ARES POWER

10 YEAR WARRANTY

QUALITY REDEFINED

COMPLETE SOLUTION

UK SUPPORT & PARTS

ZESTO

Air to water heat pump

June 2023

Ares Power
Brand Story

Ares Power Energy Ease Solutions, a leading provider of energy-efficient equipment and home appliances designed to help customers reduce their carbon footprint and increase comfort in their homes.

Our mission is to provide innovative and sustainable solutions that make it easy for individuals and families to live a greener and more comfortable life. With a wide range of products, from solar electricity generation system, energy storage to heat pumps, Ares Power offers something for everyone. Our commitment to quality, customer satisfaction, and environmentally responsible manufacturing processes sets us apart as a company dedicated to making a positive impact on the world. Whether you're looking to save money on your energy bills, reduce your environmental impact, or simply make your home a more comfortable place to live, Ares Power Solutions has the products and expertise to help you achieve your goals.

ZESTO

Heat Pumps


1:23
LTE
ARES POWER
TEMPERATURE
25°
09:00 - 2:30
+ Add
Living Room
Control
Zones
Analysis
Automation
Search

ARES POWER

ZESTO

Air to water

heat pump

Ares Power Zesto heat pumps use free energy from the outside air as the main energy source for space heating in the winter and can also provide cooling in the summer.

Heat pump system

In order to get 5kW of heat for your home, the heat pump system needs 1kW of electricity, and 4kW of energy is from the outdoor air. Compared to a conventional boiler our system will save energy, CO_2 emission and running costs.

Type	Monobloc		Split
Series	MB3	MB5	S5
Efficiency class	A+++ 35°C		
Benefits			
Full DC inverter technology	●	●	●
2 zone control		●	●
Max 60°C hot water		●	●
Fast DHW		●	●
Quiet mode		●	●
Turbo mode	●	●	●
Climate curve		●	●
Sterilization		●	●
Auto mode		●	●
Smart grid		●	●
Modbus	●	●	●
Holiday mode		●	●
Scheduling programmes		●	●
DHW tank solar thermal control		●	●
Auxiliary heating source	●	●	●
Pool heating		●	●
Bi valence control		●	●
Cascade control		●	●
Floor drying	●	●	●
Anti-freezing	●	●	●
Anti-rust and corrosion of water pump		●	●
Error history		●	●
Parameters check		●	●

ARES POWER

ZESTO

Air to water

heat pump

- Eco friendly R32
- Flexible integrated solution
- Operation at outdoor temperature as low as - 25°C
- For home, small business and commercial unit
- Smart grid intelligence
- Provides house heating, cooling and domestic hot water supply
- High-efficiency class A+++ at 35 °C and A++ at 55°C
- Anti-freezing technology
- Fast direct hot water supply
- 2 zone temperature control

ARES POWER

Line-up

Series	MB3 1Phase	MB5 1Phase (5/6, 7/8, 9/10kW Units) 3Phase (11/12, 14, 15/16kW Units)	S5 1 Phase
5/6 kW	•	•	•
7/8 kW	•	•	•
9/10 kW		•	•
11/12kW	•	•	
14kW		•	
15/16kW	•	•	

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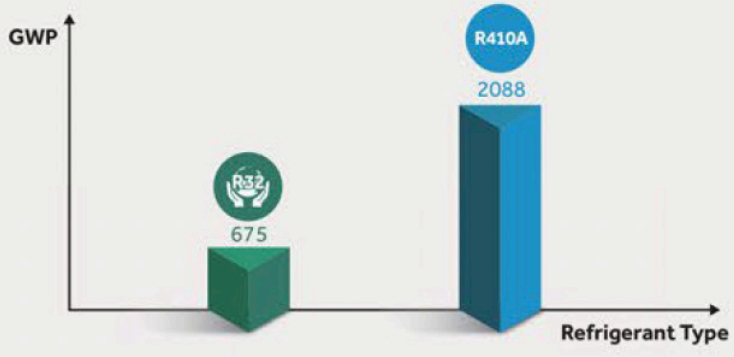
MB3 Series

Environmentally-friendly

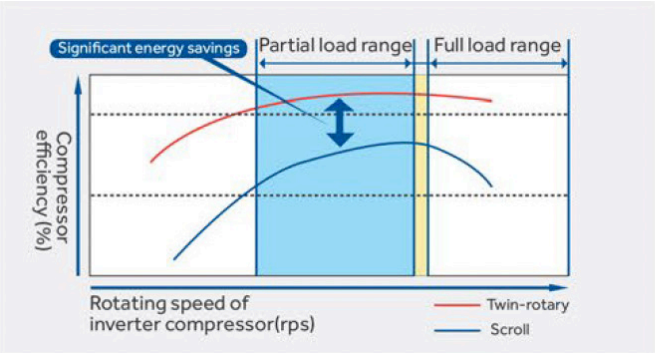
Eco-friendly R32

Our products use the future refrigerant: R32, which has been shown to have a remarkably reduced environmental impact compared to other refrigerants such as R410A.



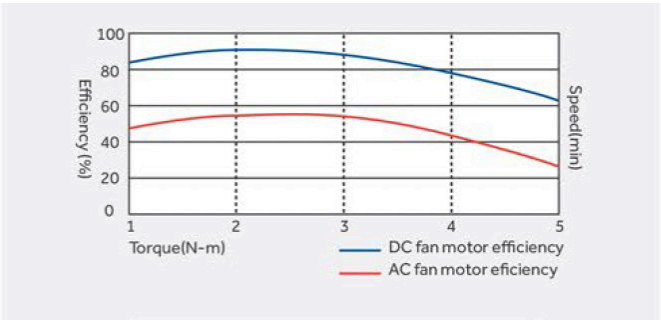
Environmentally-friendly

The MB3 series efficiency class is up to the highest class A+++ AT 35°C leaving water temperature and A++ at 55°C leaving water temperature for space heating.



Full DC inverter technology

All the heat pumps adopt full DC inverter twin-rotary compressor which has smaller size and higher efficiency compared with scroll compressor. Because the smaller friction of the compressor, the running vibration is lower, realising the high efficiency and low noise of the compressor.

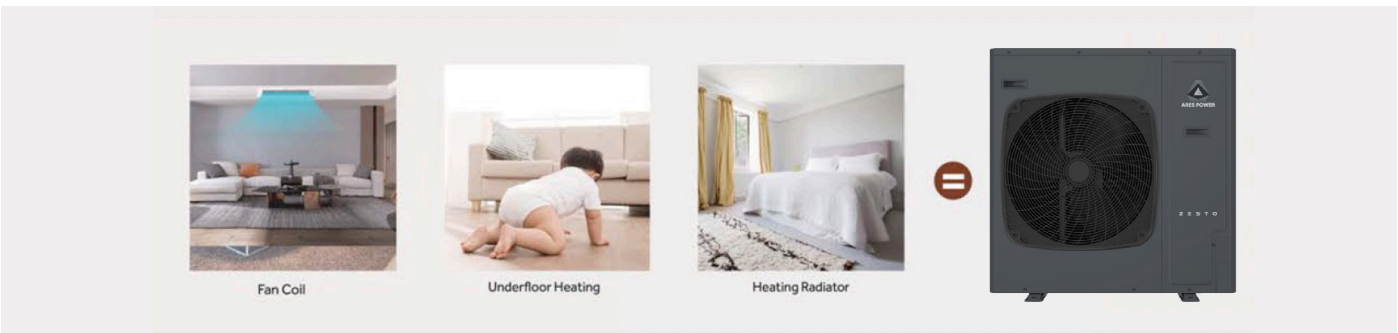


Stepless adjustment technology

The variable frequency stepless speed control motor delivers further energy savings. Additionally the use of a water-cooled canned rotor pump achieves lower sound levels and higher efficiencies.

Ultimate Comfort 60°C hot water

Offers an integrated solution to guarantee the total comfort in your home. Leaving water temperature ranges from 5°C to 60°C, which provides comfortable cooling and heating for users.
In addition, production of domestic hot water is guaranteed all year. The air side equipment can be fan coil, heating, or radiator, which can meet different installation scenarios.



