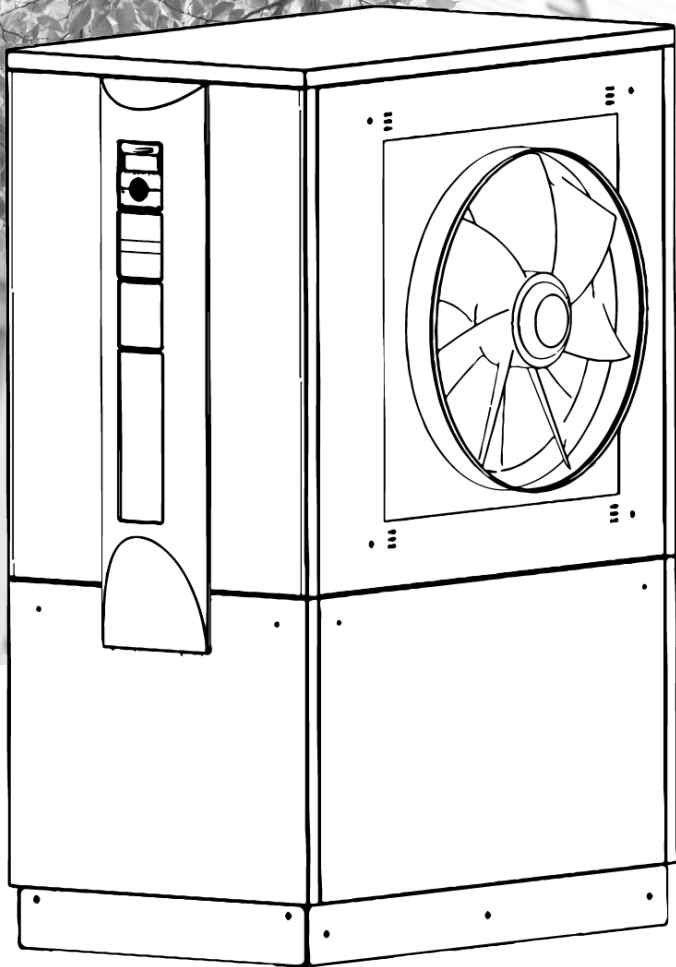


the better way to heat



Air/Water Heat Pumps
Indoor installation

Operating Manual

LW 300(L)





Table of contents

1	About this operating manual	3	17	Insulate hydraulic connections	17
1.1	Validity.....	3	18	Set the overflow valve.....	17
1.2	Reference documents.....	3	19	Commissioning	18
1.3	Symbols and markings.....	3	20	Maintenance	18
1.4	Contact.....	4	20.1	Basic principles	18
2	Safety	4	20.2	Maintenance as required	18
2.1	Intended use	4	20.3	Clean and flush condenser	19
2.2	Personnel qualifications	4	20.4	Yearly maintenance.....	19
2.3	Personal protective equipment	4	21	Faults	19
2.4	Residual risks.....	4	22	Dismantling and disposal.....	19
2.5	Disposal	5	22.1	Dismantling	19
2.6	Avoid damage to property.....	5	22.2	Disposal and recycling.....	19
3	Description	6		Technical data / scope of supply	20
3.1	Delivery condition	6		Performance curves.....	21
3.2	Layout	6		Dimensional drawings.....	22
3.3	Accessories.....	7		LW 300	22
3.4	Function	7		LW 300L.....	23
4	Operation and care.....	7		Installation plans.....	24
4.1	Energy-conscious and environmentally-aware operation	7		Installation plan V1	24
4.2	Care	7		Installation plan V2.....	25
5	Scope of supply, storage, transport and installation	8		Installation plan V3.....	26
5.1	Scope of supply	8		Installation plan V4.....	27
5.2	Storage.....	8		Coastal installation	28
5.3	Transport.....	8		Hydraulic integration.....	29
5.4	Installation.....	10		Separation buffer tank.....	29
6	Installation of air ducting	11		Keys hydraulic integration	30
7	Installation of hydraulic system.....	11		Terminal diagram	31
8	Pressure relief.....	12		Circuit diagrams.....	32
9	Buffer tank.....	12		EC Declaration of Conformity.....	35
10	Circulating pumps	12			
11	Domestic hot water preparation	12			
12	Domestic hot water tank	13			
13	Electrical installation.....	13			
14	Installation of the control unit.....	14			
15	Installation and removal of the screen ..	15			
15.2	Removing the screen	16			
16	Flushing, filling and venting	16			
16.1	Heating water quality	16			
16.2	Flush, fill and vent the heating circuit.....	17			



1 About this operating manual

This operating manual is part of the unit.

- ▶ Before working on or with the unit read the operating manual carefully and follow it for all activities at all times, especially the warnings and safety instructions.
- ▶ Keep the operating manual to hand at the unit and hand over to the new owner if the unit changes hands.
- ▶ If you have any questions or anything is unclear, ask the local partner of the manufacturer or the factory's customer service.
- ▶ Note and follow all reference documents.

1.1 Validity

This operating manual refers solely to the unit identified by the nameplates and unit stickers (→ "Nameplates", page 7).

1.2 Reference documents

The following documents contain additional information to this operating manual:

- Planning & design manual, hydraulic integration
- Operating manual of the heating and heat pump controller
- Brief description of the heat pump controller
- Operating manual of the Comfort board 2.0 (accessories)
- Log book

1.3 Symbols and markings

Identification of warnings

Symbol	Meaning
	Safety-relevant information. Warning of physical injuries.
DANGER	Indicates imminent danger resulting in severe injuries or death.
WARNING	Indicates a potentially dangerous situation, which can result in severe injuries or death.
CAUTION	Indicates a potentially dangerous situation, which can result in moderate or minor injuries.
IMPORTANT	Indicates a potentially dangerous situation, which can result in property damage.

Symbols in the document

Symbol	Meaning
	Information for qualified personnel
	Information for the owner/operator
✓	Requirement for action
▶	Single step action prompt
1., 2., 3., ...	Numbered step within a multi-step action prompt. Keep to the given order.
	Additional information, e.g. a tip on making work easier, information on standards
→	Reference to further information elsewhere in the operating manual or in another document
•	Listing



1.4 Contact

Addresses for purchasing accessories, for service cases or for answers to questions about the unit and this operating manual can be found on the internet and are kept up-to-date:

- Germany: www.alpha-innotec.de
- EU: www.alpha-innotec.com

2 Safety

Only use the unit if it is in proper technical condition and only use it as intended, safely and aware of the hazards, and follow this operating manual.

2.1 Intended use

The unit is solely intended for the following functions:

- Heating
- Domestic hot water preparation (optional, with accessories)
- ▶ Proper use includes complying with the operating conditions (→ “Technical data / scope of supply”, page 20) and the operating manual and noting and following the reference documents.
- ▶ When using the local regulations note: laws, standards, guidelines, directives.

All other uses of the unit are not as intended.

2.2 Personnel qualifications

The operating manuals supplied with the product are intended for all users of the product.

The operation of the product via the heating and heat pump control and work on the product which is intended for end customers / operators is suitable for all age groups of persons who are able to understand the activities and the resulting consequences and can carry out the necessary activities.

Children and adults who are not experienced in handling the product and do not understand the necessary activities and the resulting consequences must be instructed and, if necessary, supervised by persons experienced in handling the product and who are responsible for safety.

Children must not play with the product.

The product may only be opened by qualified personnel.

All instructional information in this operating manual is solely directed at qualified, skilled personnel.

Only qualified, skilled personnel is able to carry out the work on the unit safely and correctly. Interference by unqualified personnel can cause life-threatening injuries and damage to property.

- ▶ Ensure that the personnel is familiar with the local regulations, especially those on safe and hazard-aware working.
- ▶ Allow qualified personnel with “electrical” training only to carry out work on the electrics and electronics.
- ▶ Allow qualified, skilled personnel only to do any other work on the system, e.g.
 - Heating installer
 - Plumbing installer
 - Refrigeration system installer (maintenance work)

During the warranty and guarantee period, service work and repairs may only be carried out by personnel authorised by the manufacturer.

2.3 Personal protective equipment

There is a risk of cutting your hands on sharp edges of the unit.

- ▶ Wear cut-resistant protective gloves during transport.

2.4 Residual risks

Electric shock

Components in the unit are live with life-threatening voltage. Before opening the unit panelling:

- ▶ Disconnect unit from power supply.
- ▶ Protect unit against being switched back on again.

Existing earthing connections within housings or on mounting plates must not be altered. If this should nevertheless be necessary in the course of repair or assembly work:

- ▶ Restore earthing connections to their original condition after completion of the work.



Injury due to moving parts

- ▶ Switch device on only with air ducts and weather and/or rain louvres fitted.

Injuries and environmental damage due to refrigerant

The unit contains harmful and environmentally dangerous refrigerant. If refrigerant leaks from the unit:

1. Switch off unit.
2. Thoroughly ventilate installation area.
3. Notify authorised after sales service.

2.5 Disposal

Media harmful to the environment

Improper disposal of environmentally harmful media (refrigerant) damages the environment:

- ▶ Collect media safely.
- ▶ Dispose of the media in an environmentally compatible way in accordance with the local regulations.

2.6 Avoid damage to property

The ambient air at the heat pump installation site, as well as the air drawn in as a heat source, must not contain any corrosive constituents!

Constituents such as

- Ammonia
- Sulphur
- Chlorine
- Salt
- Sewer gasses, flue gasses

can cause damage to the heat pump, which could lead to the complete failure / destruction of the heat pump!

Decommissioning/emptying heating

If the system / heat pump is decommissioned or emptied, after it has been filled already, it is necessary to ensure that the condenser and any heat exchangers present have been completely emptied in the event of frost. Residual water in heat exchangers and condensers can result in damage to components.

- ▶ Empty system and condenser completely, open vent valves.
- ▶ Blast out with compressed air if necessary.

Improper action

Requirements for minimum scale and corrosion damage in hot water heating systems:

- Proper planning, design and commissioning
- Closed system with regard to corrosion
- Integration of an adequately dimensioned pressure maintaining device
- Use of demineralised heating water (VE water) or water corresponding to the VDI 2035 norm
- Regular servicing and maintenance

If a system is not planned, designed, started up and operated in accordance with the given requirements, there is a risk that the following damage and faults will occur:

- Malfunctions and the failure of components, e.g. pumps, valves
 - Internal and external leaks, e.g. from heat exchangers
 - Cross-section reduction and blockages in components, e.g. heat exchanger, pipes, pumps
 - Material fatigue
 - Gas bubbles and gas cushion formation (cavitation)
 - Negative effect on heat transfer, e.g. formation of coatings, deposits, and associated noises, e.g. boiling noises, flow noises
- ▶ Note and follow the information in this operating manual for all work on and with the unit.

Unsuitable quality of the fill and make-up water in the heating circuit

The efficiency of the system and the life of the heat generator and the heating components depend decisively on the quality of the heating water.

If the system is filled with untreated drinking water, calcium precipitates as scale. Limescale deposits form on the heat transfer surfaces of the heating. The efficiency drops and energy costs rise. In extreme cases the heat exchangers are damaged.

- ▶ Fill the system with deionised heating water (VE water) or with water corresponding to the VDI 2035 norm only (low-salt operation of the system).



3 Description

3.1 Delivery condition



Unit with a completely hermetically enclosed compressor, all safety-related components for monitoring of the cooling circuit, integrated heating and heat pump regulator, sensors mounted in the unit for the monitoring of hot gas, heating water forward flow and return flow temperatures, as well as a hose for condensate discharge (connected to heat pump side)

3.2 Layout

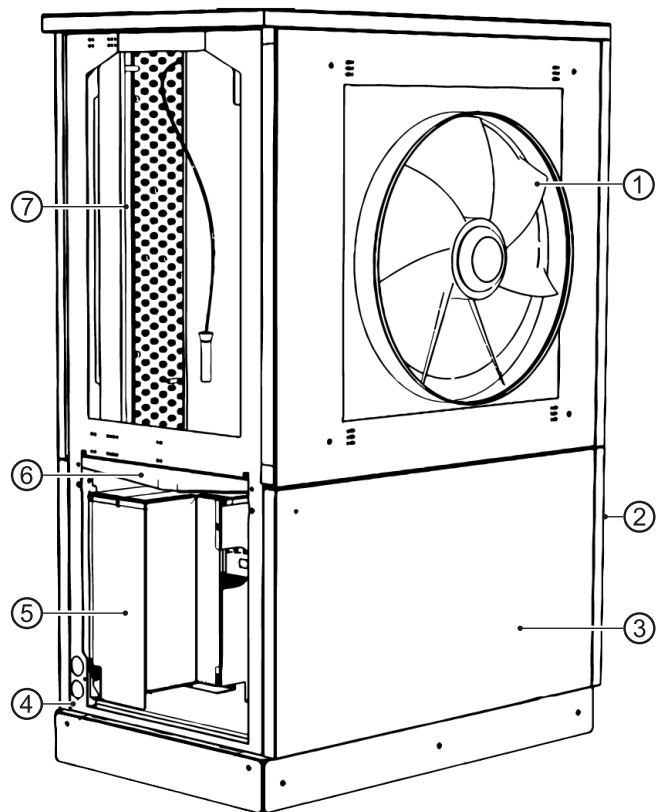
Basic components



NOTE

This section essentially names the components relevant for fulfilling the tasks described in this operating manual.

The following figure shows an LW 300 unit. The positions of the fan and the evaporator are reversed in the L version.



- 1 Fan
- 2 Water connection side with hydraulic connections and rubber grommets; details → "Dimensional drawings", from page 22
- 3 Area behind the facing panel: cooling circuit components with condenser, compressor, expansion valves
- 4 Operating side (= facing panels with cut-outs for mounting the control unit and the screen)
- 5 Electrical switch box
- 6 Condensate pan
- 7 Evaporator



Nameplates

Nameplates are attached to the following places on the unit when it is delivered:

- outside: On the lower facing panel of the fan side (for unit variant L: evaporator side)
- inside: On the bottom of the unit by the electrical switch box

The nameplates contain the following information at the top:

- Unit type, product number
- Serial number

The nameplates also contains an overview of the most important technical data.

