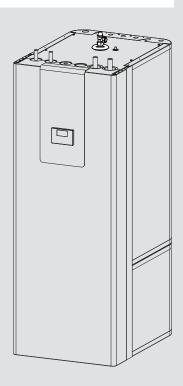
# **OPERATION AND INSTALLATION**

Integral cylinder

» HSBC 300 cool (AU) (WPM)





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### **GUARANTEE**

### **ENVIRONMENT AND RECYCLING**

# General information

# SPECIAL INFORMATION OPERATION

- The appliance may be used by children over 8 years of age and persons with reduced physical, sensory or mental capabilities or a lack of experience and expertise, provided that they are supervised or they have been instructed on how to use the appliance safely and have understood the potential risks. Children must never play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision.
- The connection to the power supply must be in the form of a permanent connection. Ensure the appliance can be separated from the power supply by an isolator that disconnects all poles with at least 3 mm contact separation.
- Observe all applicable national and regional regulations and instructions.
- Observe minimum distances (see chapter "Installation / Preparations / Installation site").
- Only a qualified contractor should carry out installation, commissioning, maintenance and repair of the appliance.

#### **DHW** cylinder

- Drain the appliance as described in chapter "Installation / Maintenance / Draining the DHW cylinder".
- Observe the maximum permissible pressure (see chapter "Installation / Specification / Data table").
- The DHW cylinder is under supply pressure. During the heat-up process, expansion water will drip from the safety valve.
- The safety valve drain aperture must remain open to atmosphere.

#### **General information** 1.

The chapters "Special information" and "Operation" are intended for appliance users and qualified contractors.

The chapter "Installation" is intended for qualified contractors.



Note
Read these instructions carefully before using the appliance and retain them for future reference.

Pass on these instructions to a new user if required.

#### Relevant documents 1.1

- Instructions for the WPM heat pump manager
- Operating and installation instructions for the connected heat pump
- Operating and installation instructions for all other system components

#### 1.2 Safety instructions

#### 1.2.1 Structure of safety instructions



**KEYWORD** Type of risk

Here, possible consequences are listed that may result from failure to observe the safety instructions.

► Steps to prevent the risk are listed.

#### 1.2.2 Symbols, type of risk

Symbol	Type of risk	
Ţ	Injury	
4	Electrocution	
	Burns (burns, scalding)	

#### 1.2.3 Keywords

KEYWORD	Meaning
DANGER	Failure to observe this information will result in serious injury or death.
WARNING	Failure to observe this information may result in serious injury or death.
CAUTION	Failure to observe this information may result in non-serious or minor injury.

## **OPERATION**

# Safety

### 1.3 Other symbols in this documentation

#### Note

General information is identified by the adjacent symbol. Read these texts carefully.

Symbol	Meaning
!	Material losses (appliance damage, consequential losses and environmental pollution)
	Appliance disposal

► This symbol indicates that you have to do something. The action you need to take is described step by step.

### 1.4 Information on the appliance

#### **Connections**

Symbol	Meaning	
<u> </u>	Inlet / intake	Red arrow: hot Blue arrow: Cold Green arrow: Neutral
<b>O</b>	Drain / outlet	Red arrow: hot Blue arrow: Cold Green arrow: Neutral
	Domestic hot water	
	DHW circulation	
	Heat pump	
	Heating	

### 1.5 Units of measurement



### Note

All measurements are given in mm unless stated otherwise.

# 2. Safety

#### 2.1 Intended use

This appliance is intended to be used for seasonal heating and cooling of interiors (7  $^{\circ}$ C / 12  $^{\circ}$ C) and for DHW heating.

The appliance is intended for domestic use. It can be used safely by untrained persons. The appliance can also be used in non-domestic environments, e.g. in small businesses, as long as it is used in the same way.

Any other use beyond that described shall be deemed inappropriate. Observation of these instructions and of the instructions for any accessories used is also part of the correct use of this appliance.

### 2.2 General safety instructions



#### **WARNING Burns**

There is a risk of scalding at outlet temperatures in excess of 43 °C.



#### **WARNING Injury**

The appliance may be used by children over 8 years of age and persons with reduced physical, sensory or mental capabilities or a lack of experience and expertise, provided that they are supervised or they have been instructed on how to use the appliance safely and have understood the potential risks. Children must never play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision.



#### **WARNING Injury**

For safety reasons, only operate the appliance with the front casing closed.



#### **Material losses**

The system's active frost protection is not guaranteed if the power supply is interrupted.

Never interrupt the power supply even outside the heating season.



#### Note

The DHW cylinder is under supply pressure. During the heat-up process, expansion water will drip from the safety valve.

If water continues to drip when heating is completed, please inform your qualified contractor.

### 2.3 Test symbols

See type plate on the appliance.

# Appliance compatibility

# 3. Appliance compatibility

The appliance can be operated in conjunction with the following air source heat pumps:

- HPA-0 05.1-07.1 CS Premium
- HPA-0 7-13 (C)(S) Premium
- WPL-A 05-07 HK 230 Premium
- WPL 15-25 A(C)(S)
- WPL 19-24 I, A

# 4. Appliance description

The buffer cylinder and DHW cylinder with indirect coil are arranged one above the other and can be separated for easier handling.

The appliance has a plastic jacket with foam insulation and is equipped with a removable front casing. The appliance is connected hydraulically and electrically to the heat pump. All hydraulic connections are made at the top (heating) and rear (DHW).

In addition to the DHW cylinder and the buffer cylinder, further system components are integrated:

- Heat pump manager
- Highly efficient circulation pump for a heating circuit without mixer
- 3/2-way diverter valve
- Cylinder primary pump

#### **DHW** cylinder

The steel cylinder is coated on the inside with special direct enamel and is equipped with a signal anode. The anode with consumption indicator protects the cylinder interior from corrosion.

The heating water heated by the heat pump is pumped through an indirect coil inside the DHW cylinder. The heat channelled through the indirect coil is thus transferred to the domestic hot water. The integral heat pump manager regulates the DHW heating to the required temperature.

#### **Buffer cylinder**

The steel cylinder provides hydraulic separation between the flow rates of heat pump and heating circuit. The heating water heated by the heat pump is transferred into the buffer cylinder by the cylinder charging pump. When a demand is issued, the integral heating circuit pump delivers the heating water to the heating circuit.

#### Heat pump manager (WPM)

The system is controlled by means of the integral heat pump manager.



#### Nota

The heat pump manager has an automatic summer/winter changeover so you can leave the system switched on in summer.

▶ Please observe the instructions for the heat pump manager.

# 5. Cleaning, care and maintenance

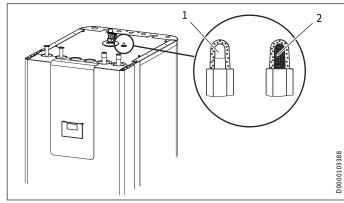
- Have the electrical safety of the appliance and the function of the safety assembly regularly checked by a qualified contractor
- ► Never use abrasive or corrosive cleaning agents. A damp cloth is sufficient for cleaning the unit.

#### Signal anode with consumption indicator



#### **Material losses**

If the consumption indicator changes colour from white to red, have the signal anode checked by a qualified contractor and if necessary replaced.

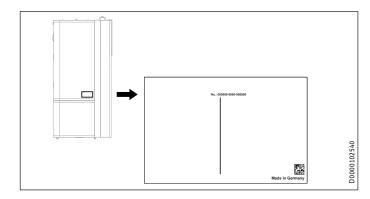


- 1 White = Anode OK
- 2 Red = Requires checking by qualified contractor

# 6. Troubleshooting

Problem	Cause	Remedy
The water does not heat up. The heating does not work.	There is no power.	Check the fuses / MCBs in your fuse box / distribution board.

If you cannot remedy the fault, contact your qualified contractor. To facilitate and speed up your enquiry, please provide the serial number from the type plate (000000-0000-000000).



# Safety

# **INSTALLATION**

# 7. Safety

Only a qualified contractor should carry out installation, commissioning, maintenance and repair of the appliance.

### 7.1 General safety instructions

We guarantee trouble-free function and operational reliability only if original accessories and spare parts intended for the unit are used.

### 7.2 Instructions, standards and regulations



#### **Note**

Observe all applicable national and regional regulations and instructions.

# 8. Appliance description

## 8.1 Standard delivery

The following are delivered with the appliance:

- 4x Adjustable foot
- 1x Outside temperature sensor AF PT

#### 8.2 Accessories

#### 8.2.1 Required accessories

Safety assemblies and pressure reducing valves are available to suit the prevailing supply pressure. These type-tested safety assemblies protect the appliance against impermissible excess pressure.

