

Ground source heat pump NIBE S1155

NIBE S1155 is an intelligent, inverter-controlled ground source heat pump without integrated hot water tank, which makes it easy to install in locations with low ceilings. A separate hot water tank is selected according to hot water requirements. NIBE S1155 provides optimum savings since the heat pump automatically adapts to your home's heating demand. NIBE is a leading player in the field of inverter technology, with many years' experience of output-regulating ground source heat pumps and one of the widest product ranges on the market.

NIBE S1155 has a high seasonal performance factor, resulting in minimal operating costs. The heat pump is available in three different output sizes: 1.5–6 kW, 3–12 kW and 4–16 kW, and is suitable for both small and large properties.

With integrated wifi, the S Series is a natural part of your connected home. Smart technology adjusts the indoor climate automatically while you're in complete control from phone or tablet. Giving maximum comfort and minimum energy consumption, while doing nature a favour at the same time.

- Leading inverter technology and separate hot water tank for optimum customization.
- Three output sizes for optimal seasonal performance factor and minimal operating costs.
- User-friendly touch control and integrated wireless connectivity with energy saving smart technology for maximum comfort.

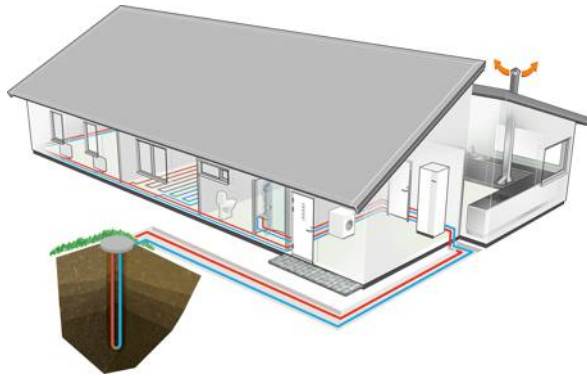


This is how S1155 works

Installation method

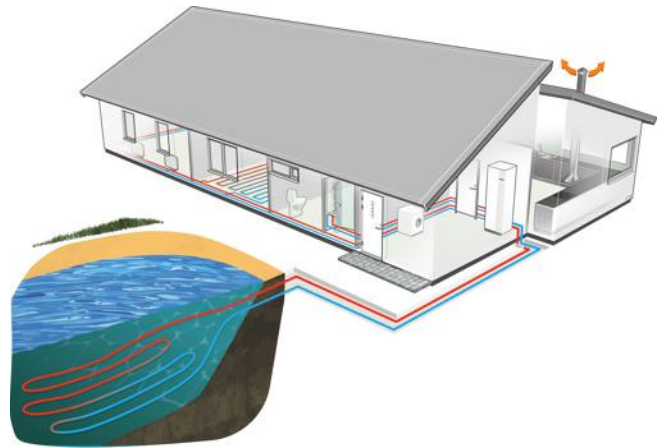
Rock

S1155 collects a proportion of the rock's stored solar energy via a collector in a borehole in the rock.



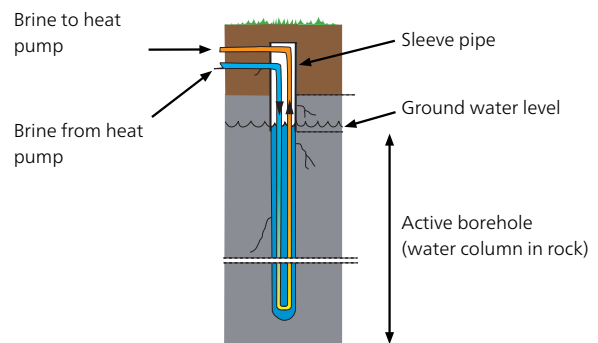
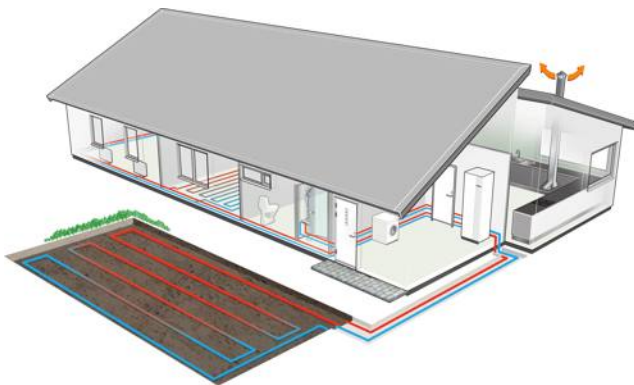
Lake

S1155 collects a proportion of the water's stored solar energy via a lake collector that is anchored on the lake bed.



Ground

S1155 collects a proportion of the ground's stored solar energy via a buried ground collector.



Design

S1155-6 has a 6.5 kW immersion heater whilst S1155-12 and S1155-16 have an integrated electric heater of 7 kW with seven steps that automatically engage as necessary. Switchable to four steps of 9 kW.

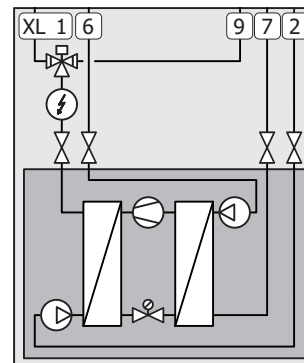
S1155 is constructed on a robust frame with durable panels and effective soundproofing for the best possible comfort. All panels are easy to remove to facilitate installation and for any servicing.

Principle of operation

S1155 consists of heat pump, immersion heater, circulation pumps and control system. S1155 is connected to the brine and heating medium circuits.

The heat from the heat source (rock, soil, lake) is taken up via a closed brine system in which a mixture of water and antifreeze circulates. In some cases, the ground water can also be used as a heat source. An intermediate heat exchanger should be used to protect the heat pump in such cases.

In the heat pump evaporator, the brine (water mixed with anti-freeze, glycol or ethanol) releases its energy to the refrigerant, which is vaporised in order to be compressed in the compressor. The refrigerant, of which the temperature has now been raised, is passed to the condenser where it gives off its energy to the heating medium circuit and, if necessary, to any docked water heater. If there is a greater need for heating/hot water than the compressor can provide there is an integrated immersion heater.



| | |
|-----|-----------------------------------|
| XL1 | Connection, heating medium flow |
| XL2 | Connection, heating medium return |
| XL6 | Connection, brine in |
| XL7 | Connection, brine out |
| XL9 | Connection, hot water heater |

Good to know about S1155

Transport and storage

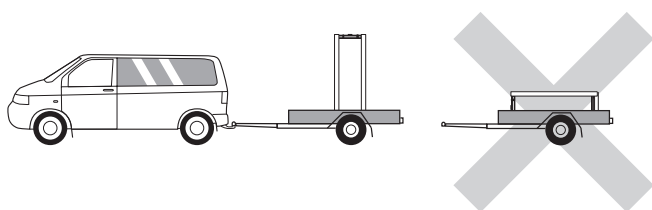
S1155 should be transported and stored vertically in a dry place. When being moved into a building, S1155 may be leant back 45 °.