3.3 Accessories

The following accessories are available for the unit through the manufacturer's local partner:

- Installation accessories (vibration decouplers)
- Air ducts (with air duct accessories)
- Air / magnetic sludge separator
- Domestic hot water tanks
- Buffer tanks
- Electrical heating elements
- Room control unit to control the main functions from the living room
- Comfort board 2.0

3.4 Function

Liquid refrigerant is evaporated (evaporator), the energy for this process is environmental heat and comes from the outside air. The gaseous refrigerant is compressed (compressor), this causes the pressure to rise and therefore the temperature too. The gaseous refrigerant at a high temperature is liquefied (condenser).

The high temperature is hereby discharged to the heating water and is used in the heating circuit. The liquid refrigerant at a high pressure and high temperature is depressurised (expansion valve). The pressure and temperature drop and the process begins again.

The heated heating water can be used for the domestic hot water charging or for the building heating. The temperatures required and use are controlled by the heat pump controller. Reheating, drying out screed or increasing the domestic hot water temperature can be carried out using an electric heating element (accessory), which is activated by the heat pump controller as and when necessary.

4 Operation and care



NOTE

The unit is operated via the control unit of the heating and heat pump controller (→ Operating manual of the heating and heat pump controller).

4.1 Energy-conscious and environmentally-aware operation

The generally accepted requirements for an energy-conscious and environmentally-aware operation of a heating system also apply when using a heat pump. The most important measures include:

- No unnecessarily high flow temperature
- No unnecessarily high domestic hot water temperature (note and follow local regulations)
- Do not open windows with gap / tilt open (continuous ventilation), but instead open wide for a short time (shock ventilation).
- Make sure that the controller settings are correct

4.2 Care

Wipe down the outside of the unit only using a damp cloth or cloth with mild cleaning agent (washing-up liquid, neutral cleaning agent). Do not use any harsh, abrasive, acid or chlorine-based cleaning agents.



5 Scope of supply, storage, transport and installation

IMPORTANT

Damage to the housing and the unit components due to heavy objects.

- ▶ Do not place any objects on the unit which are heavier than 30 kg.

IMPORTANT

Do not tilt the unit more than a maximum of 45° (in any direction).

5.1 Scope of supply

- heat pump
- 1 screen for control unit
- 4 base panels

The accompanying parts package contains:

- 1 outdoor temperature sensor
- 2 guide rods for insertable fan
- 1 control unit
- 1 holder for control unit
- 1 temporary cover for screen
- 10 countersunk screws M6x16 for base panels
- 2 hexagonal bolts M10x25
- 2 hexagonal bolts M12x40 with nuts M12
- documents (manuals, ERP data and label)
- nameplate stickers

- ▶ Check delivery immediately after receipt for externally visible damage and completeness.

- ▶ Notify supplier of any defects immediately.

5.2 Storage

- ▶ Do not unpack the unit until directly before installation.

- ▶ Store unit protected against

- Moisture/damp
- Frost
- Dust and dirt

5.3 Transport

Notes on safe transport

The unit is heavy (→ “Technical data / scope of supply”, page 20). There is a risk of injuries or damage to property if the unit falls or overturns.

There is a risk of cutting your hands on sharp edges of the unit.

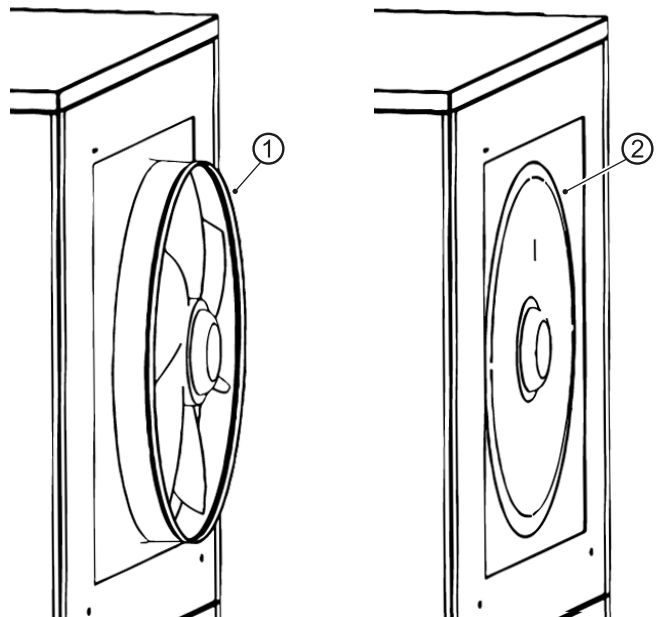
- ▶ Wear cut-resistant protective gloves.

The hydraulic connections are not designed for mechanical loads.

- ▶ Do not lift or transport the unit by the hydraulic connections.
- ▶ Transport the unit to the place of installation packaged.

Retractable fan

In order to allow the unit to be easily transported through tight cellar spaces and narrow doorways and/or hallways, the fan retracts approx. 10 cm into the body of the unit:



1 Fan in delivery condition
2 Fan pushed into the unit

IMPORTANT

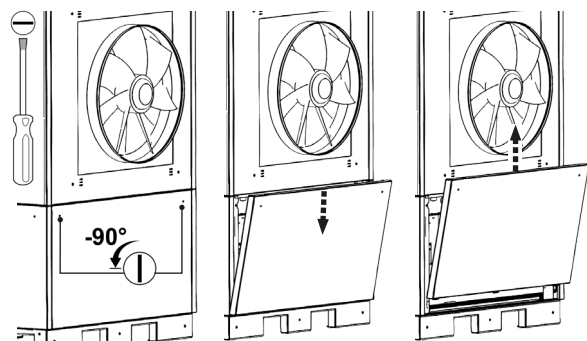
Only retract the fan into the body of the unit for transport purposes and extend it to its original positions following transport.

1. Unpack the unit.

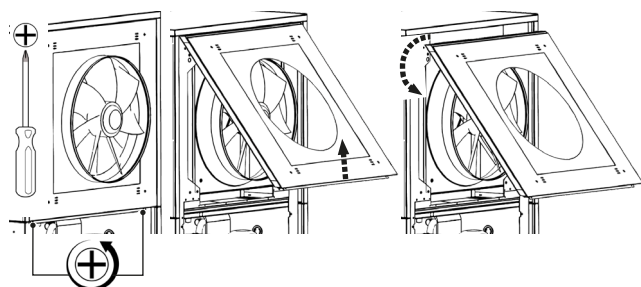
→ “Unpacking”, page 11



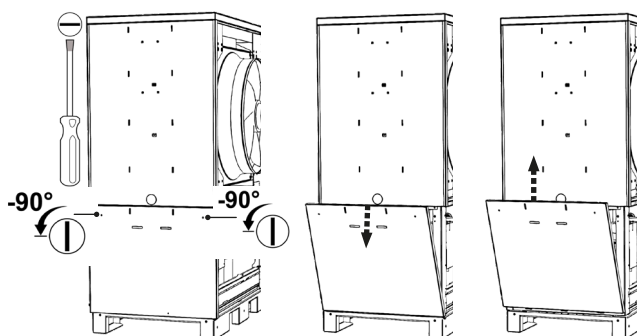
2. Remove lower facing panels on the fan side of the unit. To do so, loosen quick-release screws. Turn counter-clockwise 90°. Pull lower facing panel upwards and outwards, detach and set securely to the side.



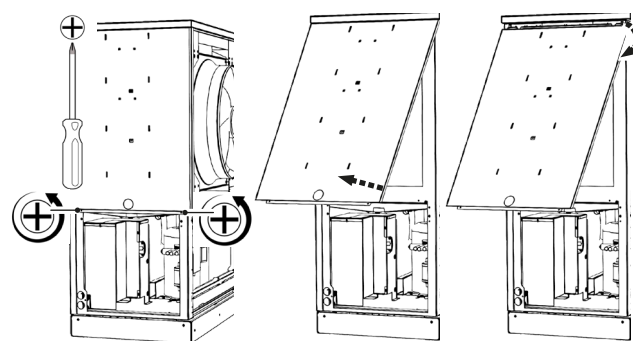
3. Remove the screws located on the lower side of the upper facing panel. Slant the facing panel upwards, remove and set aside in a safe place.



4. Then remove side facing panels from the unit too and store safely.

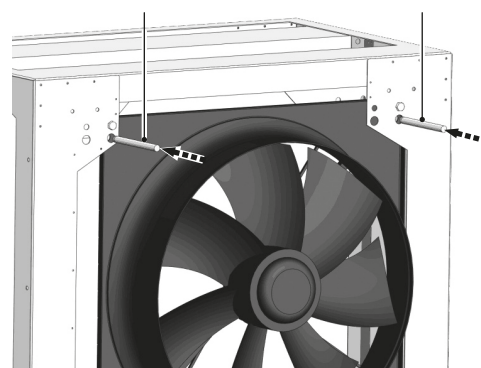


Example: Removing the lower facade on the operating side

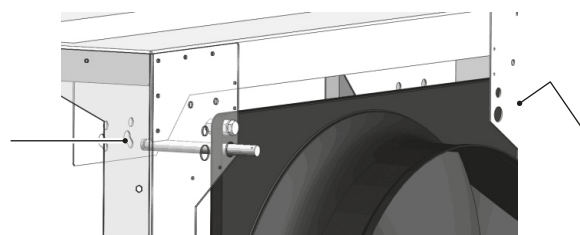


Example: Removing the upper facade on the operating side

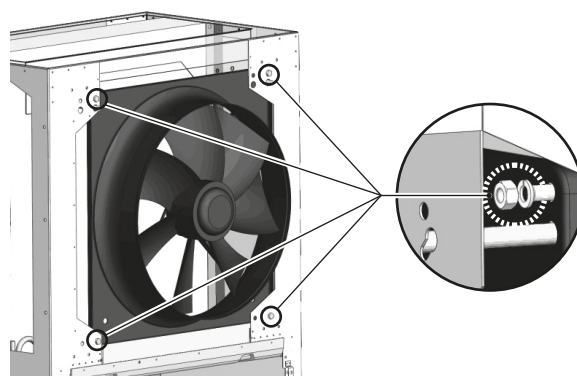
5. At the fan, thread the two guide rods supplied through the metal tab and fan.



6. Then, on both sides, hook the guide rods in the keyhole slot pattern of the upper metal tab inside the unit.

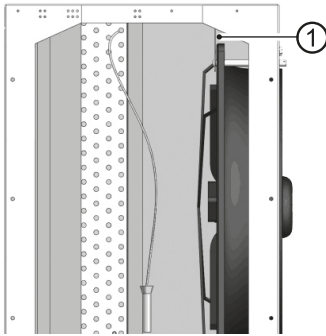


7. On the inside of the device, undo all four nuts (M12) of the fan's connections and remove together with the spring washers.



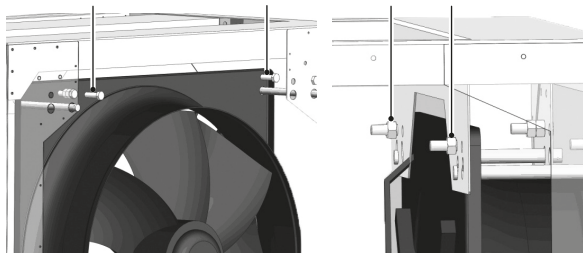


8. Push the fan in the direction of the evaporator up to the top metal tab inside the unit.



1 top metal tab inside the unit

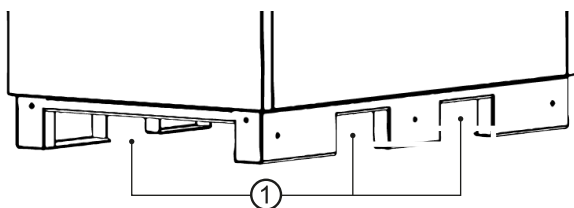
9. Push the screws M12 x 40 (2x) supplied through the fan and the top metal tab and secure with nuts M12.



10. Lower the unit at the installation location. Make sure that the frame of the unit is in full contact with the underlying surface and the unit is positioned horizontally.
Undo the mounting nuts at the top metal tab and remove the corresponding screws.
Then pull the fan out of the unit and screw tightly back onto the unit frame (do not forget the spring washers).
11. Remove guide rods and attach all facing panels back onto the unit.

Transport with a pallet truck

- Transport the unit with a pallet truck to the place of installation packaged.



1 Recesses in the base for pallet truck

5.4 Installation



CAUTION

In the air outlet area the air temperature is approx. 5 K below the ambient temperature. Under certain climatic conditions, an ice layer can therefore form in the air outlet area. Install the heat pump such that the air blower does not discharge into footpath areas.

Installation room and space requirements



NOTE

Note and follow the local regulations and standards regarding the installation room and space requirements. The table shows the regulations according to EN 378-1 relevant in Germany.

Refrigerant	Limit value [kg/m ³]
R 134a	0,25
R 404A	0,52
R 407C	0,31
R 410A	0,44
R 448A	0,39

→ “Technical data / scope of supply“, page 20

$$\text{Minimum room volume} = \frac{\text{Refrigerant capacity [kg]}}{\text{Limit value [kg/m}^3\text{]}}$$



NOTE

If several heat pumps of the same type are installed, only one heat pump need to be taken into account. If several heat pumps of different types are installed, only the heat pump with the largest refrigerant volume needs to be taken into account.

- ✓ Minimum volume corresponds to the requirements for the refrigerant used.
- ✓ Installation inside the building only.
- ✓ Installation room is dry and frost-free.
- ✓ Clearance dimensions are met (→ “Installation plans“, from page 24).
- ✓ The surface/floor is suitable for installation of the unit:
 - level and horizontal foundation
 - load-bearing capacity for the unit's weight



NOTE

The noise emissions of the heat pumps must be taken into account in the respective installation plans for air/water heat pumps. The respective regional regulations must be observed.

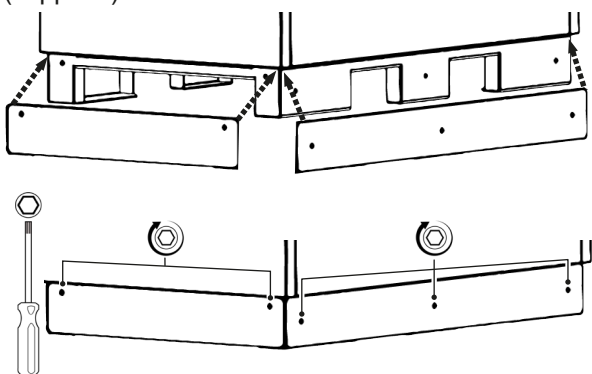
Unpacking

1. Remove plastic films. Ensure that you do not damage the unit.
2. Dispose of the transport and packaging material in an environmentally friendly way and in accordance with local regulations.

