WPF 13 S

BRINE | WATER HEAT PUMPS

PRODUCT-NO.: 232925



APPLICATION: Brine | water heat pump for indoor installation with a high level of integration. Can be used in mono mode to provide heating and DHW in new builds and modernisation projects due to the high flow temperatures. Can also be used for apartment buildings, depending on the heat load of the building.

EQUIPMENT/CONVENIENCE: To minimise the transfer of structure-borne sound to the building, the refrigerant circuit is mounted on an anti-vibration base plate. The consistent source temperature guarantees unchanging heating output all year round, with flow temperatures up to 60 °C. The integral heat pump controller enables fully automated, weather-compensated control of the heating system and, when combined with the optional ISG, the ability to control the system via a home network or a mobile terminal device. With integral heat and electricity metering via refrigerant circuit data. A high efficiency circulation pump and expansion vessel are provided for both the brine side and the heating side. An electric emergency/booster heater for mono energetic operation and pasteurisation, diverter valve for DHW heating and safety valve with discharge hose are integrated as standard. The refrigerant circuit is hermetically sealed, tested for tightness at the factory and filled with safety refrigerant R410A.

EFFICIENCY: The heat pump unit is equipped with a scroll compressor with a soft starter and optimised heat exchangers for improved efficiency.

INSTALLATION: The internal pressure hoses enable direct hydraulic connection to the heating and brine circuits. For easy installation, the hydraulic connections are equipped with quick-release fittings and are already thermally insulated. The metal casing is corrosion-protected and made from galvanised, powder-coated sheet steel, with an alpine white stove enamel finish. Carrying handles on the back panel facilitate appliance handling.

The main features

- High COP all year round enables low running costs
- Easy and time-saving installation with high level of integration
- Extremely quiet operation thanks to multiple anti-vibration coupling

Flow temperatures up to 65 °C ensure high level of DHW convenience





Type	WPF 07 S	WPF 10 S	WPF 13 S
Part no.	232923	232924	232925
Heat output			
Output at B0/W35 (EN 14511)	7,61 kW	10,31 kW	13,01 kW
Power consumption			
Power consumption at B0/W35 (EN 14511)	1,60 kW	2,17 kW	2,74 kW
Power consumption, emergency/booster heater	5,9 kW	5,9 kW	5,9 kW
Max. power consumption, circulation pump, heating side	45 W	72 W	72 W
Max. power consumption, circulation pump, source side	130 W	130 W	130 W
Coefficient of performance (COP)			
Coefficient of performance at B0/W35 (EN 14511)	4,75	4,76	4,75
SCOP (EN 14825)	5,3	5,2	5,175
Sound data			
Sound power level (EN 12102)	47 dB(A)	48 dB(A)	49 dB(A)
Sound power level W35 (EN 12102)	47 dB(A)	48 dB(A)	49 dB(A)
Sound power level W55 (EN 12102)	50 dB(A)	50 dB(A)	51 dB(A)
Sound pressure level at 1 m distance in a free field	42 dB(A)	42 dB(A)	42 dB(A)
Sound pressure level at 5 m distance in a free field	28 dB(A)	28 dB(A)	28 dB(A)
Application limits			
Min. application limit on the heating side	15 °C	15 °C	15 °C
Max. application limit on the heating side	60 °C	60 °C	60 °C
Heat source application limit (min.)	-5 °C	-5 °C	-5 °C

Heat source application limit (max.)	20 °C	20 °C	20 °C

Energy data

Energy efficiency class	A++/A+++	A++/A+++	A++/A+++

Electrical details

Frequency	50 Hz	50 Hz	50 Hz
Emergency/booster heater fuse	2 x B 16 A	2 x B 16 A	2 x B 16 A
Control circuit fuse	1 x B 16 A	1 x B 16 A	1 x B 16 A
Fuse - compressor	1 x C16 A	1 x C25 A	1 x C25 A
Rated voltage, emergency/booster heater	230 V	230 V	230 V
Rated control voltage	230 V	230 V	230 V
Rated compressor voltage	230 V	230 V	230 V
Phases, emergency/booster heater	1/N/PE	1/N/PE	1/N/PE
Control phases	1/N/PE	1/N/PE	1/N/PE
Compressor phases	1/N/PE	1/N/PE	1/N/PE
Current (with/without softstarter)	30/83 A	41/100 A	34/130 A