Ensure that S1155 has not been damaged during transport.

The product can be tail heavy.

If the cooling module is pulled out and transported upright, S1155 can be transported on its back.

Remove the outer panels in order to protect them when moving in confined spaces inside buildings.



EXTRACTING THE COOLING MODULE

To simplify transport and service, the heat pump can be separated by pulling the cooling module out from the cabinet.

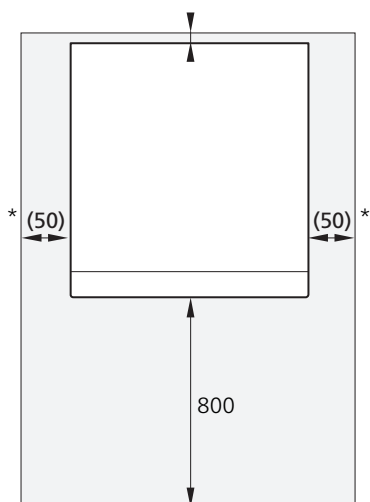
See section "Service" in the installer manual for comprehensive instructions about the separation.

Installation and positioning

- Place S1155 on a solid foundation outdoors that can take the heat pump's weight.
- Because water comes from S1155, the area where the heating pump is located must be equipped with floor drainage.
- Install with its back to an outside wall, ideally in a room where noise does not matter, in order to eliminate noise problems. If this is not possible, avoid placing it against a wall behind a bedroom or other room where noise may be a problem.
- Wherever the unit is located, walls to sound sensitive rooms should be fitted with sound insulation.
- Route pipes so they are not fixed to an internal wall that backs on to a bedroom or living room.

INSTALLATION AREA

Leave a free space of 800 mm in front of the product. Approx. 50 mm free space is required on each side, to remove the side panels (see image). The panels do not need to be removed during service. All service on S1155 can be carried out from the front. Leave space between the heat pump and the wall behind (and any routing of supply cables and pipes) to reduce the risk of any vibration being propagated.



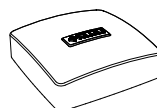
* A normal installation needs 300 – 400 mm (any side) for connection equipment, i.e. level vessel, valves and electrical equipment.

Supplied components

Local differences in the enclosed kit may occur. See relevant installer manual for more information.



Outside sensor



Room sensor



Current sensor¹



Safety valve
0.3 MPa (3 bar)¹



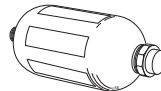
O-rings



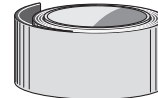
Temperature sensor



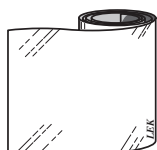
Tubes for sensors



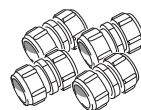
Level vessel¹



Insulation tape

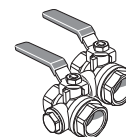


Aluminium tape



Compression ring couplings

- 6 kW
- 2 x (ø28 x G25)
- 3 x (ø22 x G20)
- 12/16 kW
- 5 x (ø28 x G25)



Filterball

- 6 kW
- 1 x G1
- 1 x G3/4
- 12/16 kW
- 1 x G1
- 1 x G1 1/4

¹ Not Italy and the DACH countries.

Installation

Inspection of the installation

Current regulations require the heating installation to be inspected before it is commissioned. The inspection must be carried out by a suitably qualified person.

Pipe installation

Pipe installation must be carried out in accordance with current norms and directives. S1155 can operate with a return temperature of up to 58 °C and an outgoing temperature from the heat pump of 70 (65 °C with only the compressor).

S1155 is not equipped with external shut off valves; these must be installed to facilitate any future servicing.

Water may drip from the safety valve's overflow pipe. The entire length of the overflow water pipe must be routed to a suitable drain and be inclined to prevent water pockets, and must also be frost-proof. The overflow pipe must be at least the same size as the safety valve. The overflow pipe must be visible and its mouth must be open and not located close to electrical components.

PIPE CONNECTION BRINE

- Insulate all indoor brine pipes against condensation.
- The level vessel must be installed at the highest point in the brine system on the incoming pipe before the brine pump.

If the level vessel cannot be placed at the highest point, an expansion vessel must be used.

Note that condensation may drip from the level vessel. Position the vessel so that this does not harm other equipment.

- Details of the antifreeze used must be shown on the level vessel.
- Install the enclosed safety valve under the level vessel.
- Install a shut off valve for outgoing brine as close to the heat pump as possible.

- Fit the enclosed filterball on the incoming brine.

If filling connection KB25/KB32 is used, the enclosed filterball does not need to be fitted.

In the case of connection to an open groundwater system, an intermediate frost-protected circuit must be provided, because of the risk of dirt and freezing in the evaporator. This requires an extra heat exchanger.

Side connection

It is possible to angle the brine connections, for connection to the side instead of top connection.

PIPE CONNECTION HEATING MEDIUM

Connecting the climate system

A climate system is a system that regulates indoor comfort with the help of the control system in S1155 and for example radiators, underfloor heating/cooling, fan convectors etc.

- Install all necessary safety devices, shut-off valves (as close to the heat pump as possible) and the enclosed filterball.
- Install the safety valve on heating medium return. The recommended opening pressure is 0.25 MPa (2.5 bar). For information about max. opening pressure, see the technical specifications.
- When connecting to a system with thermostats on all radiators, a relief valve must be fitted, or some of the thermostats must be removed to ensure sufficient flow.

PIPE CONNECTION WATER HEATER

If S1155 is not docked to a water heater or if it is to work with fixed condensing, the connection for the water heater must be plugged.

- Any docked hot water heater must be fitted with necessary set of valves.
- A mixing valve must be installed if the setting is changed so that the temperature can exceed 60°C.

- The safety valve must have max. 1.0 MPa (10.0 bar) opening pressure and be installed on the incoming domestic water line. The entire length of the overflow water pipe from the safety valves must be inclined to prevent water pockets and must also be frost-free.

