

# Exhaust air heat pump NIBE S735C

The NIBE S735C is an intelligent inverter-controlled exhaust air heat pump with an integrated water heater, providing heating, cooling, hot water and ventilation efficiently and economically. The built-in cooling function keeps the indoor temperature down during the hot summer period. The heat pump provides high savings as it automatically adapts to your home's heating demand. It works with a natural refrigerant for a sustainable footprint on climate and nature.

The NIBE S735C has a high seasonal performance factor, which results in low operating costs. A low noise level, stylish design and compact size make it easy to put in place and install. Designed for new builds and also suitable for replacements. With NIBE supply air modules it is also suitable for homes with exhaust and supply air ventilation.

With integrated Wi-Fi and the possibility of connecting to wireless accessories, the NIBE S-Series will become a natural part of your connected home. Smart technology adjusts the indoor climate automatically and gives you full control over the system via your smartphone or tablet. A high level of comfort and low energy consumption – and you're doing nature a favour at the same time.







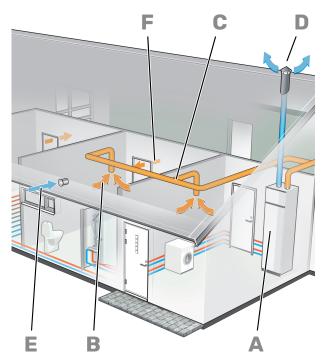


- High seasonal performance factor and low operating costs for both new builds and replacements, with a natural refrigerant for a sustainable climate and environmental footprint.
- · Low noise level, stylish design and built-in cooling.
- User-friendly touchscreen and integrated wireless connection with energy-saving smart technology for a high comfort level.

# This is how S735C works

# **Principle**

# **EXHAUST AIR INSTALLATION**



S735C is an exhaust air heat pump with integrated fan and a water heater provided with corrosion protection in the form of copper, enamel or stainless steel. There is an integrated immersion heater used as an additional heater when it becomes really cold outside.

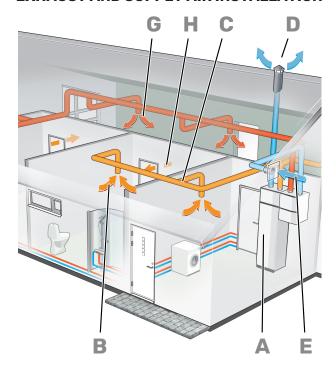
Energy is recovered from the ventilation air and supplied to the heat pump, which significantly reduces the energy costs. The device ventilates the house, supplies heating and cooling as well as producing domestic hot water.

Together with the supply air module SAM, the installation constitutes a complete exhaust and supply air system with balanced ventilation.

S735C is intended for low-temperature dimensioned radiator circuits and/or underfloor heating. S735C is suitable in houses or equivalent, both in new-builds and as a replacement.

S735C works based on the floating condensing principle.

### **EXHAUST AND SUPPLY AIR INSTALLATION**



- S735C ventilates the house and supplies it with heating, cooling and hot water.
- B The warm room air is drawn into the air duct system.
- The warm room air is fed to S735C.
- The air is released when it has passed S735C. The air temper-D ature has then dropped since S735C has extracted the energy in the air.
- Outdoor air is brought in, either directly into the house or via a supply air module.
- Air is diverted from rooms with outdoor air devices to rooms with exhaust air valves.
- Heated air is blown out into rooms with supply air valves.
- Air is transferred from rooms with supply air valves to rooms with exhaust air valves.

# Design

Control of S735C is designed to ensure easy operation while always enabling the heat pump to run as efficiently as possible. S735C decides on the best operation mode. The display shows the current temperatures and set values in plain text.

The design of the air treatment section delivers a high ventilation capacity. Moreover, the steplessly adjustable fan can easily be increased or reduced via the display unit or an external signal.

S735C gives great savings thanks to a powerful, speed controlled compressor, which, with intelligent control, works with the most favourable temperature conditions.

The outer casing is of white powder-coated steel plate. The front door is easy to remove for easy access when installing and for servicing.

The internal immersion heater's power is easy to adjust via the display, and the heat pump can be blocked.

# Principle of operation, cooling circuit

When the room temperature exhaust air, and in certain cases outdoor air, passes through the evaporator, the refrigerant evaporates because of its low boiling point. In this way, the energy in the air is transferred to the refrigerant.

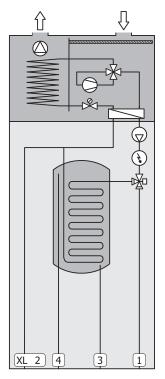
The refrigerant is then compressed in the compressor, causing the temperature to rise considerably.

The warm refrigerant is led to the condenser. Here, the refrigerant gives off its energy to the climate system's water, whereupon the refrigerant changes state from gas to liquid.

The refrigerant then goes via filters to the expansion valve, where the pressure and temperature are reduced.

The refrigerant has now completed its circulation and returns to the evaporator.

During cooling operation, the process is reversed with the aid of the 4-way valve and the refrigerant flows in the opposite direction.



XL1 Connection, heating medium flow

XL2 Connection, heating medium return XL3 Cold water connection

XL4 Hot water connection

# Good to know about S735C

# **Transport and storage**

S735C should be transported and stored vertically in a dry place.

Ensure that the heat pump cannot fall over during transport.



However, the S735C can be carefully laid on its back when being moved into the building.

# **Supplied components**

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



Outdoor temperature sensor



Room sensor



Earth cabling (2 pcs)



Vent hose (length 4 m)



Extra air filter



Current sensor



Label for external control voltage for the control system



Clips



Screw



0-rings



Insulation



Front hatch, air treatment section

### **LOCATION**

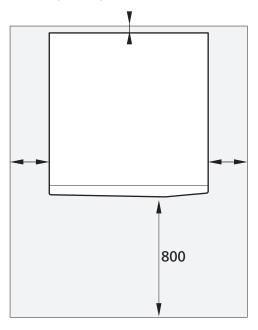
The kit of supplied items is placed on top of the product.

