

# WPE-I 15 HW 230 GB Premium

PRODUCT-NO.: 202641

**Application** • This ground source heat pump with output-dependent control and inverter technology is installed indoors. The high level of integration simplifies installation whilst the small footprint means that it does not take up much space.

- The heat pump can be used for modernisation projects as flow temperatures of up to 75 °C are available all year round for heating and DHW heating.
- Mono mode is possible for both heating and DHW heating.

**Convenience features** • Quiet operation, due to encapsulated refrigerant circuit and acoustically isolated compressor. • Fully automatic, weather-compensated control of the heating system is assured by the integral heat pump manager. Control via the home network or from a mobile device is possible via the optional Internet Service Gateway (ISG). With integral heat and electricity metering via refrigerant circuit data. • High level of integration: high efficiency circulation pumps and expansion vessels for the brine and heating side are included. Also integrated are the electric emergency/auxiliary heater for mono energetic operation and pasteurisation, a diverter valve for DHW heating and a safety valve with discharge hose. • The refrigerant circuit works with the eco-friendly and futureproof refrigerant R454C whose properties are optimised for use in heat pumps. • The corrosion-protected, enamelled metal casing is made from hot-dip galvanised, powder coated sheet steel. Colour: Alpine white.

**Efficiency** • Optimum operation and high efficiency all year round thanks to the inverter and integral recuperator.

**Installation** • Carrying handles are provided on the back panel for easy transport. No special safety precautions are required when siting. Only the minimum room size must be complied with. 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 come with thermal insulation.

## The main features

High degree of DHW convenience and mono mode heating thanks to high flow temperatures of up to 75 °C



Pressure monitoring in the heat source circuit with integral brine pressure switch

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Quick, space saving installation thanks to built-in DHW cylinder and high level of integration

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Inverter technology allows ideally matched heating output through the variable speed compressor

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Very quiet operation thanks to the intelligent sound prevention concept including a number of anti-vibration mounts

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Futureproof and eco-friendly refrigerant with high efficiency

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Easy to transport as the refrigerant circuit and cylinder module can be separated from one another and are fitted with integral carrying handles



Type	WPE-I 04 HW 230 GB Premium	WPE-I 06 HW 230 GB Premium	WPE-I 08 HW 230 GB Premium
Part no.	202637	202638	202639
<b>Energy data</b>			
Energy efficiency class	A+++	A+++	A+++
Standby energy consumption/ 24 h at 65 °C	1.9 kWh	1.9 kWh	1.9 kWh
Energy efficiency class, DHW heating with load profile XL	A	A	A
<b>Heating output</b>			
Heating output at B0/W35 (EN 14511)	1,96 kW	2,37 kW	2,78 kW
Heating output at B0/W55 (EN 14511)	1.28 kW	2.01 kW	2.42 kW
Heating output at B0/W35 (min./max.)	1,0 - 4,2 kW	1,0 - 6,6 kW	1,0 - 7,6 kW
Heating output at B10/W35 (min./max.)	1,0 - 5,71 kW	1,0 - 7,36 kW	1,0 - 7,36 kW
<b>Hydraulic data</b>			
Cylinder capacity V	175 l	175 l	175 l
Surface area, heat exchanger	2.10 m <sup>2</sup>	2.10 m <sup>2</sup>	2.10 m <sup>2</sup>
<b>Power consumption</b>			
Power consumption at B0/W35 (EN 14511)	0,43 kW	0,45 kW	0,6 kW
Power consumption at B0/W55 (EN 14511)	0.47 kW	0.69 kW	0.79 kW
Power consumption, emergency/auxiliary heater	5.90 kW	5.90 kW	5.90 kW
Max. power consumption, circulation pump, heating side	45.00 W	45.00 W	45.00 W
Max. power consumption, circulation pump, source side	140.00 W	140.00 W	140.00 W
<b>Coefficients of performance</b>			
COP at B0/W35 (EN 14511)	4.60	4.60	4.67

<b>COP at B0/W55 (EN 14511)</b>	2.73	2.91	3.07
<b>SCOP (EN 14825)</b>	5.07	5.20	5.12

### Sound emissions

<b>Sound power level W35 (EN 12102)</b>	43.00 dB(A)	43.00 dB(A)	45.00 dB(A)
<b>Sound power level W55 (EN 12102)</b>	43.00 dB(A)	43.00 dB(A)	46.00 dB(A)

### Application limits

<b>Permissible operating pressure, heating circuit</b>	0.3 MPa	0.3 MPa	0.3 MPa
<b>Permissible operating pressure, cylinder</b>	1 MPa	1 MPa	1 MPa
<b>Shutdown pressure, brine pressure switch (positive pressure)</b>	0.07 MPa	0.07 MPa	0.07 MPa
<b>Max. permissible pressure (design pressure), DHW</b>	0.70 MPa	0.70 MPa	0.70 MPa

