	3.55
	Operating current	A	7.8	11.7	14.9	17.7
cooling capacity A35W7	Cooling capacity	kW	5	6.5	10	13
	Input power	kW	1.75	2.28	3.17	4.18
	EER	-	2.85	2.85	3.15	3.11
	Operating current	A	7.9	10.2	14.2	18.7
Heating capacity /COP	A7W55	-	5.9/2.92	9.1/2.91	12.0/2.90	14.0/2.92
	A-7W35	-	4.7/3.21	7.2/3.16	9.6/3.20	11.5/3.23
	A-7W45	-	4.8/2.75	7.3/2.65	9.6/2.68	11.5/2.68
	A-7W55	-	4.8/2.25	7.3/2.20	9.7/2.21	11.6/2.23
	A-15W35	-	3.8/2.68	5.7/2.67	7.5/2.65	9.0/2.68
	A-15W45	-	3.8/2.25	5.8/2.21	7.5/2.22	9.0/2.24
	A-15W55	-	3.9/1.86	6.0/1.82	7.6/1.83	9.1/1.87
ERP(35℃)		-	A+++	A+++	A+++	A+++
ERP(55℃)		-	A++	A++	A++	A++
Operating current		A	16	20	23	30
Maximum input power		kW	3.8	4.8	5.5	7.2
Power supply		V/Hz	220-240V~/50Hz	220-240V~/50Hz	220-240V~/50Hz	220-240V~/50Hz
Ambient temp. range		℃	-35~45	-35~45	-35~45	-35~45
Refrigerant type		-	R32	R32	R32	R32
Compressor	Type	-	DC inverter twin rotary			
	Brand	-	Panasonic			
Throttling components		-	Electronic expansion valve			
Air side heat exchanger		-	Hydrophilic aluminum foil fin heat exchanger			
Air out type		-	Side	Side	Side	Side
Fan type		-	Low noise axial fan	Low noise axial fan	Low noise axial fan	Low noise axial fan
Fan motor	Type	-	Brushless DC motor	Brushless DC motor	Brushless DC motor	Brushless DC motor
	Brand	-	NIDECC/ SiGe	NIDECC/ SiGe	NIDECC/ SiGe	NIDECC/ SiGe
	Number	-	1	1	1	2
Water side heat exchanger		-	Plate heat exchanger	Plate heat exchanger	Plate heat exchanger	Plate heat exchanger
Brand of water side heat exchanger		-	Feng Huang	Feng Huang	Feng Huang	Feng Huang
Temperature range of heating water outlet		℃	25~58	25~58	25~58	25~58
Temperature range of cooling water outlet		℃	5~25	5~25	5~25	5~25
Temperature range of domestic hot water		℃	40~55	40~55	40~55	40~55
Water port size		-	G3/4 Internal thread(DN20)	G1.0 Internal thread(DN25)		
Water yield		m³/h	1.38	1.72	2.41	2.75
Water side pressure loss		kPa	25	25	25	35
Expansion tank capacity		L	/	/	5	5
Noise		dB(A)	≤54	≤55	≤55	≤56
Unit dimension (W×D×H)		mm	1075*480*805	1075*480*805	995*445*1000	1040*445*1350
Packing dimension (W×D×H)		mm	1165*530*925	1165*530*925	1085*495*1120	1130*495*1470
N.W.		kg	70	80	85	120
G.W.		kg	80	90	95	130