Low sound level

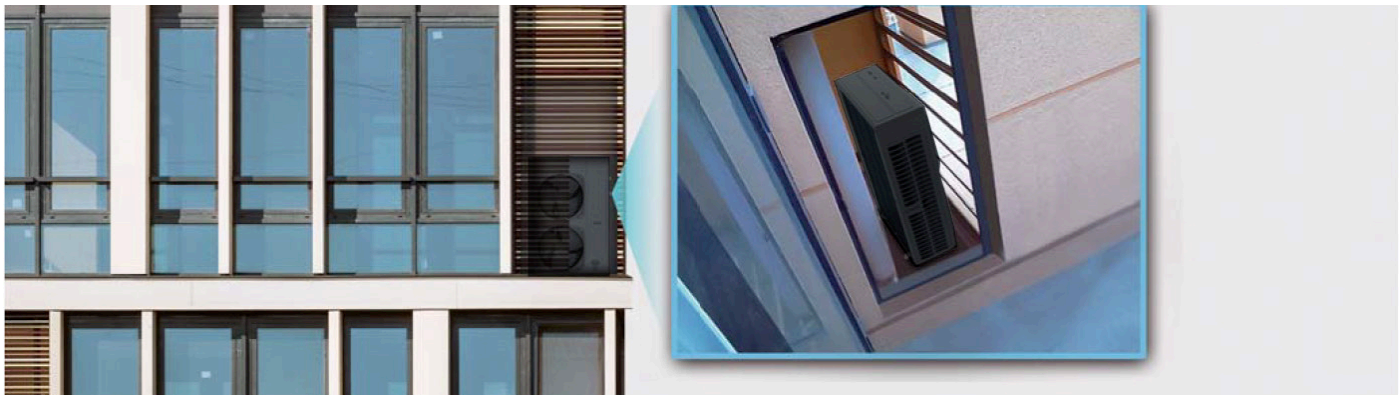
Multiple noise reduction measures ensure a low sound level.

Compressor
Covered by the soundproof material, blocking noise reduction from the compressor; Mounted on the rubber anti-vibration mounts for the quiet operation and low vibration.

Axial fan
Brushless DC fan motor and aerodynamically optimised impeller for noise and vibration reduction.

Pipeline design
New structure and optimised design of pipeline effectively avoid pipeline noise and vibration.

Quiet mode
In addition, quiet mode is available for quiet operation at night.

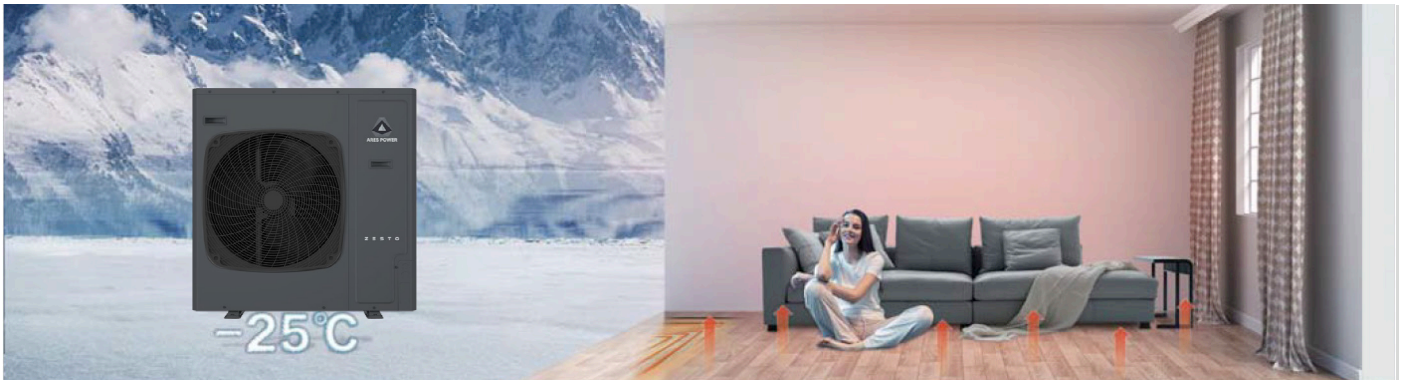


Super Convenience

Easy installation
Compact design allows the unit to be installed even when the space is limited.

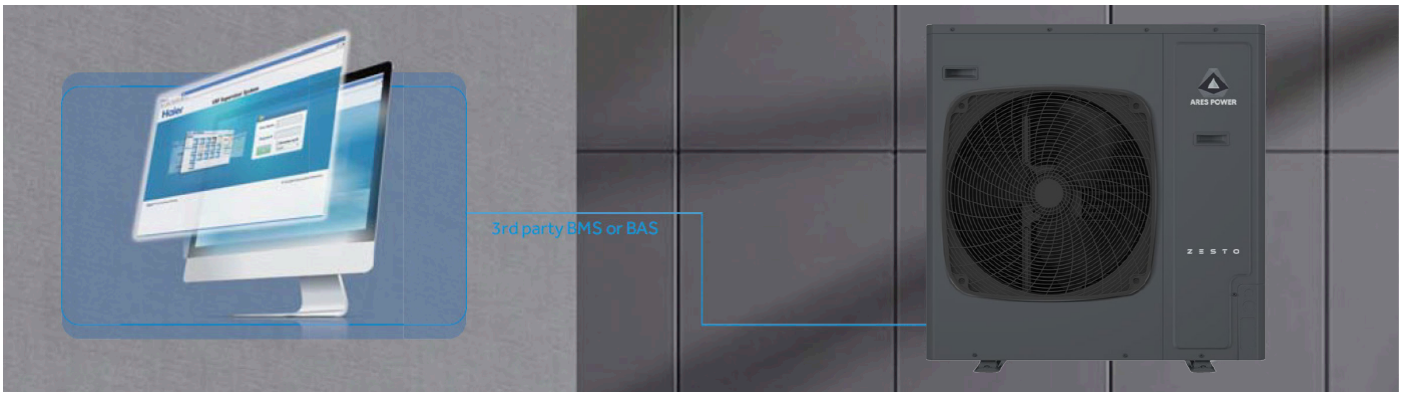
High Reliability

Intelligent anti-freezing technology
The anti-freeze programmes protects hydraulic parts from damage.



Wide operating range

The operating outdoor ambient temperature of the heating mode is as low as -25°C.



Intelligence

Easy 3rd party BMS solution

The unit integrates the MODBUS RTU communication protocol, can be connected to 3rd party BMS or BAS directly, no additional Modbus gateway needed.

Wide Application

Capacity range from 5kW to 16kW is suitable for both residences and small-sized commercial application Scenarios. Small-capacity units are mainly used in new build residential buildings whilst medium-capacity products are mainly used for refurbishments. Big-capacity products can be installed in small-sized commercial applications, such as cafe, restaurant, hair salons and so on.

ARES POWER

ZESTO

MB3 *Series*

R32 Reversible Air-to-water heat pump

The MB3 series of reversible air-to-water monobloc provides heating, cooling and domestic hot water for home. It provides customers with a more economical solution, to help customers save the cost.

Features

Turbo

BMS

- Eco-friendly R32
- Full DC inverter technology
- 5kW unit COP at 35°C leaving water temperature reaches 5.05
- Max 60°C hot water (5kW)
- Wide heating operation range (5kW: ambient temperature: -25-35°C)
- Built-in flow switch, safety valve for easy installation

Specifications

Model			M305V3	M308V3
Heating (LWT 35°C/OAT 7°C) Power input kW	Capacity	kW	5.00	7.80
	Power Input	kW	0.99	1.77
	COP	-	5.05	4.40
Heating (LWT 55°C/ OAT 7°C) Power input	Capacity	kW	5.00	7.01
	Power Input	kW	1.64	2.76
	COP	-	3.05	2.54
Space heating average climate water outlet 35°C	SCOP	-	4.59	3.87
	Ns	%	180	152
	Energy class	-	A+++	A++
Space heating average climate water outlet 55°C	SCOP	-	3.32	2.90
	Ns	-	130	113
	Energy class	-	A++	A+
Cooling (LWT 18°C/OAT 35°C) Power input	Capacity	kW	5.00	7.00
	Power Input	kW	1.00	1.89
	EER	-	5.00	3.70
Cooling (LWT 7°C/OAT 35°C) Power input	Capacity	kW	5.00	5.50
	Power Input	kW	1.56	2.34
	EER	-	3.20	2.35
Outdoor operating temperature range	Heating	°C	-25-35	-20-35
	Cooling	°C	10-46	10-46
Leaving water temperature range	Heating	°C	25-60	25-55
	Cooling	°C	5-20	5-20
Water flow rate		L/min	14.3	23.0
Water pipe connection	Inlet/Outlet	°C	RC 3/4”	RC 1”
Compressor	Quantity	-	1	
	Type	-	DC inverter twin rotary	
Refrigerant		-	R32	
		kg/T	1.00 / 0.675	1.15 / 0.777
Net dimension	(HxWxD)	mm	765X920X372	965X950X370
Packing dimension	(HxWxD)	mm	875X1045X488	1108X1010X480
Net/Gross weight		kg	69/80	87/97
Sound power level		cB(A0	61	64
Power supply		-/VHz	1,220-240.50/60	1,220-240,50/60
Max running current		A	13.5	31.3
Recommended circuit breaker		A	30	32
Accessories	Wired controller	/	YR-W27A (Standard)	YR-W27A (Standard)
	DHW PCB	/	ATW-A01 (Optional)	
	Filter	/	Standard	

Note: 1. According to EN14511, EN 14825 (EU) and No 811/2013(EU).
2. LWT: Leaving water temperature: OAT: Outdoor air temperature.
3. Sound level values are measured at a semi-anechoic room, and the sound power level values are based on measurement of EN2102-1 under conditions of EN14825.
4. The above data may be changed without notice for future improvement on quality and performance.

