

## BWHE-Z Air-to-water heat pumps from 41 kW to 160 kW

Range of **air-to-water heat pumps** with axial fans and R410a gas designed and developed to provide optimum comfort and the highest levels of environmental well-being. Fully configurable with a wide range of models and accessories.

Compressors are hermetic scroll orbiting spiral compressors connected in tandem. They are equipped with thermal protection and an oil equalization line.

Condenser consisting of a coil with copper pipes and aluminium fins with a high exchange surface area. The base of each battery includes anti-ice control logic, which helps prevent ice from forming on the underside of the coil and therefore allows the unit to operate even in extremely cold temperatures and high humidity levels;

Helical fans directly coupled to 6-pin external rotor electric motor, IP 54 protection class with grille guard;

AlSI 316 stainless steel brazed plate heat exchanger on the utility side, insulated with a closed-cell foam shell. The exchanger is equipped with a temperature probe for frost protection and a vane flow switch supplied as standard.

### The unit includes

- Fixed-setting automatic compressor switches,
- Fan fuses and auxiliary circuits,
- Numbered electrical cables in electrical panel,
- Flow switch or differential pressure switch fitted,
- Condensation control with speed controller for models Z32 to Z102,
- Inlet water control,
- RS485 serial connection with Modbus protocol,
- TCP-IP (Ethernet) serial connection with Modbus protocol (only for units with advanced control),
- TCP-IP port (Ethernet) with integrated web server (only for units with advanced control),
- Individual potential free contacts (compressors, fans and pumps when present),
- Coil protection mesh;
- Antifreeze element (v. without pumps).



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MODEL		Z32	Z42	Z52	Z62	Z72	Z82	Z92	Z102	Z122	Z132	Z152	Z162
Power supply	V/Ph/Hz	400/3+N/50											
Cooling capacity (1)	kW	39.8	44.7	52.3	58.6	65.8	80.1	90.3	98.0	113.9	122.7	141.5	153.1
EER (1)		2.81	2.63	2.63	2.77	2.66	2.95	2.80	2.58	2.67	2.51	2.57	2.37
Heating Capacity (2)	kW	42.1	47.1	55.4	63.2	70.1	83.7	94.7	104.2	121.7	132.8	153.2	168.4
COP (2)		3.08	3.00	3.06	3.16	3.18	3.19	3.18	3.12	3.10	3.06	3.13	3.08
no. compressors/circuits	No.	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1
Number of fans	No.	2	2	2	2	2	3	3	3	2	2	2	2
Air flow volume	m³/h	16,000	16,000	15,000	18,000	18,000	26,000	26,000	26,000	36,000	36,000	40,000	40,000
Useful pump pressure (optional)	kPa	145	135	162	133	148	168	177	165	172	160	157	184
Tank capacity (opt)	L	165	165	165	200	200	450	450	450	450	450	390	390
Dimensions (basic v.) WxDxH		1750x1000x1400			2200x1000x1740		3200x1100x1740			3200x1100x1880		3200x1100x2380	
Refrigerant	charge / tons CO <sub>2</sub>	R410A / 2088											
CODE		0008B401	0008B402	0008B403	0008B404	0008B405	0008B406	0008B407	0008B408	0008B409	0008B410	0008B411	0008B412

(1) Outdoor air temperature 35°C; evaporator inlet-outlet water temperature 12-7°C, EN14511;

(2) Outdoor air temperature 7°C DB, 6°C WB; condenser inlet-outlet water temperature 40-45 °C, EN14511;

NOTE: THE ABOVE HERMETICALLY SEALED PRODUCTS CONTAIN FLUORINATED GREENHOUSE GASES GOVERNED BY THE KYOTO PROTOCOL;

## BWHE-Z - Accessories

MODEL
<b>Hydraulic module accessories</b>
Pump
Pump and tank
Antifreeze element (v. pump) (b)
Antifreeze element (v. pump and tank) (b)
Water side safety valve
Flow switch (a)
<b>Accessory versions</b>
Silenced version
Partial recovery
<b>Cooling circuit accessories</b>
Condens. control rpm regulator
Pressure gauges
Electronic thermostatic valve
<b>Electrical accessories</b>
Advanced control
Electron. soft starter
Auto switches (in place of fuses)
EC fans (c)
Remote user term. (basic control) (a)
<b>Miscellaneous accessories</b>
Rubber vibration dampers (a)
Anti-corrosion treated coil
Water filter (a)

(a): accessory supplied;

(b): not included on any recovery exchanger;

(c): includes condensation control with speed regulation;