Required for area cooling:

- Pt1000 temperature sensor
- FFT remote control

#### 8.2.2 Additional accessories

- Pump assembly for a heating circuit with mixer HSBC 3-HKM
- Pressure hoses
- Water softening fitting HZEA
- Temperature sensor for cooling
- Remote control for heating operation
- STB-FB high limit safety cut-out for underfloor heating systems

# 9. Preparation

#### 9.1 Installation site



#### Material losses

Never install the appliance in wet rooms.

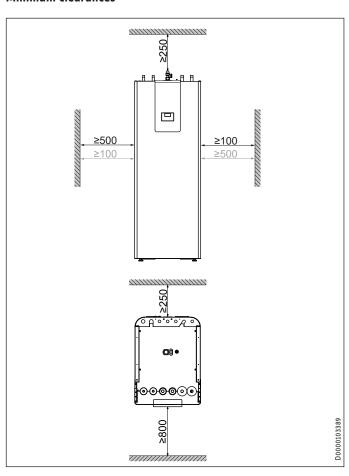
Install the appliance near the draw-off point in a dry room free from the risk of frost. To reduce line losses, keep the distance short between the appliance and the heat pump.

Ensure the floor has sufficient load bearing capacity and evenness (for weight, see chapter "Specification / Data table").

The room must not be subject to a risk of explosions arising from dust, gases or vapours.

If you are installing the appliance in a boiler room together with other heating equipment, ensure that the operation of the other heating equipment will not be impaired.

#### Minimum clearances



The minimum side clearances can be swapped between left and right.

# Preparation

### 9.2 Transport and handling

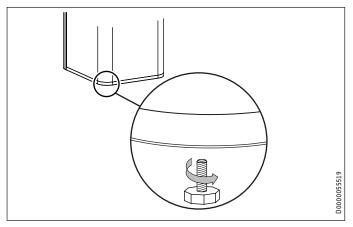


#### **Material losses**

Store and transport the appliance at temperatures between -20 °C and +60 °C.

#### Handling

▶ Undo the 4 screws from the non-returnable pallet.

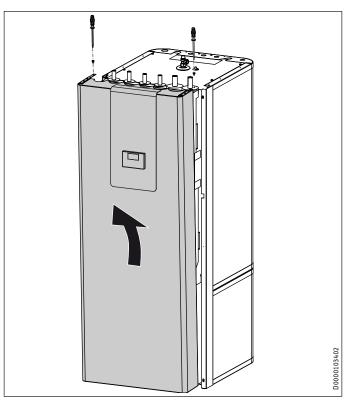


- ► Tilt the appliance and screw the 4 adjustable feet into the appliance.
- ► Lift the appliance off the pallet. For a better hold during transport, use the recessed grips on the underside and rear of the appliance.

If narrow doors or hallways hinder handling, you can separate the upper and lower sections of the appliance as described in the following chapters.

#### 9.2.1 Removing/fitting the front casing

#### Removing the front casing



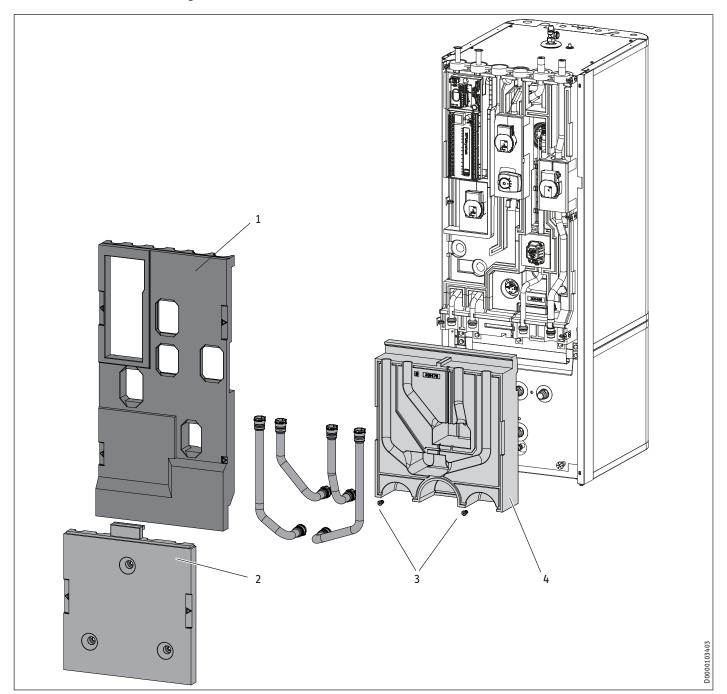
- ► Remove the 2 locking screws on the top of the front casing.
- ► Unhook the front casing towards the top.
- ► AA01-X1.18: If required, disconnect the connector plug of the programming unit from the connection in the appliance. The functionality of the appliance will not be affected. However, it will not be possible to operate the appliance via the programming unit.
- ► Remove the earth cable from the front casing.

#### Fitting the front casing

► Fit the front casing in reverse order.

# Preparation

### 9.2.2 Overview of insulation segments



- 1 Insulation segment 12 Insulation segment 2
- Insulation material screw
- 4 Insulation segment 3

# Preparation

#### 9.2.3 Separating / joining the appliance sections

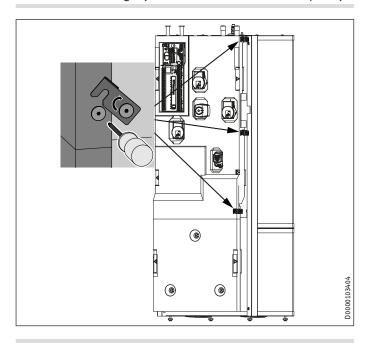
#### Separating the appliance sections



#### **Material losses**

Unscrewing the fastening screws destroys the threads in the insulation segment.

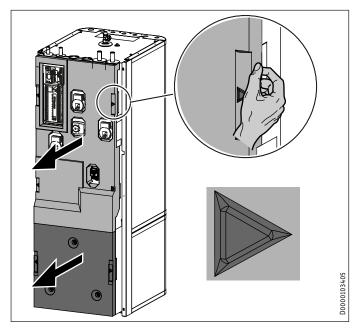
► To open the 3 fixing tabs, loosen the fastening screws slightly but do not unscrew them completely.



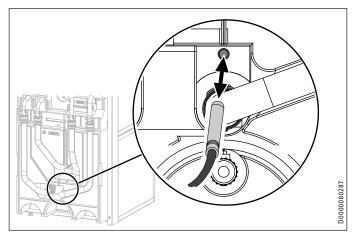


#### Note

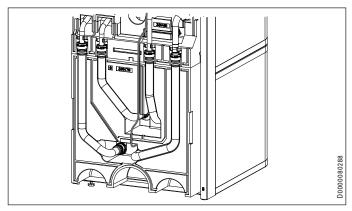
To make removal simpler, the insulation segments have labelled recessed grips on the left and right.



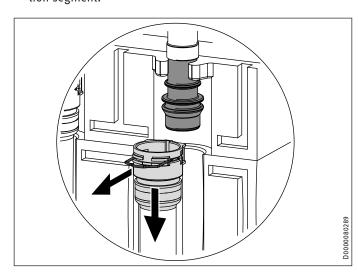
- ► Remove insulation segment 1.
- ► Remove insulation segment 2.



▶ Pull the "heating sensor" out of the buffer cylinder.

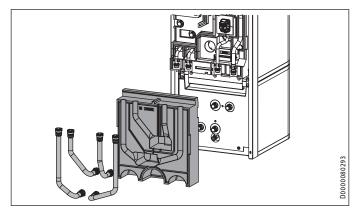


► Release the sensor lead from the guide groove in the insulation segment.

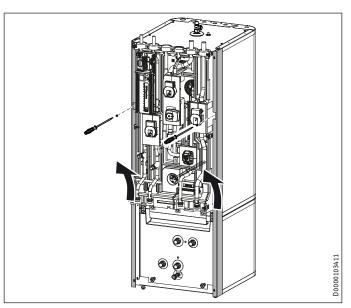


- Disconnect the push-fit connectors of the 4 hydraulic connections. To do this, pull the spring clips fully out with a screwdriver.
- ▶ Pull the hydraulic connectors as indicated.

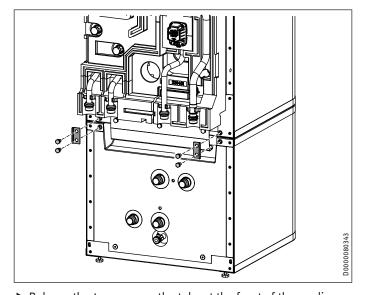
# Preparation



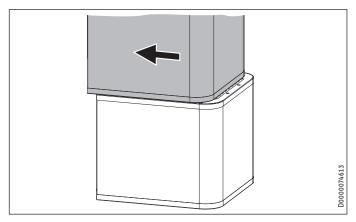
- ► Remove the 4 hydraulic hoses.
- ► Remove the 2 insulation material screws.
- ► Remove insulation segment 3.