Ensure that incoming water is clean. When using a private well, it may be necessary to supplement with an extra water filter.

For more information see nibe.se.

Guideline values for collectors

The length of the collector hose varies depending on the rock/soil conditions, climate zone and on the climate system (radiators or underfloor heating) and the heating requirement of the building. Each installation must be sized individually.

Max. length per coil for the collector should not exceed 400 m.

In those cases where it is necessary to have several collectors, these should be connected in parallel with the possibility for adjusting the flow of the relevant coil.

For surface soil heat, the hose should be buried at a depth determined by local conditions and the distance between the hoses should be at least 1 metre.

For several bore holes, the distance between the holes must be determined according to local conditions.

Ensure the collector hose rises constantly towards the heat pump to avoid air pockets. If this is not possible, airvents should be used.

Because the temperature of the brine system can fall below 0 °C, it must be protected against freezing down to -15 °C. When making the volume calculation, use 1 litre of ready mixed brine per metre of collector hose (applies when using PEM-hose 40x2.4 PN 6.3) as a guide value.

Docking alternatives

VENTILATION RECOVERY



The installation can be supplemented with the exhaust air module NIBE FLM S45 to provide ventilation recovery. FLM S45 is equipped with a built-in fan specially designed to combine recovery of mechanical exhaust air with an energy collector in rock or in the ground.

- Pipes and other cold surfaces must be insulated with diffusion-proof material to prevent condensation.
- The brine system must be supplied with a pressure expansion vessel. If there is a level vessel this should be replaced.

FREE COOLING



The accessory PCS 44 allows the connection of passive cooling, for example with fan coils. The cooling system is connected to the heat pump brine circuit, whereby cooling is supplied from the collector via a circulation pump and shunt valve.

- Pipes and other cold surfaces must be insulated with diffusion-proof material to prevent condensation.
- Where the cooling demand is high, fan convectors with drip trays and drain connection are needed.
- The brine system must be supplied with a pressure expansion vessel. If there is a level vessel this should be replaced.

TWO OR MORE CLIMATE SYSTEMS



In buildings with several climate systems that require different supply temperatures, the accessory ECS 40/ECS 41 can be connected. A shunt valve then lowers the temperature to the under-floor heating system, for example.

POOL



With the POOL 40 accessory, you can heat the pool with your heat pump.

During pool heating, the heating medium circulates between the S1155 and the pool exchanger using the heat pump's internal circulation pump.

Functions

Control, general

The indoor temperature depends on several different factors. Sunlight and heat emissions from people and household machines are normally sufficient to keep the house warm during the warm seasons. When it gets colder outside, the climate system needs to help heat the house. The colder it is outside, the warmer radiators and underfloor heating systems have to be.

The heat pump is controlled by built-in supply and return brine temperature sensors (collector). Brine return temperatures can, if necessary, be limited to a minimum e.g. for ground water systems.

Control of the heat production is performed based on the "floating condensing" principle, which means that the temperature level needed for heating at a specific outdoor temperature is produced based on collected values from the outdoor and supply temperature sensors. The room sensor can also be used to compensate the deviation in room temperature.

Heat production



The supply of heat to the house is regulated in accordance with the selected heating curve setting. After adjustment, the correct amount of heat for the current outdoor temperature is supplied. The supply temperature of the heat pump will oscillate around the theoretically required value.

OWN CURVE

S1155 has pre-programmed non-linear heating curves. It is also possible to create your own defined curve. This is an individual linear curve with a number of break points. You select break points and the associated temperatures.

Hot water production



If the water heater is docked to S1155 and there is a hot water demand, the heat pump's software control prioritizes the hot water charging mode with optimal heat pump power.

Hot water charging starts when the temperature has fallen to the set start temperature. Hot water charging stops when the hot water temperature at the hot water sensor has been reached.

For temporary higher hot water demand, there is a function called "More hot water".

With the Smart Control function activated, S1155 learns how much hot water is used and when. The Smart Control function memorises the previous week's hot water consumption and adapts the hot water temperature for the coming week to ensure minimal energy consumption.

It is also possible to set S1155 in holiday mode, which means that the lowest possible temperature is achieved without the risk of freezing.

Additional heat only

S1155 can be used exclusively as an additional heater, (max 9 kW) to produce heat and any hot water, for example before the collector system is complete.

Alarm indications

In the event of an alarm, a malfunction has occurred and the status lamp shines with a steady red light. You receive information about the alarm in the smartguide on the display.

Floor drying

S1155 has an integrated underfloor drying function. This allows for controlled drying of concrete slabs. It is possible to create your own program or to follow a pre-programmed time and temperature schedule.

Brine control

For users who are going to replace an existing heat pump.

The risk of over-exploiting the collector system is reduced with the smart integrated brine control. This function can be used when replacing older heat pump systems where the collector may be undersized for a modern heat pump with a higher COP and SCOP.

An undersized collector can result in additional heat being required to assist on the coldest days of the year.

myUplink



With myUplink you can control the installation – where and when you want. In the event of any malfunction, you receive an alarm directly to your e-mail or a push notification to the myUplink app, which allows you to take prompt action.

Visit myuplink.com for more information.

SPECIFICATION

myUplink needs the following in order to communicate with your S1155:

- wireless network or network cable
- Internet connection to which S1155 can be connected
- account on myuplink.com

We recommend our mobile apps for myUplink.

RANGE OF SERVICES

myUplink gives you access to various levels of service. The base level is included and, apart from this, you can choose two premium services for a fixed annual fee (the fee varies depending on the functions selected).

MOBILE APPS FOR MYUPLINK

The mobile apps can be downloaded free of charge from where you usually download your apps. Logging in is performed using the same account details as on myuplink.com.

The display

S1155 is controlled using a clear and easy to use display.

Instructions, settings and operational information are shown on the display. You can easily navigate between the different menus and options to set the comfort or obtain the information you require.

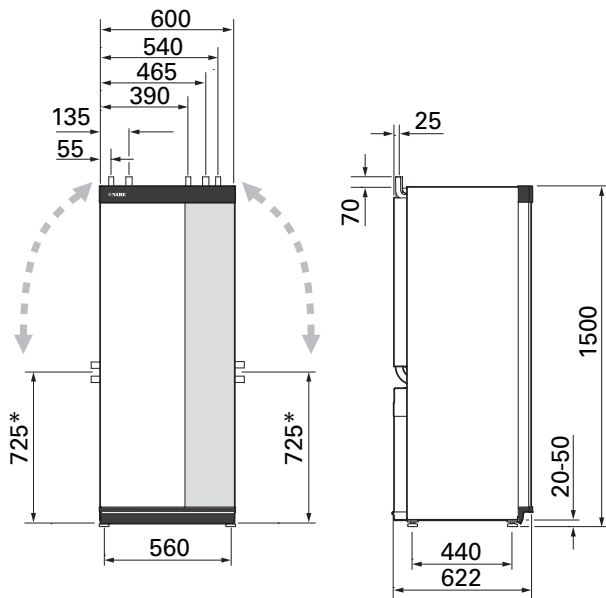
If you connect the product to the network, you can upgrade the software without using the USB port. See section "myUplink".

