

## DOMESTIC HOT WATER HEAT PUMP NIBE™ MT-WH2029-F/FS

Get your hot water from solar energy



### Features of NIBE™ MT-WH2029-F/1FS

**Domestic hot water heat pump with an integrated 285 liter hot water boiler**

**Enamelled or stainless steel water tank**

**Uses the energy of extract, ambient or outdoor air to heat up the domestic hot water**

**Ready to connect e.g. to thermal solar panels or a second heat source**

**Ready to connect to a small floor heating unit**

**Low tariff/off peak use**

**Free adjustable fan speed**

**Connection for hot water circulation**

**Easy to install for instance in the basement, in the installations room or in the utility room**

**PV-ready**

### NIBE MT-WH2029-F/1FS

NIBE MT-WH2029-F/1FS is a domestic hot water heat pump with an integrated 285 liter hot water boiler, extract air fan, heat pump and electrical connection. NIBE MT-WH2029-1FS is delivered with an internal heating coil ready to connect e.g. to solar panels, a second heat source.

With its modern design and practical pipe connections the NIBE MT-WH2029-F/1FS is easy to install, for instance in the basement, in the installations room or in the utility room.

With its 285 liter boiler NIBE MT-WH2029-1F/1FS is able to meet the demand of a family for hot water.

 **NIBE**

# NIBE™ MT-WH2029-F/1FS

## Capacity

The heat pump can produce approx. 367 l of hot water within 11.5 hours at a temperature of 52.5°C. The capacity is dependent on the extract air temperature, the supply temperature of the cold water and the drawing pattern.

It is possible to connect the built-in 1.5 kW electric heating cartridge at peak loads to provide hot water again quickly. When the desired temperature has been reached, the electric cartridge can be switched off. The energy consumption of a NIBE MT-WH2029-F/1FS is 28 % of the consumption using an electric water heater.

## Suitability

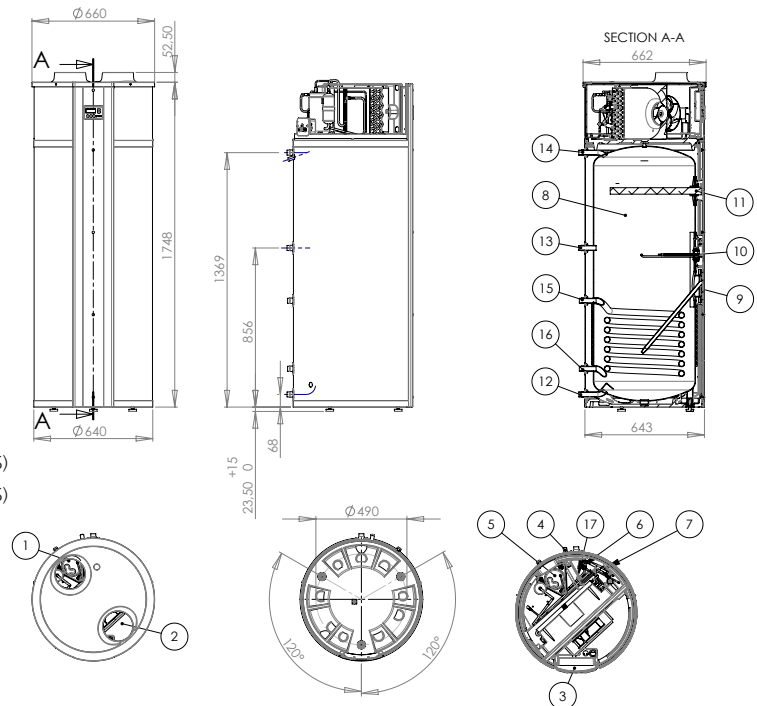
The NIBE MT-WH2029-F/1FS is a very energy saving domestic hot water heat pump, which uses the energy of the extract air to heat up the domestic hot water. The heat pump heats the domestic water in a very energy efficient way with an actual efficiency (COP) of 2.72 at a extract air temperature of 7°C and heating the water from 10°C to 52.5°C and a circulated air volume of 250 m³/h.

*Hot water temperature with heat pump alone, max.: 55°C. Hot water temperature with heat pump + electric cartridge, max.: 65°C.*

## Measurement

NIBE MT-WH2029-F/1FS  
Dimensions in mm.