Monobloc MB3 Specification

Model			M311SV3	M316SV3
Heating (LWT 35°C/OAT 7°C) Power input kW	Capacity	kW	11.00	16.00
	Power Input	kW	2.61	3.86
	COP	-	4.22	4.15
Heating (LWT 55°C/ OAT 7°C) Power input	Capacity	kW	9.99	14.01
	Power Input	kW	4.40	5.63
	COP	-	2.27	2.49
Space heating average climate water outlet 35°C	SCOP	-	4.35	4.00
	Ns	%	171	157
	Energy class	-	A++	A++
Space heating average climate water outlet 55°C	SCOP	-	3.30	3.09
	Ns	-	125	121
	Energy class	-	A++	A+
Cooling (LWT 18°C/OAT 35°C) Power input	Capacity	kW	13.50	16.00
	Power Input	kW	2.94	3.64
	EER	-	4.60	4.40
Cooling (LWT 7°C/OAT 35°C) Power input	Capacity	kW	11.50	14.50
	Power Input	kW	3.83	4.92
	EER	-	3.00	2.95
Outdoor operating temperature range	Heating	°C	-20-35	-20-35
	Cooling	°C	10-46	10-46
Leaving water temperature range	Heating	°C	25-55	25-55
	Cooling	°C	5-20	5-20
Water flow rate		L/min	31.5	45.8
Water pipe connection	Inlet/Outlet	°C	RC 1”	RC 1”
Compressor	Quantity	-	1	
	Type	-	DC inverter twin rotary	
Refrigerant		-	R32	
		kg/T	2.40/ 1.620	2.60 / 1.755
Net dimension	(HxWxD)	mm	1500X950X370	1500X950X370
Packing dimension	(HxWxD)	mm	1638X1010X480	1638X1010X480
Net/Gross weight		kg	145/157	145/147
Sound power level		cB(A0	67	68
Power supply		-/VHz	1,220-240.50/60	1,220-240,50/60
Max running current		A	24.3	31.7
Recommended circuit breaker		A	32	40
Accessorys	Wired controller	/	YR-W27A (Standard)	YR-W27A (Standard)
	DHW PCB	/	ATW-A01 (Optional)	
	Filter	/	Standard	

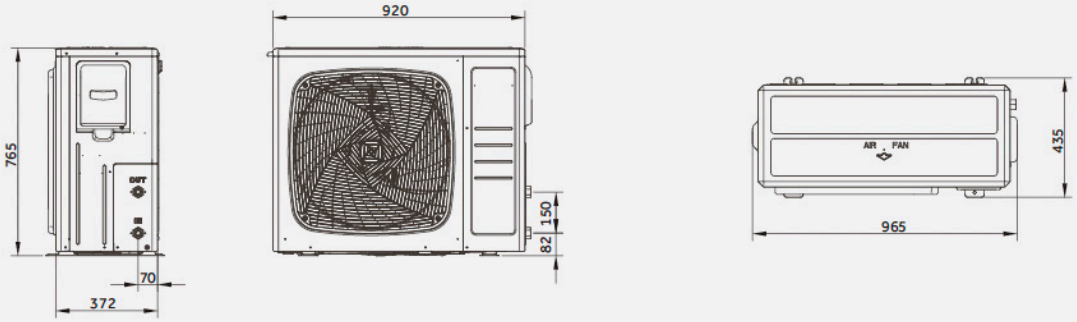
Features

Turbo

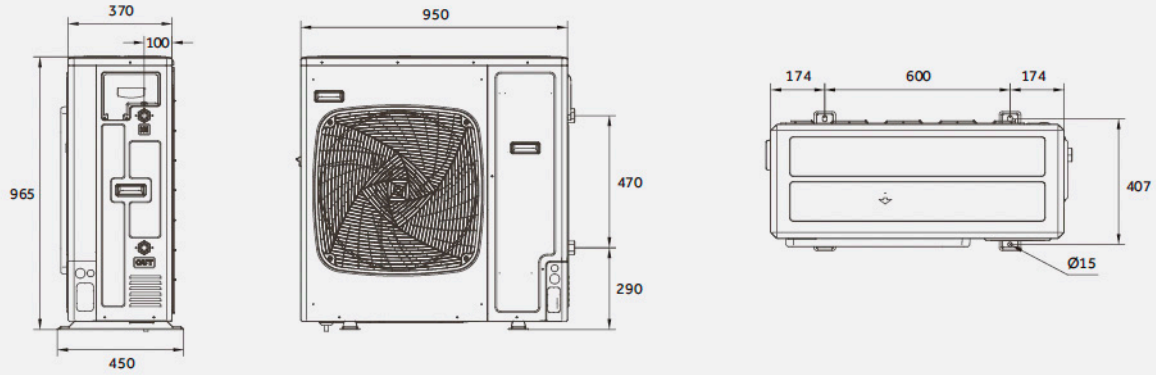
BMS

Outline dimensions

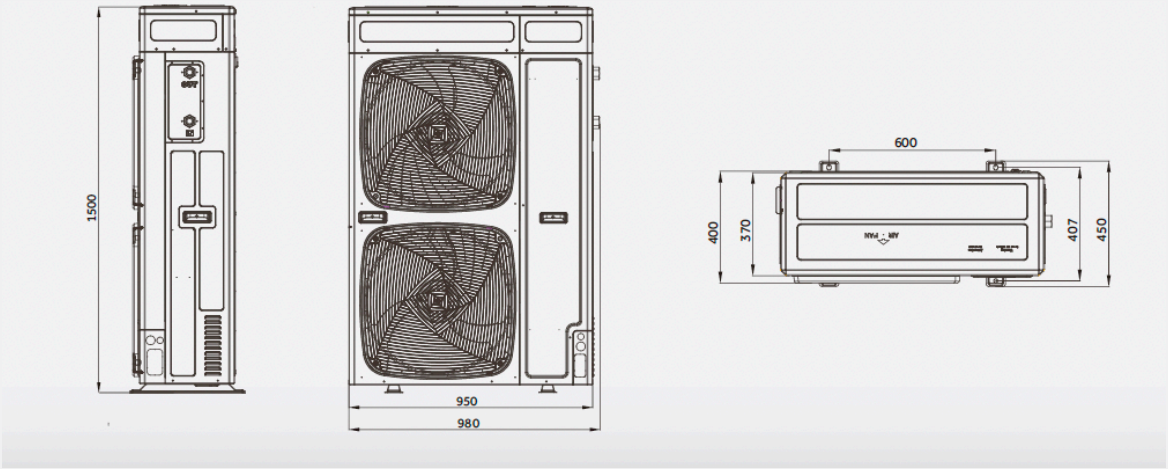
M305V3



M308V3



M311SV3/M316SV3



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2. LWT: Leaving water temperature: OAT: Outdoor air temperature.
3. Sound level values are measured at a semi-anechoic room, and the sound power level values are based on measurement of EN2102-1 under conditions of EN14825.
4. The above data may be changed without notice for future improvement on quality and performance.

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MB5 Series

High Efficiency

The MB5 series heat pumps have the top efficiency class A+++. The SCOP at 35°C leaving water temperature can reach 4.97 and the 35°C leaving water temperature is up to 5.06.

Ultimate Comfort High leaving water temperature

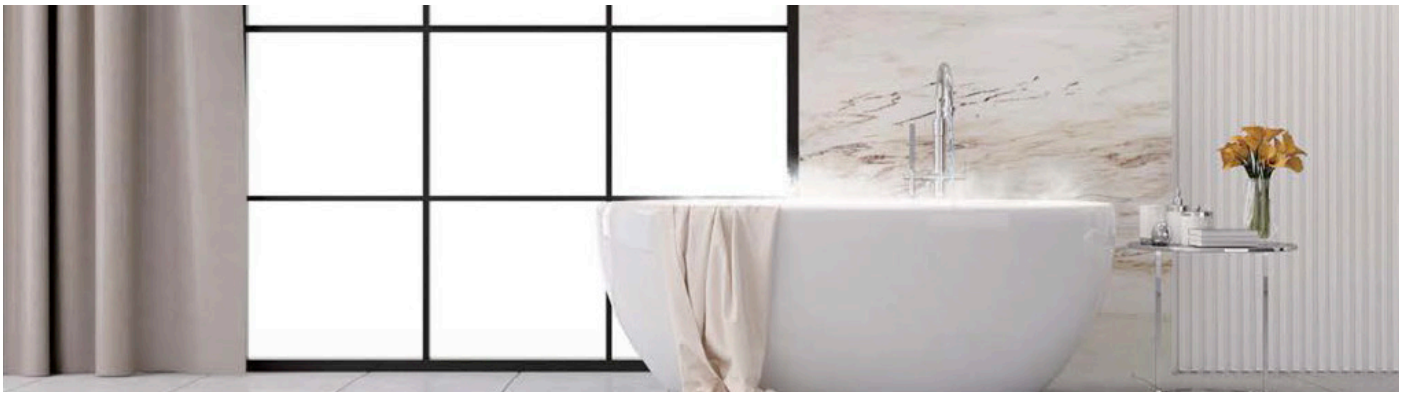
High leaving water temperature of 60°C is guaranteed without using a backup heater when the outdoor temperature is higher than -15°C.