The display unit is equipped with a USB socket that can be used to update the software and save logged information in S1155.

Visit myuplink.com and click the "Software" tab to download the latest software for your installation.

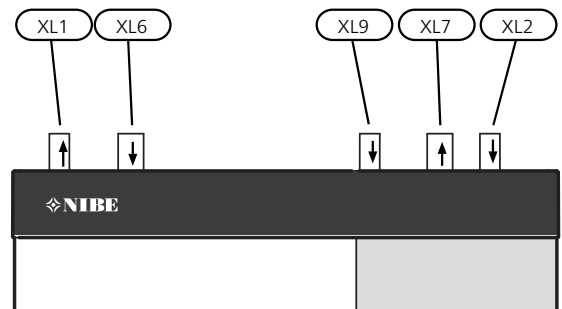
Technical data

Dimensions



* Can be angled for side connection

Pipe connections



PIPE DIMENSIONS

| Connection | | 6 kW | 12 kW | 16 kW |
|--|------|---------|----------|----------|
| (XL1)/(XL2) Heating medium flow/return ext Ø | (mm) | 22 | 28 | |
| (XL9) Connection, hot water heater ext Ø | (mm) | 22 | 28 | |
| (XL6)/(XL7) Brine in/out ext Ø | (mm) | 28 | | |

Technical specifications

ELECTRICAL DATA

1x230 V

| S1155-6 | | |
|--|-----------|---------------------------------|
| Rated voltage | | 230V ~ 50Hz |
| Max operating current including 0 – 0.5 kW immersion heater (Recommended fuse rating). | A_{rms} | 15(16) |
| Max operating current including 1 – 1.5 kW immersion heater (Recommended fuse rating). | A_{rms} | 20(20) |
| Max operating current including 2 – 2.5 kW immersion heater (Recommended fuse rating). | A_{rms} | 24(25) |
| Max operating current including 3 – 4 kW immersion heater (Recommended fuse rating). | A_{rms} | 31(32) |
| Max operating current including 4.5 kW immersion heater (Recommended fuse rating). | A_{rms} | 33(40) |
| Additional power | kW | 0.5/1/1.5/2/2.5/3 /3.5/4/4.5 |

| S1155-12 | | |
|--|-----------|---------------|
| Rated voltage | | 230 V ~ 50 Hz |
| Max operating current including 0 – 1 kW immersion heater (Recommended fuse rating). | A_{rms} | 26(32) |
| Max operating current including 2 – 4 kW immersion heater (Recommended fuse rating). | A_{rms} | 39(40) |
| Max operating current including 5 – 7 kW immersion heater (Recommended fuse rating). | A_{rms} | 52(63) |
| Additional power | kW | 1/2/3/4/5/6/7 |

3x230 V

| S1155-6 | | |
|--|-----------|---------------------------------|
| Rated voltage | | 230V 3 ~ 50Hz |
| Max operating current including 0 – 1 kW immersion heater (Recommended fuse rating). | A_{rms} | 16(16) |
| Max operating current including 1.5 – 4.5 kW immersion heater (Recommended fuse rating). | A_{rms} | 20(20) |
| Additional power | kW | 0.5/1/1.5/2/2.5/3 /3.5/4/4.5 |

| S1155-12 | | |
|--|-----------|-------------------|
| Rated voltage | | 230V 3 ~ 50Hz |
| Max operating current including 0 kW immersion heater (Recommended fuse rating). | A_{rms} | 22(25) |
| Max operating current including 2 – 4 kW immersion heater (Recommended fuse rating). | A_{rms} | 28(32) |
| Max operating current including 6 kW immersion heater (Recommended fuse rating). | A_{rms} | 36(40) |
| Max operating current including 9 kW immersion heater (Recommended fuse rating). | A_{rms} | 46(50) |
| Additional power | kW | 1/2/3/4/5/6/7/8/9 |

3x400 V

| S1155-6 | | |
|--|-----------|----------------|
| Rated voltage | | 400V 3N ~ 50Hz |
| Max operating current including 0 kW immersion heater (Recommended fuse rating). | A_{rms} | 12(16) |
| Max operating current including 0.5 – 6.5 kW immersion heater (Recommended fuse rating). | A_{rms} | 16(16) |
| Additional power | kW | 0.5 – 6.5 |

| S1155-12 | | |
|---|-----------|----------------|
| Rated voltage | | 400V 3N ~ 50Hz |
| Max operating current including 0 kW immersion heater (Recommended fuse rating). | A_{rms} | 9(10) |
| Max operating current including 1 kW immersion heater (Recommended fuse rating). | A_{rms} | 12(16) |
| Max operating current including 2 – 4 kW immersion heater (Recommended fuse rating). | A_{rms} | 16(20) |
| Max operating current including 5 – 7 kW immersion heater (Recommended fuse rating). | A_{rms} | 21(25) |
| Max operating current including 9 kW immersion heater, requires reconnection (Recommended fuse rating). | A_{rms} | 24(25) |
| Additional power | kW | 1 – 9 |

| S1155-16 | | |
|---|-----------|----------------|
| Rated voltage | | 400V 3N ~ 50Hz |
| Max operating current including 0 kW immersion heater (Recommended fuse rating). | A_{rms} | 10(10) |
| Max operating current including 1 kW immersion heater (Recommended fuse rating). | A_{rms} | 13(16) |
| Max operating current including 2 – 4 kW immersion heater (Recommended fuse rating). | A_{rms} | 17(20) |
| Max operating current including 5 – 7 kW immersion heater (Recommended fuse rating). | A_{rms} | 21(25) |
| Max operating current including 9 kW immersion heater, requires reconnection (Recommended fuse rating). | A_{rms} | 24(25) |
| Additional power | kW | 1 – 9 |
| Short circuit power (Ssc)* | MVA | 2.0 |

*) This equipment complies with IEC 61000-3-12, on the condition that the short circuit power Ssc is greater than or equal to 2.0 MVA at the connection point between the customer installation electrical supply and the mains network. It is the responsibility of the installer or user to ensure, through consultation with the distribution network operator if required, that the equipment is only connected to a supply with a short circuit power Ssc equal to or greater than 2.0 MVA.