Set up the unit

→ "Installation plans", from page 24

1. Set up the unit so that the operating side is accessible at all times.
2. Align the unit horizontally, remove the collision protection (wooden strips on the base) and screw on the four base panels with countersunk screws (supplied).

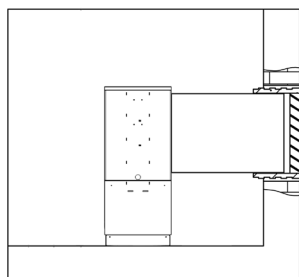
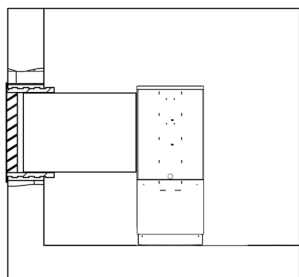


6 Installation of air ducting

Air discharge to right or left

Left air discharge

Right air discharge



- "Installation plans", from page 24
- Air duct installation instructions
- Wall duct installation instructions

IMPORTANT

The height difference between the vertical centre of the air duct connections on the unit and the top edge of the air inlet / air outlet on the building must not exceed 2 m.

7 Installation of hydraulic system

IMPORTANT

Dirt and deposits in the (existing) hydraulic system can cause damage to the heat pump.

- ▶ Ensure that a sludge separator is installed in the hydraulic system.
- ▶ Rinse the hydraulic system thoroughly prior to establishing the hydraulic connection of the heat pump.

IMPORTANT

Damage to the copper pipes due to unacceptable loading!

- ▶ Secure all connections against twisting.
 - ✓ Connect the unit to the heating circuit according to the hydraulic diagram for the respective model.
 - ✓ Cross-sections and lengths of the pipes for the heating circuit are adequately dimensioned.
 - ✓ The free pressing of the recirculating pump produces at least the minimum throughput required for the unit type (→ "Technical data / scope of supply", page 20).
 - ✓ The hydraulic system must be equipped with a buffer tank, the required volume of which depends on your unit model.
- "Technical data / scope of supply", page 20
- ✓ The pipes for the heating are fixed to the wall or ceiling via a fixed point.
1. Install shut-off devices for the hot water outflow (forward flow) and hot water inflow (return flow) on the heat pump side.



NOTE

During installation of the shut-off devices, the liquefier of the heat pump can be rinsed, if necessary.

Positioning of the hydraulic connections:

- "Dimensional drawings", from page 22
2. Connect the unit to the pipes of the heating circuit via vibration decouplers. They must be installed in order to prevent damage from vibrations to the pipes.



NOTE

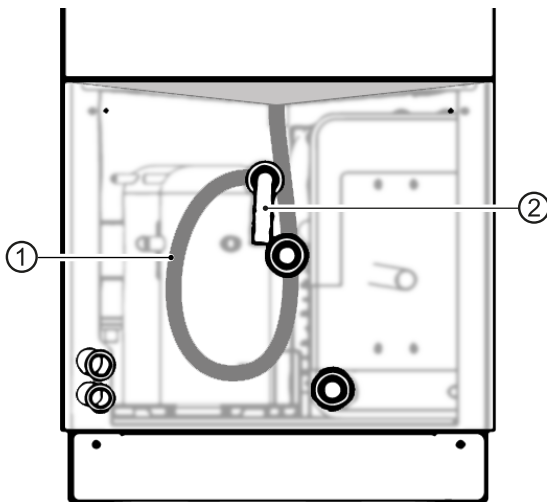
If an existing system is being replaced, the old vibration decoupling may not be reused. Vibration decouplers are available as accessories.

3. Insert a vent at the highest point of the heating circuit.
4. Ensure that the working overpressures (→ “Technical data / scope of supply”, page 20) are not exceeded.

Condensate discharge

The outlet for the heating water safety valve and the condensate from the air must be drained off in accordance with the respective applicable standards and regulations. Discharging the condensate and the safety valve outlet into the sewers is only permitted via a funnel waste trap, which must be accessible at all times.

- ▶ Connect the hose for condensate discharge with a water drain



- 1 Hose for condensate discharge in interior of unit
- 2 Connection for the condensate discharge on the outside of the unit

IMPORTANT

Guide the pre-mounted hose in the unit for condensate discharge in the interior of the unit as a siphon, as shown in the illustration.

8 Pressure relief

1. Equip the heating circuit in accordance with local standards and directives with a safety valve and an expansion tank.
2. Install filling and emptying devices, shut-off devices and non-return valves in the heating circuit.

9 Buffer tank

The hydraulic connection of the heat pump requires a buffer tank in the heating circuit.

Required volume of the buffer tank:

- “Technical data / scope of supply”, page 20, “Heating circuit” section

In mono-energetic air/water systems, integrate the buffer tank in the heating water outflow (forward flow) before the overflow valve.

10 Circulating pumps



NOTE

Do not use regulated circulating pumps.

Circulating pumps for the heating circuit and the domestic hot water circuit must be multi-stage. They must be able to deliver at least the minimum hot water flow rate required.

- “Technical data / scope of supply”, page 20

11 Domestic hot water preparation

Domestic hot water heating with the heat pump requires an additional hot water circuit, parallel to the heating circuit. Make sure that the heating water charge is not channeled through the buffer tank of the heating circuit.

- “Hydraulic connection” instructions



12 Domestic hot water tank

If the heat pump will be used for heating hot water, you must integrate special hot-water tanks in the heat pump system.

- ▶ Select the hot water tank volume in such a way that the required amount of drinking water is available even during a utility shut-off period.

The heat exchanger surface of the hot water tank must be dimensioned so that the heating capacity of the heat pump is transferred with minimal spreading.

We offer a variety of hot-water tanks for you to choose from. They are optimized for use with your heat pump.

- ▶ Integrate the hot-water tank in the heat pump system corresponding to the hydraulic diagram for your system.

→ “Hydraulic connection” instructions

13 Electrical installation

13.1 Establishing the electrical connections

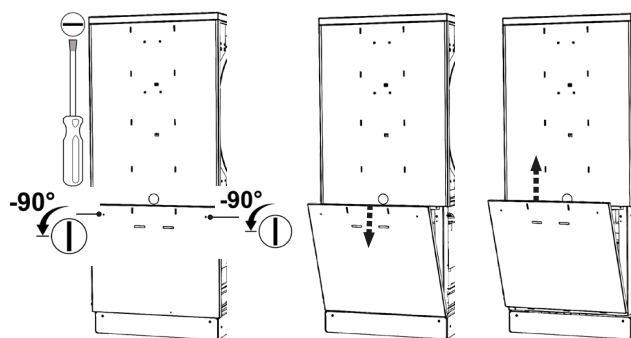
IMPORTANT

Irreparable damage to the compressor due to wrong rotary field!

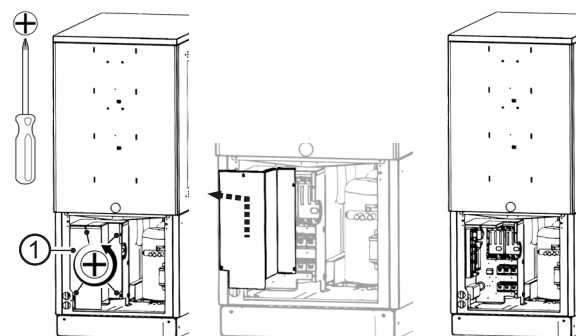
- ▶ Ensure that there is a clockwise rotary field for the compressor load infeed.

Basic information on the electrical connection

- The specifications of the local energy supply company may apply to electrical connections
 - Fit the power supply for the heat pump with an all-pole miniature circuit-breaker with at least 3 mm contact spacing (per IEC 60947-2)
 - Note the level of the tripping current (→ “Technical data / scope of supply“, page 20)
 - Comply with the electromagnetic compatibility regulations (EMC regulations)
1. If the unit is closed, open the lower facing panel on the operating side.



2. Open electrical switch box of unit.



1 Electrical switch box



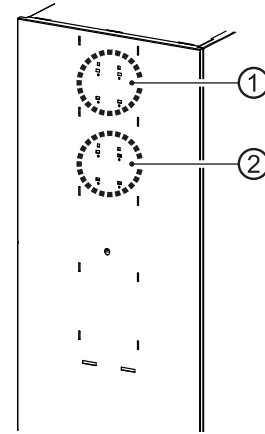
3. Lead power cable, power cable for circulating pumps and cable for external temperature sensor through the rubber sockets on the facing panel in the unit.
- 3.1. Cut out the rubber grommets on the lower facing of the water connection side.
Positioning of the rubber grommets for cable entry:
→ “Dimensional drawings“, from page 22
- 3.2. Push the lines through the rubber grommets into the unit and lead the lines inside the unit to the electrical switch box.
4. Install electric connections according to the terminal diagram.
→ “Terminal diagram“, page 31
5. Close electrical switch box of unit.
6. Attach the lower facing panel to the operating side.
7. Connect the power cable to the power supply.

IMPORTANT

If using the unit in 3~230V systems, please note that the residual-current circuit breaker (RCCB) used must be AC-DC sensitive.

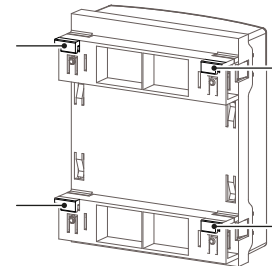
14 Installation of the control unit

Situated at different heights in the upper facade of the operating side of the unit are recesses (each with 4 recesses) for the fastening of the control unit:

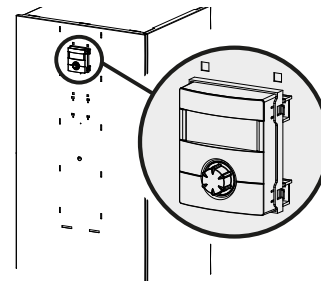


1 four upper recesses
2 four lower recesses

4 hooks are located on the back side of the control unit and can be used to hang the control unit on the front facade of the unit:



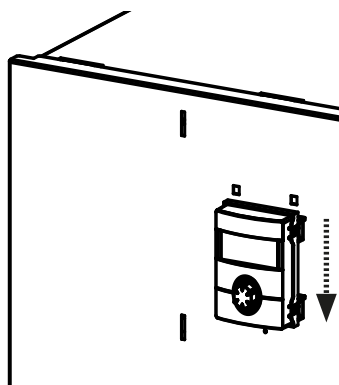
1. Hang the control unit's hooks on the recesses of the upper facade (either in the upper or lower recesses).



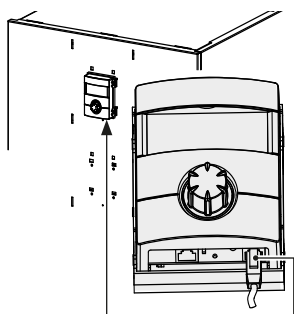
Example: Control unit in upper recesses



2. Push the control unit down until it locks into position.



3. Stick the heating and heat pump regulator's control cable into the **right** bushing on the bottom of the control unit.



NOTE

A connection to a computer or a network can be installed via the left bushing on the bottom of the control unit, thus allowing the heating and heat pump regulator to be controlled remotely. One pre-condition is that a screened network cable (category 6) be installed through the unit when installing the unit.

- Operating manual for the heating and heat pump regulator, part 2, "Web server" section

If this network cable is available, insert the network cable's RJ-45 plug into the left bushing of the control unit.



NOTE

The network cable can be exchanged at any time. In order to be able to connect it, the screen must first be removed.

15 Installation and removal of the screen

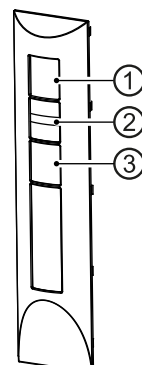
15.1 Installing the screen



NOTE

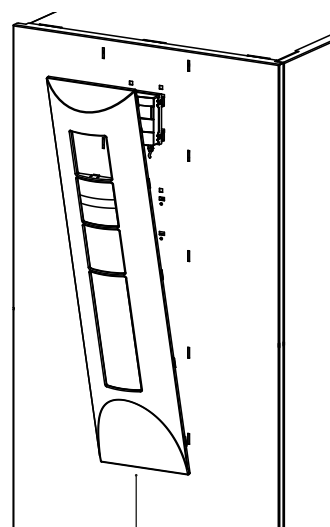
The screen is provided at the time of delivery so that the control unit may be inserted in the upper recesses of the facade facade of the operating side of the unit.

If the control unit has been inserted in the lower recesses of the facade, you must first remove the screen's temporary cover and then reinsert it above the logo.



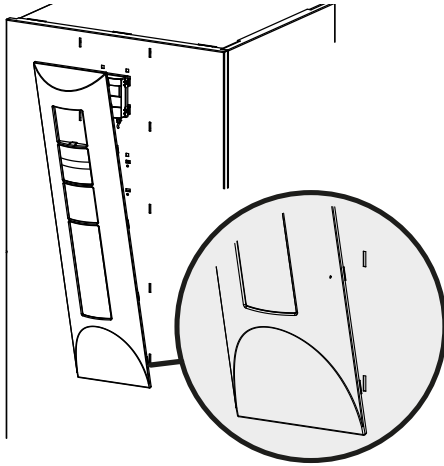
Screen at time of delivery:
1 recess for control unit
2 logo
3 temporary cover

1. First, insert the screen **below**, in the provided slots on the facade.

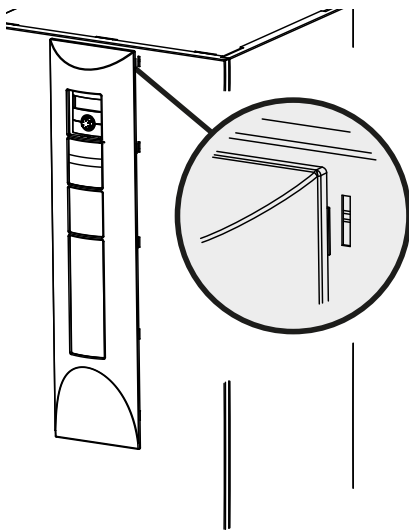




2. Beginning first on one side and moving upwards, lock the screen's snap-in lugs in place **in the slots** provided on the facade.



3. Next, **on the opposite side, moving upwards**, lock the screen's snap-in lugs in place in the slots provided on the facade.
4. Finally, press the screen's upper snap-in lugs into the slots provided on the facade.



15.2 Removing the screen

In order to remove the screen, the snap-in lugs must **first be loosened by pressing one side completely toward the middle of the screen.**

Thereafter, remove the snap-in lugs from the opposite side.