# Installation and positioning

- · Position S735C on a solid foundation indoors that withstands water and the weight of the product.
- · Since water comes from S735C, the area where S735C is located must be equipped with floor drainage.
- · Because water comes from S735C, the floor coating is important. A waterproof floor or floor membrane is recommended.
- 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.
- · The installation area always has to have a temperature of at least 10 °C and max. 30 °C.

### **INSTALLATION AREA**

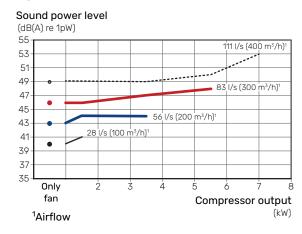
Leave a free space of 800 mm in front of the product. Leave free space between S735C and wall/other machinery/fittings/cables/pipes etc. It is recommended that a space of at least 10 mm is left to reduce the risk of noise and of any vibrations being propagated.



Ensure that there is sufficient space (300 mm) above S735C for connecting ventilation ducts.

### **SOUND POWER LEVEL**

# Sound power level S735C-7 according to EN 12102



For more detailed sound data, including sound to channels, visit nibe.eu.

# Installation

# **Equipment**

S735C is equipped with a climate-controlled heating control system with outdoor temperature, room temperature and supply temperature sensors, circulation pump, load monitor and expansion vessel. For the heating section, S735C, copper and stainless steel, is equipped with a filling and a safety valve. The hot water section in S735C copper and stainless steel is equipped with a set of valves comprising filling, nonreturn and safety valves.

# Maximum boiler and radiator volumes

S735C is equipped with an expansion vessel.

The volume of the expansion vessel is 10 litres and it is prepressurised as standard to 0.5 bar. As a result, the maximum permitted height between the expansion vessel and the highest radiator is 5 metres. There is a valve on the expansion vessel for any pre-pressure adjustment.

The maximum system volume, excluding S735C, is 285 litres at the above-mentioned pre-pressure.

# Inspection

S735C is equipped with a closed expansion vessel as standard. National standards can assert that the boiler installation must be inspected before it is taken into use. This inspection may only be performed by persons with the necessary expertise.

National regulations can assert that the function of the ventilation system must be checked. This check may only be carried out by an authorised person.

# Pipe installation

Pipe installation must be carried out in accordance with current norms and directives.

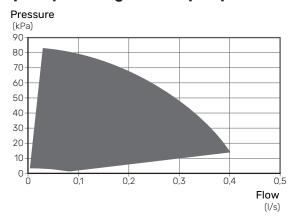
Pipe connections for cold and hot water as well as supply and return lines are fitted with 22 mm compression ring couplings.

### **CONNECTING THE HEATING SYSTEM**

When the circulation pump is operating, the flow in the heating system must not be stopped completely, i.e. at least one of the heating system's radiators/underfloor heating coils must be fully open. For S735C enamel, the heating system must be supplemented with a safety valve according to applicable standards.

# **AVAILABLE EXTERNAL PRESSURE, HEATING SYSTEM**

# Capacity, heating medium pump



# Installation alternative

# **EXTRA HOT WATER HEATERS**

The system should be supplemented with an extra water heater, if a large bath tub or other significant consumer of hot water is installed.

### Water heater without immersion heater

In water heaters without an immersion heater, the water is heated by the heat pump.

The water heater's flow is connected before S735C.

For connection, a docking kit DEW is required.

# Water heater with immersion heater

In a water heater with an immersion heater, the water is initially heated by the heat pump. The immersion heater in the water heater is used for keeping warm and when the heat pump does not have sufficient power.

The water heater's flow is connected after S735C.

# Ventilation



Connect S735C so that all the exhaust air, except kitchen duct air (kitchen fan), passes through the evaporator in the heat pump.

- · The ventilation flow must comply with the applicable national standards.
- For the heat pump to work optimally, a given ventilation flow is required. For the min. air flow, see technical specifications.
- If the exhaust air temperature falls below 10 °C, the compressor is blocked and electric additional heat is permitted. No energy is recovered from the exhaust air when the compressor is blocked.
- · Provision must be made for inspection and cleaning of the duct.
- · The air duct system must be a minimum of air tightness class B.
- To prevent fan noise being transferred to the ventilation devices, install silencers in suitable locations in the duct system.
- Because the extract air temperature can reach -19 °C, the extract air duct has to be insulated with diffusion-proof material along its entire length.
- Exhaust air ducts that are routed in cold areas must be insulated.
- All joins in the ducting must be sealed to prevent leakage.
- The extract air duct must be a maximum of 20 m long with a maximum of six bends.
- · Because the heat pump contains a flammable refrigerant, the air ducting system must be earthed. This is done by making a good electrical connection to the air ducts using the enclosed earth cables (2).
- · The extract air duct should, if possible, be routed up through the roof.
- · A duct in a masonry chimney stack must not be used for extract air.
- If a stove or similar is installed, it must have airtight doors. It must also be able to take combustion air from outside.
- · Incorrect adjustment of the ventilation may lead to reduced installation efficiency and thus poorer operating economy, a poorer indoor climate and moisture damage in the building.

### **VENTILATION CONNECTIONS**

S735C has two sizes of ventilation connection, 125 mm or 160 mm.

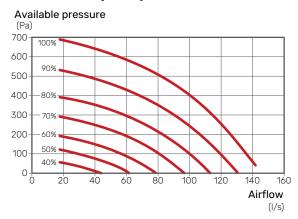
On delivery, the ventilation connections have the smaller dimension; if the larger dimension is required, the insulation rings placed in the connections must be removed.

Connect the heat pump to the duct system by installing a nipple (not enclosed) or other ventilation component in the ventilation connections.

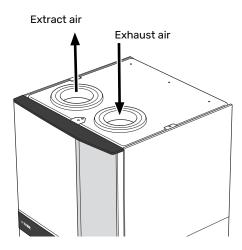
# **SETTING THE FAN CAPACITY**

Select the ventilation capacity steplessly in the display.

