

Air/water heat pump NIBE SPLIT HBS

NIBE SPLIT HBS is an intelligent and compact inverter-controlled air/water heat pump. The outdoor module NIBE AMS is connected with refrigerant pipes to the NIBE HBS split box, which is located indoors. NIBE SPLIT HBS provides optimum savings since the heat pump automatically adjusts to the property's output requirements all year round.

NIBE SPLIT HBS works down to an outdoor temperature of -20°C and at the same time supplies up to 58°C in supply line temperature. The effective cooling function allows the heat pump to deliver a comfortable indoor climate even at high outdoor temperatures.

Thanks to smart technology, the product gives you control over your energy consumption and will be a key part of your connected home. The efficient control system automatically adjusts the indoor climate for maximum comfort, and you do nature a favour at the same time.

- Compact heat pump that adapts to your home's requirements.
- High capacity even down to -20°C and effective cooling function.
- Energy-saving smart technology with user-friendly control.



NIBE SPLIT HBS – designed to be a part of your system

NIBE SPLIT HBS is designed to be combined with a NIBE indoor module, VVM, or NIBE control unit, SMO, to create a high efficient indoor climate system.

NIBE flexible indoor module

NIBE flexible indoor modules provides efficient heating/cooling and hot water at a high performance. The VVM indoor modules are all-in-one units and includes a smart and user-friendly control system, water heater, electrical addition, self-regulating circulating pump. VVM S320 and NIBE VVM 225 also includes the filling loop, pressure gages, safety valves and expansion vessel, everything needed for the normal installation.

- Intelligent integrated controller, advanced technology, easy to understand, simple to use.
- User-friendly touch control and integrated wireless connectivity with energy saving smart technology for maximum comfort.
- Part of your smart home – control your comfort online using myUplink/NIBE Uplink.

Choosing the right NIBE VVM for my house

| NIBE AMS / HBS | VVM S320 | VVM 225 | VVM 310 | VVM 500 |
|---|---|---|---|---|
|  |  |  |  |  |
| Compatible with | NIBE AMS -6, -8, -12 / NIBE HBS -6, 12 | NIBE AMS -6, -8 / NIBE HBS -6, 12 | NIBE AMS -6, -8, -12, -16 / NIBE HBS -6, -12, -16 | NIBE AMS -6, -8, -12, -16 / NIBE HBS -6, -12, -16 |
| Required heating power, coldest day | Up to 10 kW | Up to 9 kW | Up to 14 kW | Up to 22 kW |
| Electrical heater built-in | 9 kW | 9 kW | 12 kW | 9 kW |
| Domestic hot water volume | 240 l | 210 l | 250 l @ 12 l/min | 350 l @ 12 l/min |
| Docking | High power external heat sources with external accumulators. No built-in accumulator volume, no buffer vessel. | High power external heat sources with external accumulators. No built-in accumulator volume. | Smaller external heat sources without accumulator. Built-in accumulator volume, 270 l. | Smaller external heat sources without accumulator. Built-in accumulator volume, 500 l. |
| Connection | Top | Bottom | Top | Top |
| Height / Width / Depth (mm) | 1800/600/615 | 1500/600/600 | 1800/600/615 | 1900/760/900 |

Heating capacity & Heating system

NIBE SPLIT HBS are compatible with the VVM indoor modules according to the table. Each VVM indoor unit has a maximum recommended heating output to your climate system. Combining a larger heat pump will increase the energy coverage by the heat pump i.e. lower the temperature of bivalence.

The VVM S320 has a single circuit system, which requires the heating system flow to be maintained not below a minimum level.

The VVM 310 and VVM 500 offers a two circuits solution where the heating system flow is independent of the flow over the heat pump.

Domestic hot water

The VVM S320 has a built in DHW storage tank of 185 liters. In VVM 310 and VVM 500, domestic hot water is prepared on demand in a tap coil, hence the dependence of the flow rate.

Docking


VVM 310 and VVM 500 offers an easy and efficient way of docking an external heat source using the built in water volume as an accumulator. The VVM 500 also offers a built-in solar coil for easy connection of thermal solar panels.

If the external heat source is of higher power and/or includes buffer volume larger than the volume of the VVM, a solution with VVM S320 is more suitable.

