

BHP

Air/Water split type reversible heat pump

Cooling capacity 3.2 - 8.5 kW
Heating capacity 4.0 - 9.5 kW

- Indoor unit available in two versions with or without DHW storage tank
- New environmentally friendly refrigerant gas R32
- Production of hot water up to 60°C
- Anti-legionella function
- Multi-language control panel



DESCRIPTION

BHP is the new "split" type inverter heat pump system, more efficient than standard boiler systems as it guarantees sustainable, efficient heating, cooling and domestic hot water supply in every season.

BHP is designed to meet the needs of both the new constructions market and the renovation market, replacing or working alongside conventional boilers. The system can be installed in systems with any hydronic terminal, and is already supplied with the main hydraulic components, thus facilitating final installation.

The indoor unit comes in two versions: **wall-mounting** (without DHW storage tank but complete with a 3-way DHW-system diverting valve), to be connected to an external DHW storage tank, or **with base** (complete with DHW storage tank).

FEATURES

Main hydraulic components

BHP outdoor unit

- inverter compressor,
- finned pack heat exchanger with copper pipes and aluminium fins, with protective Golden Fin treatment,
- economiser,
- electronic valve,
- DC axial brushless fan,
- base electric heater.

BHP_W internal wall unit

- plate heat exchanger,
- flow switch,
- inverter pump,
- expansion tank,
- drain valve,
- safety valve,
- supplementary electric heater,
- 3-way valve,
- DHW-system connections.
- water filter, supplied (**installation is compulsory**).

BHP_F indoor unit with base

- plate heat exchanger,
- flow switch,
- inverter pump,
- expansion tank,
- drain valve,
- safety valve,
- supplementary electric heater,
- 3-way valve,
- DHW-system connections,
- water filter, supplied (**installation is compulsory**),
- DHW storage tank of 185 litres with coil and supplementary electric heater, and anti-legionella function.
- tank with electronic anode.

The indoor and outdoor units are connected by means of suitably sized cooling lines (supplied by the installer), and the cooling circuit uses R32 refrigerant with low GWP.

Operating limits

Full load operation down to -25°C (outside air temperature in winter), and up to 48°C in summer.

Adjustments

Adjustment via a **multi-language touch-screen control panel**:

- Management of a 3-way diverting valve for the production of domestic hot water.
- Management of a 2-way valve (not supplied) for shutting off part of the system.
- Weekly and hourly programming.
- **Auto-restart** function.
- Emergency operation.
- **Quick hot water** function, for quickly heating domestic hot water.
- **Weather Dependent Mode** for climatic adjustment.
- **Quiet** function for reduced noise operation, programmable with a timer.

- Condensation Control.
- When the anti-legionella cycle is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70°C) that weakens the bacteria responsible for the infection.



ACCESSORIES

DHWT300: (230V~50Hz) DHW storage tank in enamelled steel. Single-phase power supply, tank capacity 300 litres with main coil and 3 kW back-up electric heater. Magnesium sacrificial anode. Indoor installation, as indicated in the installation manual.

DHWT300S: (230V~50Hz) DHW storage tank in enamelled steel. Single-phase power supply, tank capacity 300 litres with main and secondary coils and 3 kW back-up electric heater. Magnesium sacrificial anode. Indoor installation, as indicated in the installation manual.

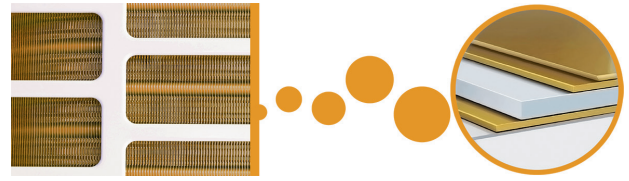
IC-2P: Connector for communication via Mod Bus or VMF -485LINK.

Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.

VMF-485LINK: expansion to interface the unit with the VMF communication protocol, enabling control via the VMF-E5 or VMF-E6 supervisors.