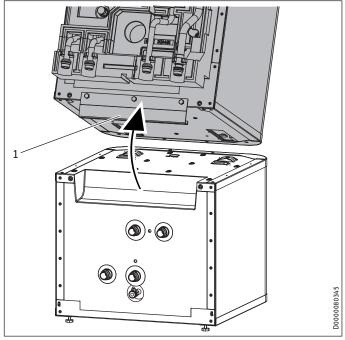
- ▶ Undo the 2 locking screws on the side profile strips.
- Lift up and unhook the side profile strips.



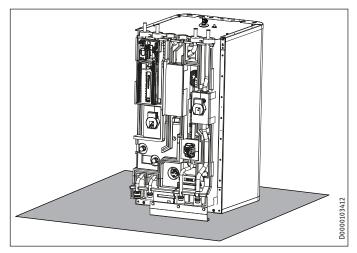
► Release the 4 screws on the tabs at the front of the appliance.



▶ Pull the upper section of the appliance towards the front.



- 1 Handle
- ► Tip the upper section of the appliance backwards. Use the handle for improved grip.



► Place the upper section of the appliance on a base to prevent damage.

# Preparation

#### Joining appliance sections



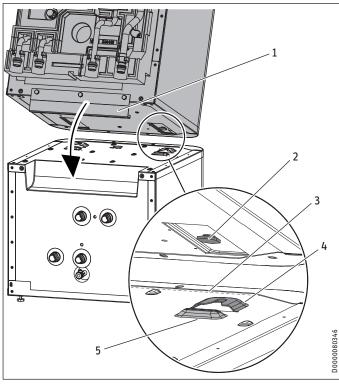
#### **Material losses**

To prevent condensation forming, the insulation segments must fit closely against the lower section with no gaps.

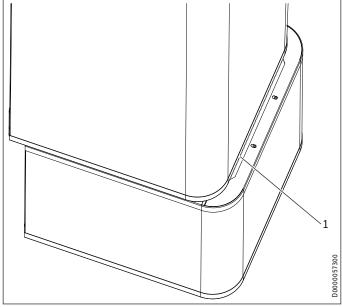
- ▶ When inserting the insulation segments, ensure that the joint grooves are kept clear.
- ► Tap the insulation segments down with your hand.

Rejoin the appliance sections in reverse order.

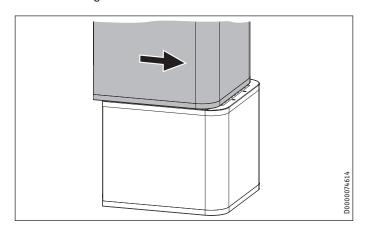
The positioning aids and the dotted line marking provide assistance when positioning and inserting the upper appliance section into the guide groove on the lower section:



- 1 Handle
- 2 Guide pin
- 3 Dotted line (perforation in the panel)
- 4 Guide groove
- 5 Positioning aid



- 1 Dotted line (perforation in the panel)
- ► Place the upper appliance section onto the lower appliance section along the dotted line.



- ► Slide the upper appliance section to the back until it is flush with the lower appliance section. If the appliance sections are joined correctly, the final position is determined by the guide groove and guide pin.
- ► Secure the tabs on the appliance front.
- ► Fit the side profile strips.
- ▶ Fit insulation segment 3 and the 4 hydraulic hoses.
- ► Connect the push-fit connectors of the 4 hydraulic connections. Ensure that the spring clips click into place.
- ▶ Insert the "heating sensor" into the buffer cylinder.
- ► Lay the sensor lead in the guide groove provided for this purpose in the insulation segment.
- ► Fit insulation segment 2.
- ► Fit insulation segment 1.
- Fit the front casing.

# Installation

# 10. Installation

### 10.1 Positioning the appliance

- ► When positioning the appliance, observe minimum clearances (see chapter "Preparations / Installation site").
- Use the adjustable feet to compensate for any unevenness in the floor.

#### 10.2 Heating water connection



#### **Material losses**

The heating system to which the appliance is connected must be installed by a qualified contractor in accordance with the water installation drawings in the technical guides.



#### **Material losses**

When fitting additional shut-off valves, install a further safety valve in an accessible location on the heat generator itself or in the flow line in close proximity to the heat generator.

There must not be a shut-off valve between the heat generator and the safety valve.

#### Oxygen diffusion



#### Material losses

Do not use open vented heating systems. Use oxygen diffusion-proof pipes in underfloor heating systems with plastic pipework.

In underfloor heating systems with plastic pipes that are permeable to oxygen and in open vented heating systems, oxygen diffusion may lead to corrosion on the steel components of the heating system (e.g. on the indirect coil of the DHW cylinder, on buffer cylinders, steel radiators or steel pipes).

► With heating systems that are permeable to oxygen, separate the heating system between the heating circuit and the buffer cylinder.



### **Material losses**

The products of corrosion (e.g. rusty sludge) can settle in the heating system components, which may result in a lower output or fault shutdowns due to reduced cross-sections.

#### **Supply lines**



#### Note

The maximum permissible line length between the appliance and the heat pump will vary, depending on the version of the heating system (pressure drop). As a standard value, assume a maximum line length of 10 m and a pipe diameter of 22-28 mm.

► Thoroughly flush the pipes before connecting the heat pump. Foreign bodies (e.g. welding pearls, rust, sand, sealing material, etc.) can impair the operational reliability of the system.

- ► Install the heating water pipes (see chapter "Specification / Dimensions and connections").
- Protect the flow and return lines against frost with sufficient thermal insulation.
- ► Connect the hydraulic connections with flat gaskets.

If the available external pressure difference is exceeded, the pressure drop in the heating system could result in a reduced heating output.

- ► When sizing the pipes, ensure that the available external pressure differential is not exceeded (see chapter "Specification / Data table").
- ► When calculating the pressure drop, take account of the flow and return lines and the pressure drop of the heat pump. The pressure drop must be covered by the available pressure differential.

#### 10.2.1 HSBC 3-HKM (optional)

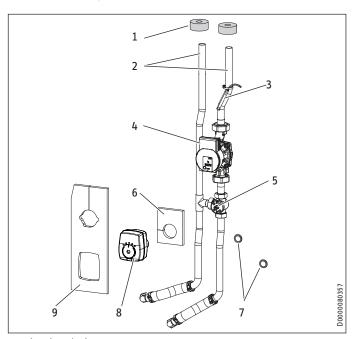


#### **WARNING Electrocution**

Before starting work on the appliance, disconnect all poles from the power supply and drain the heating circuit via the drain valve on the buffer cylinder.

To extend the appliance with a heating circuit with mixer, you can install pump assembly HSBC 3-HKM (available as an accessory).

#### Standard delivery



- 1 Pipe insulation
- 2 Connection pipes (\*)
- 3 Temperature sensor
- 4 Heating circuit pump (\*)
- 5 3-way mixer (\*)
- 6 Insulation mat for 3-way mixer
- 7 Flat gaskets
- 8 Servomotor for 3-way mixer (\*)
- 9 Insulation mat for 3-way mixer and heating circuit pump

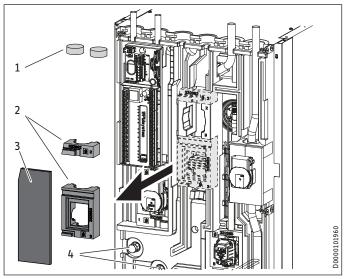
(\*) Pipe assembly

# Installation

#### **Preparation**

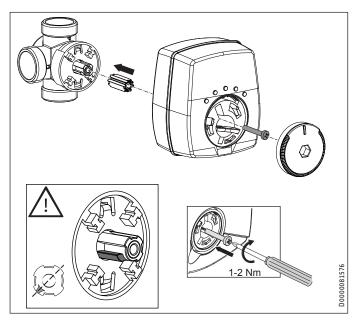
► Remove the front casing and insulation segment 1 (see chapter "Installation / Preparations / Transport and handling").

The following components are prefitted on the HSBC side at the pump assembly installation site:

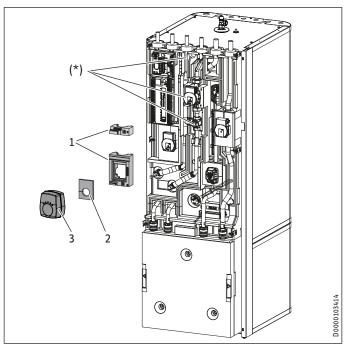


- 1 Insulation plugs
- 2 Profiles for 3-way mixer
- 3 Insulation mat, closed
- 4 Adaptor with dummy cap screwed on
- ► Remove the insulation plugs.
- ► Remove the closed insulation mat and profiles for the 3-way mixer and the heating circuit pump.
- Counterhold and unscrew the dummy caps from the adaptors.