16 Flushing, filling and venting

16.1 Heating water quality



NOTE

- For detailed information refer, among other things, to the VDI Guidelines 2035 "Vermeidung von Schäden in Warmwasserheizanlagen" (preventing damage in hot water heating systems)
 - Required pH value: 8.2 ... 10;
for aluminium materials:
pH value: 8.2 ... 8.5
- ▶ Fill the system with deionised heating water (VE water) or with water corresponding to the VDI 2035 norm only (low-salt operation of the system).

Advantages of low-salt operation:

- Low corrosion-promoting properties
 - No formation of mineral scale
 - Ideal for closed heating circuits
 - Ideal pH value due to self-alkalisation after filling the system
- ▶ If the required water quality is not achieved, consult a company specialising in the treatment of heating water.
- ▶ Keep a system log for hot water heating systems in which relevant planning data is entered (VDI 2035).

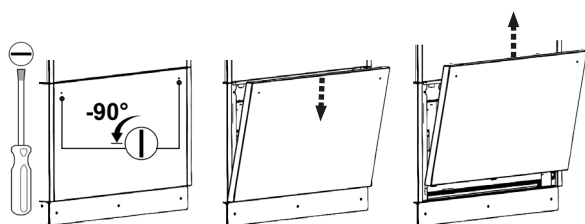


16.2 Flush, fill and vent the heating circuit

- ✓ Outlet pipe of the safety valve is connected.
 - ✓ Ensure that the set pressure of the safety valve is not exceeded.
1. Vent system at the respective highest point.
 2. Additionally open the vent valve at the condenser of the heat pump.

2.1. Open the lower facing panel:

- For standard unit on the evaporator side.
- On the fan side for unit variant L.



2.2. Open vent valve



- 1 Condensate pan
- 2 Vent valve
- 3 Upper edge of plate heat exchanger

3. Vent the condenser.
4. After venting, close the lower facing panel.

17 Insulate hydraulic connections

Insulate hydraulic lines in accordance with local regulations.

1. Open shut-off devices.
2. Perform a pressure test and check for leaks.
3. Insulate external piping on site.
4. Insulate all connections, fittings and pipes.

18 Set the overflow valve



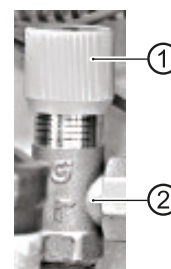
NOTE

- The activities in this section are only necessary for the integration of storage tanks in series
- Complete the work steps quickly, otherwise the maximum return temperature may be exceeded and the heat pump switches to high-pressure fault
- Turn the adjusting knob at the overflow valve to the right to increase the temperature difference (the temperature drop), turn it to the left to reduce it

- ✓ System is running in heating mode (ideally in cold condition).

1. In case of low heating curve: Set the system to "Forced heating".
- Operating manual of the heating and heat pump controller.
2. Shut off valves to the heating circuit.
 3. Ensure that the total flow is routed via the overflow valve.
 4. Read out the flow and return temperature at the heating and heat pump controller.
- Operating manual of the heating and heat pump controller.
5. Turn the adjusting knob (①) of the overflow valve (②) until the temperature drop between the flow and return temperature is set as follows:

Outdoor temperature	Recommended settings
-10 °C	4 K
0 °C	5 K
10 °C	8 K
20 °C	9 K
30 °C	10 K



6. Open valves to heating circuit.
7. Turn off "Forced heating" in the heating and heat pump controller.



19 Commissioning



CAUTION

The unit may only be started up if the air ducts, weather and/or rain louvres have been installed and the facing panels are closed.

- ✓ Relevant planning & design data of the system is documented in full.
 - ✓ The relevant energy supply company has been notified of operation of the heat pump system.
 - ✓ The system is air-free.
 - ✓ Installation check using the general checklist has been completed successfully.
1. Ensure that the following points are fulfilled completely:
 - Right-hand (clockwise) rotating load supply field is available at the compressor
 - The system is installed and mounted according to this operating manual
 - The electrical installation has been carried out properly according to this operating manual and the local regulations
 - The power supply for the heat pump is equipped with an all-pole circuit-breaker with at least 3 mm contact spacing (IEC 60947-2)
 - The tripping current is complied with
 - The heating circuit has been flushed and vented
 - All shut-off devices of the heating circuit are open
 - The pipe systems and components of the system are tight
 2. Carefully fill in and sign the notice of completion for the heat pump systems.
 3. In Germany: Send notice of completion for heat pump systems and general checklist to the manufacturer's factory customer service department.
In other countries: Send notice of completion for heat pump systems and general checklist to the manufacturer's local partner.
 4. Arrange for the heat pump system to be commissioned by the manufacturer's authorised after sales service for a fee.

20 Maintenance



NOTE

We recommend that you conclude a maintenance agreement with an accredited heating company.

20.1 Basic principles

The cooling circuit of the heat pump requires no regular maintenance.

Local regulations– e.g. EU Regulation (EC) 517/2014 – among other things, require leak checks beforehand and/or for a logbook to be kept for certain heat pumps.

- ▶ Ensure compliance with local regulations with regard to the specific heat pump system.

20.2 Maintenance as required

- Checking and cleaning the components of the heating circuit, e.g. valves, expansion vessels, recirculating pumps, filters, dirt traps
- Test the function of the safety valve for the heating circuit
- Always regularly control for unimpeded air in-feed accordingly. Constrictions or even blockages which, for example occur
 - when applying house insulation with polystyrene balls
 - through packaging material (foils, films, cartons etc.)
 - through foliage, snow, icing or similar weather-related deposits
 - through vegetation (bushes, tall grass etc.)
 - through air shaft covers (fly protection screens etc.)and which must be prevented and/or removed immediately
- Check regularly to ensure that the condensate can drain out of the unit freely, without obstruction. To this end, check the condensate pan in the unit and the evaporator regularly for dirt / blockages and clean as necessary.



Check evaporator and condensate pan and clean if required

- ✓ Unit is safely disconnected from the power supply and secured against being switched back on again.
- 1. Remove the screen on the operating side.
- 2. Remove the lower and upper facing panels on the operating side. Check the condensation pan area for soiling.
- 3. Clean the condensation pan area if necessary. For better access to the condensation pan area, remove the lower and upper facing panels on the water connection side if necessary.
- 4. Inspect the evaporator. If cleaning is required, remove the air ducts on the evaporator side and clean the evaporator.
- 5. After cleaning, reattach the air ducts, facing panels and screen to the unit. Finally, restore the power supply.

20.3 Clean and flush condenser

- ▶ Clean and flush the condenser in accordance with the manufacturer's instructions.
- ▶ After flushing the condenser with chemical cleaning product: neutralise any residues and flush the condenser thoroughly with water.

20.4 Yearly maintenance

- ▶ Record the quality of the heating water analytically. In case of deviations from the specifications, take suitable measures without delay.

21 Faults

- ▶ Read out the cause of the fault via the diagnostics program of the heating and heat pump controller.
- ▶ Contact the local partner of the manufacturer or the factory's customer service. Have the fault message and unit number to hand.

→ "Nameplates", page 7

22 Dismantling and disposal

22.1 Dismantling

- ✓ Unit is safely disconnected from the power supply and secured against being switched back on again.
- ▶ Collect all media safely.
- ▶ Separate components by their materials.

22.2 Disposal and recycling

- ▶ Dispose of environmentally hazardous media in accordance with local regulations (e.g. refrigerant, compressor oil).
- ▶ Recycle or ensure proper disposal of unit components and packaging materials in accordance with local regulations.

Removal of the buffer battery

IMPORTANT

Before scrapping the heating and heat pump regulator, remove the buffer battery on the processor board. The battery can be pushed out using a screwdriver. Dispose of battery and electronic components in keeping with environmental considerations.



Technical data / scope of supply

LW 300(L)

Performance data		Values in brackets: (1 Compressor)	LW 300(L)	
Heating capacity COP	for A7/W35 acc. to DIN EN 14511-x:2018		kW COP	32.50(19.78) 3.80(4.04)
	for A7/W45 acc. to DIN EN 14511-x:2018		kW COP	33.64(18.99) 3.20(3.23)
	for A2/W35 acc. to DIN EN 14511-x:2018		kW COP	29.67(16.97) 3.41(3.52)
	for A10/W35 acc. to DIN EN 14511-x:2018		kW COP	39.43(22.42) 4.22(4.76)
	for A-7/W35 acc. to DIN EN 14511-x:2018		kW COP	24.28(13.45) 2.77(2.78)
	for A-15/W65 acc. to DIN EN 14511-x:2018		kW COP	- -
	for A-7/W55 acc. to DIN EN 14511-x:2018		kW COP	24.28(13.45) 1.86(1.90)
Cooling capacity EER	for A35/W18		kW EER	- -
	for A35/W7		kW EER	- -
Operating limits				
Heating circuit return min. Heating circuit flow max.	Heating	within heat source min./max.	°C	20 45
Heating circuit return min. Heating circuit flow max.	Cooling	within heat source min./max.	°C	- -
Heat source heating		min. max.	°C	-20 35
Heat source cooling		min. max.	°C	- -
Additional operating points		...		A-5/W60
Sound				
Sound pressure level at 1 m distance from edge of unit inside		min. Night max.	dB(A)	48 - 51
Sound pressure level at 1 m distance from edge of unit outside		min. Night max.	dB(A)	40 - 50
Sound power level inside		min. Night max.	dB(A)	58 - -
Sound power level outside 1)		min. Night max.	dB(A)	55 - 58
Sound power level acc. to DIN EN 12102-1:2017		inside outside	dB(A)	66 55
Tonality Low-frequency			dB(A) • yes - no	- -
Heat source				
Air flow rate at maximum external pressing Maximum external pressure			m³/h Pa	7800 25
Heating circuit				
Flow rate (pipe dimensioning) Min. volume buffer tank in series Min. volume separation buffer tank			l/h l l	6000 - -
Free pressing Pressure loss Flow rate			bar bar l/h	0.04 (-) 6000
Max. allowable operating pressure			bar	3
Circulation pump control range		min. max.	l/h	- -
Hot gas use				
Flow rate (pipe dimensioning)			l/h	-
Free pressing Pressure loss Flow rate			bar bar l/h	- - -
General unit data				
Total weight			kg	490
Weight of individual components			kg kg kg	- - -
Refrigerant type Refrigerant capacity			... kg	R448A 10.0
Electrics				
Voltage code all-pole fuse protection for heat pump ***)			... A	- -
Voltage code all-pole fuse protection for heat pump *) + electric heating element **)			... A	3~N/PE/400V/50Hz C32
Voltage code Control voltage fuse protection **)			... A	1~N/PE/230V/50Hz B10
Voltage code Electric heating element fuse protection **)			... A	- -
HP*): effect. power consumption A7/W35 DIN EN 14511-x:2018 Electric consumption cosφ			kW A ...	8.65(4.87) 19.5(10.2) 0.64(0.75)
HP*): max. machine current max. power consumption within the operating limits			A kW	28.5 15.6
Starting current: direct with soft starter			A A	< 101 38
Degree of protection			IP	20
Residual current circuit breaker		if required	type	A
Electric heating element output		3 2 1 phase	kW kW kW	- - -
Circulation pump power consumption, heating circuit		min. max.	W	- -
Other unit information				
Safety valve heating circuit Response pressure		included in scope of supply: • yes - no	bar	- -
Buffer tank Volume		included in scope of supply: • yes - no	l	- -
Heating circuit expansion vessel Volume Prepressure		incl. in scope of supply: • yes - no	l bar	- - -
Overflow valve Changeover valve, heating - domestic hot water		integrated: • yes - no		- -
Heating circuit vibration decoupling		incl. in scope of supply or integrated: • yes - no		-
Controller Heat quantity recording Extension board		incl. in scope of supply or integrated: • yes - no		• - -

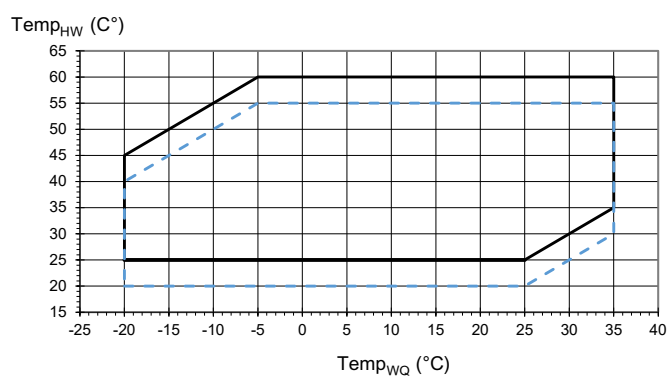
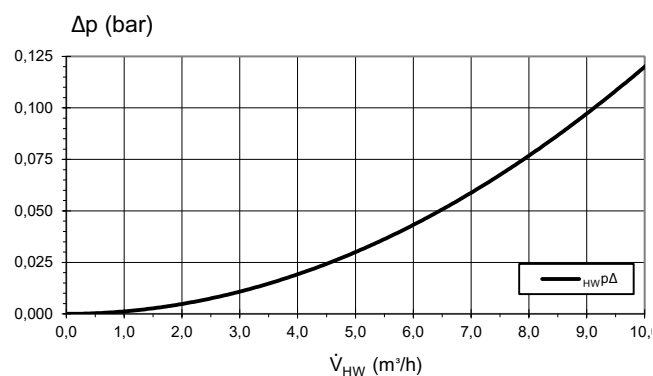
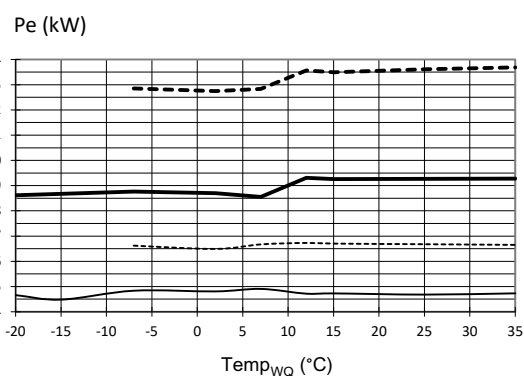
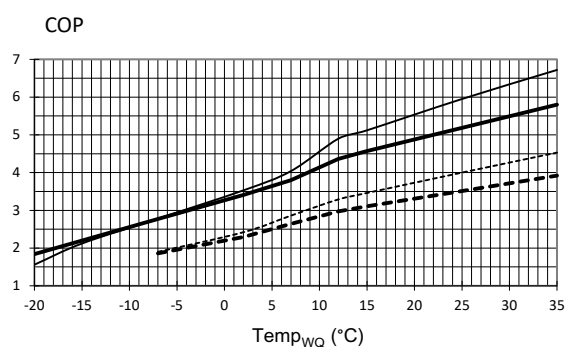
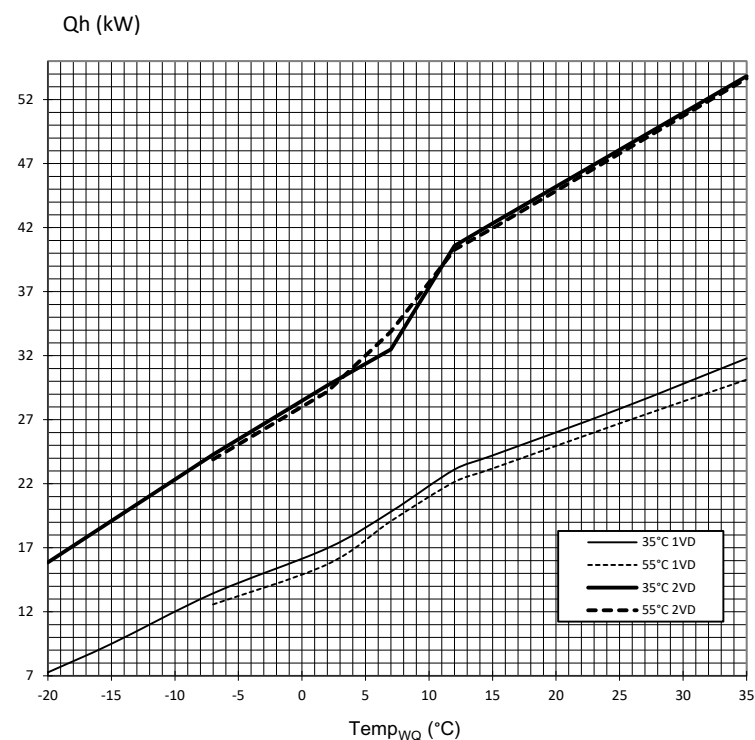
*) compressor only, **) note local regulations 1) Indoor and outdoor installation
 For indoor installation: Intake 1.5m air duct, Blow-out 1.5m air duct + air duct bend (original accessories)
 The performance data and the operating limits apply to clean heat exchangers | Index: h