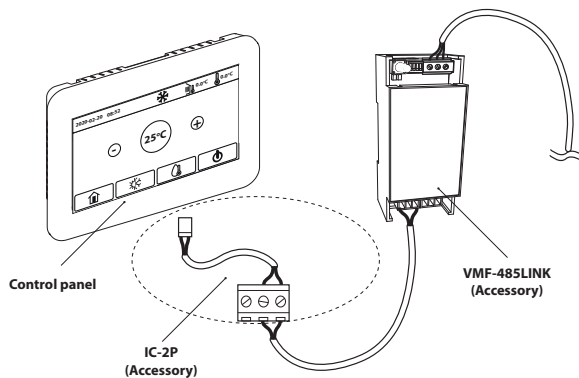
Special golden fin coil

Unlike normal coils, this special gold-coloured silicon-free epoxy coating protects the heat exchanger from rust and corrosion in areas with a very high salt content in the air.

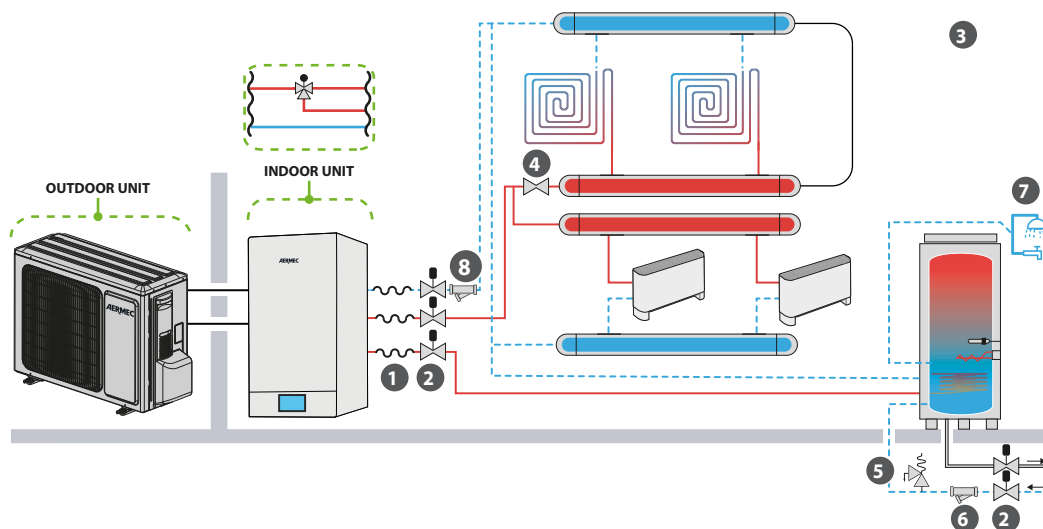


Ewpe smart app

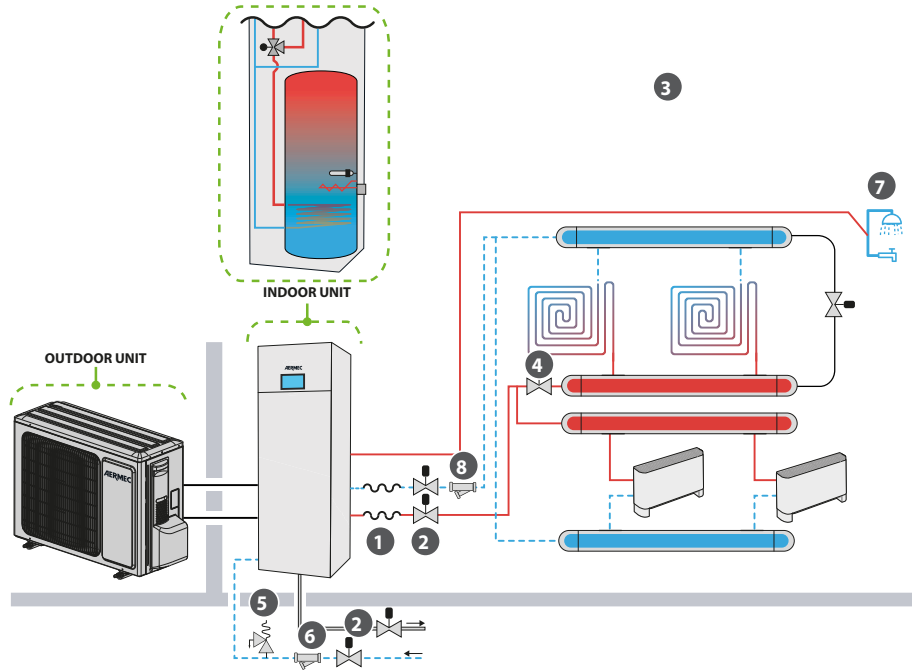
The system is fitted with the WI-FI module as standard; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.