# Ventilation capacity



# **VENTILATION CONNECTIONS**



# **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.

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.

# Heating and cooling production



The supply of heating/cooling to the house is regulated in accordance with the selected heating curve setting (or the lowest supply temperature setting for cooling). After initial adjustment, the correct

quantity of heat for the current outdoor temperature is supplied. The supply temperature will oscillate around the theoretically desired value.

### **OWN CURVE**

S735C 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



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 that allows the temperature to be raised temporarily for up to 12 hours or by a one time increase (can be selected in the menu system).

It is also possible to set S735C in holiday mode, which means that the lowest possible temperature is achieved without the risk of freezing.

# Additional heat only



S735C can be used with only additional heat (electric boiler) to produce heating and hot water, for example, before the ventilation system is complete.

# **Alarm indications**



The status lamp lights red in the event of an alarm and the display shows detailed information depending on the fault. An alarm log is created with each alarm containing a number of temperatures, times

and operating status.

# The display

S735C 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.

# 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**

You need the following in order for myUplink to be able to communicate with your S735C:

- · wireless network or network cable
- · Internet connection
- · 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).

Service level	Basic	Premium ex- tended his- tory	Premium change set- tings
Viewer	X	X	X
Alarm	X	X	X
History	X	X	X
Extended history	_	X	_
Manage	_	_	X

### MOBILE APPS FOR MYUPLINK

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

### **MYUPLINK PRO**

myUplink PRO is a complete tool for offering service agreements to the end customer and for always having the latest information about the installation, as well as the option to adjust settings remotely.

With myUplink PRO, you can provide your connected customers with rapid status and remote diagnostics.

Visit pro.myuplink.com for information about what else you can do using the mobile app and online.

### **WIRELESS UPDATES**



When the heat pump is connected, there is the option to receive wireless updates. This provides the heat pump with new functions, giving a better experience. To receive wireless updates, you have to create an account on myUplink.

### **SMART HOME**

When you have a smart home system that can communicate with myUplink, you can control the installation via an app by activating the "smart home" function.

By allowing connected units to communicate with myUplink, your heating system becomes a natural part of your homesmart home and gives you the opportunity to optimise the operation.

Remember that the "smart home" function requires myUplink in order to work.

# **Accessories**

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

Not all accessories are available on all markets.

### **SPLITTER KIT DKI S10**

For split installation of S735C.



# **EXTRA SHUNT GROUP ECS**

This accessory is used when S735C is installed in houses with two or more different climate systems that require different supply temperatures.



**ECS 40** Max 80 m<sup>2</sup> **ECS 41** 

Approx. 80-250 m<sup>2</sup>

### **HUMIDITY SENSOR HTS 40**

This accessory is used to show and regulate humidity and temperatures during both heating and cooling



### **ROOM UNIT RMU S40**

The room unit is an accessory with a built-in room sensor and humidity sensor, which allows control and monitoring of S735C to be carried out in a different part of your home to where it is located.



### **SOLAR PACKAGE NIBE PV**

NIBE PV is a modular system comprising solar panels, assembly parts and inverters, which is used to produce your own electricity.



### **ACCESSORY BOARD AXC 20**

Accessory board for hot water circulation, damper for frost protection and/or external heating medium pump.



### **SUPPLY AIR MODULE SAM**

SAM is a supply air module specially developed for houses with supply and exhaust air systems.

Select model based on the house supply air flow.



**SAM S44** 

(approx. 20-85 l/s) (approx. 42-125 l/s)



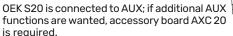
### **WIRELESS ACCESSORIES**

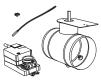
It is possible to connect wireless accessories to S735C, e.g. room, humidity, CO2 sensors.



### **OUTDOOR AIR MIXING OEK \$20**

OEK S20 is an accessory that enables S735C to operate with both exhaust air and outdoor





### WATER HEATER/ACCUMULATOR TANK

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

Some models of water heater require a docking



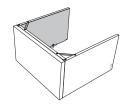
### **DIVERTER VALVE FOR COOLING**

Diverter valve for cooling, for separate cooling and heating systems.



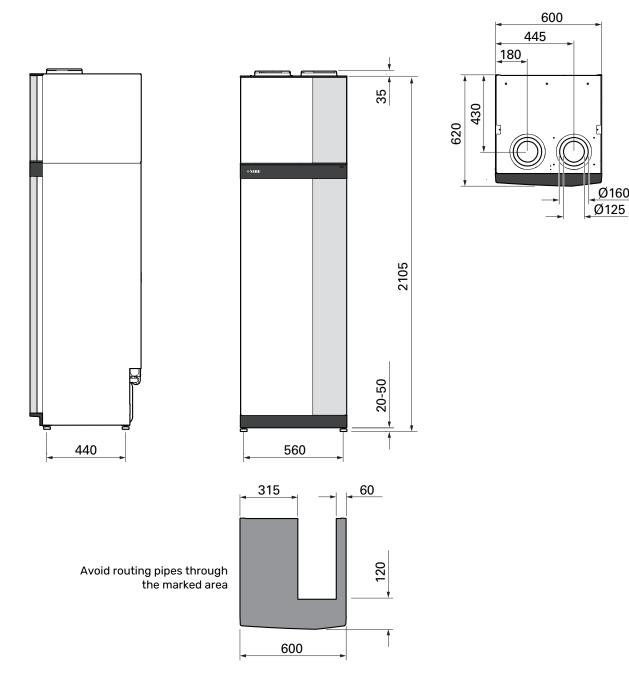
### **TOP CABINET TOC 40**

Top cabinet, which conceals any pipes/ventilation ducts.