01. Extract air
02. Exhaust air
03. Circuit board
04. Condensation drain
05. Compressor
06. Magnetic valve
07. Check valve
08. 285 liter boiler
09. Service connecting
10. 1.5 kW electric cartridge
11. Anode
12. Cold water connecting 3/4" rg
13. Hot water circulation 3/4" rg
14. Hot water connecting 3/4" rg
15. Coil for solar or a second heat source (NIBE MT-WH2029-1FS)
16. Coil for solar or a second heat source (NIBE MT-WH2029-1FS)
17. High pressure switch



## Automatic

The NIBE MT-WH2029-F/1FS is equipped with a complete Optima control and display. The operating status can be read in the display and the operating conditions of the unit can easily be changed.

The following operating modes can be set:

### P1: Level

With this key it is possible to switch between: Standby, automatic operation, constant operation and timer controlled constant operation. (Level 0, level 1, level 2, level 3).

**Level 0:** The heat pump is now turned off, only the control is active.

**Level 1:** The fan only runs when domestic water is heated. (1. priority)

**Level 2:** The fan runs, even after the compressor has stopped, providing constant air extraction from the home.

**Level 3:** The fan runs in a chosen period of time, even after the compressor has stopped, before it switches back to normal operation.

*Factory setting: 1*

### P2: Control of the electric immersion heater

The heat pump is supplied with an electric immersion heater for heating the domestic water. This key gives signal to the electric cartridge to turn on when needed.

By adjusting the set point to 1, the electric cartridge will turn on when needed.

By adjusting the set point to 0, the electric cartridge will not turn on if needed.

At an outdoor temperature below 0°C it is an advantage to use the electric cartridge as a supplement to the domestic hot water heating.

*Factory setting: 0°C.*



### P3: The operating thermostat

The required domestic water temperature may be set between 0 and 55°C, which is heated by the heat pump.

*Factory setting: 52°C carriage return*

### P4: Stop defrosting

As a standard setting the defrosting period ends when the temperature has reached 10°C. During extraordinary operating conditions, it may be necessary to change this temperature. The temperature may be adjusted between 0 and 25°C.

*Factory setting: 10°C*

### P5: Electric immersion heater

The domestic hot water temperature may be adjusted between 0 and 65°C. The electric cartridge solely heats the top half of the boiler, while the heat pump still heats the lower half of the boiler.

*Factory setting: 50°C*

### Display view

The different temperatures can be seen in the display by pressing the arrow keys until the number of the desired sensor is reached. The temperature will be displayed after appr. 3 seconds. The temperature remains for about 30 seconds before the display goes back to normal view.

The following values can be displayed:

T5: Inled air, evaporator

T6: Evaporator

T7: Boiler, top

T8: Boiler, bottom

T9: Additional sensor CR

T10: "External start/stop" input, e.g. for forced operation or PV-operation

CL: The current time from the built-in clock

# Technical specifications

## NIBE™ MT-WH2029-F/1FS

COP to EN 16147-XL <sup>1)</sup>	2.90
COP to EN 16147-L <sup>2)</sup>	2.72
COP to EN 255-3 <sup>3)</sup>	4.38
Energy label	A
Electrical connection	1 x 230 V + N + PE, 10 A, 50 Hz
Driving power fan (max)	58 W
Driving power compressor (Nominal)	430 W
Volume water heater	285 l
Capacity hot water 40°C	360 l
Supplementary electrical heat	1.5 W
Sound power level $L_{WA}$ to EN 12101 <sup>4)</sup>	52.9 dB
Temperature range for compressor operation	-5 – +35 °C
Max pressure, water heater	1.0 /10.0 MPa/bar
Refrigerant	R134a
Ingress protection rating	IP21
Height	1837 mm
Diameter	660 mm
Weight	85-126 kg

Construction	
Cabinet construction:	Coloured steel casing with 45 mm insulation
Top plate:	Cast en bloc with duct connection 2 x Ø160 mm
Protection of the boiler:	Enamelled inside and magnesium anode or stainless steel
Condenser:	D-pipe condenser coiled at the outside of the cylinder*
Condensation drain:	Ø 19

\*This structure prevents formation of lime scale on the condenser

<sup>1)</sup> A15W10-55

<sup>2)</sup> A7W10-52.5

<sup>3)</sup> A15W15-45

<sup>4)</sup> At max airflow of 342 m<sup>3</sup>/h

### Fan capacity

It is recommend to keep the external pressure loss less than 100 Pa.