### Dimensions

<b>Height</b>	1937 mm	1937 mm	1937 mm
<b>Width</b>	600 mm	600 mm	600 mm
<b>Depth</b>	703 mm	703 mm	703 mm
<b>Height when tilted</b>	2020 mm	2020 mm	2020 mm

### Values

<b>Internal volume, source side</b>	2.5 l	2.5 l	2.5 l
<b>Min. flow rate, heating</b>	0.3 m <sup>3</sup> /h	0.3 m <sup>3</sup> /h	0.3 m <sup>3</sup> /h
<b>Available external pressure differential, heat source</b>	1,020 hPa	940 hPa	830 hPa
<b>Available external pressure differential, heating</b>	710 hPa	660 hPa	620 hPa
<b>Flow rate on heat source side</b>	0,5 m <sup>3</sup> /h	0,6 m <sup>3</sup> /h	0,68 m <sup>3</sup> /h

### Weights

<b>Weight</b>	265 kg	265 kg	265 kg
<b>Weight, empty</b>	265 kg	265 kg	265 kg
<b>Weight, full</b>	427 kg	427 kg	427 kg

## Electrical data

Rated voltage, compressor	230 V	230 V	230 V
Rated voltage, emergency/auxiliary heater	230 V	230 V	230 V
Rated voltage, control unit	230 V	230 V	230 V
Phases, compressor	1/N/PE	1/N/PE	1/N/PE
Phases, emergency/auxiliary heater	2/N/PE	2/N/PE	2/N/PE
Phases, control unit	1/N/PE	1/N/PE	1/N/PE
Frequency	50 Hz	50 Hz	50 Hz
Max. operating current	8.36 A	13.01 A	15.09 A
Starting current (with/without starting current limiter)	<6 A	<6 A	<6 A
Compressor fuse protection	1 x B 16 A	1 x B 16 A	1 x B 16 A
Emergency/auxiliary heater fuse protection	2 x B 16 A	2 x B 16 A	2 x B 16 A
Control unit fuse protection	1 x B 16 A	1 x B 16 A	1 x B 16 A

## Versions

Refrigerant	R454C	R454C	R454C
Refrigerant charge	2,2 kg	2,2 kg	2,2 kg
Global warming potential of the refrigerant (GWP100)	148	148	148
CO2 equivalent (CO2e)	0.32 t	0.32 t	0.32 t
Compressor oil	Diamond Freeze MA68	Diamond Freeze MA68	Diamond Freeze MA68
Circulation pump type, source side	Grundfos UPML	Grundfos UPML	Grundfos UPML
Circulation pump type, heating side	Yonos PARA 25/7.0	Yonos PARA 25/7.0	Yonos PARA 25/7.0
Condenser material	1.4401/Cu	1.4401/Cu	1.4401/Cu
Evaporator material	1.4401/Cu	1.4401/Cu	1.4401/Cu
IP rating	IP 20	IP 20	IP 20

## Connections

Heating flow/return push-fit connection	22 mm	22 mm	22 mm
DHW flow/return push-fit connection	22 mm	22 mm	22 mm

Heat source flow/return push-fit connection	28 mm	28 mm	28 mm
DHW circulation connection	G 1/2 A	G 1/2 A	G 1/2 A

#### Heating water quality requirements

Water hardness	≤3 °dH	≤3 °dH	≤3 °dH
pH value (with aluminium fittings)	8,0 - 8,5	8,0 - 8,5	8,0 - 8,5
pH value (without aluminium fittings)	8,0 - 10,0	8,0 - 10,0	8,0 - 10,0
Conductivity (softening)	<1000 µS/cm	<1000 µS/cm	<1000 µS/cm
Conductivity (desalination)	20-100 µS/cm	20-100 µS/cm	20-100 µS/cm
Chloride	<30 mg/l	<30 mg/l	<30 mg/l
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 (desalination)	<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 % by vol.	25 % by vol.	25 % by vol.
Ethylene glycol concentration, geothermal collector	33 % by vol.	33 % by vol.	33 % by vol.