# **Technical data**

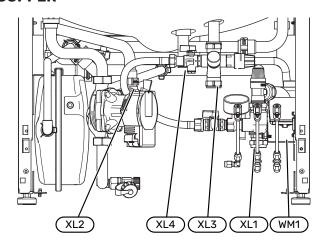
# **Dimensions**



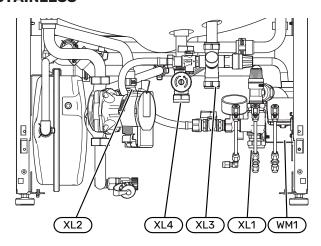
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# **Pipe connections**

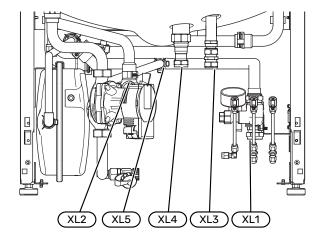
# COPPER



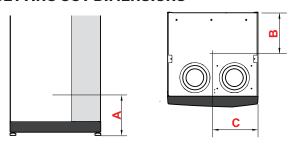
# **STAINLESS**



# **ENAMEL**



# **SETTING OUT DIMENSIONS**



# Copper

Connection		A	В	C
XL1 Heating medium supply	(mm)	115	280	105
XL2 Heating medium return	(mm)	180	275	370
XL3 Cold water	(mm)	240	445	195
XL4 Hot water	(mm)	255	400	260
WM1 Overflow cup	(mm)	185	280	50

# **Stainless**

Connection		A	В	C
XL1 Heating medium supply	(mm)	115	280	105
XL2 Heating medium return	(mm)	180	275	370
XL3 Cold water	(mm)	250	445	195
XL4 Hot water	(mm)	225	400	250
WM1 Overflow cup	(mm)	185	280	50

# **Enamel**

Connection		A	В	C
XL1 Heating medium supply	(mm)	115	280	105
XL2 Heating medium return	(mm)	180	275	370
XL3 Cold water	(mm)	265	445	195
XL4 Hot water	(mm)	255	400	260
XL5 Hot water circulation	(mm)	300	370	260

# **PIPE DIMENSIONS**

Connection		
XL1-XL2 Heating medium ext &	(mm)	22
XL3 Cold water ext 0	(mm)	22
XL4 Hot water ext Ø	(mm)	22
WM2 Overflow water discharge	(mm)	32

**Technical specifications**The following data only applies to S735C 3x400 V. S735C is also available in voltage versions 1x230 V and 3x230 V. Contact your NIBE dealer for more information. ation.

