Air/Water Heat Pump NIBE™ SPLIT
A new generation of heat pumps

NEW



Features of NIBE™ SPLIT

Optimal annual heating factor thanks to the inverter controlled compressor

Outdoor unit with compact dimensions

Indoor and outdoor unit connected with refrigerant piping

Integrated coil water heater in ACVM 270 (stainless steel approved for all European water qualities)

Scheduling for individual demands

Prepared for control of two heating systems

Integrated active cooling function

Indoor unit with environmentally friendly cellular plastic insulation for minimal heat loss

Possible to connect external heat sources

Low energy DC circulation pumps

Heating when you need it cooling when you don´t

NIBE SPLIT is a complete, all-in-one energy-efficient heating and cooling system that gives you a comfortable indoor climate – safely and economically, with low CO_2 emissions.

The indoor module is an integrated hot water heater, immersion heater, circulation pumps and climate control system.

Heat is retrieved from the outdoor air by an outdoor module (AMS 10), where the refrigerant, which circulates in a closed system, transfers heat from the heat source (outdoor air) to the indoor module (ACVM 270). There is no need for bore holes or coils in the ground.

Technical specifications
NIBE™ SPLIT

NIBE SPLIT		
Operating voltage	1 x 230 V	3 x 400 V
Max current	44A	16A
Refrigerant	2.9 kg R410	
Max refrigerant piping (single way)	12 m	
Delivered compressor output EN 14511 7/45 heating	3.5 – 12.0 kW	
Delivered compressor output EN14511 35/18 cooling	3.3 – 12.0 kW	
COP EN 14511 7/35 heating	4.5 (nom)*	
COP EN 14511 7/45 heating	3.6 (nom)*	
EER EN 14511 35/18 cooling	3.7 (nom)*	
Working range during heating with compressor (ambient temperature)	-20 – +43 °C	
Working range during cooling (ambient temperature)	+15 – +43 °C	
Max temperature flow line	65 °C	
Max temperature only compressor	58°C at whole range	

Indoor unit NIBE ACVM 270	
Immersion heater	Max 9 kW
Pump capacity at 20kPa external	0.45 l/s (1620 l/h)
Volume, total	270 l
Volume sanitary hot water coil	14 l
Height	1760 mm
Min required ceiling height	1950 mm
Width	600 mm
Depth	660 mm
Weight	140 kg

Outdoor unit NIBE AMS 10	
Compressor	Twin Rotary
Speed, heating	25–85 Hz (rps)
Speed, cooling	20–80 Hz (rps)
Fan flow (heating, nominal)	4380 m³/h
Height	845 mm
Width	970 mm
Depth	370 mm
Weight	74 kg

* (nom) Nominal 62 Hz 7/35 = 9,2 kW 7/45 = 9 kW 35/18 = 11,0 kW

Docking capabilities

NIBE SPLIT connects easily with other energy sources such as solar panels or an existing boiler – so you can access additional energy when needed.

System description

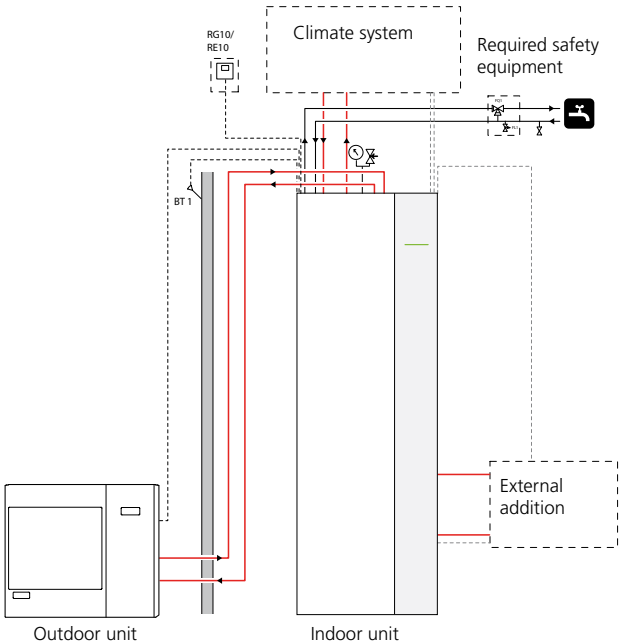
NIBE SPLIT is a system for heating, hot water and cooling. The heating principle can be explained as follows:

1. The refrigerant in AMS 10 retrieves heat from the outdoor air then compresses it, which increases its temperature.
2. The hot refrigerant (now in gas state) is routed into ACVM 270.
3. The refrigerant releases the heat for further distribution in the system.
4. The refrigerant (now in liquid state) is routed back to AMS 10 and the process is repeated.

By reversing the process, and allowing the refrigerant in the AMS 10 to retrieve the heat from the water and release it into the outdoor air instead, the heat pump can also provide cooling.

The ACVM 270 determines when the AMS 10 needs to work and when it does not, using the collated data from the temperature sensor.

When extra heat is needed, the ACVM 270 can connect to an additional heat source such as an internal immersion heater or similar.



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