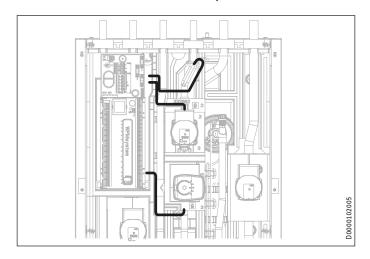
#### Installation



- ► Check the position of the 3-way mixer shaft.
- ► Adjust the position if necessary.



- (\*) Pipe assembly inserted
- 1 Profiles for 3-way mixer
- 2 Insulation mat for 3-way mixer
- 3 Servomotor for 3-way mixer
- ► Insert the pipe assembly.
- ► Insert the flat gaskets into the union nuts for the connection pipes.
- ► Counterhold and secure the union nuts to the adaptors.
- Check the alignment of the pipes and functional elements of the pump assembly.
- ► Retighten all fittings.
- ► Install the profiles for the 3-way mixer over the mixing valve body and above the pump.
- Place the insulation mat for the 3-way mixer on the valve body.
- ► Install the servomotor for the 3-way mixer.



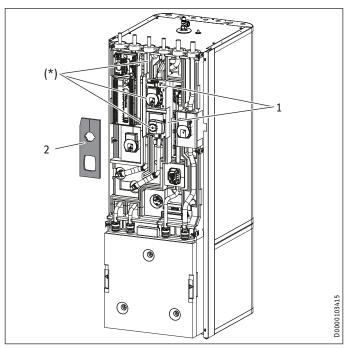


#### **Material losses**

To prevent condensation from forming, do not lay any cables in the joint grooves of the EPP parts.

# Installation

- ► Route the pump assembly connecting cable to the control panel as shown.
- Slide the pipe insulation over the connection pipe connectors from above.



#### (\*) Pipe assembly inserted

- 1 Profiles for 3-way mixer
- 2 Insulation mat for 3-way mixer and heating circuit pump
- ► Insert the insulation mat on the HKM side for the 3-way mixer and the heating circuit pump.
- Observe the parameter settings in menu "SETTINGS / HEAT-ING / HEATING CIRCUIT 2" in the enclosed commissioning instructions for the heat pump manager.

#### 10.3 DHW connection and safety assembly



#### **Material losses**

The maximum permissible pressure must not be exceeded (see chapter "Specification / Data table").



#### Material losses

Operate the appliance only with pressure-tested taps.



#### **Material losses**

Install the T&P valve.



#### **Material losses**

The tundish and the discharge pipe should be installed away from electrical devices.



#### Note

If secondary return circuits are used then an additional expansion vessel may be required.

#### Cold water line

Galvanised steel, stainless steel, copper and plastic are approved materials.



#### **Material losses**

A safety valve is required.

#### DHW line, DHW circulation line

Stainless steel, copper and plastic are approved materials.

#### 10.3.1 DHW connection and safety assembly

- Flush the pipes thoroughly.
- ► Install the DHW outlet line and the cold water inlet line (see chapter "Specification / Dimensions and connections"). Connect the hydraulic connections with flat gaskets.
- ► Install a type-tested safety valve in the cold water supply line. Please note that, depending on the supply pressure, you may also need a pressure reducing valve.
- Size the drain pipe so that water can drain off unimpeded when the safety valve is fully opened.
- ► The safety valve drain aperture must remain open to atmosphere.
- Install the safety valve drain pipe with a constant fall to the drain.

#### 10.3.2 DHW circulation line (optional)

A DHW circulation line with external DHW circulation pump can be fitted to the DHW circulation connection (see chapter "Specification / Dimensions and connections").

- ► Remove the sealing cap from the DHW circulation connection (see chapter "Specification / Dimensions and connections").
- ► Connect the DHW circulation line.

### 10.4 Filling the system

#### Heating circuit water quality

Carry out a fill water analysis before filling the system. This analysis may, for example, be requested from the relevant water supply utility.

To avoid damage as a result of scaling, it may be necessary to soften or desalinate the fill water. The fill water limits specified in chapter "Specification / Data table" must always be observed.

► Recheck these limits 8-12 weeks after commissioning and during the annual system service.



#### Note

With a conductivity >1000 μS/cm, desalination treatment is recommended in order to avoid corrosion.



#### Note

If you treat the fill water with inhibitors or additives, the same limits apply as for desalination.

# **Electrical connection**



#### Note

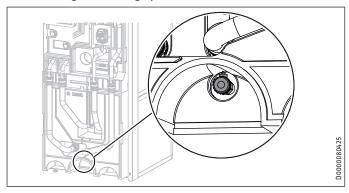
Suitable appliances for water softening, as well as for filling and flushing heating systems, can be obtained via trade suppliers.



#### **Material losses**

Never switch on the power before filling the system.

#### 10.4.1 Filling the heating system

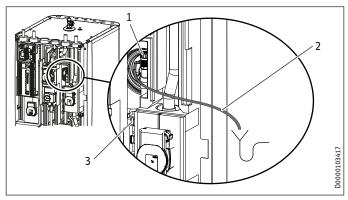


- Fill the heating system via the drain valve.
- ▶ Vent the pipework.

#### 10.4.2 DHW cylinder filling

- Filling the DHW cylinder via the cold water inlet connection.
- ▶ Open all downstream draw-off valves until the appliance is full and the pipework is free of air.
- ▶ Adjust the flow rate. For this, observe the maximum permissible flow rate with a fully opened tap (see chapter "Specification / Data table"). If necessary reduce the flow rate at the butterfly valve of the safety assembly.
- ► Carry out a tightness check.
- ► Check the safety valve.

### 10.5 Venting the appliance



- 1 Air vent valve
- 2 Vent hose
- 3 Hose attachment
- ▶ Detach the vent hose from the hose attachment.
- ► Hang the free end of the vent hose in a container.
- ► To ventilate, open the air vent valve.
- ► After ventilation, close the air vent valve.
- ► Secure the vent hose.

# 11. Electrical connection



#### **WARNING Electrocution**

Carry out all electrical connection and installation work in accordance with relevant regulations.

Before any work on the appliance, disconnect all poles from the power supply.



#### **WARNING Electrocution**

The connection to the power supply must be in the form of a permanent connection. Ensure the appliance can be separated from the power supply by an isolator that disconnects all poles with at least 3 mm contact separation. This requirement can be met by using contactors, circuit breakers, fuses/MCBs, etc.



#### **Material losses**

Provide separate fuses for the two power circuits of the appliance and the control unit.



#### **Material losses**

Observe the type plate. The specified voltage must match the mains power supply.

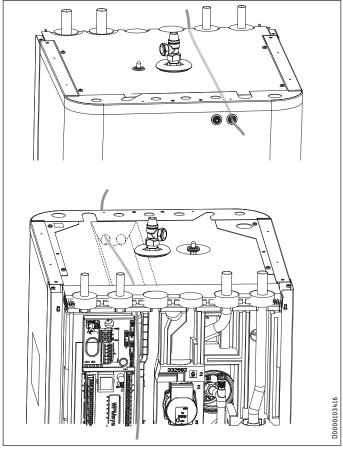


#### Note

Leakage currents of up to 5 mA may occur.

The terminal box of the appliance is located behind the front casing (see chapter "Preparations / Transport and handling / Removing/ fitting the front casing").

# Electrical connection

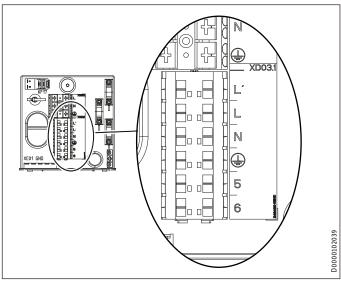


- ► Route all power cables and sensor leads into the appliance through the cable entry.
- Connect the power cables and sensor leads as detailed below.