The following data only applies to S1155 3x400 V. S1155 is also available with energy meter, passive cooling, and in voltage versions 1x230 V and 3x230 V. Contact your NIBE dealer for more information.

1X230 V, 3X230 V, 3X400 V

| Model | | S1155-6 | S1155-12 | S1155-16 |
|---|-------|---|---|---|
| <i>Output data according to EN 14511</i> | | | | |
| Heating capacity (P_H) | kW | 1.5 – 6 | 3 – 12 | 4 – 16 |
| <i>0/35 nominal</i> | | | | |
| Heating capacity (P_H) | kW | 3.15 | 5.06 | 8.89 |
| Supplied power (P_E) | kW | 0.67 | 1.04 | 1.83 |
| COP | | 4.72 | 4.87 | 4.85 |
| <i>0/45 nominal</i> | | | | |
| Heating capacity (P_H) | kW | 2.87 | 4.78 | 8.63 |
| Supplied power (P_E) | kW | 0.79 | 1.27 | 2.29 |
| COP | | 3.61 | 3.75 | 3.77 |
| <i>10/35 nominal</i> | | | | |
| Heating capacity (P_H) | kW | 4.30 | 6.33 | 11.22 |
| Supplied power (P_E) | kW | 0.66 | 1.03 | 1.84 |
| COP | | 6.49 | 6.12 | 6.11 |
| <i>10/45 nominal</i> | | | | |
| Heating capacity (P_H) | kW | 3.98 | 5.98 | 10.92 |
| Supplied power (P_E) | kW | 0.83 | 1.30 | 2.32 |
| COP | | 4.79 | 4.59 | 4.72 |
| <i>SCOP according to EN 14825</i> | | | | |
| Rated heating output ($P_{designH}$) | kW | 6 | 12 | 16 |
| SCOP cold climate, 35 °C / 55 °C | | 5.5 / 4.1 | 5.4 / 4.3 | 5.5 / 4.2 |
| SCOP average climate, 35 °C / 55 °C | | 5.2 / 4.0 | 5.2 / 4.1 | 5.2 / 4.1 |
| <i>Energy rating, average climate</i> | | | | |
| The product's room heating efficiency class 35 °C / 55 °C ¹ | | Up to and including 25/09/2019: A++ / A++ From 26/09/2019: A+++ / A+++ | Up to and including 25/09/2019: A++ / A++ From 26/09/2019: A+++ / A+++ | T.o.m 2019-09-25: A++ / A++ Fr.o.m 2019-09-26: A+++ / A+++ |
| The system's room heating efficiency class 35 °C / 55 °C ² | | A+++ / A+++ | A+++ / A+++ | A+++ / A+++ |
| Efficiency class hot water heating / declared tap profile with water heater ³ | | A / XL VPB S300 | A / XXL VPB S300 | A / XXL VPB S300 |
| <i>Noise</i> | | | | |
| Sound power level (L_{WA}) _{EN 12102} at 0/35 | dB(A) | 36 – 43 | 36 – 47 | 36 – 47 |
| Sound pressure level (L_{pA}) calculated values according to EN ISO 11203 at 0/35 and 1 m range | dB(A) | 21 – 28 | 21 – 32 | 21 – 32 |
| <i>Electrical data</i> | | | | |
| Output, Brine pump | W | 3 – 140 | 2 – 180 | 2 – 180 |
| Output, Heating medium pump | W | 2 – 60 | 2 – 60 | 3 – 140 |
| Enclosure class | | | IPx1B | |

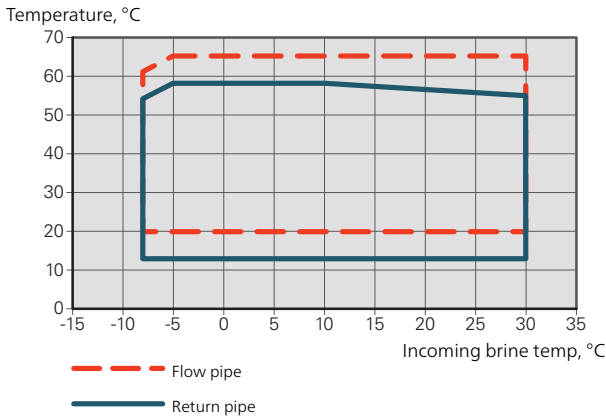
| Model | | S1155-6 | S1155-12 | S1155-16 |
|---|-----|---------------------------------|--------------------------|----------|
| Equipment Compliant with IEC 61000-3-12 | | | | |
| For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements | | | | |
| <i>WLAN</i> | | | | |
| 2.412 - 2.484 GHz max power | dbm | 11 | | |
| <i>Wireless units</i> | | | | |
| 2.405 - 2.480 GHz max power | dbm | 4 | | |
| <i>Refrigerant circuit</i> | | | | |
| Type of refrigerant | | R407C | | |
| GWP refrigerant | | 1,774 | | |
| Fill amount | kg | 1.16 | 2.0 | 2.2 |
| CO ₂ equivalent | ton | 2.06 | 3.55 | 3.90 |
| <i>Brine circuit</i> | | | | |
| Min/max system pressure brine | MPa | 0.05 (0.5 bar) / 0.45 (4.5 bar) | | |
| Nominal flow | l/s | 0.18 | 0.29 | 0.51 |
| Max external avail. press at nom flow | kPa | 64 | 115 | 95 |
| Min/Max incoming Brine temp | °C | see diagram | | |
| Min. outgoing brine temp. | °C | -12 | | |
| <i>Heating medium circuit</i> | | | | |
| Min/Max system pressure heating medium | MPa | 0.05 (0.5 bar) / 0.45 (4.5 bar) | | |
| Nominal flow | l/s | 0.08 | 0.12 | 0.22 |
| Max external avail. press at nom flow | kPa | 69 | 73 | 71 |
| Min/max HM-temp | °C | see diagram | | |
| <i>Pipe connections</i> | | | | |
| Brine ext diam. CU pipe | mm | 28 | 28 | 28 |
| Heating medium ext diam. CU pipes | mm | 22 | 28 | 28 |
| Connection, hot water heater ext diam | mm | 22 | 28 | 28 |
| <i>Compressor oil</i> | | | | |
| Oil type | | POE | | |
| Oil volume | l | 0.68 | 0.9 | 1.45 |
| <i>Dimensions and weight</i> | | | | |
| Width x Depth x Height | mm | 600 x 620 x 1,500 | | |
| Ceiling height ⁴ | mm | 1,670 | | |
| Weight complete heat pump | kg | 139 | 167 | 172 |
| Weight only cooling module | kg | 112 | 230 V: 110 400 V: 120 | 112 |
| Substances according to Directive (EG) no. 1907/2006, article 33 (Reach) | | Lead in brass components | | |
| Part number, 1x230 V | | 065 446 | 065 438 | - |
| Part number, 3x230 V | | 065 448 | 065 440 | - |
| Part number, 3x400 V T | | - | 065 506 | - |
| Part number, 3x400 V | | 065 447 | 065 439 | 065 443 |