813601a



LW 300(L)

Performance curves



823310a

Legende:

UK823310a

\dot{V}_{HW} Volume flow heating water

$Temp_{HW}$ Temperature heating water

$Temp_{WQ}$ Temperature heat source

Q_h Heating capacity

P_e Power consumption

COP Coefficient of performance / efficiency rating

Δp_{HW} Pressure loss heat pump

VD Compressor(s)

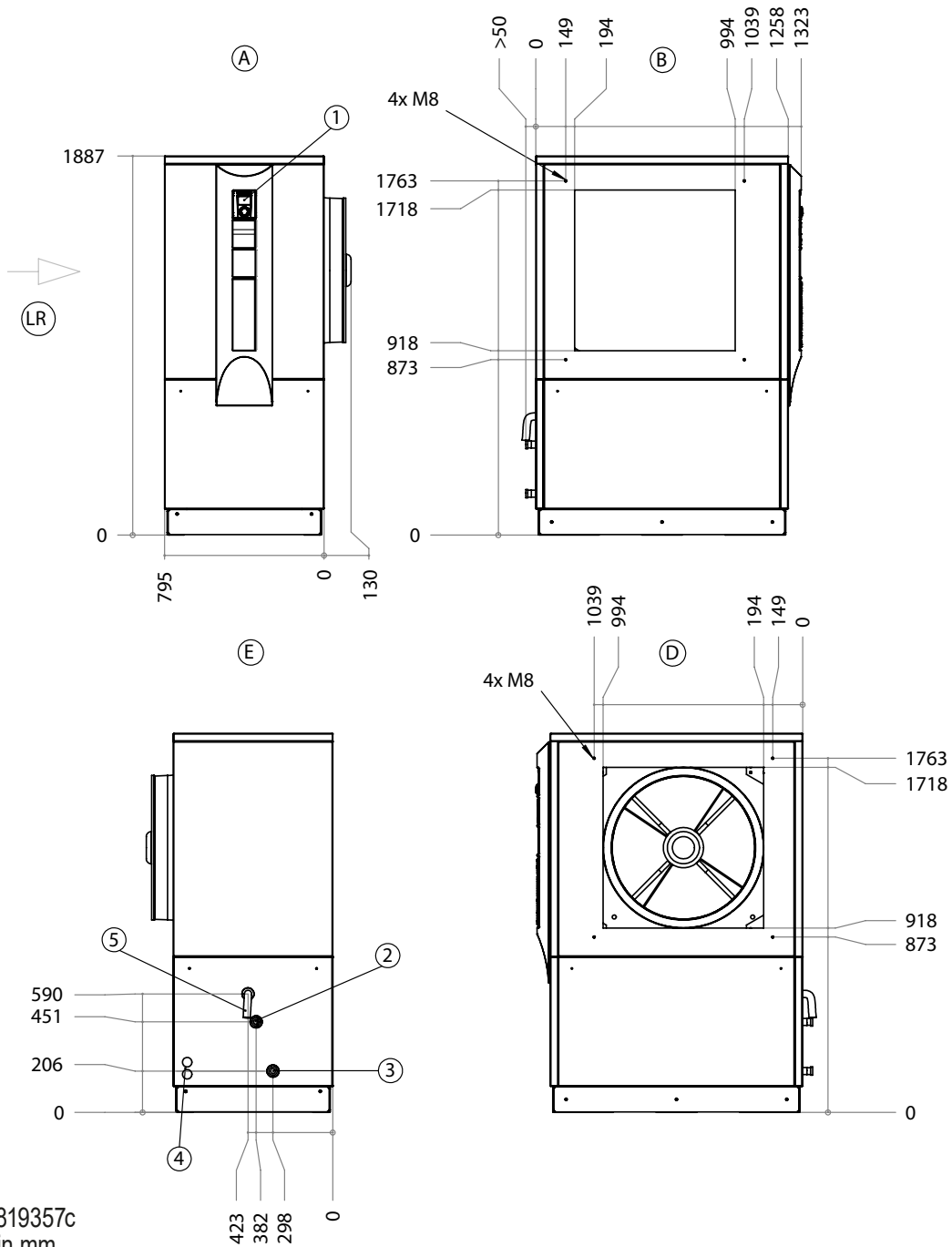
— Flow

- - - - - Return



Dimensional drawings

LW 300



Keys: UK819357c
All dimensions in mm.

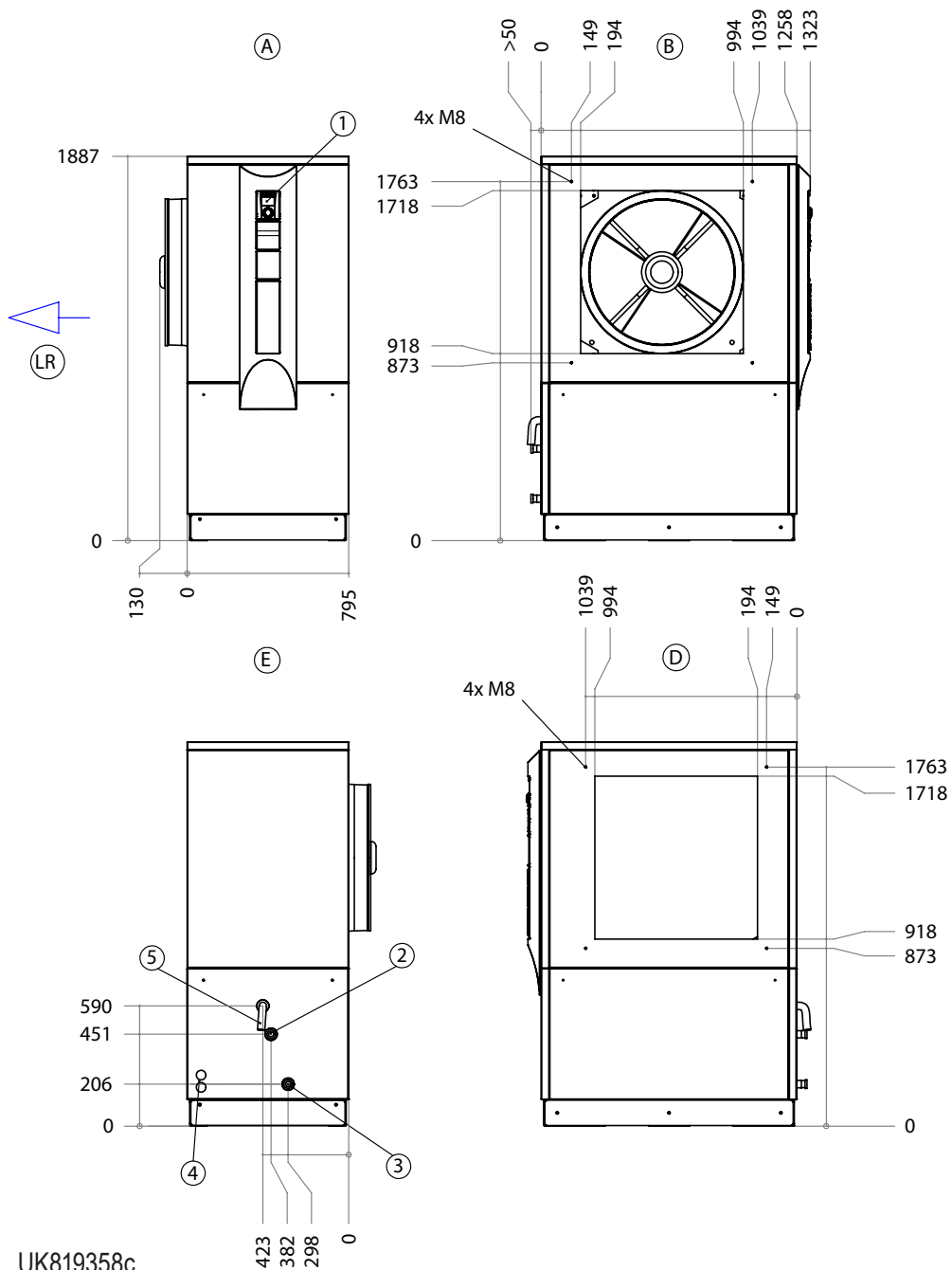
A	Front view
B	Side view from left
D	Side view from right
E	Rear view
LR	Air direction

Pos.	Designation	
1	Control unit	
2	Hot water outlet (flow)	R 3/4"
3	Hot water inlet (return)	R 3/4"
4	Bushings for electrical / sensor cables	
5	Condensate hose \varnothing i 30	Length from device 1m



LW 300L

Dimensional drawings



Keys: UK819358c
All dimensions in mm.

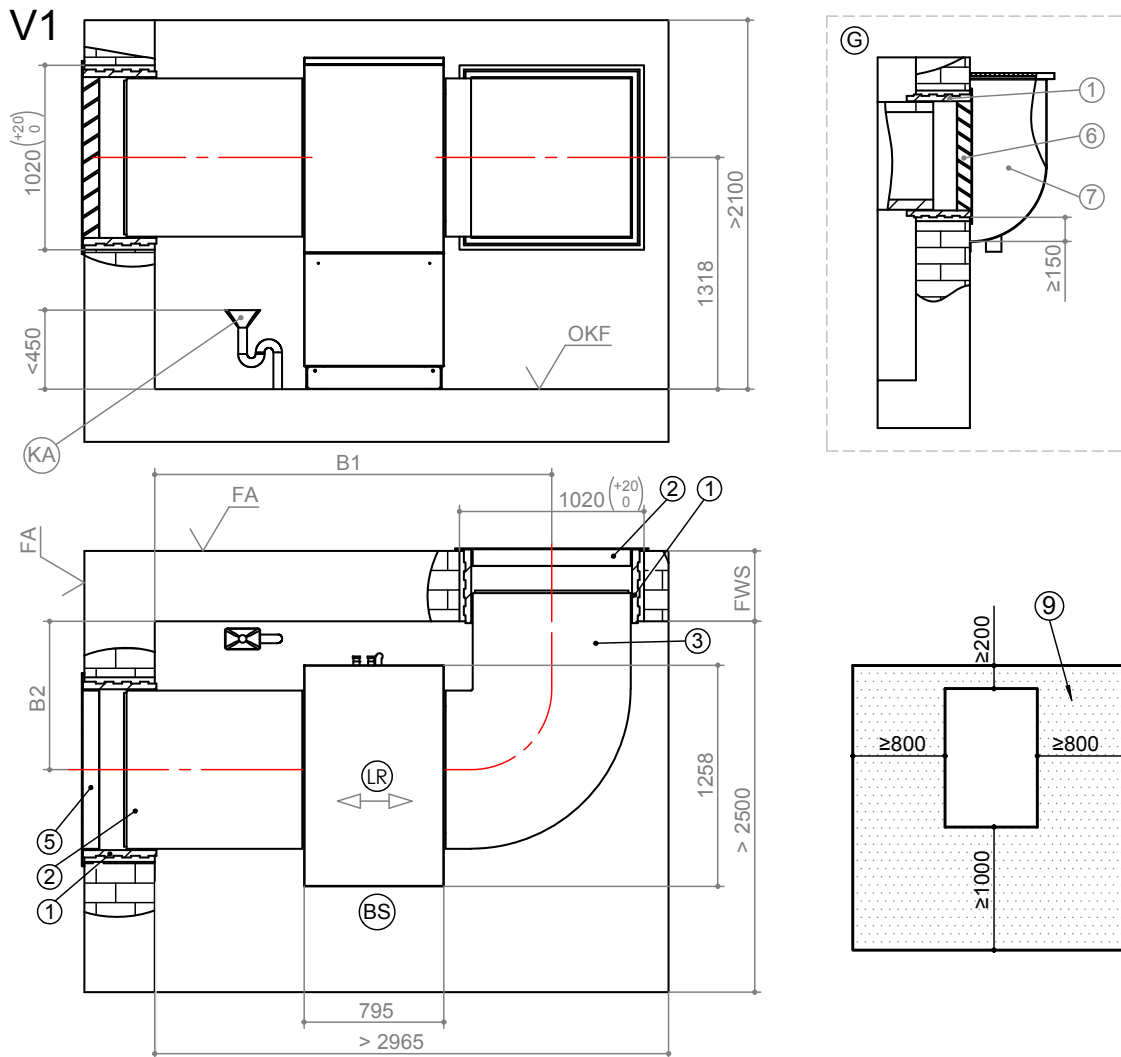
A	Front view
B	Side view from left
D	Side view from right
E	Rear view
LR	Air direction

Pos.	Designation	
1	Control unit	
2	Hot water outlet (flow)	R ¼"
3	Hot water inlet (return)	R ¼"
4	Bushings for electrical / sensor cables	
5	Condensate hose ø i 30	Length from device 1m



Installation plan V1

LW 300(L)



Keys: UK819337a-1

All dimensions in mm.