Install cables with the following cross-sections in accordance with the respective fuse protection:

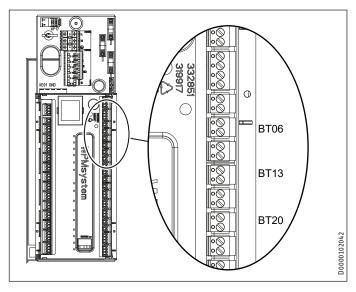
Fuse protection	Assignment	Cable cross-section
B 16 A	Control unit	1.5 mm <sup>2</sup>

### 11.1 Control voltage



Terminal	Control voltage
XD03.1	Power supply
	L, N, PE

# 11.2 Safety extra low voltage



Termi- nal	Safety extra low voltage			
AA01-X1.1	Heat pump			
AA01-X1.3	Outside sensor			
AA01-X1.4 BT06	Temperature sensor, heat pump, buffer cylinder			
AA01-X1.6 BT13 Temperature sensor, heat pump, flow, heating circuit (HSBC 3-HKM accessory)				
AA01-X1.8 BT20	DHW cylinder temperature sensor			

### Control by WPM via PWM signal

▶ Observe the information in the commissioning instructions for the WPM heat pump manager.

# **Electrical connection**

### 11.3 Heat pump manager terminal assignment

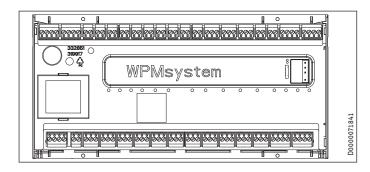


#### **WARNING Electrocution**

Only components that operate with safety extra low voltage (SELV) and that ensure secure separation from the mains voltage supply may be connected to the low voltage terminals of the appliance.

Connecting other components can make parts of the appliance and connected components live.

► Only use components which have been approved by



extra low volt	age	
+ - L H	+ - L H	CAN (connection for heat pump and WPE heat pump extension)
+ - L H	+ - L H	CAN (connection for FET remote control and ISG Internet Service Gateway)
Signal Earth	1 2	Outside sensor
Signal Earth	1 2	Buffer sensor (heating circuit sensor 1)
Signal Earth	1 2	Flow sensor
Signal Earth	1 2	Heating circuit sensor 2
Signal Earth	1 2	Heating circuit sensor 3
Signal Earth	1 2	DHW cylinder sensor
Signal Earth	1 2	Source sensor
Signal Earth	1 2	2nd heat generator (2.WE)
Signal Earth	1 2	Cooling flow
Signal Earth	1 2	DHW circulation sensor
Signal Earth Signal	1 2 3	FE7 remote control / telephone remote switch / heating curve optimisation / SG Ready
Constant 12 V Input GND	IN L	Analogue input 0-10 V
Constant 12 V Input GND	in L	Analogue input 0-10 V
Signal Earth	1 2	PWM output 1
Signal Earth	1 2	PWM output 2
	+ - L H + - L H H + - L L H H Signal Earth Signal Constant 12 V Input GND Signal Earth Signal Earth Signal Earth Signal Earth Signal Earth Signal	Constant 12 V

Safaty	extra low vo	al+ago	
Salety	extra tow vi	Jilaye	
X1.18	+	+	CAN (FES)
CAN B	-	-	
	L	L	
	Н	Н	
X1.19	+	+	CAN (connection for heat pump and WPE heat
CAN A	-	-	pump extension)
	L	L	
	Н	Н	

X2.1	1	L	Power supply
772.1	Ĺ	Ĺ	Tower suppry
	N	N	
	PE	<b>(1)</b>	
X2.2	L' (power supply	L'	L' (power supply utility input)
	utility input)		
	L* (pumps L)	L* (pumps L)	L* (pumps L)
X2.3	L	L	Heating circuit pump 1
	N PE	N ⊕ PE	
X2.4	_ <u>F                                   </u>	L	Heating circuit pump 2
Λ2.4	N	N	neating circuit pump 2
	PE	⊕ PE	
X2.5		L	Heating circuit pump 3
	N	N	
	PE	⊕ PE	
X2.6	L	L	Buffer charging pump 1
	N	N	
	_ <u>PE</u>	<u>⊕ PE</u>	
X2.7	L N	L N	Buffer charging pump 2
	PE	⊕ PE	
X2.8	_ <u>                                    </u>	L	DHW charging pump
712.0	N	N	Silv charging pamp
	PE	⊕ PE	
X2.9	L	L	Source pump / defrost
	N	N	
	<u>PE</u>	<u>⊕ PE</u>	
X2.10	L	L	Fault output
	N PE	N PE	
X2.11	_ <u>F                                   </u>	L	DHW circulation pump / 2nd heat
Λ2.11	N	N	source DHW
	PE	⊕ PE	554.14.5
X2.12	L	L	2nd heat source heating
	N	N	9
	_ PE	<u>⊕ PE</u>	
X2.13	L	L	Cooling
	N	N	
V2 41	PE AND OR	<u>⊕ PE</u>	Missa bastina danit 2
X2.14	Mixer OPEN N	N	Mixer, heating circuit 2 (X2.14.1 Mixer OPEN
	PE	⊕ PE	X2.14.2 Mixer CLOSE)
	Mixer CLOSE	▼	AZZZZZ MIACI CEOSEJ
X2.15	Mixer OPEN		Mixer heating circuit 3
	N	N	(X2.15.1 Mixer OPEN
	PE	⊕ PE	X2.15.2 Mixer CLOSE)
	Mixer CLOSE		



Note
For every appliance fault, output X2.10 issues a 230 V signal.

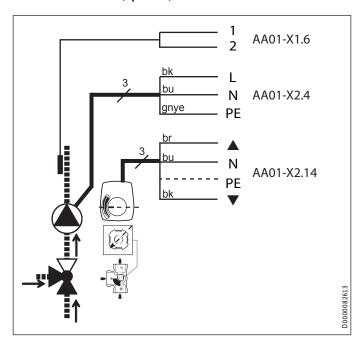
In the case of temporary faults, the output switches the signal through for a specific time.

In the case of faults that result in a permanent appliance shutdown, the output switches through permanently.

# Electrical connection

#### 11.4 Accessories

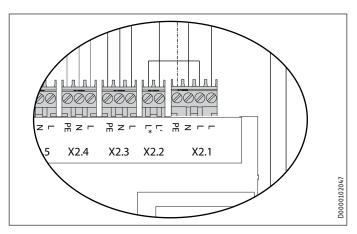
#### 11.4.1 HSBC 3-HKM (optional)



Terminal	Safety extra	low vol	tage
AA01-X1.6		BT13	Temperature sensor, heat pump flow, heating circuit 2
Terminal	Mains power	supply	
AA01-X2.4	L, N, PE	MA11	Motor, pump, heating circuit
AA01-X2.14	L. L. N	MA19	Motor, mixing valve heating circuit 2

► Make the electrical connection for the components.

# 11.4.2 STB-FB high limit safety cut-out for underfloor heating systems (optional)



- ► X2.1 (L), X2.2 (L\*): Remove the jumper.
- ➤ X2.1 (L), X2.2 (L\*): Connect the high limit safety cut-out to the terminals.

#### 11.5 Sensor installation

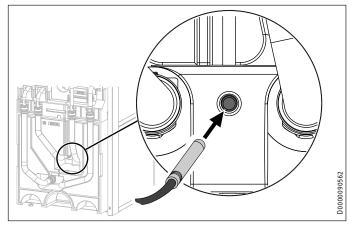
#### 11.5.1 AF PT outside temperature sensor

► When installing the outside temperature sensor, observe the commissioning instructions for the heat pump manager (see chapter "Connecting external components").

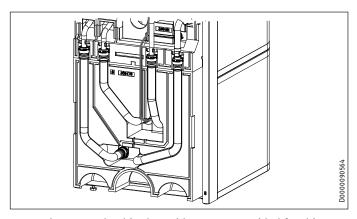
#### 11.5.2 Temperature sensor for area cooling (optional)

Area cooling requires the fitting of a temperature sensor, available as an accessory.

► Remove the front casing (see chapter "Preparations / Transport and handling / Removing/fitting the front casing").



► Insert the temperature sensor into the sensor well "Sensor heat pump cooling, optional".



- Lay the sensor lead in the guide groove provided for this purpose in the insulation segment.
- ► Connect the temperature sensor to the corresponding terminal on the WPM (see chapter "Electrical connection / Heat pump manager terminal assignment").

### 11.6 Remote control

When installing the remote control unit, observe the commissioning instructions for the heat pump manager (see chapter "Connecting external components").

# Commissioning

# 12. Commissioning

Our customer support can assist with commissioning, which is a chargeable service.

If the appliance is intended for commercial use, observe the rules of the relevant Health & Safety at Work Act during commissioning. For further details, check with your local authorising body (in Germany, for example, this is the TÜV).

# 12.1 Checks before commissioning the heat pump manager



#### **Material losses**

Observe the maximum system temperature in underfloor heating systems.

- ► Check that the heating system is filled to the correct pressure and the quick-action air vent valve is closed.
- ► Check whether the outside temperature sensor is correctly placed and connected.
- ► Check whether the power supply is connected correctly.
- Check whether the signal cable to the heat pump (bus cable) is correctly connected.