- 1 Scale for the product's room heating efficiency class, up to 2019-09-25: A++ to G. Scale from 2019-09-26: A+++ to D.
- 2 Scale for the system's efficiency class room heating: A+++ to G. Reported efficiency for the system takes the product's temperature regulator into account.
- 3 Scale for hot water efficiency class, up to 2019-09-25: A to G. Scale from 2019-09-26: A+ to F.
- 4 With feet removed, the height is approx. 1,650 mm.

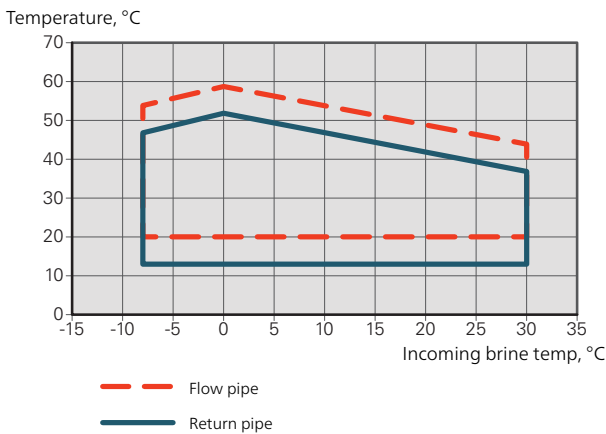
WORKING RANGE HEAT PUMP, COMPRESSOR OPERATION

The compressor provides a supply temperature up to 65 °C at -5 °C incoming brine temperature.

The working range below 75 % for S1155-6 and the entire working range for S1155-12, -16.



The working range above 75 % for S1155-6



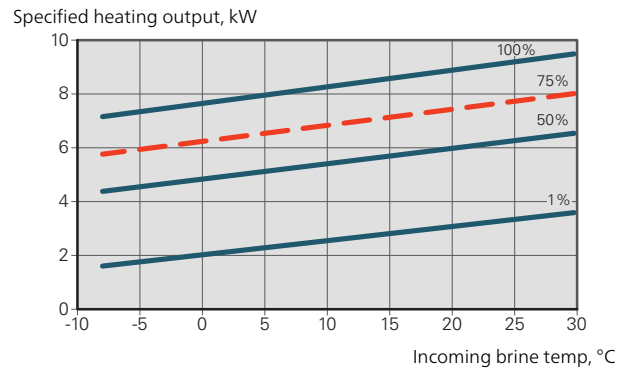
Unlocking is required for S1155-6 to operate above 75% compressor speed. This can produce a louder noise level than the value stated in the technical specifications.

DIAGRAM, DIMENSIONING COMPRESSOR SPEED

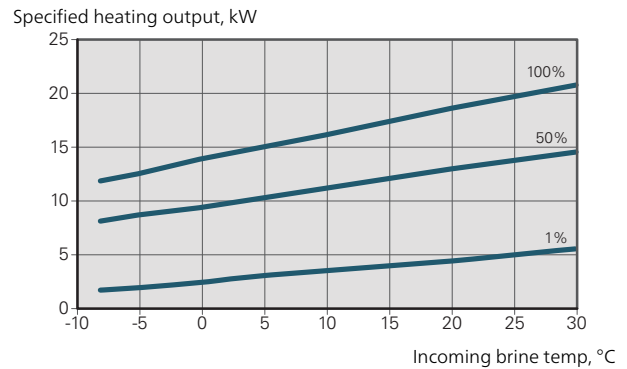
Heating mode 35 °C

Diagram for dimensioning a heat pump. The percentage shows approximate compressor speed.

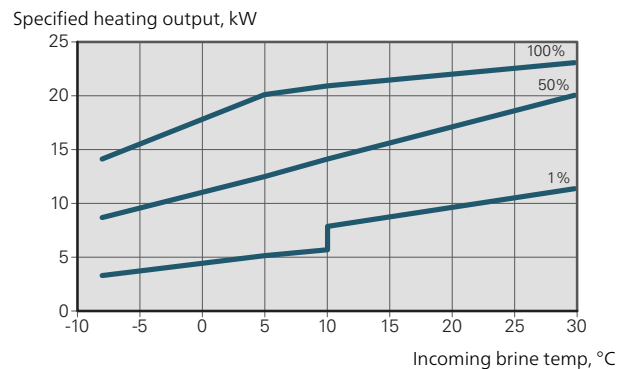
S1155-6



S1155-12



S1155-16

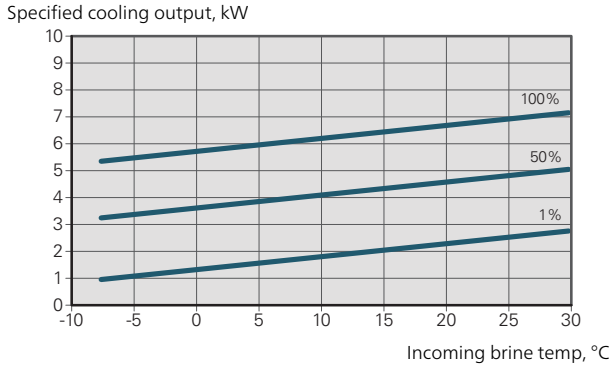


Cooling mode (Accessory required)

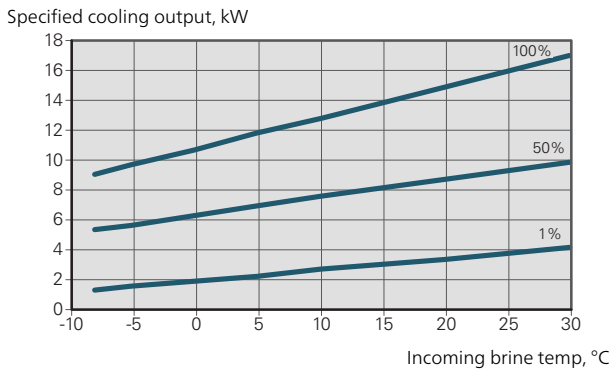
To dimension heating dump, see the diagram for heating operation.