Output data according to EN 14 511  Heating capacity (P <sub>+</sub> )/COP    kW/-     Heating capacity (P <sub>+</sub> )/COP   kW/-     Heating capacity (P <sub>+</sub> )/COP   kW/-     Heating capacity (P <sub>+</sub> )/EER   KW/-     Cooling capacity (P <sub>+</sub> )/EER   KW/-     SCOP and SER conform to EN 14 825   Rated heating output (P <sub>desigen</sub> )   kW     SCOP cold climate, 35°C / 55°C   KW     SCOP and selecting output (P <sub>desigen</sub> )   kW     SCOP and selecting and selec	7  1.38 / 3.70 <sup>1</sup> 1.55 / 4.97 <sup>2</sup> 5.25 / 2.57 <sup>3</sup> 1.57 / 1.53 <sup>4</sup> 2.97 / 1.77 <sup>5</sup> 1.64 / 1.81 <sup>6</sup> 6  5.14 / 3.99  4.80 / 3.84  2  2.21  6.5/9.0/9.0  A+++ / A+++  A / XL
Heating capacity (P <sub>H</sub> )/COP	1.55 / 4.97 <sup>2</sup> 5.25 / 2.57 <sup>3</sup> 1.57 / 1.53 <sup>4</sup> 2.97 / 1.77 <sup>5</sup> 1.64 / 1.81 <sup>6</sup> 6 5.14 / 3.99 4.80 / 3.84 2 2.21 6.5/9.0/9.0 A+++ / A+++ A / XL
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Cooling capacity (P <sub>c</sub> )/EER kW/-  SCOP and SEER conform to EN 14 825  Rated heating output (P <sub>designn</sub> ) kW  SCOP cold climate, 35° C / 55° C  Nominal cooling output (P <sub>designn</sub> ) kW  SEER  Additional power  Max power immersion heater (copper/stainless steel/enamel) kW  Energy rating, average climate  The product's efficiency class room heating, average climate 35 / 55° C  Efficiency class for wheater heating/Declared tap profile 9  Electrical data  Rated voltage V  Enclosure class  For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements  Equipment Compliant with IEC 61000-3-12  WILAN  2.412 - 2.484 GHz max power dBm  Wireless units  Equipment Compliant circuit  Type of refrigerant  GWP refrigerant  GWP refrigerant  Filling amount  kg  CO <sub>2</sub> equivalent  Heating medium circuit  May pressure in the heating medium circuit  Opening pressure, safety valve  Ventilation  Min. exhaust air flow in cooling operation, with exhaust air flow 25-36 I/s  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 I/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 I/s  Min. temperature  Co Sound  Sound effect level according to EN 12 102 (L <sub>M(A)</sub> ) <sup>100</sup> dB(A)	1.64 / 1.81 <sup>6</sup> 6 5.14 / 3.99 4.80 / 3.84 2 2.21 6.5/9.0/9.0  A+++ / A+++ A / XL
Cooling capacity (P <sub>0</sub> /EER kW/- SCOP and SEER conform to EN 14 825  Rated heating output (P <sub>designh</sub> )  SCOP cold climate, 55°C / 55°C  SCOP average climate, 35°C / 55°C  Nominal cooling output (P <sub>designh</sub> )  KW  SEER  Additional power  Max power immersion heater (copper/stainless steel/enamel)  Emergy rating, average climate  The product's efficiency class room heating, average climate 35 / 55°C <sup>7</sup> The system's efficiency class room heating, average climate 35 / 55°C <sup>8</sup> Efficiency class shot water heating/Declared tap profile 9°  Electrical data  Rated voltage  For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements  Equipment Compliant with IEC 61000-3-12  WILAN  2.412 - 2.484 GHz max power  dBm  Wireless units  2.405 - 2.480 GHz max power  dBm  Refrigerant circuit  Type of refrigerant  GWP refrigerant  GWP refrigerant  Filling amount  kg  CO <sub>2</sub> equivalent  Heating medium circuit  May pressure in the heating medium circuit on the heating operation, with exhaust air flow 25-36 l/s  Min. exhaust air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  CC  Max temperat	6 5.14 / 3.99 4.80 / 3.84 2 2.21 6.5/9.0/9.0 A+++ / A+++ A / XL
SCOP and SEER conform to EN 14 825 Rated heating output (P <sub>designich</sub> ) SCOP cold climate, 35°C / 55°C SCOP average climate, 35°C / 55°C SCOP average climate, 35°C / 55°C Nominal cooling output (P <sub>designich</sub> ) SEER SEER Matditional power Max power immersion heater (copper/stainless steel/enamel) Max power class of twater heating/beclared tap profile ?  Max power class hot water heating/beclared tap profile ?  Max power class hot water heating/beclared tap profile ?  Max power class hot water heating heating with lEC 61000-3-3 technical requirements  Wireless units  Max (BBm)  Mireless units  Max (BBm)  M	6 5.14 / 3.99 4.80 / 3.84 2 2.21 6.5/9.0/9.0 A+++ / A+++ A / XL
Rated heating output (P <sub>designh</sub> )  \$COP ocloid climate, 35° ° / 55° ° C  \$COP average climate, 35° ° / 55° ° C  Nominal cooling output (P <sub>designh</sub> )  \$EER  **Additional power**  **Additional power**  **Additional power**  **Additional power**  **Ada x power immersion heater (copper/stainless steel/enamel)  **Renergy rating, average climate  **The product's efficiency class room heating, average climate 35 / 55° ° C  **The system's efficiency class room heating, average climate 35 / 55° ° C  **Efficiency class hot water heating/Declared tap profile °  **Electrical data**  **Rated voltage  **Electrical data**  **Rated voltage  **For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements  **Equipment Compliant with IEC 61000-3-12  **WLAN**  **2-412° - 2.484 GHz max power**  **MERITED SAM GHZ max power**  **GRIfigerant Circuit**  **Type of refrigerant  **GWP refrigerant  **GWP refrigerant  **GWP refrigerant  **GWP refrigerant  **Max pressure in the heating medium circuit  **Max pressure in the heating medium circuit  **Max pressure in the heating medium circuit  **Max pressure in the heating operation  **Min. exhaust air flow in heating operation  **Min. exhaust air flow in cooling operation with exhaust air flow 25-36 l/s  **Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  **Min. temperature**  **C C Max temperature  **Sound effect level according to EN 12 102 (L <sub>M(A)</sub> ) 100  **GBRIFICATION COUNTS COUN	5.14 / 3.99 4.80 / 3.84 2 2.21 6.5/9.0/9.0 A+++ / A+++ A+++ / A+++ A / XL
SCOP cold climate, 35°C / 55°C SCOP average climate  **Max power immersion heater (copper/stainless steel/enamel) **Energy rating, average climate The product's efficiency class room heating, average climate 35 / 55°C7 The system's efficiency class room heating, average climate 35 / 55°C8 Efficiency class hot water heating/Declared tap profile °  **Electrical data** Rated voltage V Enclosure class For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements Equipment Compliant with IEC 61000-3-12 **WLAN**  **LAY2 - 2.484 GHz max power	5.14 / 3.99 4.80 / 3.84 2 2.21 6.5/9.0/9.0 A+++ / A+++ A+++ / A+++ A / XL
SCOP average climate, 35 °C / 55 °C Nominal cooling output (P <sub>designh</sub> )  KW  SEER  Additional power  Max power immersion heater (copper/stainless steel/enamel)  KW  Energy rating, average climate  The product's efficiency class room heating, average climate 35 / 55 °C7  The system's efficiency class room heating, average climate 35 / 55 °C8  Efficiency class hot water heating/Declared tap profile °  Electrical data  Rated voltage  For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements  Equipment Compliant with IEC 61000-3-12  WILAN  2.412 - 2.484 GHz max power  Miness units  2.405 - 2.480 GHz max power  Merfigerant circuit  Type of refrigerant  GWP refrigerant  GWP refrigerant  Max pressure in the heating medium circuit  Opening pressure, safety valve  Max power in the heating medium circuit  Max powers in the heating medium circuit  Min. exhaust air flow in heating operation with exhaust air flow 36-47 1/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 1/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 1/s  Min. temperature  Cound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  Bound effect	4.80 / 3.84 2 2.21 6.5/9.0/9.0 A+++ / A+++ A / XL
Nominal cooling output (P <sub>designh</sub> ) kW  SEER  Additional power  Max power immersion heater (copper/stainless steel/enamel) kW  Energy rating, average climate The product's efficiency class room heating, average climate 35 / 55 °C? The system's efficiency class room heating, average climate 35 / 55 °C? The system's efficiency class room heating, average climate 35 / 55 °C? Efficiency class hot water heating/Declared tap profile ?  Electrical data Rated voltage V  Enclosure class For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements Equipment Compliant with IEC 61000-3-12  WLAN 2.412 - 2.484 GHz max power dBm  Wireless units 2.405 - 2.480 GHz max power dBm  Refrigerant circuit Type of refrigerant Filling amount kg GWP refrigerant Filling amount kg CO <sub>2</sub> equivalent  Heating medium circuit Max pressure in the heating medium circuit Opening pressure, safety valve  Ventilation  What in the heating medium circuit Min. exhaust air flow in heating operation, with exhaust air flow 25-36 I/s Min. outdoor air flow in cooling operation with exhaust air flow 36-47 I/s Min. temperature  % C Sound Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 100  dB(A)	2 2.21 6.5/9.0/9.0 A+++ / A+++ A+++ / A+++ A / XL