2 zone control

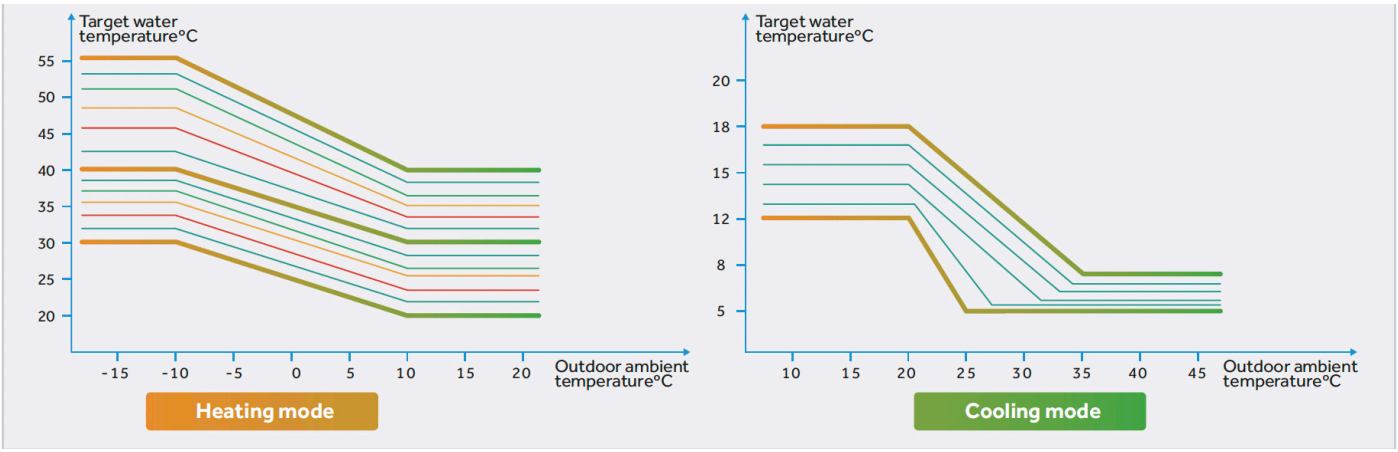
When there are different room temperature requirements, two zone temperature control through separate heating or cooling circuits is possible. Adjust and maintain two different water temperatures to achieve intelligent control and saving energy.

Fast DHW

High efficiency The MB5 series products have fast DHW functions. When Fast DHW is activated, the electrical heater in the domestic water tank will be activated along with the heat pump in order to reach the DHW setting point as soon as possible. The SCOP at 35°C can reach affected by outdoor ambient temperature and compress running time of 4.97 and the COP at 35°C leaves the water temperature up to 5.06. ka.



Super Convenience



Climate curves

Through climate curve function, Zone 1 and Zone 2 temperatures can be automatically controlled based on the outdoor ambient temperature. A personalized climate curve can designed through setting the outdoor ambient temperature and leaving water temperature. It will be more comfortable and energy-saving.

Sterilisation

Users can directly turn on the sterilization function, and set the date and time on the controller. The water of the domestic water tank can be automatically heated to 75°C.
During the process of sterilisation, the controller screen will display the icon to remind users that the system is conducting sterilisation.

Note: Only when the electric heater in the domestic water tank is allowed be controlled by Ares Power unit.

Check error information

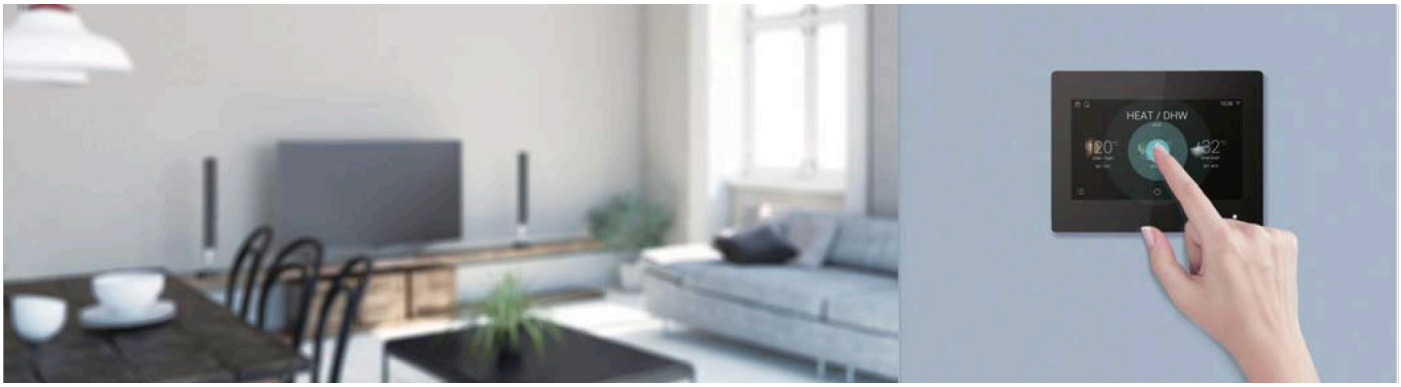
When error occurs, the service man can not only check the current errors, but also the historical error records, which is convenient for fast troubleshooting.

Check system parameters

Many important parameters about the system can be check through the 'System Status' function, including the system parameters, indoor unit parameters and outdoor units parameters. These parameters are helpful for service man to diagnose the system.

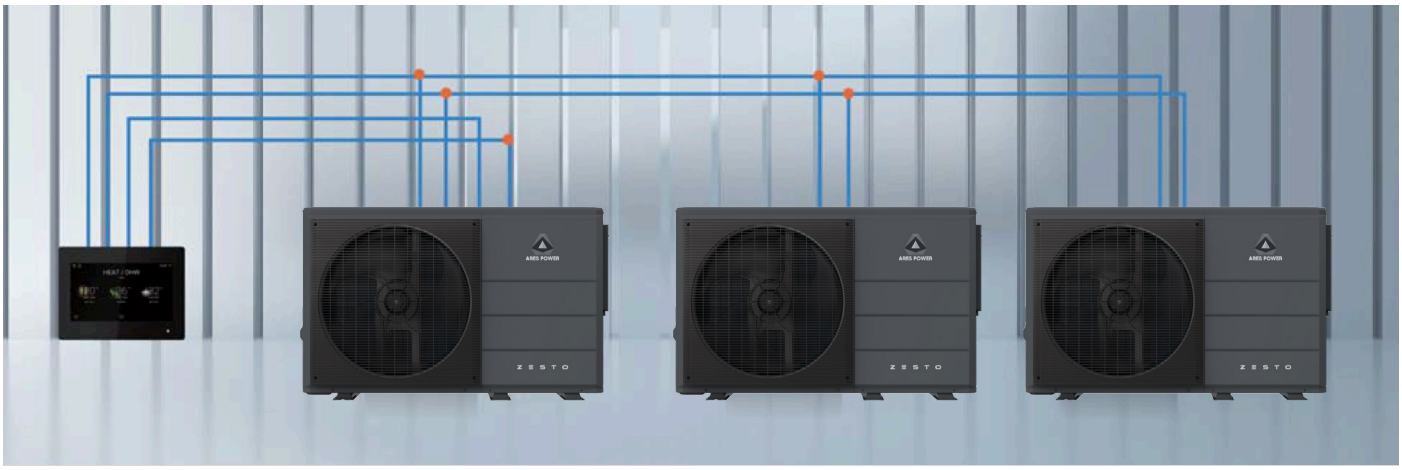
Auto mode

Under Auto mode, the cool mode and heat mode can be automatically converted according to the outdoor ambient temperature. There is no need to manually set the heat pump operating mode, which is very convenient for the users.