Versions

Refrigerant	R410 A	R410 A	R410 A
Refrigerant capacity	1,90 kg	2,13 kg	2,25 kg
CO2 equivalent	3,97 t	4,45 t	4,7 t
Global warming potential of the refrigerant (GWP100)	2088	2088	2088
Compressor oil	Emkarate RL 32 3MAF	Emkarate RL 32 3MAF	Emkarate RL 32 3MAF
Condenser material	1.4401/Cu	1.4401/Cu	1.4401/Cu
Evaporator material	1.4401/Cu	1.4401/Cu	1.4401/Cu
Type circulation pump heating side	Yonos PARA 25/7.0	Yonos PARA 25/7.5	Yonos PARA 25/7.5
Type circulation pump soruce side	Stratos PARA 25/1-8	Stratos PARA 25/1-8	Stratos PARA 25/1-8
IP-Rating	IP20	IP20	IP20

Dimensions

Height	1319 mm	1319 mm	1319 mm
Width	598 mm	598 mm	598 mm
Depth	658 mm	658 mm	658 mm

Weights

Weight	161 kg	168 kg	170 kg

Connections

DHW flow/return plug-in connection	28 mm	28 mm	28 mm
Heat source flow/return plug-in connection	28 mm	28 mm	28 mm
Heating flow/return plug-in connection	28 mm	28 mm	28 mm

Heating water quality requirements

Water hardness	≤3 °dH	≤3 °dH	≤3 °dH
pH value (with aluminium compounds)	8,0-8,5	8,0-8,5	8,0-8,5
pH value (without aluminium compounds)	8,0-10,0	8,0-10,0	8,0-10,0
Chloride	<30 mg/l	<30 mg/l	<30 mg/l
Conductivity (softening)	<1000 µS/cm	<1000 µS/cm	<1000 µS/cm
Conductivity (desalinating)	20-100 µS/cm	20-100 µS/cm	20-100 µS/cm
Oxygen 8-12 weeks after filling (softening)	<0,02 mg/l	<0,02 mg/l	<0,02 mg/l
Oxygen 8-12 weeks after filling (desalinating)	<0,1 mg/l	<0,1 mg/l	<0,1 mg/l

Heat transfer medium requirements on the heat source side

Ethylene glycol concentration, geothermal probe	25 Vol.-%	25 Vol.-%	25 Vol.-%
Ethylene glycol concentration, geothermal collector	33 Vol.-%	33 Vol.-%	33 Vol.-%

Values

Available external pressure differential, heating system	444 hPa	440 hPa	282 hPa
Available external pressure differential; heat source	732 hPa	660 hPa	520 hPa
Nominal design flow rate of heating system at B0/W35 and 7 K	0,92 m³/h	1,26 m³/h	1,64 m³/h

Heating flow rate (min.)	0,74 m³/h	1 m³/h	1,27 m³/h
Heating flow rate (EN 14511) at A7/W35, B0/W35 and 5 K	1,29 m³/h	1,76 m³/h	2,25 m³/h
Flow rate, heat source side	1,76 m³/h	2,54 m³/h	3,13 m³/h
Expansion vessel pre-charge pressure, heating side	0,15 MPa	0,15 MPa	0,15 MPa
Expansion vessel volume, heating side	24 l	24 l	24 l
Expansion vessel pre-charge pressure, source side	0,05 MPa	0,05 MPa	0,05 MPa
Expansion vessel volume, source side	24 l	24 l	24 l

Contact information

Do you have additional questions? Then please do not hesitate to contact us, we would be only too happy to help:
Call 0151 346 2300
Or send an e-mail to
sales@stiebel-eltron.co.uk

Only a qualified contractor should carry out the installation, commissioning, maintenance and repair of this appliance. Where applicable and prior to installation the electricity and/or water utility companies should be notified of your intention to install the product.