NIBE SMO Controller

The control modules, NIBE SMO, provides a flexible solution that easily can be customized. For solutions with NIBE SMO, system components such as water heaters, additional heat sources and other accessories are chosen specifically for the actual set-up. Up to 8 NIBE SPLIT HBS can be connected to one NIBE SMO 40.

Choosing the right NIBE SMO for the climate system in my house

| NIBE SPLIT HBS | SMO S40 | SMO 20 | SMO 40 |
|---|--|--|--|
|  |  |  |  |
| Controls up to | 8 heat pumps. | 1 heat pump. | 8 heat pumps. |
| External heatsource | 3 step for electrical heater or boiler with mixing valve. Allows prioritized heating sources. | 3 step for electrical heater. | 3 step for electrical heater or boiler with mixing valve. Allows prioritized heating sources. |
| Self-regulating circulator pump | Available in 2 sizes, CPD11. | Available in 2 sizes, CPD11. | Available in 2 sizes, CPD11. |
| Accessories | Wide range including extra heating circuit, pool, solar, ventilation heat recovery unit, room display etc. | Room sensor. | Wide range including extra heating circuit, pool, solar, ventilation heat recovery unit, room display etc. |

Specifications NIBE SPLIT HBS

| | | <i>NIBE AMS 20-6/ NIBE HBS 20-6</i> | <i>NIBE AMS 10-8, NIBE HBS 05-12</i> | <i>NIBE AMS 10-12/ NIBE HBS 05-12</i> | <i>NIBE AMS 10-16/ NIBE HBS 05-16</i> |
|--|-----|---|--|---|---|
| Efficiency class 35/55°C Package Label ¹⁾ | | A+++/A++ | A+++/A++ | A+++/A++ | A+++/A++ |
| Efficiency class 35/55°C Product Label ²⁾ | | A+++/A++ | A++/A++ | A++/A++ | A++/A++ |
| The product's efficiency class/tap profile for hot water ³⁾ | | A/XL – A/XXL | | | |
| SCOP _{EN14825} Average climate 35/55°C | | 5,08/3,58 | 4,4/3,3 | 4,4/3,4 | 4,5/3,4 |
| P _{design} Average climate 35/55°C | kW | 5,2/5,6 | 8,2/7,0 | 11,5/10,0 | 14,5/14,0 |
| SCOP _{EN14825} Cold climate 35/55°C | | 4,25/3,17 | 3,6/2,8 | 3,6/2,9 | 3,7/2,9 |
| P _{design} Cold climate 35/55°C | kW | 5,8/5,7 | 9,0/10,0 | 11,5/13,0 | 15,0/16,0 |
| 7/35 Heat capacity / COP, EN14511, nominal | | 2,64/5,42 | 3,86/4,65 | 5,21/4,78 | 7,03/4,85 |
| Sound power level (L _{WA}), EN12102 at 7/45, nominal | | 54 | 55 | 58 | 62 |
| Rated voltage | | 230 V – 50 Hz | | | |
| CO ₂ -equivalent | ton | 0,88 | 5,32 | 6,06 | 8,35 |
| Height / Width / Depth – AMS 10 | | 640/800/290 | 750/880/340 | 845/970/370 | 1300/970/370 |
| Height (with pipe) / Width / Depth – HBS 05 | | 565/404/472 | 565/404/472 | 565/404/472 | 565/404/472 |
| Weight (excluding packaging) AMS 10 / HBS 05 | | 46/13 | 60/15 | 74/15 | 105/19,5 |

¹⁾ Scale for the system's efficiency class room heating: A+++ – D . Reported efficiency for the system also takes the temperature regulator into account. If the system is supplemented with an external additional boiler or solar heating the total efficiency of the system must be recalculated. ²⁾ Scale for the product's efficiency class room heating: A+++ – G. ³⁾ Scale for efficiency class hot water: A+ – F. Please be aware that some products in this document may not be available in all markets.

Comfort through connectivity

We always strive to maximize the outcome of every product carrying the NIBE name while focusing on the system as a whole through connectivity. This way, we can offer you a wide range of smart and highly efficient products that can cool, heat, ventilate and supply your home with hot water. By harvesting power from nature, you can create the perfect indoor climate and enjoy the comforts of your home with minimal impact on the environment. To us, that's what really matters.

It's in our nature.



Energy efficiency class for package label in 35°C space heating.



The product's efficiency class and tap profile for hot water with NIBE VVM 310/VVM S320.



The product's efficiency class and tap profile for hot water with NIBE VVM 500.