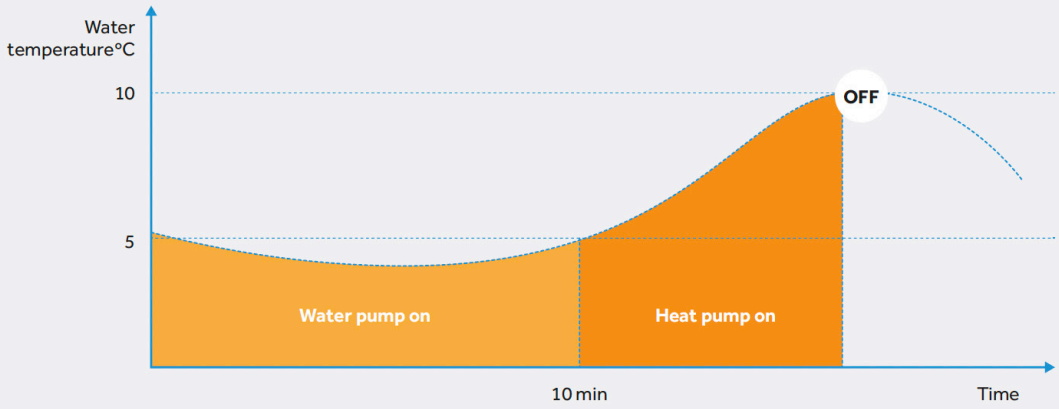
Easy control

There is a 5-inch colourful controller for MB5 series It can be easily operated through the touch screen and intuitive icons.



Cascade control

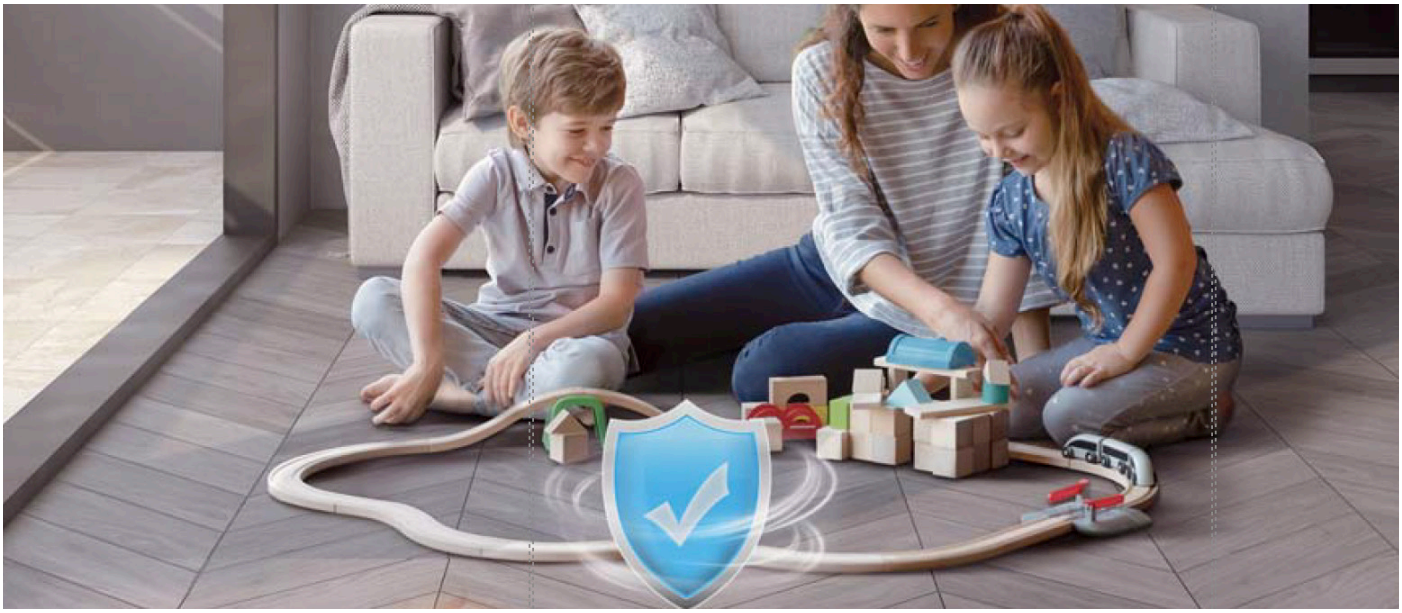
Max 8 units can be combined in one system to suitable for larger capacity demands.



High Reliability

Intelligent anti-freezing technology

The HE series adopts the anti-freezing logic: water pump will turn on when water temperature below 5°C, and when the water temperature is below 5°C for more than 10 minutes, the heat pump is turned on.



Floor drying

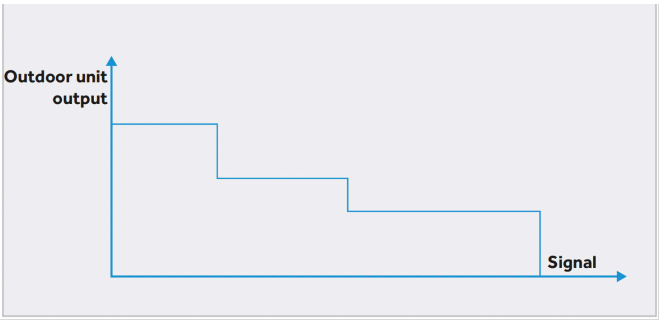
Before floor heating, if a large amount of water remains on the floor, it may be warped or even ruptured during floor heating operation. In order to protect the floor when floor drying is necessary the temperature of the floor should be increased gradually.

Anti-rust and corrosion of water pump

The MB5 and MB3 series heat pump has water pump anti-corrosion function. The water pump will automatically run 60s without any working within 24h, as the following curve shows and conduct one circulation per 24h.

Wide operation range

The operating outdoor ambient temperature of the heating mode is as low as -25°C.



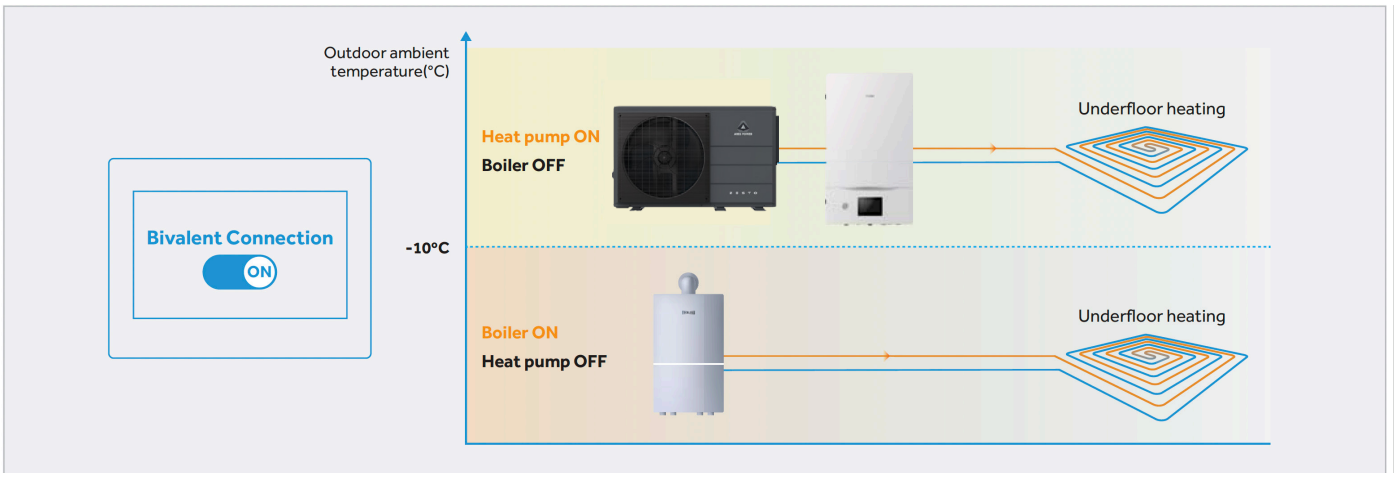
Intelligence

Smart grid

Based on the signal from power grid company, the outdoor unit will adjust the capacity output.

Scheduling programmes

Users can create schedule programmes , including naming the programmes, timer on/off operation, mode selection, leaving temperature setting and the frequency etc. Once the schedule programmes is set, the system will run according the pre-set programmes automatically.



Bivalent connection

When the system is combined with a boiler, the 'bivalent connection' can be set by the controller. When bivalent connection is turned on, the heat pump will have full control of all aspects of the system and will run the boiler when required, depending on system design and settings. When bivalent connection is turned off, both boiler and heat pump conduct automatic control.