SEER  Additional power  Max power immersion heater (copper/stainless steel/enamel)  Energy rating, average climate  The product's efficiency class room heating, average climate 35 / 55 °C7  The system's efficiency class room heating, average climate 35 / 55 °C8  Efficiency class hot water heating/Declared tap profile   Efficiency class hot water heating/Declared tap profile   Electrical data  Rated voltage  V  Enclosure class  For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements  Equipment Compliant with IEC 61000-3-12  WLAN  2.412 - 2.484 GHz max power  Wireless units  2.405 - 2.480 GHz max power  dBm  Refrigerant circuit  Type of refrigerant  GWP refrigerant  Filling amount  kg  CO <sub>2</sub> equivalent  Heating medium circuit  MPa (bar)  Opening pressure, safety valve  MPa (bar)  Popening pressure, safety valve  MPa (bar)  Wentilation  Min. exhaust air flow in cooling operation, with exhaust air rolly  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 I/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 I/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 I/s  Min. temperature  CC  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) <sup>10</sup> dB(A)	2.21 6.5/9.0/9.0 A+++ / A+++ A+++ / A+++ A / XL
Max power immersion heater (copper/stainless steel/enamel) kW  Energy rating, average climate The product's efficiency class room heating, average climate 35 / 55 °C7 The system's efficiency class room heating, average climate 35 / 55 °C8 Efficiency class hot water heating/Declared tap profile 9 Electrical data Rated voltage V Enclosure class For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements Equipment Compliant with IEC 61000-3-12  WLAN 2.412 - 2.484 GHz max power dBm  Wireless units 2.405 - 2.480 GHz max power dBm  Wireless units GWP refrigerant circuit Filling amount kg Co2 equivalent to ton  Heating medium circuit Max pressure in the heating medium circuit on Heating medium circuit Min. exhaust air flow in heating operation, with exhaust air flow 25-36 l/s Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s Min. temperature °C Sound  Sound effect level according to EN 12 102 (L <sub>M(A)</sub> ) <sup>10</sup> dB(A)	6.5/9.0/9.0 A+++ / A+++ A+++ / A+++ A / XL
Max power immersion heater (copper/stainless steel/enamel) kW  Energy rating, average climate  The product's efficiency class room heating, average climate 35 / 55 °C 7  The system's efficiency class room heating, average climate 35 / 55 °C 8  Efficiency class hot water heating/Declared tap profile 9  Electrical data  Rated voltage V  Encolosure class For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements  Equipment Compliant with IEC 61000-3-12  WLAN  2.412 - 2.484 GHz max power dBm  Wireless units  2.405 - 2.480 GHz max power BBm  Wireless units  Filling amount  Filling amount  Kg  CO <sub>2</sub> equivalent  Wax pressure in the heating medium circuit  Opening pressure, safety valve MPa (bar)  Ventilation  Min. exhaust air flow in cooling operation, with exhaust air flow 25-36 I/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 I/s  Min. dut or air flow in cooling operation with exhaust air flow 36-47 I/s  Min. temperature  °C  Sound  Sound effect level according to EN 12 102 (L <sub>M(A)</sub> ) 10  dB(A)	A+++ / A+++ A+++ / A+++ A / XL
Energy rating, average climate The product's efficiency class room heating, average climate 35 / 55 °C 7 The system's efficiency class room heating, average climate 35 / 55 °C 8 Efficiency class hot water heating/Declared tap profile 9 Electrical data Rated voltage Rated voltage V Enclosure class For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements Equipment Compliant with IEC 61000-3-12 WLAN 2.412 - 2.484 GHz max power  Mireless units 2.405 - 2.480 GHz max power  Max Perfigerant GWP refrigerant GWP refrigerant GWP refrigerant GWP refrigerant Max pressure in the heating medium circuit Max pressure in the heating medium circuit Mnin, exhaust air flow in heating operation Min, exhaust air flow in cooling operation with exhaust air flow 36-47 I/s Min, temperature CC Sound Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10 Geniage of the street of the str	A+++ / A+++ A+++ / A+++ A / XL
The product's efficiency class room heating, average climate 35 / 55 °C7 The system's efficiency class room heating, average climate 35 / 55 °C8 Efficiency class hot water heating/Declared tap profile 9  Electrical data  Rated voltage  Proconnection Design Purposes, Compliant with IEC 61000-3-3 technical requirements Equipment Compliant with IEC 61000-3-12  WLAN  2.412 - 2.484 GHz max power  Mireless units 2.405 - 2.480 GHz max power  Merigerant circuit Type of refrigerant  Filling amount  kg  CO <sub>2</sub> equivalent  Max pressure in the heating medium circuit  Max pressure in the heating medium circuit  Opening pressure, safety valve  Ventilation  Min. exhaust air flow in heating operation with exhaust air flow 25-36 I/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 I/s  Min. temperature  CC  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	A+++ / A+++ A / XL
The system's efficiency class room heating, average climate 35 / 55 °C 8  Efficiency class hot water heating/Declared tap profile 9  Electrical data  Rated voltage VEnclosure class For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements  Equipment Compliant with IEC 61000-3-12  WLAN  2.412 - 2.484 GHz max power dBm  Wireless units  2.405 - 2.480 GHz max power dBm  Refrigerant circuit Type of refrigerant GWP refrigerant GWP refrigerant SUC2, equivalent total total maximum to	A+++ / A+++ A / XL
Efficiency class hot water heating/Declared tap profile 9  Electrical data Rated voltage V  Enclosure class For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements Equipment Compliant with IEC 61000-3-12  WLAN 2.412 - 2.484 GHz max power dBm  Wireless units 2.405 - 2.480 GHz max power dBm  Effigerant circuit Type of refrigerant GWP refrigerant Filling amount kg CO <sub>2</sub> equivalent mto heating medium circuit MPa (bar) Dopening pressure, safety valve MPa (bar) Ventilation  Min. exhaust air flow in cooling operation, with exhaust air only Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s Min. temperature °C  Max temperature °C  Sound Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) <sup>10</sup> dB(A)	A / XL
Electrical data  Rated voltage V  Enclosure class V  For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements  Equipment Compliant with IEC 61000-3-12  WLAN  2.412 - 2.484 GHz max power dBm  Wireless units  2.405 - 2.480 GHz max power BBm  Wireless units  1.496 - 7.480 GHz max power BBm  Wireless units  1.496 - 2.480 GHz max power BBm  Wireless units  1.496 - 2.480 GHz max power BBm  Wireless units  1.496 - 2.480 GHz max power BBm  Wireless units  1.496 - 2.480 GHz max power BBm  Wireless units  1.496 - 2.480 GHz max power BBm  Wireless units  1.496 - 2.480 GHz max power BBm  Wireless units  1.496 - 2.480 GHz max power BBm  Wireless units  1.496 - 2.480 GHz max power BBm  Wireless units  1.496 - 2.480 GHz max power BBm  Wireless units  Wigneria units  Wigneria units  Wigneria units  Wigneria units  Wipneria	
Rated voltage V Enclosure class For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements Equipment Compliant with IEC 61000-3-12  WLAN  2.412 - 2.484 GHz max power dBm  Wireless units 2.405 - 2.480 GHz max power Bdm  Wireless units Type of refrigerant GWP refrigerant GWP refrigerant Filling amount kg CO2 equivalent bhe heating medium circuit MPa (bar) Opening pressure, safety valve MPa (bar) Ventilation  Win. exhaust air flow in leating operation, with exhaust air only Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s Min. temperature CC Max temperature CC  Max temperature  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10 dB(A)  MEAN  WIAN  WIAN  WIAN  WIAN  WE CO2000-3-3 technical requirements   BMM  BMM  BMM  BMM  BMM  BMM  BMM	4001/51/ 501/