BHP_W: DOMESTIC HOT WATER STORAGE TANK CONNECTION AND CONNECTION TO THE FLOOR SYSTEM AND FCU



BHP_F: CONNECTION TO THE FLOOR SYSTEM AND FCU



HYDRAULIC COMPONENTS SUPPLIED AS STANDARD IN THE INDOOR UNIT

Plate heat exchanger
Flow switch
Inverter pump
Expansion tank
Drain valve
Safety valve
Supplementary electric heater
3-way valve
DHW-system connections

SUPPLIED HYDRAULIC COMPONENTS

HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

1	Anti-vibration joints
2	Interception taps
3	Room thermostat
4	2-way valve
5	Safety valve
6	Water filter
7	Domestic hot water
— High temperature line	
- - - Low temperature line	

PERFORMANCE DATA

WALL UNIT TECHNICAL DATA

Outdoor unit	BHP040	BHP060	BHP080	BHP100	
Indoor unit	BHP060W	BHP060W	BHP100W	BHP100W	
Performance in cooling mode 12°C / 7°C (1)					
Cooling capacity	kW	3.15	4.09	5.30	6.50
Input power	kW	0,92	1.28	1.73	2,27
EER	W/W	3.42	3.20	3,06	2,86
Performance in heating mode 40°C / 45°C (2)					
Heating capacity	kW	4.00	5.90	8.00	9.50
Input power	kW	1,02	1.51	2.14	2,64
COP	W/W	3,92	3,91	3,74	3.60

(1) Data 14511; Heat exchanger water (services side) 12°C / 7°C; External air 35°C

(2) Data 14511; Heat exchanger water (service side) 40°C / 45°C; Outside air 7°C D.B./6°C W.B.

Outdoor unit		BHP040	BHP060	BHP080	BHP100
Indoor unit		BHP060W	BHP060W	BHP100W	BHP100W
Performance in cooling mode 23°C / 18°C (1)					
Cooling capacity	kW	3,80	5,80	7,00	8,50
Input power	kW	0,82	1,32	1,75	2,24
EER	W/W	4,63	4,40	4,00	3,79
Performance in heating mode 30°C / 35°C (2)					
Heating capacity	kW	4,00	6,00	8,00	9,50
Input power	kW	0,78	1,20	1,70	2,07
COP	W/W	5,13	5,00	4,71	4,59

(1) Data 14511; Heat exchanger water (services side) 23°C / 18°C; External air 35°C

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BASE UNIT PRELIMINARY TECHNICAL DATA

Outdoor unit		BHP040	BHP060	BHP080	BHP100
Indoor unit		BHP060F	BHP060F	BHP100F	BHP100F
Performance in cooling mode 12°C / 7°C (1)					
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ENERGY DATA

Outdoor unit		BHP040	BHP060	BHP080	BHP100
Indoor unit		BHP060W+DHWT300S	BHP060W+DHWT300S	BHP100W+DHWT300S	BHP100W+DHWT300S
EU 811/2013 performance in average weather conditions - 35°C - Pdesignh ≤ 70 kW (1)					
Pdesignh	kW	5	6	7	9
Energy efficiency class		A+++	A+++	A+++	A+++
EU 811/2013 performance in average weather conditions - 55°C - Pdesignh ≤ 70 kW (2)					
Pdesignh	kW	5	5	7	8
Energy efficiency class		A++	A++	A++	A++
Performance as combined heat generator					
Bleeding profile		XL	XL	XL	XL
Energy efficiency class		A	A	A	A

(1) Efficiency levels in applications for low temperatures (35°C)

(2) Efficiency levels in applications for average temperatures (55°C)

Outdoor unit		BHP040	BHP060	BHP080	BHP100
Indoor unit		BHP060F	BHP060F	BHP100F	BHP100F
EU 811/2013 performance in average weather conditions - 35°C - Pdesignh ≤ 70 kW (1)					
Pdesignh	kW	5	6	7	9
Energy efficiency class		A+++	A+++	A+++	A+++
EU 811/2013 performance in average weather conditions - 55°C - Pdesignh ≤ 70 kW (2)					
Pdesignh	kW	5	5	7	8
Energy efficiency class		A++	A++	A++	A++
Performance as combined heat generator					
Bleeding profile		L	L	L	L
Energy efficiency class		A	A	A	A

(1) Efficiency levels in applications for low temperatures (35°C)