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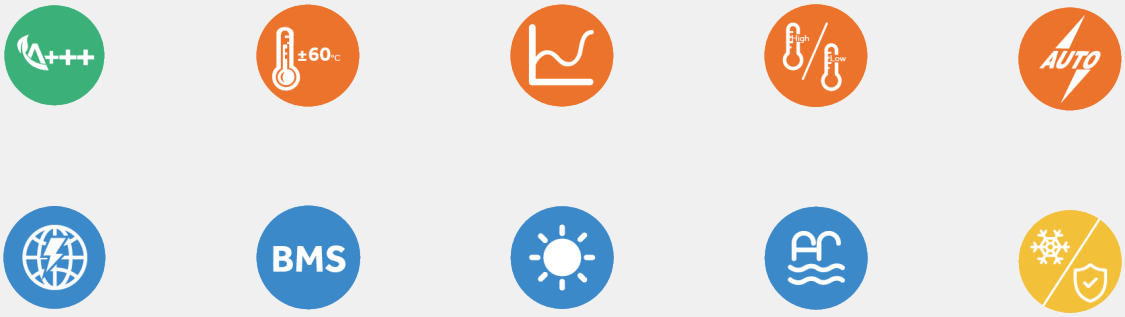
MB5 *Series*

R32 Reversible Air-to-water heat pump

The new generation reversible air-to-water monobloc series provides heating, cooling and domestic hot water for home. It has higher efficiency and can help users save the operating costs.

Features

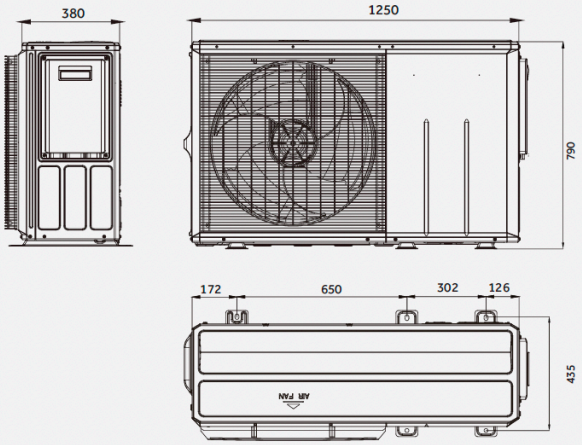


- SCOP at 35°C leaving water temperature up to 4.97
- COP at 35°C leaving water temperature up to 5.06
- 60°C hot water is guaranteed (outdoor temperature -15°C)
- Wide heating operation range (ambient temperature: -25~35°C)
- Built-in expansion vessel, flow switch, safety valve for easy installation
- 5-inch colorful controller with full touch screen
- Refrigerant cooling for compressor driver module
- Double EEV design for better heating under low outdoor temperature
- Max. 8 units connectible into one system for larger capacity demands

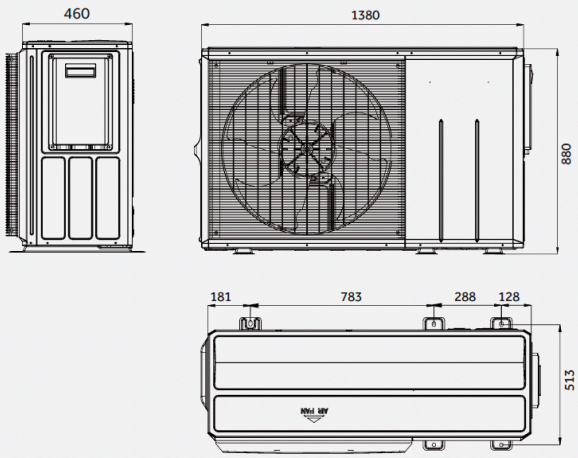
Specifications

Model			M505V3	M507V3	M509V3	M511SV3	M514SV3	M516SV3	M511TV3	M514TV3	M516TV3
Heating (LWT 35°C/OAT 7°C) Power input kW	Capacity	kW	5.00	7.00	9.00	11.00	14.00	16.00	11.00	14.00	16.00
	Power Input	kW	0.99	1.40	1.84	2.24	2.95	3.53	2.24	2.93	3.53
	COP	-	5.06	5.00	4.90	4.90	4.75	4.53	4.90	4.75	4.53
Heating (LWT 55°C/ OAT 7°C) Power input	Capacity	kW	5.00	7.00	8.50	10.50	13.50	15.20	10.50	13.50	15.20
	Power Input	kW	1.69	2.41	3.09	3.50	4.82	5.53	3.50	4.82	5.53
	COP	-	2.95	2.90	2.75	3.00	2.80	2.75	3.00	2.80	2.75
Space heating average climate water outlet 35°C	SCOP	-	4.97	4.95	4.95	4.70	4.65	4.55	4.70	4.65	4.55
	Ns	%	196	195	195	185	183	179	185	183	179
	Energy class	-	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
Space heating average climate water outlet 55°C	SCOP	-	3.52	2.38	3.34	3.40	3.45	3.40	3.40	3.45	3.40
	Ns	-	138	132	131	133	135	133	133	135	133
	Energy class	-	A++	A++	A++	A++	A++	A++	A++	A++	A++
Cooling (LWT 18°C/OAT 35°C) Power input	Capacity	kW	5.00	7.00	8.00	10.00	13.50	15.20	10.00	13.50	15.20
	Power Input	kW	1.02	1.44	1.86	2.27	3.14	3.80	2.27	3.14	3.80
	EER	-	4.90	4.85	4.30	4.40	4.30	4.00	4.40	4.30	4.00
Cooling (LWT 7°C/OAT 35°C) Power input	Capacity	kW	5.00	7.00	8.00	10.00	15.20	14.00	10.00	12.00	14.00
	Power Input	kW	1.56	2.19	2.76	3.23	4.21	5.28	3.23	4.21	5.28
	EER	-	3.20	3.20	2.90	3.10	2.85	2.65	3.10	2.85	2.65
Outdoor operating temperature range	Heating	°C	-25-35								
	Cooling	°C	10-48								
Leaving water temperature range	Heating	°C	25-60								
	Cooling	°C	5-25								
Water flow rate		L/min	14.3	20.1	25.8	31.5	40.1	45.9	31.5	40.1	45.9
Water pipe connection	Inlet/Outlet	°C	R 1	R 1	R 1	R 1	R 1	R 1	R 1	R 1	R 1
Compressor	Quantity	-	1								
	Type	-	DC inverter twin rotary								
Refrigerant		-	R32								
		kg/T	1.3/0.88	1.3/0.88	1.4/0.95	1.8/1.22	2.5/1.69	2.5/1.69	1.8/1.22	2.5/1.69	2.5/1.69
Net dimension	(HxWxD)	mm	790×1250×380			880×1380×460					
Packing dimension	(HxWxD)	mm	1017×1390×550			1102×1525×630					
Net/Gross weight		kg	81/109	81/109	108/139	108/139	117/148	117/148	108/139	117/148	117/148
Sound power level		cB(A0	60	61	63	63	63	63	63	63	63
Power supply		-/VHz	220-240/1/50						380-415/3/50		
Max running current		A	14	14	16	20	32	32	10	14	14
Recommended circuit breaker		A	20	20	20	25	40	40	16	20	20
Accessories	Wired controller	/	HW-WA101DBT (Standard)								
	DHW PCB	/	ATW-A02 (Optional)								
	Filter	/	Y shape 40 mesh (Standard)								

M505V3/M507V3/M509V3



M511SV3/M514SV3/M516SV3



Note: 1.Accordng to EN14511, EN14825 (EU) and No 811/2013(EU).
2. LWT: Leaving water temperature; OAT: Outdoor air temperature.
3. Sound level values are measured at a semi-anechoic room, and the sound power level values are based on measurement of EN2102-1 under conditions of EN14825.
4. PCB box is needed when using solar thermal function and pool heating function.
5. The above data may be changed without notice for future improvement on quality and performance.

ARES POWER

ZESTO

R32 Reversible Air-to-water heat pump

S5 Series

The S5 series of reversible air-to-water split provides heating, cooling and domestic hot water for home. It has higher efficiency and can help users save the operating costs.

Features

- SCOP at 35°C leaving water temperature up to 4.59 H×W×D
- COP at 35°C leaving water temperature up to 5.05
- 60°C hot water is guaranteed (outdoor temperature -15°C)
- Wide heating operation range (ambient temperature: -25~35°C)
- Built-in expansion vessel, flow switch, safety valve for easy installation
- Backup heaters of 1kW and 3kW
- 5-inch colorful controller on the front panel and an optional wired controller
- Max. 8 units connectable into one system for larger capacity demands