Enclosure class  For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements  Equipment Compliant with IEC 61000-3-12  WLAN  2.412 - 2.484 GHz max power  Wireless units  2.405 - 2.480 GHz max power  MBm  Refrigerant circuit  Type of refrigerant  GWP refrigerant  Filling amount  kg  CO2 equivalent  MAx pressure in the heating medium circuit  MPa (bar)  Opening pressure, safety valve  Wentiation  Min. exhaust air flow in heating operation, with exhaust air only Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  °C  Max temperature  °C  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	
For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements  Equipment Compliant with IEC 61000-3-12  WLAN  2.412 - 2.484 GHz max power  Mireless units  2.405 - 2.480 GHz max power  MBm  Refrigerant circuit  Type of refrigerant  GWP refrigerant  Filling amount  kg  CO <sub>2</sub> equivalent  Max pressure in the heating medium circuit  MPa (bar)  Opening pressure, safety valve  MPa (bar)  Ventilation  Min. exhaust air flow in heating operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 I/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 I/s  Min. temperature  CCC  Max temperature  CCC  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	400 V 3N ~ 50 Hz
Equipment Compliant with IEC 61000-3-12  WLAN  2.412 - 2.484 GHz max power  Wireless units  2.405 - 2.480 GHz max power  MBm  Refrigerant circuit  Type of refrigerant  GWP refrigerant  Filling amount  kg  CO <sub>2</sub> equivalent  Max pressure in the heating medium circuit  Max pressure in the heating medium circuit  Mpa (bar)  Opening pressure, safety valve  Wentilation  Min. exhaust air flow in heating operation, with exhaust air rolly  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  CC  Max temperature  CC  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	IPX1B
WLAN  2.412 - 2.484 GHz max power  Wireless units  2.405 - 2.480 GHz max power  MBm  Refrigerant circuit  Type of refrigerant  GWP refrigerant  Filling amount  kg  CO2 equivalent  MAPa (bar)  Opening pressure, safety valve  Wentilation  Min. exhaust air flow in cooling operation, with exhaust air rolly Min. outdoor air flow in cooling operation with exhaust air flow 25-36 I/s  Min. exhaust air flow in cooling operation with exhaust air flow 36-47 I/s  Min. experature  CC  Max temperature  CC  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	
2.412 - 2.484 GHz max power  Wireless units  2.405 - 2.480 GHz max power  Refrigerant circuit  Type of refrigerant  GWP refrigerant  Filling amount  kg  CO <sub>2</sub> equivalent  Max pressure in the heating medium circuit  Max pressure, safety valve  MPa (bar)  Opening pressure, safety valve  MPa (bar)  Ventilation  Min. exhaust air flow in heating operation, with exhaust air folw 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  C  Max temperature  C  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	
Wireless units  2.405 - 2.480 GHz max power  Refrigerant circuit  Type of refrigerant  GWP refrigerant  Filling amount  kg  CO <sub>2</sub> equivalent  Max pressure in the heating medium circuit  Max pressure, safety valve  MPa (bar)  Opening pressure, safety valve  MPa (bar)  Ventilation  Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 I/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 I/s  Min. temperature  C  Max temperature  C  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	17
2.405 - 2.480 GHz max power  Refrigerant circuit  Type of refrigerant  GWP refrigerant  Filling amount  CO <sub>2</sub> equivalent  Heating medium circuit  Max pressure in the heating medium circuit  Mopening pressure, safety valve  Max pressure, safety valve  Wentilation  Min. exhaust air flow in heating operation, with exhaust air only Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  CC  Max temperature  CC  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	17
Refrigerant circuit  Type of refrigerant  GWP refrigerant  Filling amount  CO <sub>2</sub> equivalent  Heating medium circuit  Max pressure in the heating medium circuit  MPa (bar)  Opening pressure, safety valve  MPa (bar)  Ventilation  Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  C Max temperature  C Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	4
Type of refrigerant  GWP refrigerant  Filling amount  Kg  CO <sub>2</sub> equivalent  Max pressure in the heating medium circuit  MPa (bar)  Opening pressure, safety valve  MPa (bar)  Ventilation  Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  C  Max temperature  C  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10   Mg  Kg  Kg  Kg  Kg  Kg  MPa (bar)  MPa	4
GWP refrigerant  Filling amount  CO <sub>2</sub> equivalent  ton  Heating medium circuit  Max pressure in the heating medium circuit  Opening pressure, safety valve  MPa (bar)  Ventilation  Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  CC  Max temperature  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	R290
Filling amount  CO2 equivalent  Heating medium circuit  Max pressure in the heating medium circuit  Opening pressure, safety valve  MPa (bar)  Ventilation  Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  Max temperature  CC  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	0.02
CO2 equivalent  Heating medium circuit  Max pressure in the heating medium circuit  Opening pressure, safety valve  MPa (bar)  Ventilation  Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  Max temperature  CC  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10   dB(A)	0.482
Heating medium circuit  Max pressure in the heating medium circuit  Opening pressure, safety valve  MPa (bar)  Ventilation  Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  C  Max temperature  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  MBA (BA)	0.0000964
Max pressure in the heating medium circuit  Opening pressure, safety valve  MPa (bar)  Ventilation  Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  MPa (bar)  I/s  I/s  I/s  Min. exhaust air flow in cooling operation with exhaust air only  I/s  Min. temperature  °C  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	0.00000704
Opening pressure, safety valve  Wentilation  Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  C  Max temperature  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10   MPa (bar)  I/s  MPa (bar)	0.25 (2.5)
Wentilation  Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  C  Max temperature  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	
Min. exhaust air flow in heating operation  Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  C  Max temperature  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	0.25 (2.5)
Min. exhaust air flow in cooling operation, with exhaust air only  Min. outdoor air flow in cooling operation with exhaust air flow 25-36 l/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  °C  Max temperature  °C  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	2E
Min. outdoor air flow in cooling operation with exhaust air flow 25-36 I/s  Min. outdoor air flow in cooling operation with exhaust air flow 36-47 I/s  Min. temperature  °C  Max temperature  °C  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	25
Min. outdoor air flow in cooling operation with exhaust air flow 36-47 l/s  Min. temperature  °C  Max temperature  °C  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	47
Min. temperature  Max temperature  °C  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10  dB(A)	32
Max temperature °C  Sound  Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10 dB(A)	16
Sound Sound effect level according to EN 12 102 (L <sub>W(A)</sub> ) 10 dB(A)	-20
Sound effect level according to EN 12 102 $(L_{W(A)})^{10}$ dB(A)	65
	40.57
	40-53
Sound pressure level in the installation room (L <sub>P(A)</sub> ) <sup>11</sup> dB(A)	36-49
Water heater and heating section	470
Volume, hot water heater litre	178
Min pressure in water heater MPa (bar)	0.01 (0.1)
Max pressure in hot water heater MPa (bar)	1.0 (10)
Opening pressure, safety valve MPa (bar)	0.9 (9)
Capacity, hot water heating according to EN 16 147	
Tap volume 40°C (V <sub>max</sub> ) <sup>12</sup> litre	
COP (COP <sub>t</sub> )	223 - 264
	2.76 <sup>13</sup>
Heat loss (P <sub>es</sub> ) W	
Heat loss (P <sub>es</sub> )  W  Miscellaneous  Ceiling height  mm	2.76 <sup>13</sup>

