Bosch Heat Pump:
Hydronic Heating

One system offers your complete heating, cooling & hot water needs if desired. Heating & cooling can be delivered through Radiators, under-floor, fan-coils or a combination that suits.

Outdoor unit (ODU). Bosch offers a split air to water heat pump with a heating capacity of 16kW in single-phase system.

Indoor units. Bosch split air to water heat pumps are available in a system called Hydrocomfort. The unit is designed to offer maximum flexibility for installers and end users, enabling systems to be configured to meet specific requirements.

Hydrocomfort. The Hydrocomfort indoor unit provides a complete stand-alone heating solution (mono-energetic) for use where there is no other heat source. The Hydrocomfort indoor unit incorporates an integral electric heater as a supplementary heat source for the heat pump. Hydrocomfort indoor units have a single-phase electrical heater of up to 9kW. The heater features step-control modulation, so that its output can be limited to any value, in line with the available circuit protection.

BOSCH
Hot Water & Heating

Outdoor unit (ODU)

Technical data

	ODU 12 Single-phase
Output	16kW
Height	1,338mm
Width	1,050mm
Depth	360mm
Weight – lift	119kg
Maximum heating capacity at A-7/W35	11.2kW
Input power	4.5kW
Mains power supply	230V, 1N AC 50Hz
Recommended automatic circuit breaker[2)]	32A
Maximum current[3)]	28A
Refrigerant connection type	Flare connection 3/8" and 5/8"
Refrigerant type[4)]	R410A
Refrigerant mass	5.0kg
Nominal flow rate	2.016m³/h
Pressure difference, water side	14 ΔP(kPa)
Fan motor (DC inverter)	60W + 60W (two fans)
Nominal air flow rate	7,200m³/h
Sound pressure level at a distance of 1m	52dB(A)
Sound power level[5)]	68dB(A)
Compressor oil	FV 50S
Maximum heating water flow temperature, outdoor unit only	55ºC
Maximum heating water flow temperature, supplementary heating only	80ºC
IP rating	IP24

1) Rating according to EN 14511
2) Fuse type MCB type C
3) Starting current; depending on the type, a starting peak will not occur
4) GWP_{100} = 1980
5) Sound power level in accordance with EN 9614-2

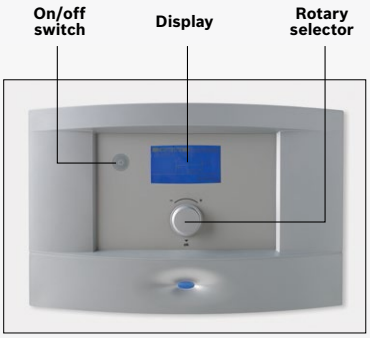
Indoor unit

Control with Hydrocomfort

When the HydroComfort detects that the heat pump is unable to meet heating demands, it will initiate the boiler to provide additional heat. The heat pump and boiler will then operate at the same time.

The HydroComfort unit will mix hot water from both sources to achieve the required flow temperature. This strategy minimises the use of the boiler to maximise energy savings. The supplementary heat source is a 0-9kW electric heater. The electric heater is modulated in steps to ensure optimal performance from the heat pump.

If the outdoor temperature falls below -15°C the heat pump will stop automatically and the supplementary heater will be used for 100% of the heating.



Rego 800 control unit

Technical data

Hydrocomfort unit with electric supplementary heater

	Hydrocomfort 16 Single-phase
Height	850mm
Width	500mm
Depth	420mm
Weight – lift	54kg
Mains power supply	230V 1N AC 50Hz
Recommended automatic circuit breaker	45A
Maximum power consumption	45A
Electric supplementary heater	9kW
Connection type (central heating and electric heater flow/return)	1" male thread
Maximum operating pressure	3bar
Expansion vessel	6 litres
Internal pressure drop	17kPa
Available external pressure	49kPa
Circulation pump type	Wilo-Star Top-S 25/7
Refrigerant pipe connection type	Flare connection 5/8" - 3/8"

Hydrocomfort is electrically wired as three-phase as standard and supplied with electrical jumpers to convert to single-phase.

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