#### 12.2 Commissioning the heat pump manager

Commission the heat pump manager and make all settings in accordance with the heat pump manager commissioning instructions.



#### Note

For DHW mode, ensure that the PARALLEL OPERATION option is set in the heat pump manager. With this setting the primary pump is also active in DHW mode.

Requirement: The heat pump manager has recognised the heat pump.

▶ Open the menu and enter the code.

Parameter	Code
VIEW (SETTINGS)	1000

#### ► Adjust the parameters.

Parameter	Setting
DHW MODE (SETTINGS / DHW / STANDARD SETTING)	PARALLEL OPER- ATION
FUNCTION (COMMISSIONING / I/O CONFIGURATION / OUTPUT X1.16)	PWM 100%0%
PUMP (COMMISSIONING / I/O CONFIGURATION / OUT- PUT X1.16)	CHARGING PUMP CONTROL HEAT- ING

#### Setting for single-phase operation



#### **Note**

On appliances with a single phase connection, set the heat pump manager as follows for calculating the amount of heat.

► Adjust the parameters.

Parameter	Setting
NUMBER OF STAGES (SETTINGS / HEATING / ELECTRIC	2
BOOSTER HEATER)	

#### Area cooling setting



#### Material losses

Condensation caused by the temperature falling below the dew point can lead to material losses. The appliance is therefore approved exclusively for area cooling.

When making the area cooling settings, observe the information in the commissioning instructions for the heat pump manager.

# 13. Settings

#### 13.1 Wilo-Para .../Sc circulation pumps

► Set the operating mode of the pump depending on the heat distribution system.

### **LED** indicators

	Operation indicator: LED illuminates green in normal operation LED illuminates/flashes when there is a fault
	Display of selected control mode Δp-v, Δp-c and constant speed
- = =	Display of selected curve (I, II, III) within the control mode
	Combinations of LED displays for venting function, manual re-start and key lock
- = =	

#### **Operating button**



#### Press

Selecting the control mode

To select the curve (I, II, III) within the control mode **Press and hold** 

To activate the venting function (press for 3 seconds) Manual restart (press for 5 seconds)

To lock/unlock the buttons (press for 8 seconds)

# Appliance handover

#### **Control modes and functions**

Variable differential pressure ∆p-v (I. II. III)

Recommended for two-pipe heating systems with radiators to reduce flow noise at thermostatic valves

The pump reduces the delivery head by half when the flow rate in the pipework decreases.

Saves energy by matching the delivery head to the flow rate demand and the lower flow velocities.

Choice of three pre-defined curves (I, II, III).

Constant pressure differential ∆p-c (I, II, III)

Recommended for underfloor heating systems, large pipework or any application with a non-varying pipework curve (e.g. cylinder charging pumps), as well as single-pipe heating systems with radiators



The control system keeps the set delivery head constant, irrespective of delivered flow rate.
Choice of three pre-defined curves (I, II, III).

Constant speed (I, II, III)

Recommended for systems with unchanging system resistance which require a constant throughput.



The pump runs at three preset fixed speed levels (I, II, III).



#### **Venting**



Filling and venting the system correctly If the pump does not vent automatically: Activate the venting function via the operating button, press button for 3 seconds, then release it. Venting function starts (duration 10 minutes). The top and bottom rows of LEDs flash alternately every second.

To cancel, press the operating button for 3 seconds.



Note

After venting, the LED indicator displays the previously set pump values.

#### **Setting control modes**

Selecting the control mode

The LEDs for the control modes and associated curves illuminate one after the other.



Briefly press the operating button (for approx. 1 second).

LEDs indicate the current selected control mode and curve (see following table).

Operating button	LED indicator	Control mode	Curve
1x	- <b>.</b> .	Constant speed	II
2x	- = = = = = = = = = = = = = = = = = = =	Constant speed	ı

LED indicator	Control mode	Curve
	Variable differential pressure $\Delta p\text{-}v$	III
	Variable differential pressure Δp-v	II
	Variable differential pressure Δp-v	I
	Constant differential pressure Δp-c	III
	Constant differential pressure Δp-c	II
	Constant differential pressure Δp-c	1
- = =	Constant speed	III
		Variable differential pressure Δp-v  Variable differential pressure Δp-v  Variable differential pressure Δp-v  Constant differential pressure Δp-c  Constant speed

(\*) Pressing the button for the 9th time in succession returns the system to the factory setting (constant speed, curve III).

# 14. Appliance handover

- ► Explain the appliance function to users and familiarise them with how it works.
- ► Make users aware of potential dangers.
- ► Hand over these instructions.

# 15. Shutting down the system



#### **Material losses**

Observe the temperature application limits and the minimum circulation volume on the heat consumer side (see chapter "Specification / Data table").



#### **Material losses**

Drain the system when there is a risk of frost and the heat pump is completely switched off (see chapter "Maintenance / Draining the DHW cylinder").

▶ If you take the system out of use, set the heat pump manager to standby so that the safety functions that protect the appliance (e.g. frost protection) remain active.

# Maintenance

# 16. Maintenance



**WARNING Electrocution** 

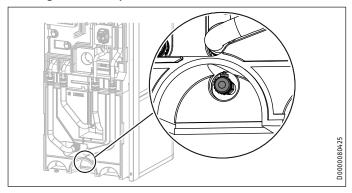
Carry out all electrical connection and installation work in accordance with relevant regulations.



**WARNING Electrocution** 

Before any work on the appliance, disconnect all poles of the appliance from the power supply.

#### Draining the buffer cylinder



▶ Drain the buffer cylinder via the drain valve.

### **Draining the DHW cylinder**



**CAUTION Burns** 

Hot water may escape during draining.

- ► Close the shut-off valve in the cold water supply line.
- ▶ Open the hot water taps on all draw-off points.
- ► Empty the DHW cylinder via the cold water inlet connection.

#### Cleaning and descaling the DHW cylinder



#### **Material losses**

Never use descaling pumps or descaling agents to clean the cylinder.

► Clean the appliance through the inspection flange.

For the torque of the flange screws, see chapter "Specification / Dimensions and connections".

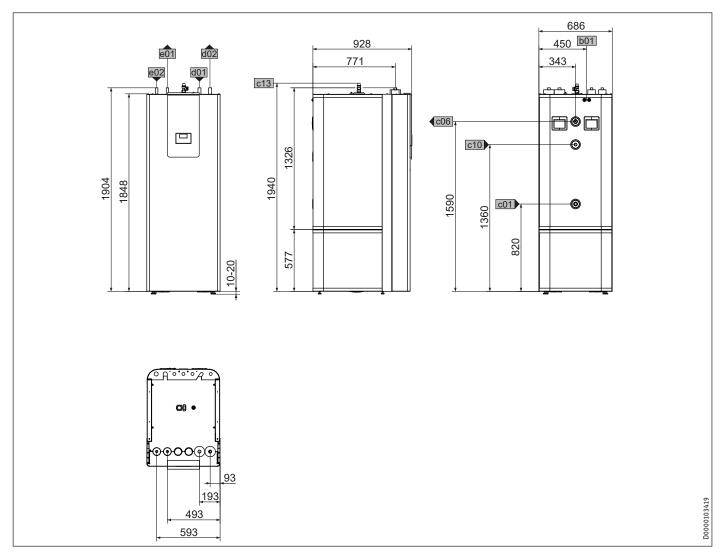
#### Replacing the signal anode

► Replace the signal anode if it becomes depleted.

# Specification

# 17. Specification

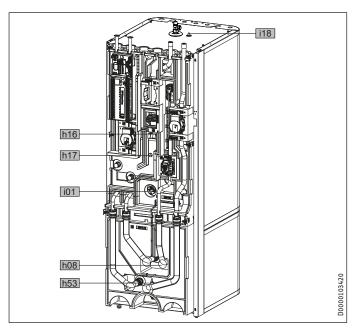
# 17.1 Dimensions and connections



				HSBC 300 cool (AU)
b01	Entry electrical cables			
c01	Cold water inlet	Male thread		G 1
c06	DHW outlet	Male thread		G 1
c10	DHW circulation	Male thread		G 1/2
c13	T&P valve			
d01	Heat pump flow	Diameter	mm	28
d02	Heat pump return	Diameter	mm	28
e01	Heating flow	Diameter	mm	22
e02	Heating return	Diameter	mm	22