3x400 V	kW	7
Weight, complete product (copper/stainless steel/enamel)	kg	232 / 216 / 258
Weight, heater section (copper/stainless steel/enamel)	kg	124 / 108 / 150
Weight air treatment unit	kg	108
Part no. (copper/stainless steel/enamel)		066 272 / 066 245 /
		066 244

- 1 A20(12)W35, exhaust air flow 25 l/s (90 m<sup>3</sup>/h) min. compressor frequency
- <sup>2</sup> A20(12)W35, exhaust air flow 70 I/s (252 m<sup>3</sup>/h) min. compressor frequency
- 3 A20(12)W45, exhaust air flow 70 I/s (252 m<sup>3</sup>/h) max. compressor frequency
- $^4~$  A23.5W18, exhaust air flow 50 l/s (180  $\rm m^3/h)$  max. compressor frequency
- 5 A23.5W18, exhaust air flow 50 l/s (180 m<sup>3</sup>/h) max. compressor frequency. Accessory OEK is required. A30, outdoor air flow 50 l/s (180 m<sup>3</sup>/h).
- 6 A23.5W18, exhaust air flow 25 I/s (90 m³/h) max. compressor frequency. Accessory OEK is required. A30, outdoor air flow 32 I/s (115 m³/h).
- <sup>7</sup> Scale for the product's efficiency class room heating: A+++ to D.
- 8 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.
- 9 Scale for efficiency class hot water: A+ to F.
- 10 The value varies with the selected fan curve. For more detailed sound data, including sound to channels, visit nibe.eu.
- 11 The value can vary with the room's damping capacity. These values apply at a damping of 4 dB.
- 12 The value varies depending on the choice of demand mode ("Small", "Medium" or "Large")
- 13 A20(12) exhaust air flow 67 l/s (240 m<sup>3</sup>/h). Hot water demand "Small"

# Sustainable energy solutions since 1952

NIBE has since 1952 been manufacturing energy-efficient and sustainable climate solutions for your home. It all began in Markaryd, in the southern Swedish province of Småland, and we recognise our Nordic heritage by utilising the power of nature. We combine renewable energy with smart technology to offer efficient solutions, allowing us to work together to create a more sustainable future.

Regardless of whether it is a chilly winter's day or a warm afternoon in the summer sun, we need a balanced indoor climate that allows us to enjoy a comfortable life, whatever the weather. Our extensive range of products supply your home with cooling, heating, ventilation and hot water, making it possible for you to create a pleasant indoor climate with little impact on the environment.

NIBE Energy Systems Box 14, SE-285 21 Markaryd nibe.eu

