STIEBEL ELTRON

Simply the Best

WPL 15 A2W Premium
WPL 25 A2W Premium

AIR-TO-WATER COLD CLIMATE HEAT PUMPS

- Highly integrated & comprehensive cold climate heat pump and tank system
- Monobloc with energy efficient inverter technology
- Central heating and cooling, with DHW heating
- 149°F/65°C flow temperature
- 2.77 COP Cold Climate Efficiency

Made in Germany

Intertek

ISO 9001 CERTIFIED

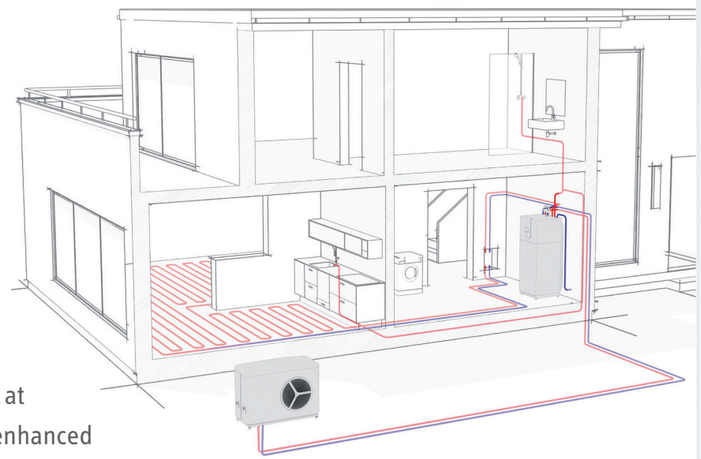
7/2 YEAR LIMITED WARRANTY

800.582.8423

www.stiebel-eltron-usa.com

WPL 15 A2W Premium & WPL 25 A2W Premium

These highly efficient cold climate air-source heat pumps use outdoor air to produce hot water for central heating, cooling, and domestic hot water production. The compact monobloc design uses output-dependent control and efficient inverter technology. Heating and cooling output is perfectly matched to the compressor speed using its variable speed capability. Improved room climate during summer is accomplished with active cooling using circuit reversal.



Flow temperatures of up to 149°F/65°C are achieved even at low outside air temperatures. This is due to a combined enhanced vapor injection/enhanced saturated vapor injection that cools the scroll compressor. High flow temperature makes the WPL suitable for modernization projects that may need a high heating temperature. The WPL is also perfectly suited for use in new or old construction designed for lower flow temperatures.

Waste heat from the inverter is used to raise the return temperature. Demand-dependent defrosting is accomplished through circuit reversal and the condensate pan is heated by the refrigerant circuit. Both of these increase the overall efficiency of the system. No electric defrost heating is required due to a hydrophilic coating on the fan nozzle that prevents ice from forming. An emergency/auxiliary electric resistance heater is incorporated for efficient operation when necessary. Optimally matched components ensure high efficiency and low operating costs are realized all year round.

Extremely quiet operation is accomplished several ways. During partial-load operation, modulation allows slower fan speed and a lower sound level. An encapsulated refrigerant circuit and acoustically isolated compressor both help reduce sound levels. Plus air resistance though the evaporator has been lowered by using wide gaps between the fins, also reducing noise.

The WPL can be connected directly to the heating system due to an integral anti-vibration mount. A pivoting electrical connection panel makes for easier installation. The condensate pan is easily reached through a cleaning aperture on the back of the casing. The enamelled, corrosion-protected metal casing in alpine white is made from hot-dip galvanized, powder coated sheet steel. Fan grill, recessed grips and top cover are made from weatherproof, UV-resistant plastic in aluminum white color.

The hermetically sealed refrigerant circuit uses R410A and is rigorously tested for leaks at the factory. Connection between the WPL and the HSBC is hydraulic using a glycol solution. This greatly simplifies installation.

HSBC 300 Integral

The HSBC 300 Integral is a single appliance, all-in-one solution for WPL installation, suitable for both new construction or system modernization in existing structures. It comprises the DHW tank, buffer tank, and all piping and pumps necessary for WPL operation. Though the WPL can be used with other tanks, using the HSBC simplifies installation and frees up valuable floor space, saving almost half the space required if separate tanks were used. Connection between the WPL and the HSBC is hydraulic using a glycol solution, not refrigerant.