Supply temperature, heating medium 35 °C

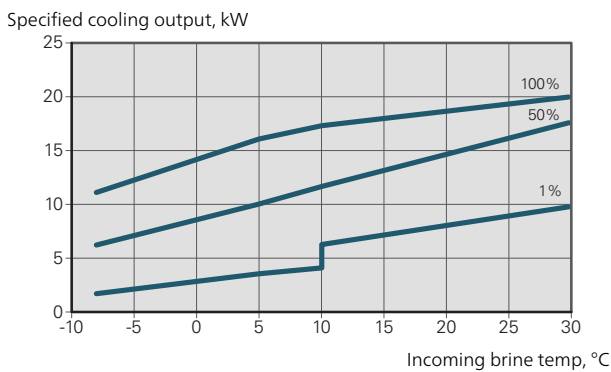
S1155-6



S1155-12

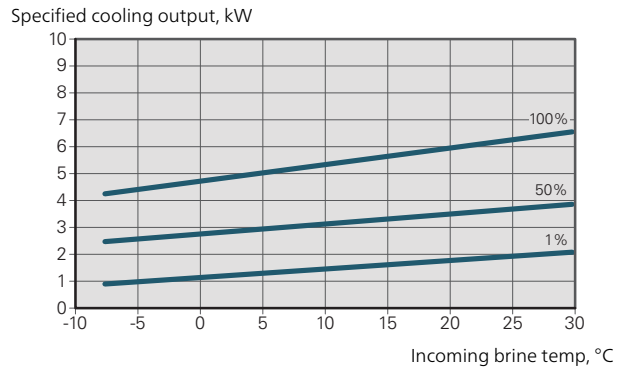


S1155-16

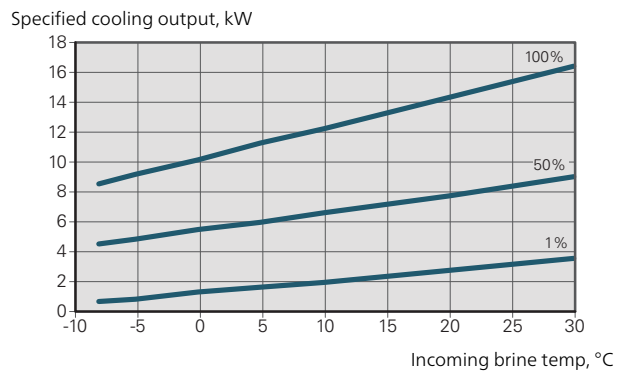


Supply temperature, heating medium 50 °C

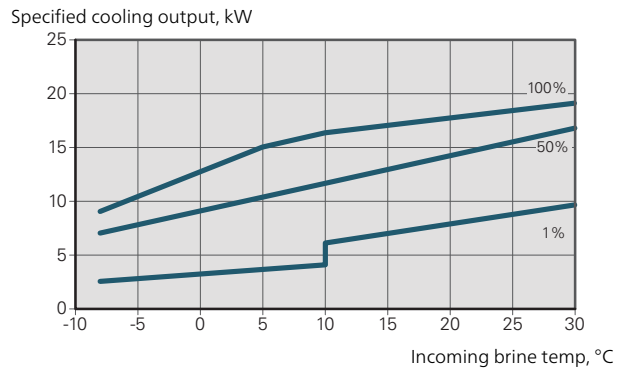
S1155-6



S1155-12



S1155-16



PUMP CAPACITY DIAGRAM

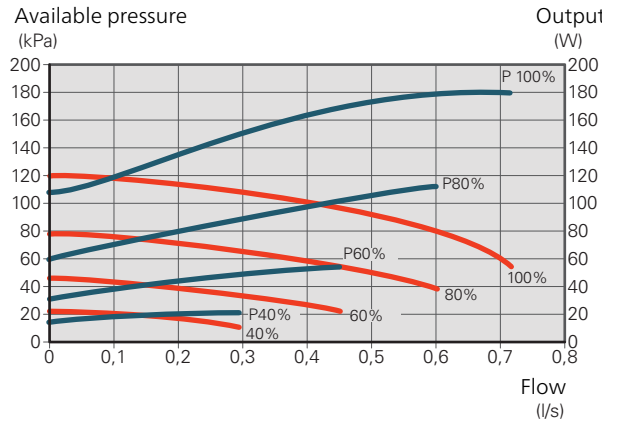
Brine side

The brine pump must run at the correct speed for the correct flow in the brine system. S1155 has a brine pump that can be automatically controlled in standard mode.

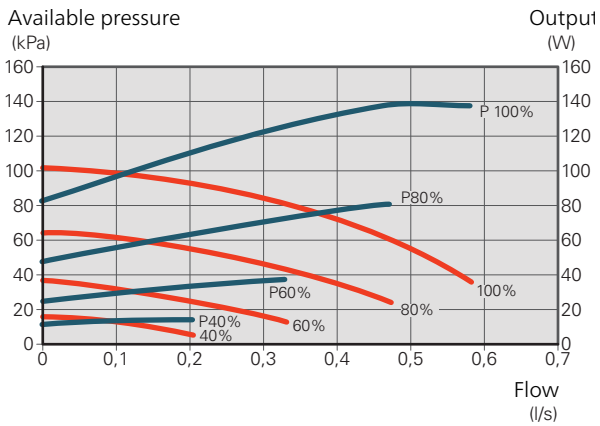
The automatic control occurs when the compressor is running and it sets the speed of the brine pump to obtain the optimal temperature difference between the supply and return lines.