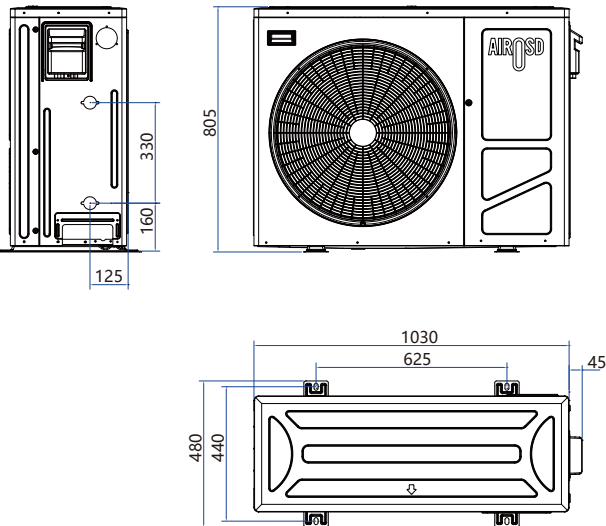
MODEL			QBKFXFC-016SRI	QBKFXFC-018SRI	QBKFXFC-024SRII	QBKFXFC-30SRII
<div><div>A+++</div><div>EVI</div><div>R32</div><div>-35℃</div><div></div><div>CE</div></div>						
Heating capacity range		kW	6.5~18.0	7.5~20.0	9.0~26.0	12.5~35.0
DHW heating capacity	Heating capacity	kW	18	20	26	35
	Water yield	L/H	387	430	559	753
	Input power	kW	4.14	4.67	6.10	8.24
	COP	-	4.35	4.28	4.26	4.25
	Operating current	A	18.5	20.9	10.3	13.9
Heating capacity A7w35	Heating capacity	kW	16	18	24	30
	Input power	kW	3.53	4.04	5.26	6.62
	COP	-	4.53	4.46	4.56	4.53
	Operating current	A	15.8	18.1	8.9	11.2
Heating capacity A7w45	Heating capacity	kW	16	18	24	30
	Input power	kW	4.38	5.00	6.58	8.33
	COP	-	3.65	3.6	3.65	3.6
	Operating current	A	19.6	22.4	11.1	14.1
cooling capacity A35W7	Cooling capacity	kW	14	16	22	28
	Input power	kW	4.46	5.21	6.98	9.49
	EER	-	3.14	3.07	3.15	2.95
	Operating current	A	20.0	23.4	11.8	16.0
Heating capacity /COP	A7W55	-	16.0/2.98	18.0/2.94	24.0/2.98	30.0/2.95
	A-7W35	-	12.8/3.25	14.5/3.18	18.0/3.24	24.0/3.21
	A-7W45	-	13.1/2.72	14.5/2.68	18.2/2.68	24.2/2.71
	A-7W55	-	13.1/2.25	14.6/2.21	18.5/2.22	24.3/2.23
	A-15W35	-	10.5/2.71	11.5/2.68	15.0/2.69	20.0/2.71
	A-15W45	-	10.5/2.28	11.6/2.23	15.2/2.28	20.2/2.29
	A-15W55	-	10.6/1.95	11.8/1.88	15.5/1.92	20.4/1.93
ERP(35℃)		-	A+++	A+++	A+++	A+++
ERP(55℃)		-	A++	A++	A++	A++
Operating current		A	32	34	20	27
Maximum input power		kW	7.7	8.2	12.9	17.4
Power supply		V/Hz	220-240V~/50Hz	220-240V~/50Hz	380-415V 3N~/50Hz	380-415V 3N~/50Hz
Ambient temp. range		℃	-35~45	-35~45	-35~45	-35~45
Refrigerant type		-	R32	R32	R32	R32
Compressor	Type	-	DC inverter twin rotary			
	Brand	-	Panasonic			
Throttling components		-	Electronic expansion valve			
Air side heat exchanger		-	Hydrophilic aluminum foil fin heat exchanger			
Air out type		-	Side	Side	Side	Side
Fan type		-	Low noise axial fan	Low noise axial fan	Low noise axial fan	Low noise axial fan
Fan motor	Type	-	Brushless DC motor	Brushless DC motor	Brushless DC motor	Brushless DC motor
	Brand	-	NIDECC/ SiGe	NIDECC/ SiGe	NIDECC/ SiGe	NIDECC/ SiGe
	Number	-	2	2	2	2
Water side heat exchanger		-	Plate heat exchanger	Plate heat exchanger	Plate heat exchanger	Plate heat exchanger
Brand of water side heat exchanger		-	Feng Huang	Feng Huang	Feng Huang	Feng Huang
Temperature range of heating water outlet		℃	25~58	25~58	25~58	25~58
Temperature range of cooling water outlet		℃	5~25	5~25	5~25	5~25
Temperature range of domestic hot water		℃	40~55	40~55	40~55	40~55
Water port size		-	G1.0 Internal thread(DN25)		G1.2 Internal thread(DN32)	
Water yield		m³/h	3.10	3.44	4.47	6.02
Water side pressure loss		kPa	35	35	40	45
Expansion tank capacity		L	5	5	5	5
Noise		dB(A)	≤56	≤56	≤59	≤62
Unit dimension (W×D×H)		mm	1040*445*1350	1040*445*1350	1140*455*1580	1140*455*1580
Packing dimension (W×D×H)		mm	1130*495*1470	1130*495*1470	1230*505*1700	1230*505*1700
N.W.		kg	120	130	150	220
G.W.		kg	130	145	165	235