Specifications

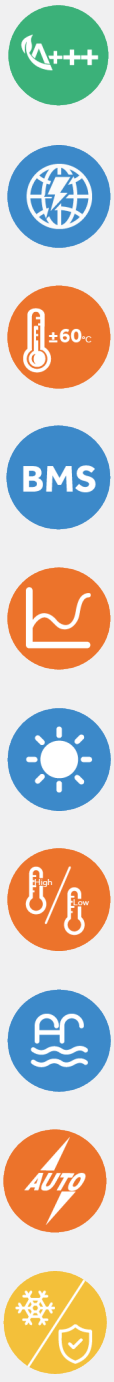
Model			S505V3
Heating (LWT 35°C/OAT 7°C) Power input kW	Capacity	kW	6.00
	Power Input	kW	1.20
	COP	-	4.98
Heating (LWT 55°C/ OAT 7°C) Power input	Capacity	kW	6.00
	Power Input	kW	2.05
	COP	-	2.92
Space heating average climate water outlet 35°C	SCOP	-	4.80
	Ns	%	189
	Energy class	-	A+++
Space heating average climate water outlet 55°C	SCOP	-	3.38
	Ns	-	132
	Energy class	-	A++
Cooling (LWT 18°C/OAT 35°C) Power input	Capacity	kW	6.00
	Power Input	kW	1.26
	EER	-	4.75
Cooling (LWT 7°C/OAT 35°C) Power input	Capacity	kW	6.00
	Power Input	kW	1.97
	EER	-	3.05
Indoor Unit			**S51U06SV3**
Leaving water temperature range	Heating	°C	15~60
	Cooling	°C	5~25
Sound power level	-	dB(A)	42
Backup electric heater	Capacity	kW	1+3
	Steps	-	3
Expansion vessel capacity		L	5
Pump	Type	-	Variable speed
	Power input	W	75
Water flow rate	-	L/min	17
Water pipe connection	Inlet/Outlet	inch	R1
Pipe diameter	Liquid	mm	6.35 (1/4)
	Gas	mm	15.88 (5/8)
Net dimension	H×W×D	mm	850×480×310
Packing dimension	H×W×D	mm	1020×580×460
Net/Gross weight	-	kg	41 / 53
Power supply	-	-/V/Hz	1/220-240/50
Max running current	-	A	20
Built-in circuit breaker	-	A	
Outdoor Unit			
Outdoor operating temperature range	Heating	°C	10~48
	Cooling	°C	-25~35
Compressor	Quantity	-	
	Type	-	
Refrigerant	Type		
	Charge/CO_2 Eq.	kg/T	1.2 / 0.81
Pipe diameter	Liquid	mm(inch)	6.35 (1/4)
	Gas	mm(inch)	15.88 (5/8)
Max refrigerant pipe length		m	30
Max height difference between ODU&IDU		m	20
Pipe length without additional charge		m	10
Additional charging volume		g/m	20
Sound pressure level		dB(A)	45
Sound power level		dB(A)	61
Net dimension		mm	765×920×372
Packing dimension		mm	980×1050×500
Net / Gross weight		kg	55 / 67
Power supply		~/V/Hz	1/220-240/50
Max running current		A	13
Recommended circuit breaker		A	16
External wired cntroller			

Note: 1. Accordng to EN14511, EN14825 (EU) and No 811/2013(EU).
2. LWT: Leaving water temperature; OAT: Outdoor air temperature.
3. Sound level values are measured at a semi-anechoic room, and the sound power level values are based on measurement of EN2102-1 under conditions of EN14825.
4. The above data may be changed without notice for future improvement on quality and performance.

S5 Specification

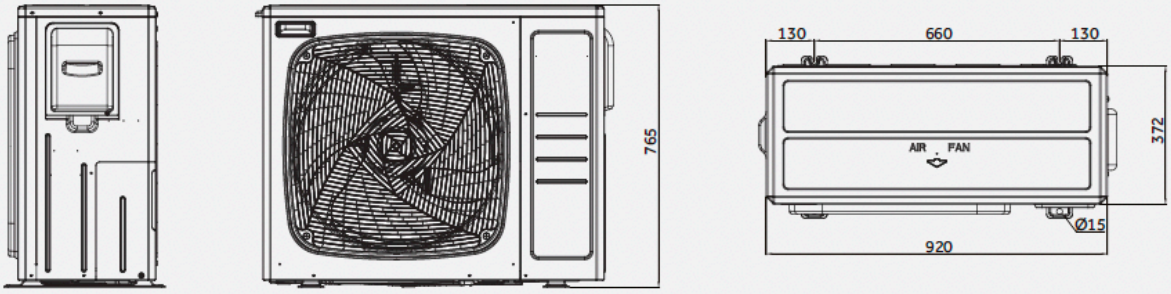
Model			S508V3
Heating (LWT 35°C/OAT 7°C) Power input kW	Capacity	kW	8.00
	Power Input	kW	1.60
	COP	-	5.00
Heating (LWT 55°C/ OAT 7°C) Power input	Capacity	kW	8.00
	Power Input	kW	2.65
	COP	-	3.02
Space heating average climate water outlet 35°C	SCOP	-	4.90
	Ns	%	193
	Energy class	-	A+++
Space heating average climate water outlet 55°C	SCOP	-	3.32
	Ns	-	130
	Energy class	-	A++
Cooling (LWT 18°C/OAT 35°C) Power input	Capacity	kW	8.00
	Power Input	kW	1.9
	EER	-	4.20
Cooling (LWT 7°C/OAT 35°C) Power input	Capacity	kW	8.00
	Power Input	kW	2.63
	EER	-	3.04
Indoor Unit			**S51U10SV3**
Leaving water temperature range	Heating	°C	15~60
	Cooling	°C	5~25
Sound power level	-	dB(A)	42
Backup electric heater	Capacity	kW	1+3
	Steps	-	3
Expansion vessel capacity		L	5
Pump	Type	-	Variable speed
	Power input	W	75
Water flow rate	-	L/min	23
Water pipe connection	Inlet/Outlet	inch	R1
Pipe diameter	Liquid	mm	9.52 (3/8)
	Gas	mm	15.88 (5/8)
Net dimension	H×W×D	mm	850×480×310
Packing dimension	H×W×D	mm	1020×580×460
Net/Gross weight	-	kg	43 / 55
Power supply	-	-/VHz	1/220-240/50
Max running current	-	A	20
Built-in circuit breaker	-	A	63
Outdoor Unit			
Outdoor operating temperature range	Heating	°C	10~48
	Cooling	°C	-25~35
Compressor	Quantity	-	1
	Type	-	DC inverter twin rotary
Refrigerant	Type		R32
	Charge/CO_2 Eq.	kg/T	1.6 / 1.08
Pipe diameter	Liquid	mm(inch)	9.52 (3/8)
	Gas	mm(inch)	15.88 (5/8)
Max refrigerant pipe length		m	50
Max height difference between ODU&IDU		m	30
Pipe length without additional charge		m	10
Additional charging volume		g/m	38
Sound pressure level		dB(A)	49
Sound power level		dB(A)	65
Net dimension		mm	965×950×370
Packing dimension		mm	1090×1030×480
Net / Gross weight		kg	76 / 86
Power supply		~/Mhz	1/220-240/50
Max running current		A	19
Recommended circuit breaker		A	25
External wired cntroller			HW-WA101DBT (Optional)

Features

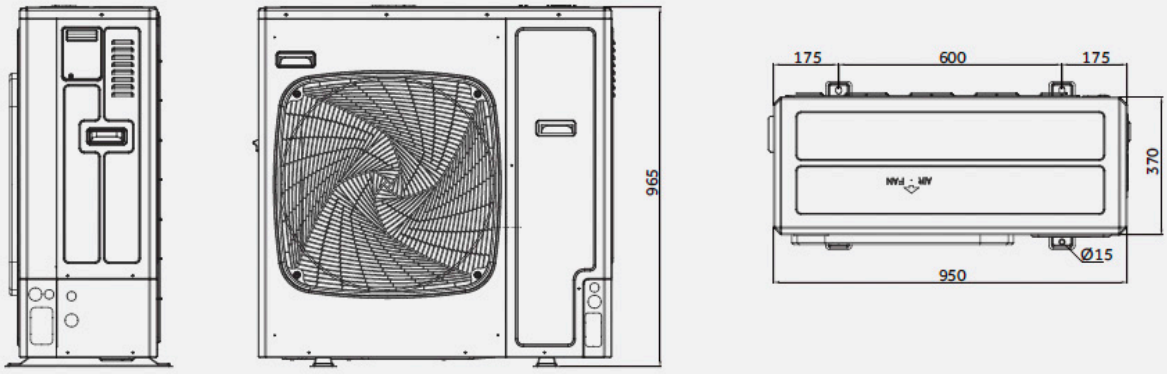


Outline dimensions

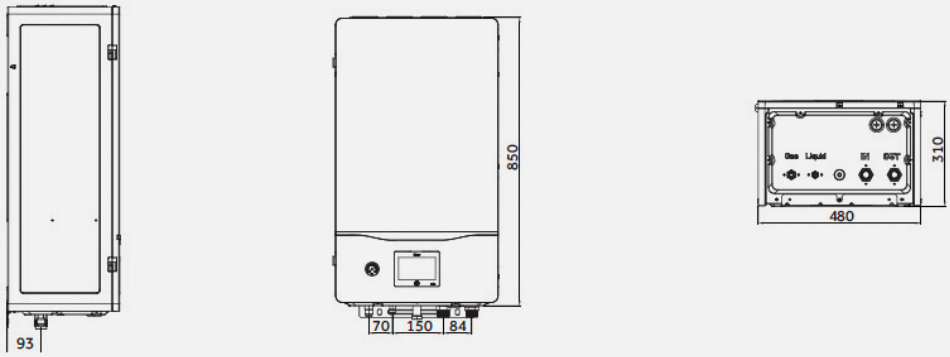
S506V3



S508V3/S510SV3



S51U06SV3/S51U10SV3



ARES POWER

ZESTO

Heat Pump Cylinders

Standard

Product Information

As with all renewable technologies, Heat Pump cylinder design demands careful design consideration. Ares Power Zesto Heat Pump Cylinders are designed to ensure the correct surface area and flow rate through the coil-both considerations are key to efficient system operation. A wealth of experience in both specialist cylinder manufacturing and renewable technologies system design ensures that we can provide the most efficient cylinder to meet your heat pump system requirements.