# Specification

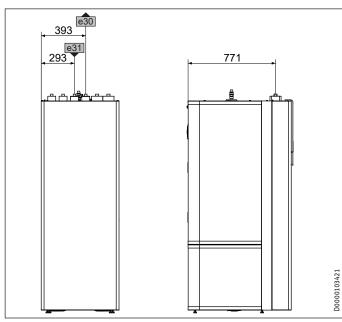
#### Other dimensions and connections



				HSBC 300 cool (AU)
h08	Sensor heat pump cooling, optional	Diameter	mm	9.5
h16	Sensor DHW	Diameter	mm	9.5
h17	Sensor, DHW, optional	Diameter	mm	9.5
h53	Sensor heating	Diameter	mm	9.5
i01	Flange	External diameter	mm	140
		Torque	Nm	45
<u>i18</u>	Protective anode	Female thread		G 1 1/4

#### 17.1.1 Accessories

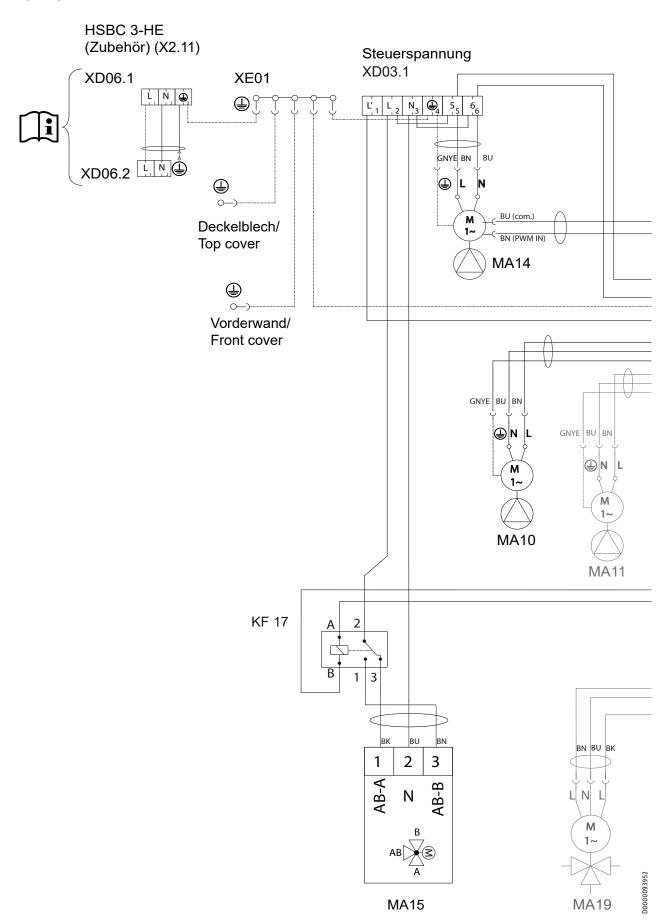
### HSBC 3-HKM

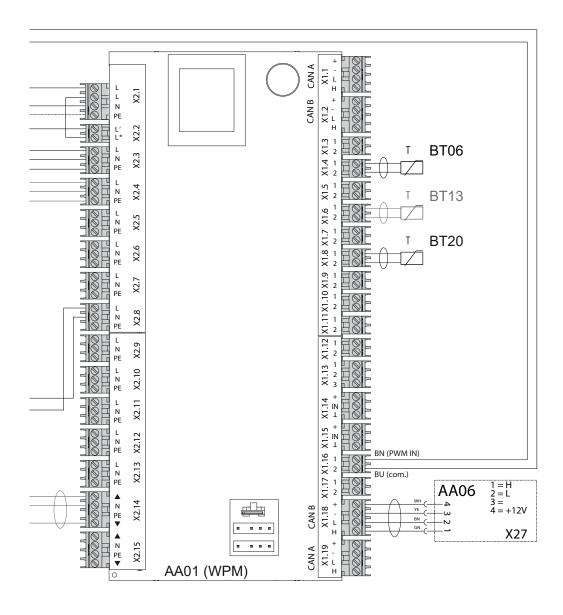


				HSBC 3-HKM
e30	Heating flow, mixed	Diameter	mm	22
e31	Heating return, mixed	Diameter	mm	22

# Specification

# 17.2 Wiring diagram





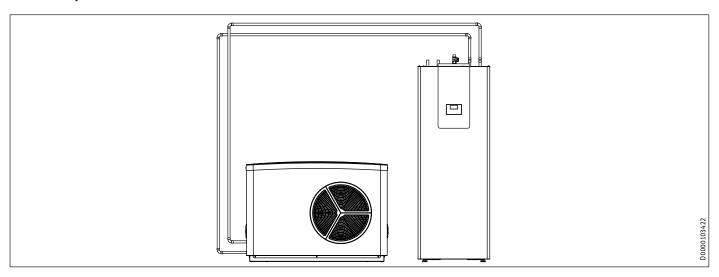
D0000093952

# Specification

AA01		WPM heat pump manager	AA01	X2.15	Connector, mixer, heating circuit 3 (X2.15.1
AA06		Programming unit	A A O C	V27	Mixer OPEN/X2.15.2 Mixer CLOSE)
BT06		Temperature sensor, heat pump buffer cylin- der	AA06 AA07	X27	Terminal, programming unit Connector, temperature sensor, heat pump
BT13		Temperature sensor HP flow HC2 (accessories	AAU/	X60	flow BT01
D113		HSBC 3-HKM)	AA07	X61	Connector, temperature sensor, heat pump
BT20		DHW cylinder temperature sensor	717107	7,01	return BT02
MA10		Motor, pump, heating circuit	AA07	X62	Not assigned – connector, temperature sensor,
MA11		Motor, pump, heating circuit 2 (HSBC 3-HKM			heat pump return
		accessory)	AA07	X63	Not assigned - connector, temperature sensor,
MA14		Buffer charging pump motor			DHW cylinder, internal
MA15		Motor, diverter valve, heating/DHW	AA07	X64	Connector, temperature and flow rate, heating
MA19		Motor, mixing valve, heating circuit 2 (HSBC		\/a=	circuit, BF01
		3-HKM accessory)	AA07	X65	Not assigned
KF17		Relay, diverter valve, heat source	AA07	X66	Rast 2.5 connector (heating system pressure) BP01
XD03.1		Control voltage terminal	AA07	X67	Not assigned
XD06.1		Heater terminal (accessories HSBC 3-HE)	AA07	X68	Connector, switching, motor, diverter valve -
XD06.2		Heater terminal (accessories HSBC 3-HE)	717107	7,00	heating / DHW
XE01		Power supply earth terminal	AA07	X69	Not assigned
AA01	V4.4	Safety extra low voltage	AA07	X70	Connector, switching, pump, heating circuit
AA01	X1.1	Connector, CAN B. (FET/ISC connection)			PWM/1-10 V
AA01	X1.2	Connector, CAN B (FET/ISG connection)	AA07	X71	Not assigned
AA01 AA01	X1.3 X1.4	Connector, outside temperature sensor Connector, buffer temperature sensor BT06	AA07	X72	Connector, CAN bus
AA01 AA01	X1.4 X1.5	Connector, flow temperature sensor			
AA01 AA01	X1.5	Connector, heating circuit temperature sensor			
AAUI	X1.0	2			
AA01	X1.7	Connector, heating circuit temperature sensor			
AA01	X1.8	Connector, DHW cylinder sensor BT20			
AA01	X1.9	Connector, source sensor			
AA01	X1.10	Connector, 2nd heat generator			
AA01	X1.11	Connector, flow, cooling			
AA01	X1.12	Connector, DHW circulation sensor			
AA01	X1.13	Connector, remote control FE7			
AA01	X1.14	Connector, analogue input 0-10 V			
AA01	X1.15	Connector, analogue input 0-10 V			
AA01	X1.16	Connector, PWM output 1			
AA01	X1.17	Connector, PWM output 2			
AA01	X1.18	Connector, CAN B (FET/ISG connection)			
AA01	X1.19	Connector, CAN A (MFG)			
AA01		Control voltage			
AA01	X2.1	Connector, power supply			
AA01	X2.2	Connector, power-OFF contact			
AA01	X2.3	Connector, heating circuit pump 1			
AA01	X2.4	Connector, heating circuit pump 2			
AA01	X2.5	Connector, heating circuit pump 3			
AA01	X2.6	Connector, buffer charging pump 1			
AA01	X2.7	Connector, buffer charging pump 2			
AA01 AA01	X2.8 X2.9	Connector, DHW charging pump Connector, source pump/defrost			
AA01 AA01	X2.30	Connector, fault output			
AA01 AA01	X2.10 X2.11	Connector, 14uh output  Connector, DHW circulation pump / 2nd heat			
VVAI	74.11	generator - DHW			
AA01	X2.12	Connector, 2nd heat generator – heating			
AA01	X2.13	Connector, cooling			
AA01	X2.14	Connector, mixer, heating circuit 2 (X2.14.1			
		Mixer OPEN/X2.14.2 Mixer CLOSE)			