Note

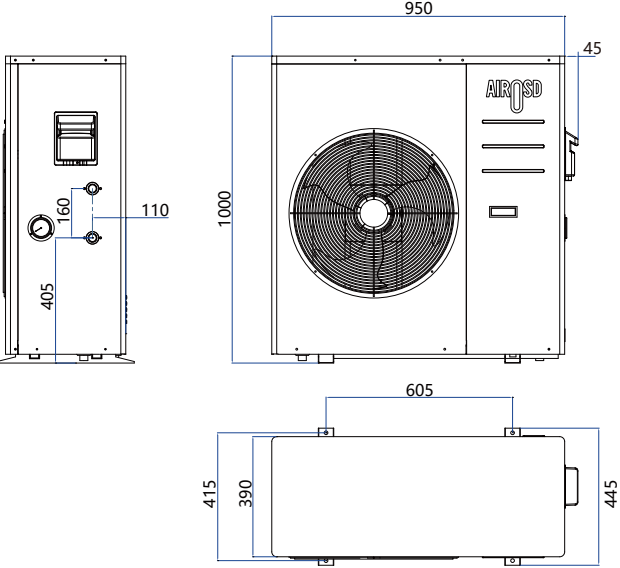
1. Heating capacity conditions : (DB/WB) =20℃/15℃, inlet water temperature 15℃, outlet water temperature 55℃.
2. Heating A7W35 condition: (DB/WB)= 7℃/ 6℃, inlet water temperature 30℃, outlet water temperature 35℃.
3. Heating A7W45condition: (DB/WB)= 7℃/ 6℃, inlet water temperature 40℃, outlet water temperature 45℃.
4. Rated cooling condition: (DB/WB)=35℃, inlet water temperature 12℃, outlet water temperature 7℃.
5. Due to product improvement, above datas are subject to change without prior notice, please take the rating plate as standard.