Type	WPE-I 12 HW 230 GB Premium	WPE-I 15 HW 230 GB Premium
Part no.	202640	202641

## Energy data

Energy efficiency class	A+++	A+++
Standby energy consumption/ 24 h at 65 °C	1.9 kWh	1.9 kWh
Energy efficiency class, DHW heating with load profile XL	A	A

## Heating output

Heating output at B0/W35 (EN 14511)	4,19 kW	5,18 kW
Heating output at B0/W55 (EN 14511)	4.20 kW	4.72 kW
Heating output at B0/W35 (min./max.)	2,1 - 12,7 kW	2,1 - 14,8 kW
Heating output at B10/W35 (min./max.)	2,1 - 15,38 kW	2,1 - 15,33 kW

## Hydraulic data

Cylinder capacity V	162 l	162 l
Surface area, heat exchanger	3.50 m <sup>2</sup>	3.50 m <sup>2</sup>

## Power consumption

Power consumption at B0/W35 (EN 14511)	0,84 kW	1,07 kW
Power consumption at B0/W55 (EN 14511)	1.34 kW	1.48 kW
Power consumption, emergency/auxiliary heater	5.90 kW	5.90 kW
Max. power consumption, circulation pump, heating side	76.00 W	76.00 W
Max. power consumption, circulation pump, source side	140.00 W	140.00 W

## Coefficients of performance

COP at B0/W35 (EN 14511)	5.01	4.86
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<b>COP at B0/W55 (EN 14511)</b>	3.13	3.18
<b>SCOP (EN 14825)</b>	5.59	5.44

## Sound emissions

<b>Sound power level W35 (EN 12102)</b>	44.00 dB(A)	44.00 dB(A)
<b>Sound power level W55 (EN 12102)</b>	44.00 dB(A)	45.00 dB(A)

## Application limits

<b>Permissible operating pressure, heating circuit</b>	0.3 MPa	0.3 MPa
<b>Permissible operating pressure, cylinder</b>	1 MPa	1 MPa
<b>Shutdown pressure, brine pressure switch (positive pressure)</b>	0.07 MPa	0.07 MPa
<b>Max. permissible pressure (design pressure), DHW</b>	0.70 MPa	0.70 MPa

## Dimensions

<b>Height</b>	1937 mm	1937 mm
<b>Width</b>	600 mm	600 mm
<b>Depth</b>	703 mm	703 mm
<b>Height when tilted</b>	2020 mm	2020 mm

## Values

<b>Internal volume, source side</b>	3.9 l	3.9 l
<b>Min. flow rate, heating</b>	0.3 m <sup>3</sup> /h	0.3 m <sup>3</sup> /h
<b>Available external pressure differential, heat source</b>	710 hPa	520 hPa
<b>Available external pressure differential, heating</b>	610 hPa	500 hPa
<b>Flow rate on heat source side</b>	1,08 m <sup>3</sup> /h	1,31 m <sup>3</sup> /h

## Weights

<b>Weight</b>	275 kg	275 kg
<b>Weight, empty</b>	275 kg	275 kg
<b>Weight, full</b>	437 kg	437 kg



## Electrical data

Rated voltage, compressor	230 V	230 V
Rated voltage, emergency/auxiliary heater	230 V	230 V
Rated voltage, control unit	230 V	230 V
Phases, compressor	1/N/PE	1/N/PE
Phases, emergency/auxiliary heater	2/N/PE	2/N/PE
Phases, control unit	1/N/PE	1/N/PE
Frequency	50 Hz	50 Hz
Max. operating current	24.32 A	24.48 A
Starting current (with/without starting current limiter)	<10 A	<10 A
Compressor fuse protection	1 x B 25 A	1 x B 25 A
Emergency/auxiliary heater fuse protection	2 x B 16 A	2 x B 16 A
Control unit fuse protection	1 x B 16 A	1 x B 16 A

## Versions

Refrigerant	R454C	R454C
Refrigerant charge	3,1 kg	3,1 kg
Global warming potential of the refrigerant (GWP100)	148	148
CO <sub>2</sub> equivalent (CO <sub>2</sub> e)	0.45 t	0.45 t
Compressor oil	Diamond Freeze MA68	Diamond Freeze MA68
Circulation pump type, source side	Grundfos UPML	Grundfos UPML
Circulation pump type, heating side	Yonos PARA 25/7.5	Yonos PARA 25/7.5
Condenser material	1.4401/Cu	1.4401/Cu
Evaporator material	1.4401/Cu	1.4401/Cu
IP rating	IP 20	IP 20

## Connections

Heating flow/return push-fit connection	22 mm	22 mm
DHW flow/return push-fit connection	22 mm	22 mm

<b>Heat source flow/return push-fit connection</b>	28 mm	28 mm
<b>DHW circulation connection</b>	G 1/2 A	G 1/2 A

#### Heating water quality requirements

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

#### Heat transfer medium requirements on the heat source side

<b>Ethylene glycol concentration, geothermal probe</b>	25 % by vol.	25 % by vol.
<b>Ethylene glycol concentration, geothermal collector</b>	33 % by vol.	33 % by vol.

More details regarding set contents can be found under the relevant product

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## **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](mailto: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.