Pos.	Designation	Dim.
B1	With finished wall thickness 240 to 320	2340
	With finished wall thickness 320 to 400	2260
B2	With finished wall thickness 240 to 320	920
	With finished wall thickness 320 to 400	840

V1	Version 1
OKF	Top edge of finished floor
FA	Finished outer façade
LR	Air direction
BS	Operator side
FWS	Finished wall thickness
KA	Condensate discharge
G	Section installation in light well

Pos.	Designation
1	Accessory: wall duct 1000x1000x420
2	Accessory air duct 900x900x1000
3	Accessory: air duct bend 900x1050x1450
5	Installation above ground level Accessory: weather guard 1045x1050
6	Installation in light well Accessory: rain guard 1045x1050
7	provided by customer: light well with water drain min. exposed cross section 0,75m ²
9	Minimum clearance for service purposes If the distances were to be reduced to the minimum dimension, the air ducts must be made shorter. This leads to a significant increase in the sound intensity level!

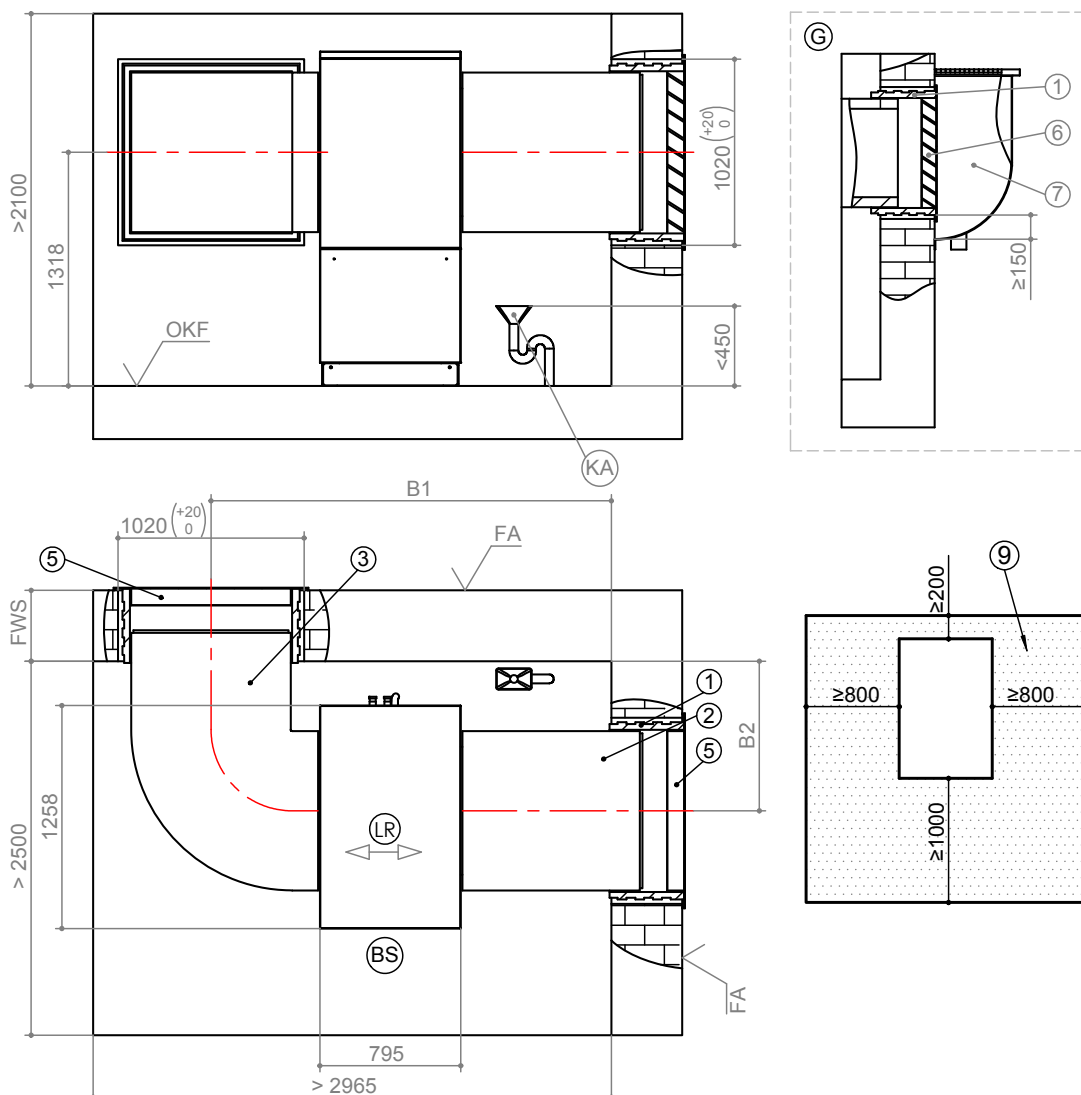
Tilting dimension of heat pump = 2050mm



LW 300(L)

Installation plan V2

V2



Keys: UK819337a-2

All dimensions in mm.

Pos.	Designation	Dim.
B1	With finished wall thickness 240 to 320	2340
	With finished wall thickness 320 to 400	2260
B2	With finished wall thickness 240 to 320	920
	With finished wall thickness 320 to 400	840

V2	Version 2
OKF	Top edge of finished floor
FA	Finished outer façade
LR	Air direction
BS	Operator side
FWS	Finished wall thickness
KA	Condensate discharge
G	Section installation in light well

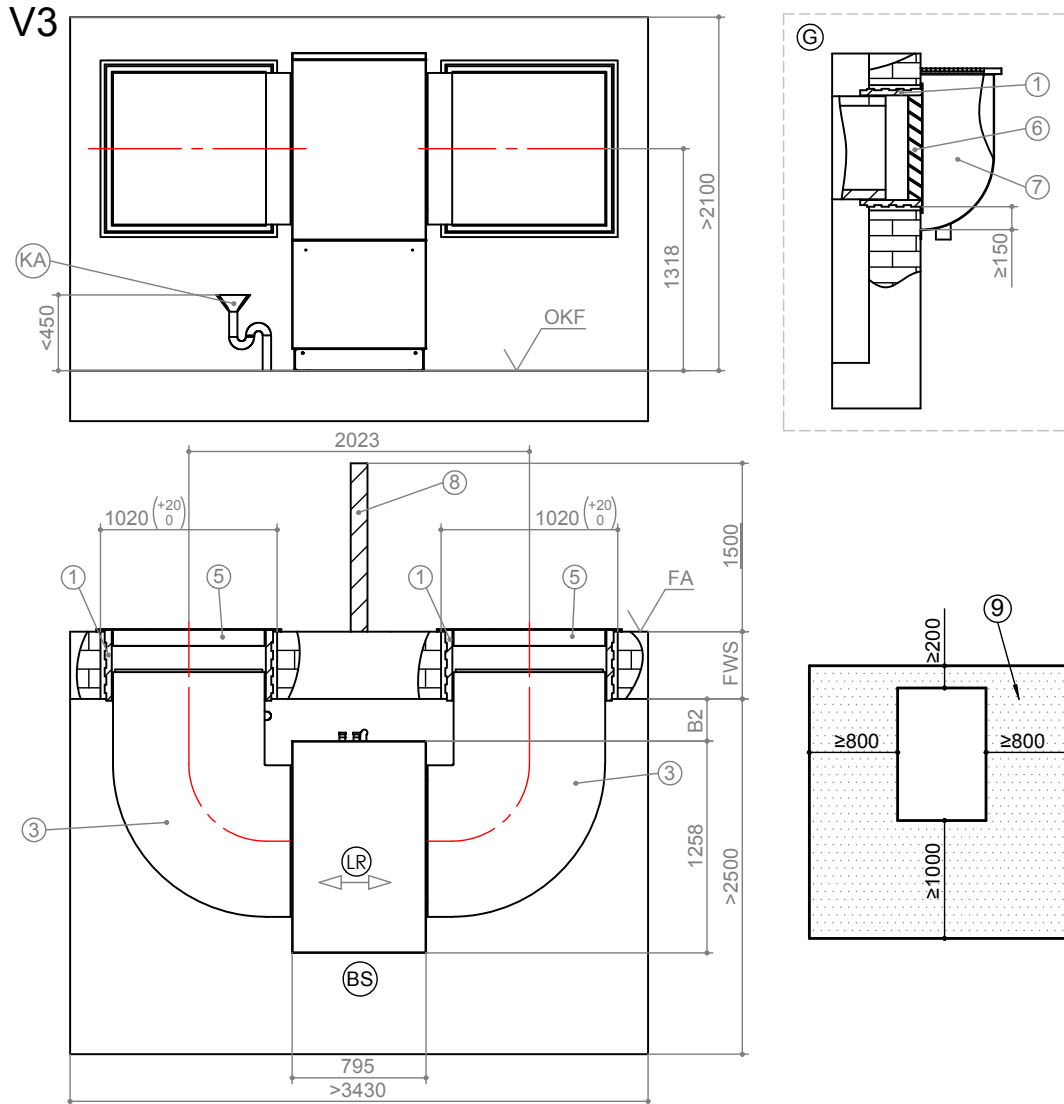
Pos.	Designation
1	Accessory: wall duct 1000x1000x420
2	Accessory air duct 900x900x1000
3	Accessory: air duct bend 900x1050x1450
5	Installation above ground level Accessory: weather guard 1045x1050
6	Installation in light well Accessory: rain guard 1045x1050
7	provided by customer: light well with water drain min. exposed cross section 0,75m ²
9	Minimum clearance for service purposes If the distances were to be reduced to the minimum dimension, the air ducts must be made shorter. This leads to a significant increase in the sound intensity level!

Tilting dimension of heat pump = 2050mm



Installation plan V3

LW 300(L)



Keys: UK819337a-3

All dimensions in mm.

Pos.	Designation	Dim.
B2	With finished wall thickness 240 to 320 With finished wall thickness 320 to 400	330 250
V3	Version 3	
OKF	Top edge of finished floor	
FA	Finished outer façade	
LR	Air direction	
BS	Operator side	
FWS	Finished wall thickness	
KA	Condensate discharge	
G	Section installation in light well	

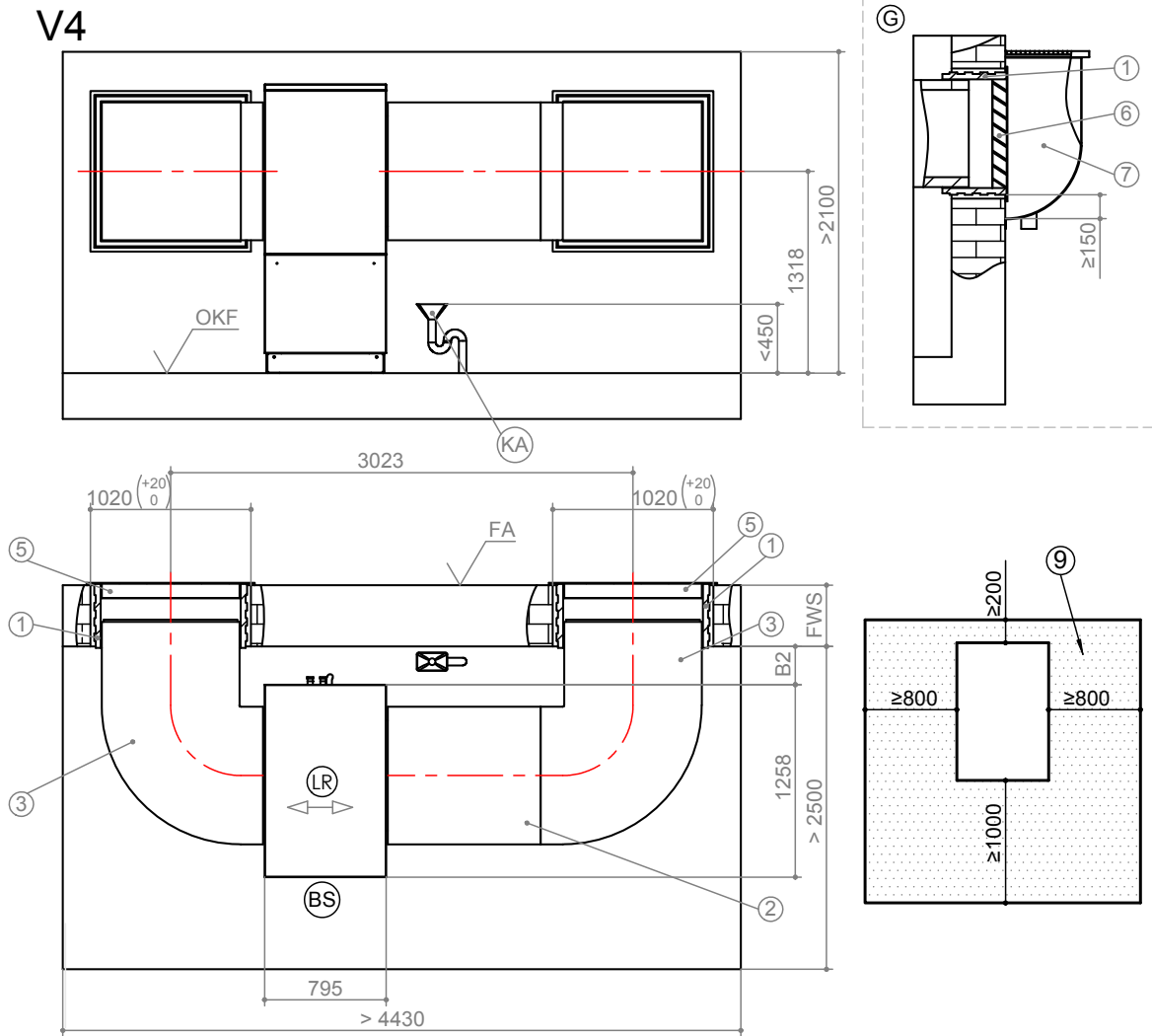
Pos.	Designation
1	Accessory: wall duct 1000x1000x420
3	Accessory: air duct bend 900x1050x1450
5	Installation above ground level Accessory: weather guard 1045x1050
6	Installation in light well Accessory: rain guard 1045x1050
7	provided by customer: light well with water drain min. exposed cross section 0,75m ²
8	Ventilation separation: Depth 1000 mm, Height... ... by light well installation 1000 mm, ... by installation above ground level 1700 mm, 300 mm above weather guard
9	Minimum clearance for service purposes If the distances were to be reduced to the minimum dimension, the air ducts must be made shorter. This leads to a significant increase in the sound intensity level!