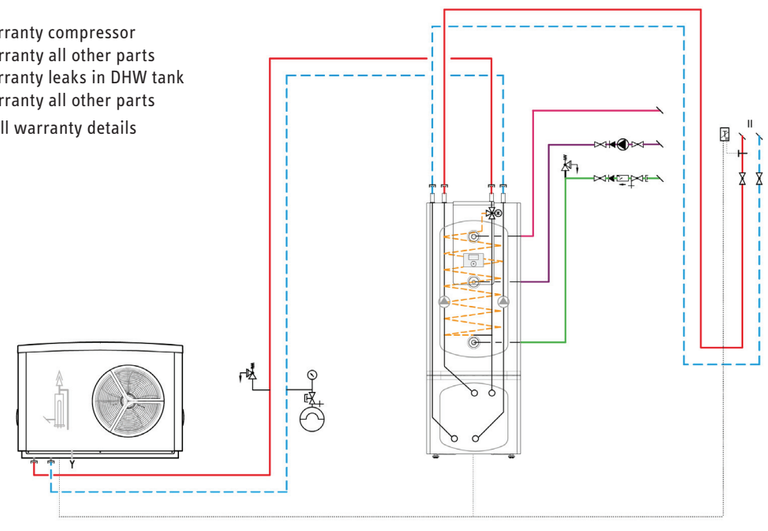
The WPM heat manager controller for the WPL system is conveniently housed in the HSBC. Highly programmable, the WPM comes pre-programmed with factory-set default parameters for a quick initial start-up.

- Highly integrated & comprehensive cold climate heat pump and tank system
- Monobloc with energy efficient inverter technology
- Central heating and cooling, with DHW heating
- 149°F/65°C flow temperature
- 2.77 COP Cold Climate Efficiency
- Low operating noise

7/2 YEAR LIMITED WARRANTY

Made in Germany

WPL 7-year limited warranty compressor
2-year limited warranty all other parts
HSBC 7-year limited warranty leaks in DHW tank
2-year limited warranty all other parts
See website for full warranty details



WPL 15/25 A2W Premium Technical Data

Model	WPL 15 A2W Premium	WPL 25 A2W Premium
Item no.	203252	203253
Heating output		
Full load capacity	23.04 kBtu/hr	50.4 kBtu/hr
A47/LWT 105 (min./max.)	11.26 kBtu/hr / 22.86 kBtu/hr	26.95 kBtu/hr / 41.18 kBtu/hr
A17/LWT 105 (min./max.)	8.19 kBtu/hr / 22.86 kBtu/hr	20.13 kBtu/hr / 43.16 kBtu/hr
A 5/LWT 110 (min./max.)	7.51 kBtu/hr / 21.38 kBtu/hr	17.63 kBtu/hr / 45.34 kBtu/hr
A-4/LWT 149 (min./max.)	15.28 kBtu/hr / 18.80 kBtu/hr	29.37 kBtu/hr / 36.17 kBtu/hr
Cooling output		
Full load capacity	2.13 ton	4.09 ton
Full load efficiency	1.65 kW/ton	1.51 kW/ton
A95/LWT 44 (min./max.)	0.47 ton / 2.13 ton	1.76 ton / 4.1 ton
A80/LWT 44 (min./max.)	0.5 ton / 2.38 ton	1.94 ton / 4.51 ton
Power consumption, heating		
A47/LWT 105 (min./max.)	0.87 kW / 1.73 kW	1.76 kW / 2.85 kW
A17/LWT 105 (min./max.)	0.92 kW / 2.29 kW	1.79 kW / 3.92 kW
A 5/LWT 110 (min./max.)	1.07 kW / 2.30 kW	1.83 kW / 4.80 kW
A-4/LWT 149 (min./max.)	2.97 kW / 3.65 kW	5.25 kW / 7.53 kW
Power consumption, emergency/booster heater	6.75 kW @ 240 V	6.75 kW @ 240 V
Power consumption, cooling		
A95/LWT 44 (min./max.)	0.71 kW / 3.52 kW	2.08 kW / 6.21 kW
A80/LWT 44 (min./max.)	0.65 kW / 2.71 kW	1.98 kW / 4.96 kW
COP heating (max. capacity)		
A47/LWT 105	3.86	4.24
A17/LWT 105	2.93	3.22
A 5/LWT 110	2.51	2.77
A-4/LWT 149	1.51	1.79
IPLV cooling*		
IPLV	15.68	16.83
IPLV kW/ton	0.76	0.71
Sound power level		
Outdoor installation, max. capacity	61 dB(A)	66 dB(A)
Outdoor installation, silent mode	50 dB(A)	54 dB(A)
Application limits		
Min. application limit, heat source	-4 °F (-20 °C)	-4 °F (-20 °C)
Max. application limit, heat source	104 °F (40 °C)	104 °F (40 °C)
Min. application limit, heating side	59 °F (15 °C)	59 °F (15 °C)
Max. application limit, heating side	149 °F (65 °C)	149 °F (65 °C)
Minimum operating ambient temperature for heat pump	-4 °F (-20 °C)	-4 °F (-20 °C)
Cooling mode: heat source max./min. (air)	104 °F / 59 °F (40 °C / 15 °C)	104 °F / 59 °F (40 °C / 15 °C)
LWT min. in cooling mode	44.6 °F (7 °C)	44.6 °F (7 °C)
Water hardness	143–152 ppm	143–152 ppm
Electrical data		
Rated voltage	220–240 V	220–240 V
Breaker size, compressor (DP)	20 A	35 A
Breaker size, controller (DP)	15 A	15 A
Breaker size, backup element (DP)	30 A	30 A
Starting current	7 A	10 A
Max. operating current	19.5 A	30 A
Refrigerant data		
Type	R410A	R410A
Charge	9.26 lb (4.2 kg)	12.13 lb (5.5 kg)
IP rating	IP 14B	IP 14B
Condenser material	1.4401/Cu	1.4401/Cu
Evaporator material	Aluminum/copper	Aluminum/copper
Dimensions		
Height	35 3/8″ (900 mm)	41 1/8″ (1045 mm)
Width	50″ (1270 mm)	58 5/8″ (1490 mm)
Depth	23 3/8″ (593 mm)	23 3/8″ (593 mm)
Weight	352 lb (160 kg)	386 lb (175 kg)