- Available pressure, kPa
- p Electrical output, W

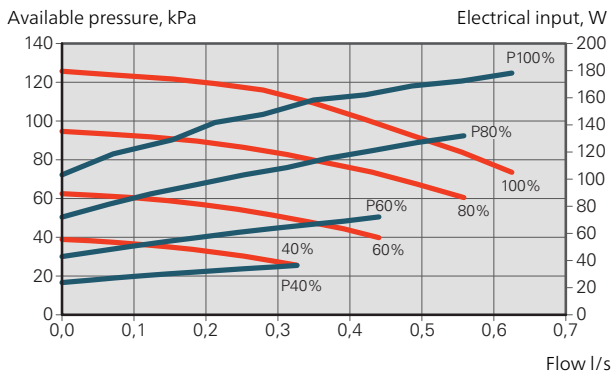
S1155 16 kW



S1155 6 kW



S1155 12 kW

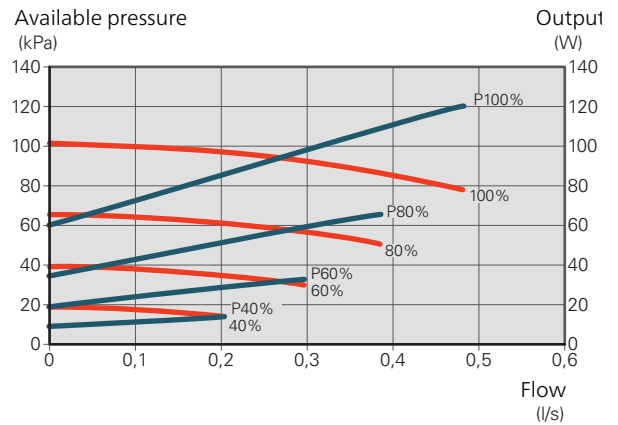


Heating medium side

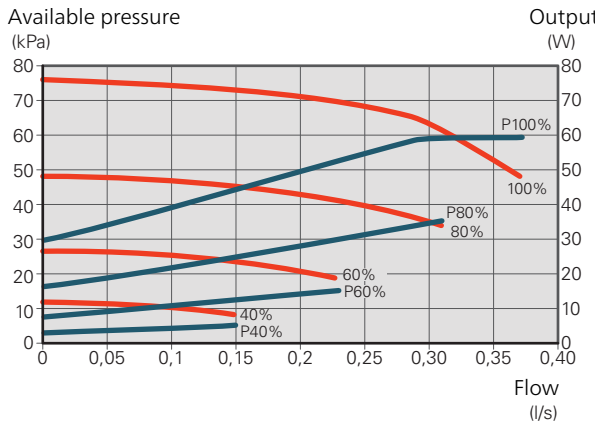
To set the correct flow in the heating medium system, the heating medium pump must run at the correct speed. S1155 has a heating medium pump that can be automatically controlled in standard mode.

This automatic control occurs when the compressor is running and sets the speed of the heating medium pump, for the present operating mode, to obtain the optimal temperature difference between the supply and return lines.

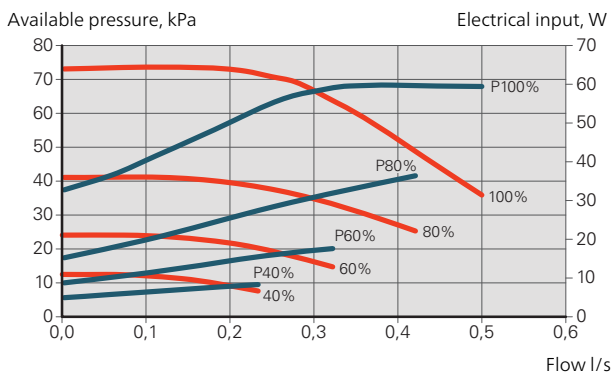
- Available pressure, kPa
- p Electrical output, W



S1155 6 kW



S1155 12 kW



S1155 16 kW

Accessories

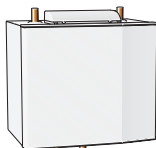
Not all accessories are available on all markets.

Detailed information about the accessories and complete accessories list available at nibe.se.

Some accessories manufactured before 2019 may need to have their circuit board updated in order to be compatible with S1155. For more information, see the Installer Manual for the relevant accessory.

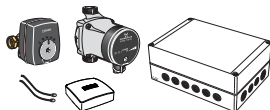
ACTIVE/PASSIVE COOLING HPAC S40

The accessory HPAC S40 is a climate exchange module that is to be included in a system with S1155.



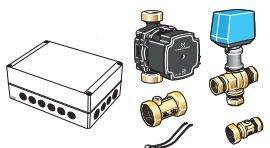
EXTRA SHUNT GROUP ECS 40/ECS 41

This accessory is used when S1155 is installed in houses with two or more different heating systems that require different supply temperatures.



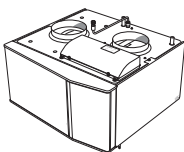
FREE COOLING PCS 44

This accessory is used when S1155 is installed in an installation with passive cooling.



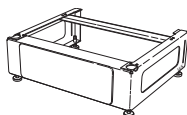
EXHAUST AIR MODULE FLM S45

FLM S45 is an exhaust air module designed to combine recovery of mechanical exhaust air with ground source heating.



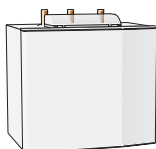
BASE EXTENSION EF 45

This accessory is used to create a larger connection area under S1155.



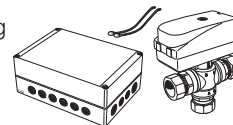
PASSIVE COOLING PCM S40/S42

PCM S40/42 makes it possible to obtain passive cooling from rock, groundwater or surface soil collectors.



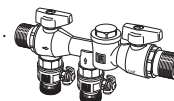
POOL HEATING POOL 40

POOL 40 is used to enable pool heating with S1155.



FILLING VALVE KIT KB 25/32

Valve kit for filling brine in the collector hose. Includes particle filter and insulation.



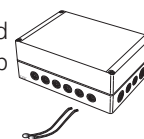
ROOM UNIT RMU S40

The room unit is an accessory that allows the control and monitoring of S1155 to be carried out in a different part of your home to where it is located.



ACCESSORY CARD AXC 40

This accessory is used to enable connection and control of shunt controlled additional heat, step controlled additional heat, external circulation pump or ground water pump.



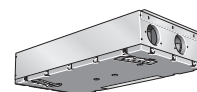
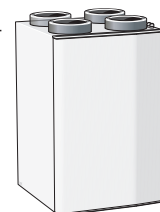
WATER HEATER/ACCUMULATOR TANK

For information regarding suitable water heaters, see nibe.se.



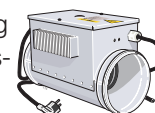
VENTILATION HEAT EXCHANGER ERS

This accessory is used to supply the accommodation with energy that has been recovered from the ventilation air. The unit ventilates the house and heats the supply air as necessary.



Electric air heater EAH

In cold weather, EAH heats the incoming outdoor air slightly to prevent the condensation in ERS from freezing. Used mainly in colder climates.



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