Tilting dimension of heat pump = 2050mm



LW 300(L)

Installation plan V4



Keys: UK819337a-4

All dimensions in mm.

Pos.	Designation	Dim.
B2	With finished wall thickness 240 to 320 With finished wall thickness 320 to 400	330 250
V4	Version 4	
OKF	Top edge of finished floor	
FA	Finished outer façade	
LR	Air direction	
BS	Operator side	
FWS	Finished wall thickness	
KA	Condensate discharge	
G	Section installation in light well	

Pos.	Designation
1	Accessory: wall duct 1000x1000x420
2	Accessory air duct 900x900x1000
3	Accessory: air duct bend 900x1050x1450
5	Installation above ground level Accessory: weather guard 1045x1050
6	Installation in light well Accessory: rain guard 1045x1050
7	provided by customer: light well with water drain min. exposed cross section 0,75m ²
9	Minimum clearance for service purposes If the distances were to be reduced to the minimum dimension, the air ducts must be made shorter. This leads to a significant increase in the sound intensity level!

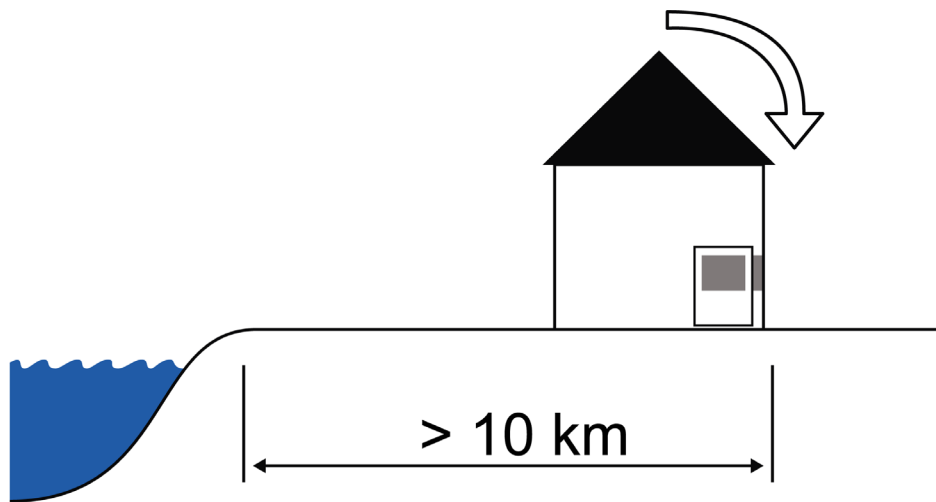
Tilting dimension of heat pump = 2050mm



IMPORTANT

The minimum distances necessary for correct and safe operation as well as any service work must be observed.

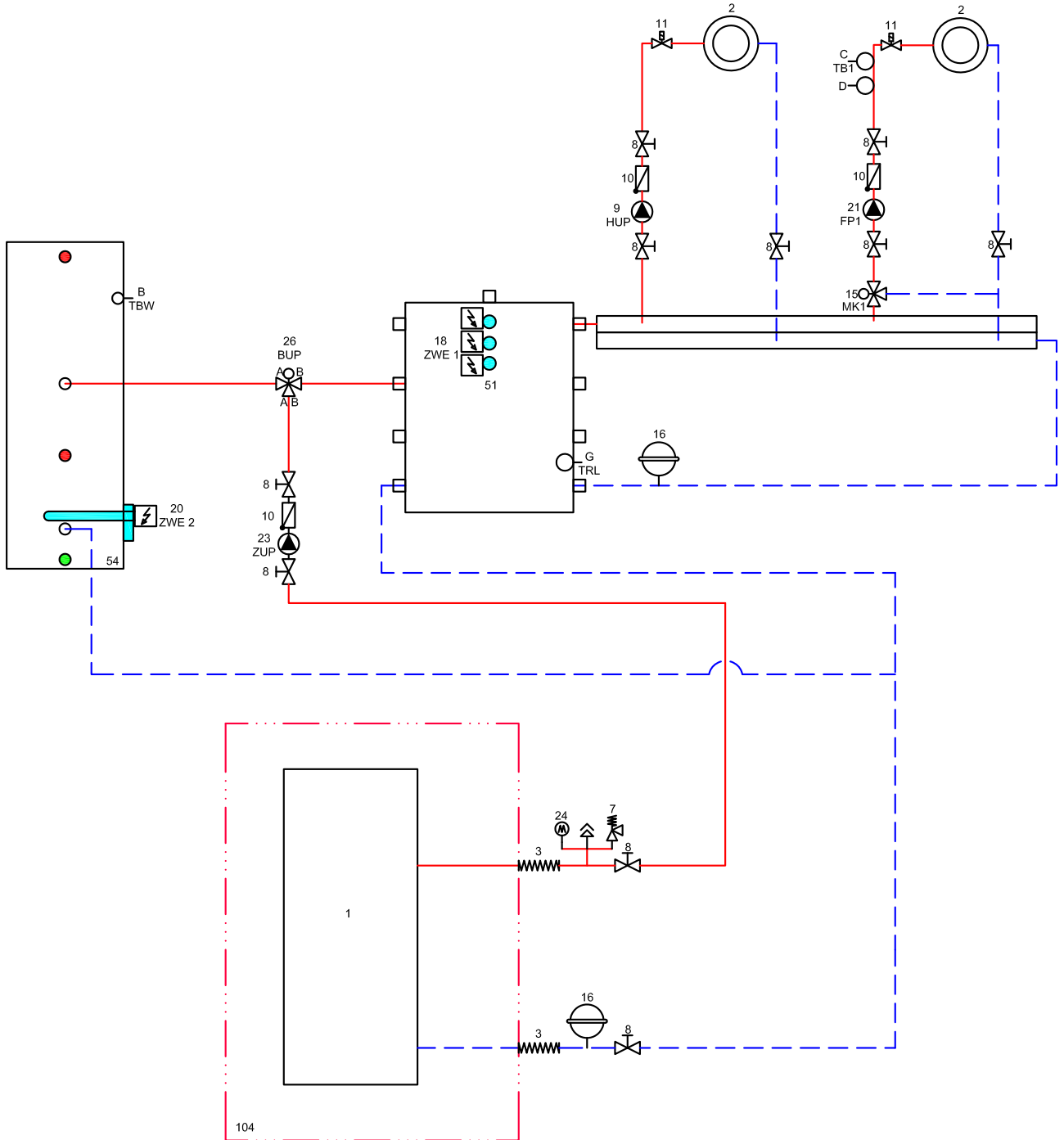
- ✓ Air intake on the side facing away from the coast / from the prevailing wind direction
- ✓ Air outlet not on the side facing the coast / prevailing wind direction





Separation buffer tank

LW 300(L)



Legend hydraulic diagram

1	Heat pump	51	Separation tank	T/A/A	External sensor
2	Underfloor heating / radiators	52	Gas- or oil-boiler	TB/W/B	Domestic hot water sensor
3	Vibration isolation	53	Wood boiler	TB1/C	Feedwater sensor mixer circuits 1
4	Sylomer strip machine underlay	54	Hot water cylinder	D	Floor temperature limiter
5	Closure and drainage	55	Brine pressure switch	TR/L/G	Sensor external return
6	Expansion vessel packing list	56	Swimming pool heat exchanger	STA	Line pressure regulator valve
7	Safety valve	57	Geothermal heat exchanger	TR/L/H	Sensor return (hydraulic module, dual)
8	Closure	58	Ventilation system	79	Motor valve
9	Heating circulation pump	59	Plate heat exchanger	80	Mixing valve
10	Non return valve/ one way valve	61	Cooling cylinder	81	Split heat pump outdoor unit
11	Individual room regulation	65	Compact distributor	82	Split heat pump indoor unit
12	Overflow valve	66	Fancoils	83	Circulation pump
13	Steamtight insulation	67	Solar/ service water cylinder	84	Switching valve
14	Service water circulation pump	68	Solar/ service water cylinder	113	Connection 2nd heat generator
15	Mixer circuit three-way mixer (MK1 discharge)	69	Multifunction tank	BT1	Outdoor temperature sensor
16	Expansion vessel supplied by customer	71	Dual hydraulic module	BT2	Flow temperature sensor
18	Heating rod (heating)	72	Buffer tank wall mounted	BT3	Return temperature sensor
19	Mixer circuit four-way mixer (MK1 charge)	73	Pipe lead-in	BT6	Domestic hot water temperature sensor
20	Heating rod (SW)	74	Ventower	BT12	Flow temperature liquefier
21	Mixer circuit circulation pump (FP1)	75	Scope of delivery, hydraulic tower, dual	BT19	Temperature sensor immersion heater
23	Feed circulating pump (reconnect the integrated circulating pump in the heat pump)	76	Fresh water station	BT24	Temperature sensor 2nd heat generator
24	Manifold	77	Scope of supply water/water booster		
25	Heating circulation pump	78	Accessories water/water booster optional		
26	Switching valve (heating/service water)(B = normally open)				
27	Heating element	100	Room thermostat for cooling (optional)	15	Mixer circuit three-way mixer (MK2-3 discharge)
28	Brine circulation pump	101	Controls supplied by customer	17	Temperature difference regulator
29	Dirty-trap 0.6 mm mesh	102	Dew-point monitor (optional)	19	Mixer circuit four-way mixer (MK2 charge)
30	Spill-tray for brine mix	103	Room thermostat for reference space in packing list	21	Mixer circuit circulation pump (FP2-3)
31	Wall breakthrough	104	Supply heat pump	22	Swimming pool circulation pump
32	Inlet pipe	105	Cooling circuit module box removeable for installation	44	Three-way mixer valve (cooling function MK2)
33	Brine manifold	106	Specific glycole mixture	47	Changeover valve swimming bath preparation(B = normally open)
34	Ground collector	107	Scald protection / thermostatic mixer valve	60	Changeover valve cooling operation(B = normally open)
35	Ground sinkles	108	Solar pump assembly	62	Heat meter (optional)
36	Groundwater spring pump	109	Overflow valve must be closed	63	Changeover valve solar circuit(B = normally open)
37	Wall bracket	110	Packing list hydraulic tower	64	Cooling circulation pump
38	Flow switch	111	Mounting for additional heating element	70	Solar separation module
39	Suction well	112	Minimum distance to thermal decoupling of the mixing valve	TB2-3/C	Feedwater sensor mixer circuits 2-3
40	Inverted well			TSS/E	Sensor, temperature difference control (low temperature)
41	Rinse fitting heating circuit			TSK/E	Sensor, temperature difference control (high temperature)
42	Circulation pump			TEE/F	Sensor external energy source
43	Brine / Water heat exchanger (cooling function)				
44	Three-way mixer valve (cooling function MK1)				
45	Cap valve				
46	Filler and drainage valve				
48	Domestic hot water charging pump				
49	Direction of groundwater flow				
50	Buffer storage				

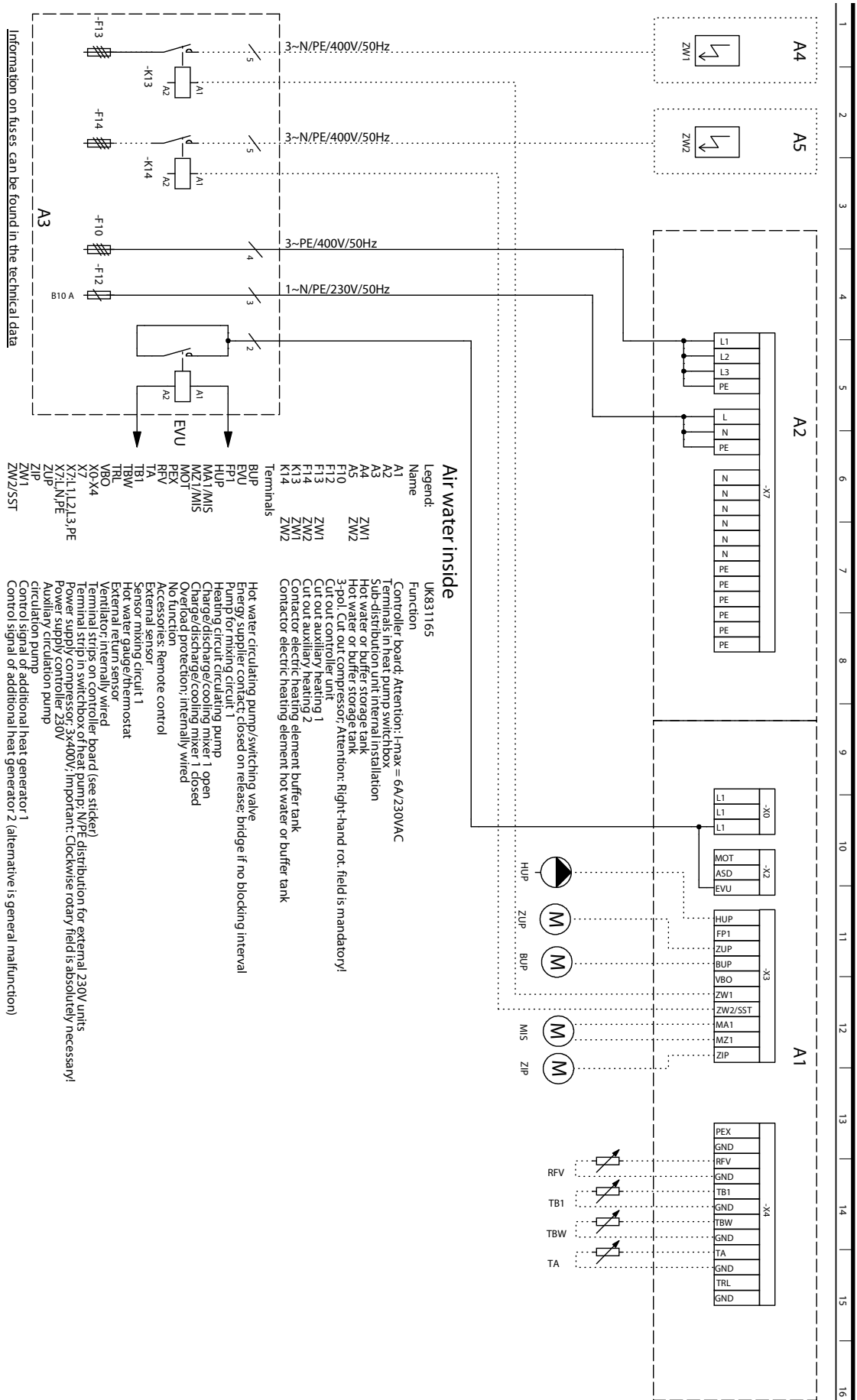
Important notice!