* According to AHRI Standard 550/590 Energy Star performance test

HSBC 300 Integral Technical Data

Model	HSBC 300 Integral
Item no.	202493
Hydraulic data	
Nominal capacity, DHW tank	71.3 gal (270 l)
Nominal capacity, buffer tank	26.4 gal (100 l)
Surface area, heat exchanger	4.4 ft² (3.20 m²)
Volume, heat exchanger	5.5 gal (21 l)
DHW volume, top indirect coil	58.1 gal (220 l)
Pressure drop at 4.4 gpm (1.0 m³/h), heat exchanger, top	1.9 ft. head (56 hPa)
Reheating time, top heat exchanger	33 minutes
Application limits	
Max. permissible pressure (design pressure), DHW	101.5 psi (0.7 MPa)
Max. permissible pressure (design pressure), heat exchanger, top	43.5 psi (0.3 MPa)
Test pressure, DHW tank	217.6 psi (1.50 MPa)
Max. flow rate	6.6 gpm (25 l/min)
Max. permissible pressure (design pressure), buffer tank	43.5 psi (0.3 MPa)
Test pressure, buffer tank	65.3 psi (0.45 MPa)
Max. permissible temperature	192 °F (89 °C)
Heating water quality requirements	
Water hardness	≤50 ppm
pH value (with aluminum fittings)	8.0–8.5
pH value (without aluminum fittings)	8.0–10.0
Conductivity (softening)	< 1000 µS/cm
Conductivity (desalination)	20–100 µS/cm
Chloride	<30 ppm (<30 mg/l)
Oxygen 8–12 weeks after filling (softening)	<0.02 ppm (<0.02 mg/l)
Oxygen 8-12 weeks after filling (desalination)	<0.1 ppm (<0.1 mg/l)
Power consumption	
Max. power consumption, charging pump	60 W
Max. power consumption, circulation pump, heating side	60 W
Energy data	
Standby energy consumption/ 24 h at 149 °F (65 °C)	1.45 kWh
Electrical data	
Rated voltage, control unit	220–240 V
Phase, control unit	Single
Control unit circuit breaker	1 x 15 A
Values	
Nominal heating flow rate at A19/W95 and 13 °F rise	6.2 gpm (23.3 l/min)
Min. flow rate, heating	3.1 gpm (11.7 l/min)
Safety assembly, max. supply pressure	145 psi (1.0 MPa)
Recommended operating pressure, heating circuit	29 psi (0.2 MPa)
Recommended operating pressure, DHW	50.8 psi (0.35 MPa)
Pressure reducer, set value	50.8 psi (0.35 MPa)
T&P valve, nominal set temperature	194 °F (90 °C)
T&P valve, nominal set pressure	101.5 psi (0.7 MPa)
T&P valve, nominal diameter	¾″
Versions	
IP rating	IP20
Height	75 1/2″ (1918 mm)
Width	26 3/4″ (680 mm)
Depth	35 7/8″ (910 mm)
Height when tilted	83 5/8″ (2123 mm)
Weight, full	1413 lb (641 kg)
Weight, empty	551 lb (250 kg)

Due to our continuous process of engineering and technological advancement, specifications may change without notice.

STIEBEL ELTRON

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