# Specification

# 17.3 Sample installation



### 17.4 Data table

		HSBC 300 cool (AU)
		204650
Hydraulic data		
Nominal capacity, DHW cylinder	I	270
Nominal capacity, buffer cylinder		100
Surface area, heat exchanger	m²	3.20
Capacity, heat exchanger		21
External available pressure differential, circulation	hPa	656
pump, heat pump at 1.0 m³/h		
External available pressure differential, circulation	hPa	527
pump, heat pump at 1.5 m³/h		
External available pressure differential, circulation	hPa	210
pump, heat pump at 2.0 m³/h		
External available pressure differential, circulation pump, heating circuit 1 at 1.0 m³/h	hPa	725
External available pressure differential, circulation	 hPa	663
pump, heating circuit 1 at 1.5 m <sup>3</sup> /h	III a	003
External available pressure differential, circulation	hPa	444
pump, heating circuit 1 at 2.0 m³/h	u	
External available pressure differential, circulation	hPa	665
pump, heating circuit 2 (optional) at 1.0 m³/h		
External available pressure differential, circulation	hPa	518
pump, heating circuit 2 (optional) at 1.5 m³/h		
External available pressure differential, circulation	hPa	189
pump, heating circuit 2 (optional) at 2.0 m³/h		
Application limits	***	
Max. permissible pressure, DHW cylinder	<u>MPa</u> _	1.00
Test pressure, DHW cylinder	<u>MPa</u> _	1.50
Max. flow rate	<u> /min</u> _	25
Max. permissible pressure, buffer cylinder	<u>MPa</u> _	0.30
Test pressure, buffer cylinder	<u>MPa</u> _	0.45
Max. permissible temperature	°C	85
Max. permissible temperature, primary side	°C	75
Heating water quality requirements		
Water hardness	<u> </u>	≤3
pH value (with aluminium fittings)		8.0-8.5
pH value (without aluminium fittings)		8.0-10.0
Conductivity (softening)	μS/cm	< 1000
Conductivity (desalination)	μS/cm	20-100
Chloride	mg/l	<30
Oxygen 8-12 weeks after filling (softening)	mg/l	<0.02
Oxygen 8-12 weeks after filling (desalination)	mg/l	< 0.1

		HSBC 300 cool (AU)
Power consumption		
Max. power consumption, charging pump	W	60
Max. power consumption, circulation pump, heating side	W	60
Energy data		
Standby energy consumption/ 24 h at 65 °C	kWh	1.45
Energy efficiency class		В
Electrical data		
Rated voltage, control unit	V	230
Phases, control unit		1/N/PE
Control unit fuse protection	A	1 x B 16
Frequency	Hz	50
Versions		
IP rating		IP20
Dimensions		
Height	<u>mm</u>	1918
Width	<u>mm</u>	680
Depth	<u>mm</u>	910
Height when tilted	<u>mm</u>	2123
Weights		
Weight, full	kg	641
Weight, empty	kg	250

### **Further details**

		HSBC 300 cool (AU)
		204650
Maximum height for installation	m	2000

# 17.5 Accessories

# Pump assembly HSBC 3-HKM

		HSBC 3-HKM
		238825
Connections		
Connection, heating circuit	mm	22

# GUARANTEE | ENVIRONMENT AND RECYCLING

# **Guarantee**

The guarantee conditions of our German companies do not apply to appliances acquired outside of Germany. In countries where our subsidiaries sell our products a guarantee can only be issued by those subsidiaries. Such guarantee is only granted if the subsidiary has issued its own terms of guarantee. No other guarantee will be granted.

We shall not provide any guarantee for appliances acquired in countries where we have no subsidiary to sell our products. This will not affect warranties issued by any importers.

# **Environment and recycling**

We would ask you to help protect the environment. After use, dispose of the various materials in accordance with national regulations.

# Stiebel Eltron Warranty for Water Heaters - Model HSBC 300 cool (AU)

#### Who gives the warranty

 The warranty is given by Stiebel Eltron (Aust) Pty Ltd (A.B.N. 82 066 271 083) of 294 Salmon Street, Port Melbourne, Victoria, 3207 ("we", "us" or "our").

#### The warranty

- This warranty applies to Stiebel Eltron Water Heaters Model HSBC 300 cool (AU) (the "unit").
- Subject to the warranty exclusions we will repair or replace, at our absolute discretion, a faulty component in your unit free of charge if it fails to operate in accordance with its specifications during the warranty period.
- 4. If we repair or replace a faulty component to your unit under this warranty, the warranty period is not extended from the time of the repair or replacement.
- 5. The warranty period commences on the date of completion of the installation of the unit. Where the date of completion of installation is not known, then the warranty period will commence 2 months after the date of manufacture.
- The warranty period for a unit used for domestic purposes is shown in the table below. Domestic purposes means that the unit is used in a domestic dwelling.

Component	Warranty period
All components, excluding PTR valve	5 years from the date of completion of the installation of the unit.

7. The warranty period for a unit used for commercial purposes is shown in the table below. Commercial purposes means that the unit is used for a non-domestic purpose and includes but is not limited to being used in a motel, hotel, mining camp or nursing home.

Component	Warranty period
All components, excluding PTR valve	1 year from the date of completion of the installation of the unit.

### Your entitlement to make a warranty claim

- 8. You are entitled to make a warranty claim if:
- 8.1. you own the unit or if you have the owner's consent to represent the owner of the unit;
- 8.2. you contact us within a reasonable time of discovering the problem with the unit;

#### How you make a warranty claim

- To make a warranty claim you must provide us with the following information:
- 9.1. The model number of the unit;
- 9.2. A description of the problem with the unit;

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- 9.3. The name, address and contact details (such as phone number and e-mail address) of the owner;
- 9.4. The address where the unit is installed and the location (e.g. in laundry);
- 9.5. The serial number of the unit;
- 9.6. The date of purchase of the unit and the name of the seller of the unit;
- 9.7. The date of installation of the unit;
- A copy of the certificate of compliance when the unit was installed.
- The contact details for you to make your warranty claim are:

Name:	Stiebel Eltron (Aust) Pty Ltd
Address:	294 Salmon Street, Port Melbourne, Victoria, 3207
Telephone:	1800 153 351 (8.00 am to 5.00 pm AEST Monday to Friday)
Contact person:	Customer Service Representative
E-mail:	service@stiebel.com.au

 We will arrange a suitable time with you to inspect and test the unit.

#### Warranty exclusions

- 12. We may reject your warranty claim if:
- 12.1. The unit was not installed by registered and qualified tradespeople.
- 12.2. The unit was not installed and commissioned:
  - a) in Australia;
  - b) in accordance with the Operating and Installation Guide; and
  - in accordance with the relevant statutory and local requirements of the State or Territory in which the unit is installed.
- 12.3. The unit has not been operated or maintained in accordance with the Operating and Installation Guide.
- 12.4. The unit does not bear its original Serial Number or Rating Label.
- 12.5. The unit was damaged by any or any combination of the following:
  - d) normal fair wear and tear;
  - e) connection to an incorrect water supply;
  - f) connection to water from a bore, dam or swimming pool:
  - g) connection to an incorrect power supply;
  - h) connection to faulty equipment, such as damaged valves;
  - foreign matter in the water supply, such as sludge or sediment;

- j) corrosive elements in the water supply;
- k) accidental damage;
- act of God, including damage by flood, storm, fire, lightning strike and the like;
- m) excessive water pressure, negative water pressure (partial vacuum) or water pressure pulsation.
- n) ingress of vermin.
- 12.6. The unit was damaged before it was installed e.g. it was damaged in transit.
- 12.7. An unauthorised person has modified, serviced, repaired or attempted to repair the unit without our consent.
- 12.8. Non genuine parts other than those manufactured or approved by us have been used on the unit.
- 13. We may charge you:
- 13.1. for any additional transport costs if the unit is installed more than 30 kilometres from our closest authorised service technician.
- 13.2. for the extra time it takes our authorised service technician to access the unit for inspection and testing if it is not sited in accordance with the Operating and Installation Guide and not readily accessible for inspection.
- 13.3. for any extra costs of our authorised service technician to make the unit safe for inspection.
- 14. You must ensure that access to the unit by our authorised service technician is safe and free from obstruction.
- Our authorised service technician may refuse to inspect and test the unit until you provide safe and free access to it, at your own cost.
- 16. If we reject your warranty claim in accordance with clause 12, we may charge you for our authorised service technician's labour costs to inspect and test the unit.
- 17. In order to properly test the unit we may remove it to another location for testing.

#### **Australian Consumer Law**

- 18. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
- The Stiebel Eltron warranty for the unit is in addition to any rights and remedies you may have under the Australian Consumer Law.

# NOTES

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# STIEBEL ELTRON



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