(2) Efficiency levels in applications for average temperatures (55°C)

WALL INDOOR UNIT

Indoor unit		BHP060W	BHP060F	BHP100W	BHP100F
Electric data					
Nominal input power (1)	kW	3,10	3,10	6.10	6.10
Electric heater					
Number	no	2	2	2	2
Power of the single heater	kW	1,50	1,50	3,00	3,00
Heat exchanger, service side					
Type	type			Plates	
Number	no			1	
Unit / system input	type			G1 female	
Mains water input	type	-	G1 female	-	G1 female
Unit / system output	type			G1 female	
DHW output	type			G1 female	
Circulator					
Quantity	no			1	
motor	type			DC brushless	
Expansion tank					
Number	no			1	
Volume	l			10.0	
Maximum pressure	bar			3,0	
Sound Data					
Sound power	dB(A)	41.0	42.0	41.0	42.0
Power supply					
Power supply				230V~50Hz	

(1) The nominal input power (nominal input current) is the maximum electrical input power (maximum input current) from the system, in accordance with standards EN60335-1 and EN60335-2-40.

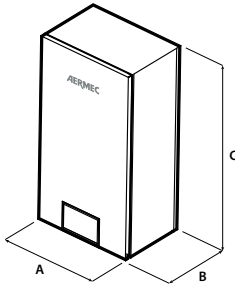
OUTDOOR UNIT

Outdoor unit		BHP040	BHP060	BHP080	BHP100
Electric data					
Nominal input power (1)	kW	2.3	2.3	4,3	5.6
Nominal input power (1)	A	10.0	10.0	19,0	22,0
Compressor					
Type	type			Twin-stage, rotary	
motor	type			Inverter	
Number	no			1	
Refrigerant	type			R32	
Refrigerant load	kg	1,0	1,0	1,6	1,6
Oil					
Type	type			FW68DA	
Quantity	l	0,5	0,5	0.9	0.9
Refrigerant tubes					
Diameter of liquid refrigerant connections	mm (inch)			6.35 (1/4")	
Diameter of refrigerant gas conn	mm (inch)			12.7 (1/2")	
Heat exchanger					
Type	type			Finned coil	
Fin type	type			Corrugated Golden Fin	
Number	no			1	
Expansion tank					
Type	type			Electronic expansion valve	
Number	no			1	
Fan					
Type	type			Axial	
motor	type			DC brushless	
Number	no			1	
Air flow rate					
Air flow rate	m ³ /h	3200	3200	3300	3300
Sound data					
Sound power	dB(A)	62.0	62.0	67,00	68,00
Power supply					
Power supply				230V~50Hz	

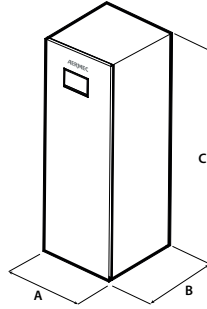
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OUTDOOR UNIT DIMENSIONS AND WEIGHTS

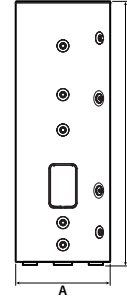
BHP_W



BHP_F



DHWT



BHP_W

Indoor unit	BHP060W		BHP100W	
A	mm	460		
B	mm	318		
C	mm	860		
Net weight	kg	62		
Weight for transport	kg	71		

BHP_F

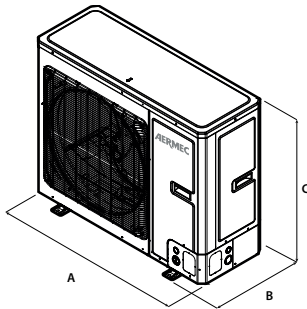
Indoor unit	BHP060F		BHP100F	
A	mm	600		
B	mm	600		
C	mm	1756		
Net weight	kg	210		
Weight for transport	kg	233		

DHWT300 / DHWT300S

Compulsory	DHWT300		DHWT300S	
A	mm	620		
B	mm	1725		
Net weight	kg	140		

OUTDOOR UNIT DIMENSIONS AND WEIGHTS

BHP



Indoor unit		BHP040	BHP060	BHP080	BHP100
A	mm	975	975	982	982
B	mm	396	396	427	427
C	mm	702	702	787	787
Net weight	kg	55	55	82	82
Weight for transport	kg	65	65	92	92

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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