- 25 year vessel guarantee reflects the quality of materials and manufacturing expertise.
- Foam injected zero ozone depletion insulation.
- High grade powder coated mild

Specifications

Model Capacity		APC120S	APC150S	APC180S	APC210S	APC250S	APC300S
Overall Packaged dimensions H X W X D (mm)		1000 x 600 x 600	1250 x 600 x 600	1450 x 600 x 600	1600 x 600 x 600	1920 x 600 x 600	2230 x x600 x 600
Approximate Weight	Empty	35	40	45	50	55	60
	Full	155	190	225	260	305	360
	Packaged	55	60	65	70	75	80
Control & relief valve pressure settings	Pressure Reduce & Relief Valve	3 Bar / 6 Bar	3 Bar / 6 Bar	3 Bar / 6 Bar	3 Bar / 6 Bar	3 Bar / 6 Bar	3 Bar / 6 Bar
	Exp Vessel	12L	12L	12L	18L	18L	24L
	T & P Valve	7 Bar	7 Bar	7 Bar	7 Bar	7 Bar	7 Bar
	DWH	2m²	2m²	2m²	3m²	3m²	3m²
Coil Sizes	Solar	1m²	1m²	1m²	1m²	1m²	1m²
Immersion Heater		3kW single Phase - 230v - 50hz					
Cylinder Material		Duplex Stainless steel					
Insulation Type		Polyurethane (PU) Insulation with CO2 Blowing agent					
Standing heat loss (Watts)		57.9	61.5	65.3	76.3	86.4	95.6
Energy efficiency Class		C	C	C	C	C	C
GWP of Insulation		0	0	0	0	0	0
ODP of Insultation		Less than 5	Less than 5	Less than 5	Less than 5	Less than 5	Less than 5

ARES POWER

ZESTO

Heat Pump Cylinders

Pre Plumbed

Product Information

All of our cylinders are manufactured from high quality stainless steel under an ISO9001 certified quality management system in our purpose made manufacturing facility in Manchester.

- Pre plumbed for Ares Power Zesto Heat Pumps
- Integrated Stainless Steel Buffer for Hydraulic Separation
- Saves Installation Time
- Prevents Installation Faults
- 25 Year Manufacturing Warranty on Stainless Vessel
- 12 Month Manufacturing Warranty on Components
- Highly Insulated (ERP Rated)
- Full System Unvented Kits
- WRAS Approved Product
- ISO9001 Certified Quality Management
- Potable Expansion Vessel & 28mm Flow Setter Supplied Separately
- Primary Pipe Work and Components are all 28mm Compression

Specifications

Model		APC150PPST	APC180PPST	APC210PPST	APC220PPST	APC300PPST
Nominal capacity (litres)		150	180	210	250	300
Overall Shipping Dimensions H X W X D (mm)		1725x600x900	2050x600x900	1920x600x900	2220x600x900	2125z1200x1200
Overall Cylinder Dimensions H X W X D (mm)		1505x550x600	1630x550x600	1820x550x600	2020x550x600	2020x600x650
Weights	Empty	65.5	69.5	75	81	88
	Full	215.5	249.5	285	331	388
	Packaged	77	81	86	92	99
Unvented Expansion Vessel	Nominal Volume	12L	19L	19L	19l	24l
	Charge Pressure	3.0 Bar				
Control & Relief Valve Pressure settings	Mains Inlet Pressure Regulator	3.0 Bar				
	Expansion Relief Valve (Cold)	6.0 Bar				
	T&P Relief Valve	7.0 Bar & 90°C				
Control & Overheat Safety Thermostat Temperature Settings	DHW Control Stat ON/OFF	ATW-AO2 DHW Control box not included				
	High Limit Stat	Mechanical 90°c				
	Voltage	230 - 240 V				
	Electronic Immersion Timer	ATW-AO2 DHW Control box not included				
Cylinder Material		Duplex Stainless Steel (25 year manufacturing warranty)				
DHW Immersion Heater Duty		3kW (13 Amps 230v ac)				
Primary Buffer Immersion Heter Duty		3kW (13 Amps 230v ac)				
Heating Surface Area		$2m^2$	$2m^2$	$3m^2$	$3m^2$	$3m^2$
Insulation Type		Polyurethane (PU) Insulation with CO2 Blowing Agent				
Insulation Thickness		50mm				
System Circulating Pump		Grundfos UPM3-8m Head-A Rated				
Central Heating Zone Valve		Honeywell 28mm, 2 port (1 No.)				
Domestic Hot Water Zone Valve		Honeywell 28mm, 3 port Diverter (1No)				
Central Heating Controller		ATW-AO2 DHW Control box not included				
Hot Water Controller		ATW-AO2 DHW Control box not included				
Magnetic Filter		28mm Magnetic Bar				
Flow Setter Valve		28mm Inline Flow Setter (Supplied Separately)				
Primary Pressure Drop of Cylinder Pipe Work		16Pa@ 17 Litres per min				
Re-Heat Time		35-45 Min				
Standing Heat loss (W)		64.58	69.3	78.9	90.4	92.6
ERP Rating		B	B	B	B	B
GWP of Insulation		Less than 5	Less than 5	Less than 5	Less than 5	Less than 5
ODP of Insulation		0	0	0	0	0

Ares Power
Icon Guide

Super Convenient

Error history

Check the historical error record via the controller, which is convenient for fast troubleshooting.

Parameters check

Many important parameters about the system can be check through the “System Status” function, including the system parameters, heat pump unit parameters These parameters are helpful for service man to diagnose the system.

High Efficiency

A+++/A++

Efficiency class at 35°C leaving water temperature/ efficiency class at 55°C leaving water temperature.

Full DC inverter technology

Full DC inverter compressor and DC brushless fan are adopted.

Ultimate Comfort

2 zone control

Control two different water temperatures for zone1 and zone2.

Quiet mode

Lower the operating sound level by reducing the woring speed of the compressor and fan motor in the preset periods.

Fast DHW

Start the electrical heater in the DHW tank to heat the domestic hot water in the shortest time.

Max 60°C hot water

The maximum leaving water temperature is 60°C.

Turbo mode

Increase the woring speed of the compressor and fan motor to realize setting temperature in shorter time.

Climate curve

Through climate curve function, Zone1 and Zone2 temperatures can be automatically controlled based on the outdoor ambient temperature.

Sterilisation

Control the electric heater in the DHW tank, heating the water of the tank to kill this bacteria.

Auto mode

Enable the unit to operate either heat or cool mode automatically according to the ambient temperature.

Intelligence

Smart grid

Automatically adjust operation status of the heat pump based on signals received from power supply companies.

Modbus

Integrate the Modbus communication protocol, no additional Modbus gateway needed.

Holiday mode

Control two different water temperatures for zone1 and zone2.

Auxiliary heating source

Allow the system to be combined with a third-party boiler and control the boiler.

DHW tank solar thermal control

Control the solar thermal function of the tank for heating domestic.

Cascade control

Max 8 units can be combined in one system.

Pool heating

Provide the control for heating the pool water.

Bi valence control

When the system is combined with a boiler, the 'bivalent connection' can be set by the controller. when outdoor ambient temperature drops to a certain level, boiler is turned on and the heat pump is turned off.

Scheduling programmes

Users can create schedule programmes, including naming the programmes, timer on/off compressor and fan motor in the preset periods operation, mode selection, leaving temperature setting and the frequency etc. Once the schedule programmes is set, the system will run according the pre-set programmes automatically.

High reliablity

Floor drying

Control two different water temperatures for zone1 and zone2.

Anti-freezing

Lower the operating sound level by reducing the woring speed of the compressor and fan motor in the preset periods.

Anti-rust and corrosion of water pump

The corresponding control logic is used to protect the water pump corrosion against rust.

ARES POWER

10 YEAR WARRANTY
QUALITY REDEFINED

COMPLETE SOLUTION

UK SUPPORT & PARTS

Ares Power Energy Ease Solution

Unit 2 & 3 Whiteside Buisness park, Station Road,
Holmes Chapel, Cheshire, CW4 8AA, United Kingdom

www.arespower.co.uk