Dimension outline drawing

QBKFXFC-006SRI QBKFXFC-009SRI

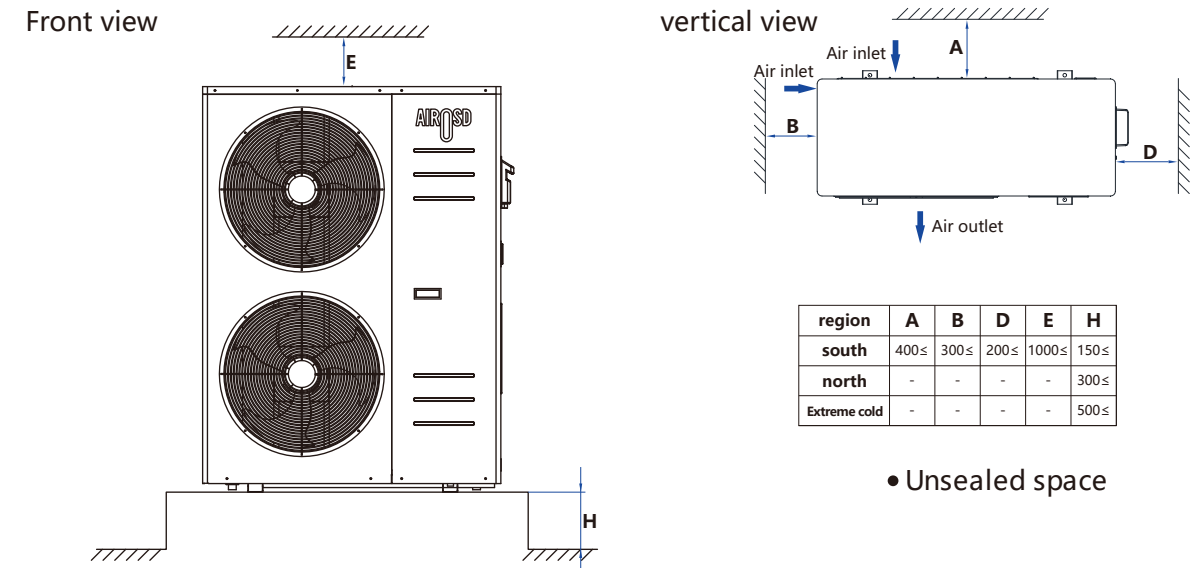


QBKFXFC-012SRI

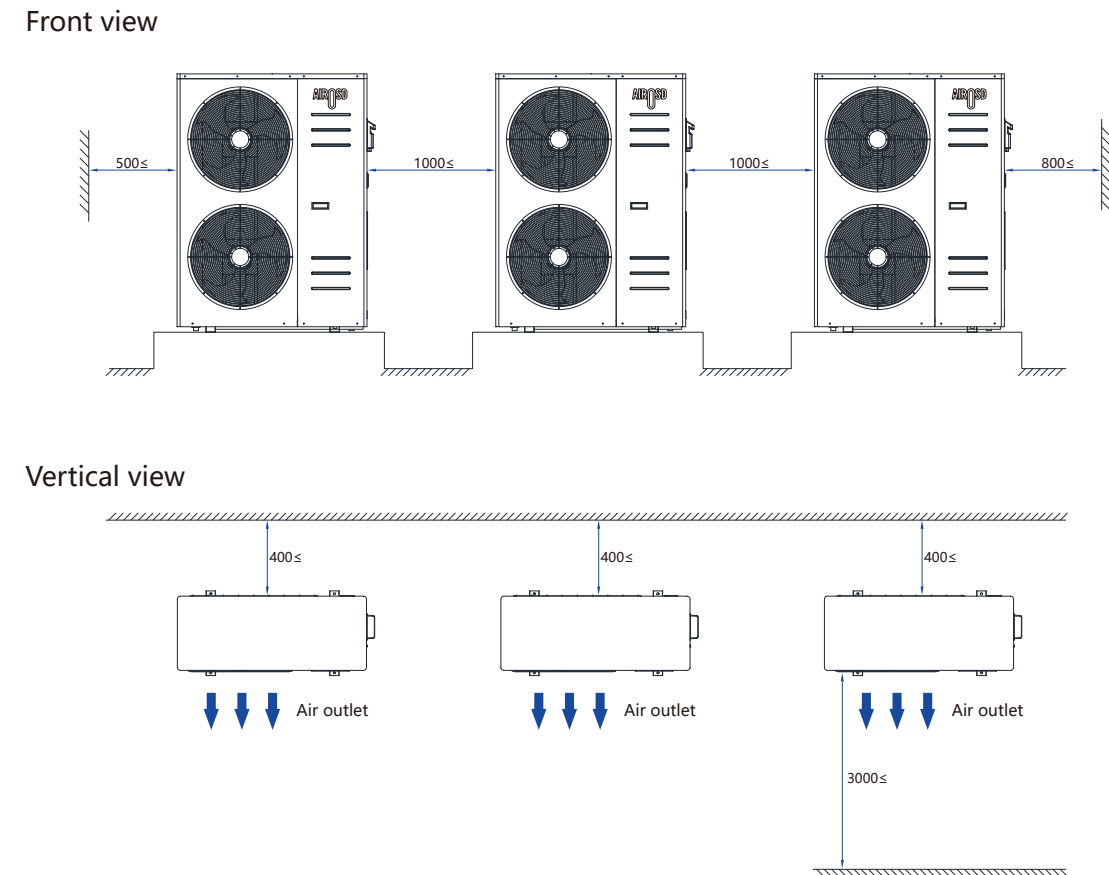


Installation spacing diagram

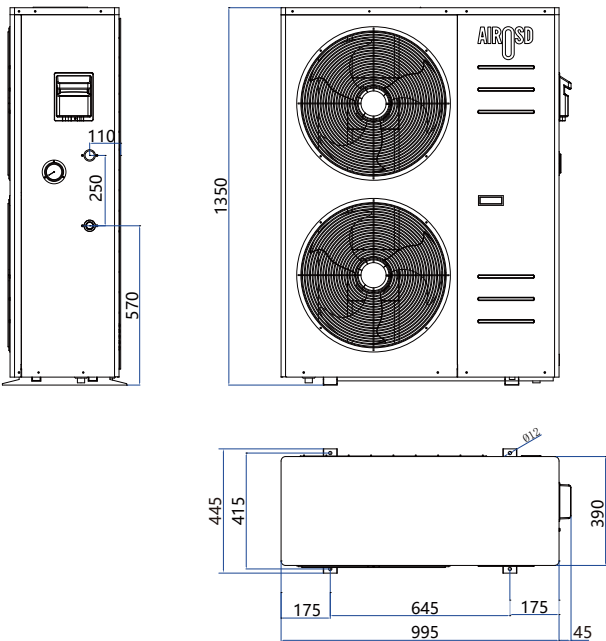
1、The installation space of a single machine is shown in the following diagram (mm)



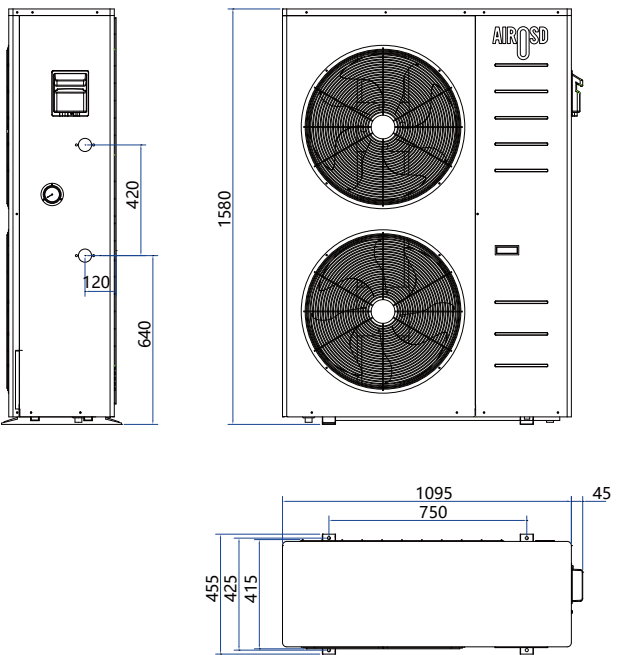
2、Installation space description of multiple units (unit: mm)



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