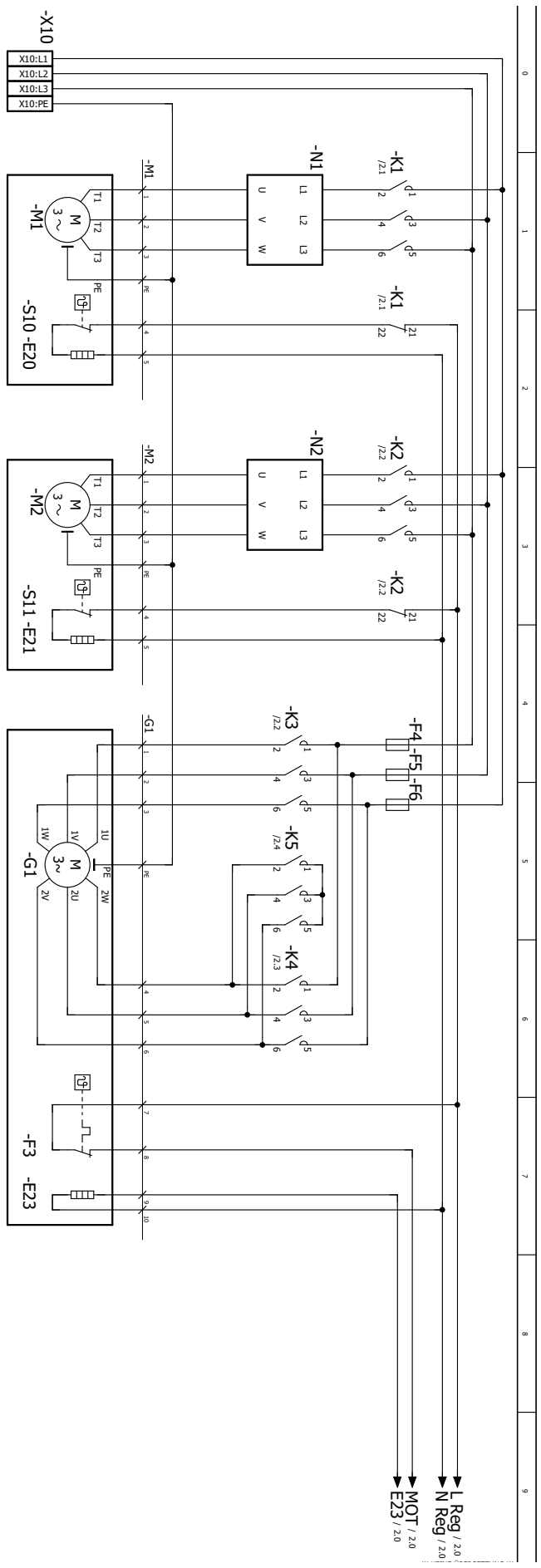
These hydraulic diagrams are schematic representations and are for assistance only. They do not relieve of the obligation to carry out appropriate planning! They do not include all necessary shut-off valves, ventilator fittings or safety devices. These must be incorporated in accordance with the standards and regulations applicable to the respective installation. All country-specific standards, laws and regulations must be observed! The tubes have to be dimensioned according to the nominal volume flow of the heat pump resp. the free pressing of the integrated circulating pump. For detailed information and advice please contact our local sales partner!





Terminal diagram





3~PE/400V/50Hz
 Legend:
 Equipment

UK 817456
 Function

VD1

VD2

VENT

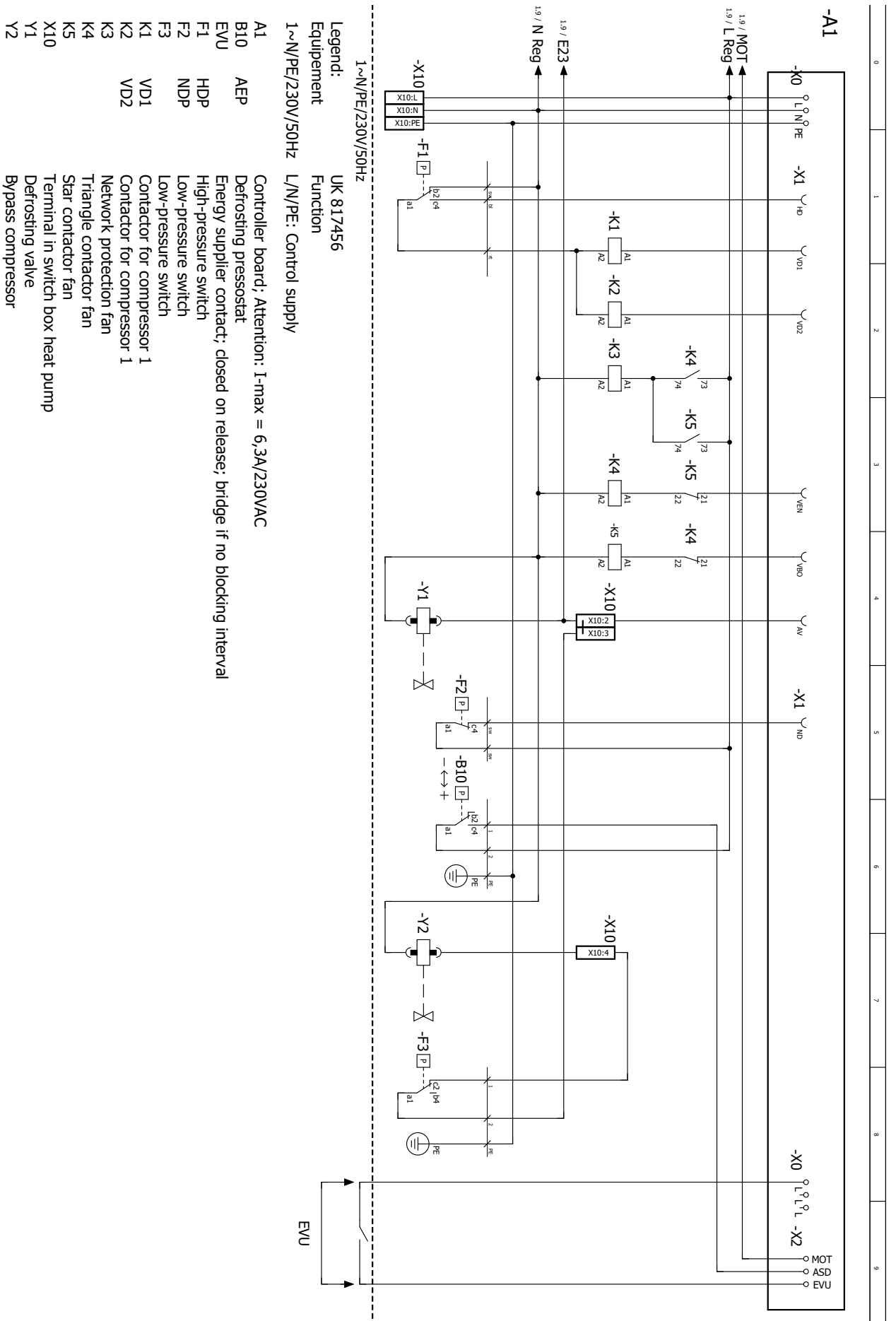
3~N/PE/400V/50Hz L1,L2,L3,PE; power supply, output, compressor; clockwise rotary field is absolutely necessary!

- E20 Sump heating for compressor 1
- E21 Sump heating for compressor 2
- E23 Nozzle heating fan
- F3 Motor protection fan
- F4-F6 Fan fuse 6.3 A
- G1 Fan
- K1 Contactor for compressor 1
- K2 Contactor for compressor 1
- K3 Network protection fan
- K4 Triangle contactor fan
- K5 Star contactor fan
- M1 Compressor
- M2 Compressor
- M3 Starting current limit compressor
- N1 Starting current limit compressor
- N2 Thermostat Sump heating for compressor 1
- S10 Thermostat Sump heating for compressor 2
- S11 Terminal in switch box heat pump
- X8



LW 300(L)

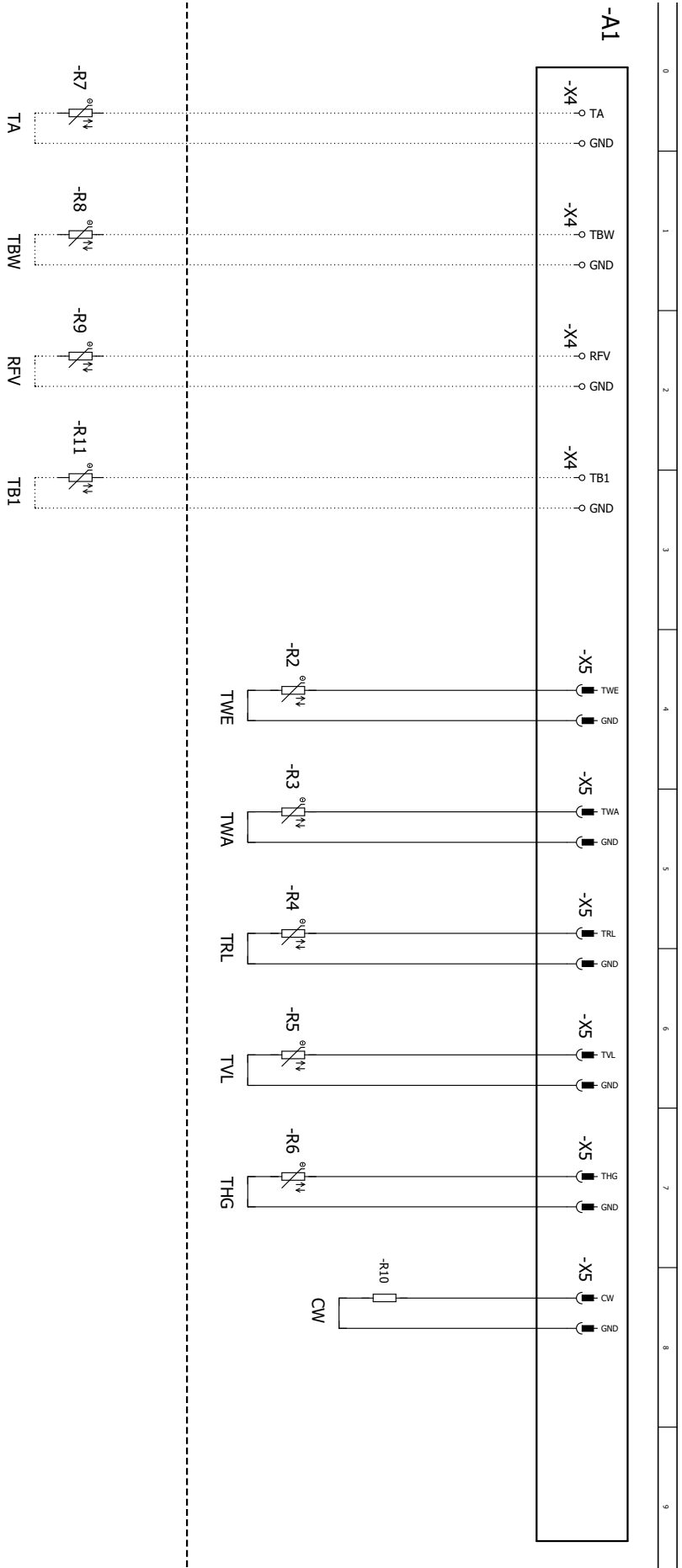
Circuit diagram 2/3





LW 300(L)

Circuit diagram 3/3



- Legend:**
Equipment UK 817456
Function
- Controller board: Attention: I-max = 6,3A/230VAC**
 R2 TWE If installed: heat source input gauge
 R3 TWA If installed: heat source outlet gauge
 R4 TRL Return sensor
 R5 TVL Flow sensor
 R6 THG Hot gas sensor
 R7 TA External sensor
 R8 TBW Hot water gauge/thermostat
 R9 RVF Accessories: Remote control
 R10 CW Encoding resistor 1270 Ohm
 R11 TB1 Sensor mixing circuit 1



EC Declaration of Conformity



The undersigned confirms that the following designated device(s) as designed and marketed by us fulfill the standardized EC directives, the EC safety standards and the product-specific EC standards. In the event of modification of the device(s) without our approval, this declaration shall become invalid.

Designation of the device(s)

Heat Pump



Unit model	Number	Item No. 1	2	3
LW 300A-LUX 2.0	100789LUX02	100789P02	15030561	15029001
LW 300	10078702			
LW 300L	10078802			

EC Directives

2014/35/EU 813/2013
 2014/30/EU
 2011/65/EG 517/2014
 2014/68/EU

EN..

EN 378-2:2018 EN 60335-1:2012
 EN ISO 12100:2010 EN 60335-2-40:2014
 EN 12102-1:2018 EN 55014-1:2018
 EN 61000-3-11:2001 EN 55014-2:2016
 EN 61000-3-12:2012

Pressure equipment component

Category II
 Module A1
 Designated position:
 TÜV-SÜD
 Industrie Service GmbH (Nr.:0036)


Company:

ait-deutschland GmbH
 Industrie Str. 3
 93359 Kasendorf
 Germany

Place, date:

Kasendorf, 20.07.2020

Signature:


 Marco Roßmerkel
 Managing Director



Edgar Timm
 Director R&D

UK818200



ait-deutschland GmbH
Industriestraße 3
D-95359 Kasendorf

E info@alpha-innotec.de
W www.alpha-innotec.de



alpha innotec – an ait-deutschland GmbH brand