

***GEBWELL***

# Installation Manual

KVL300 Hot Water Heater



## Modular 300 litre domestic hot water heater

Gebwell KL300 is a vertical, free-standing unit. The installation is made easier using levelling feet on the base.

Tank of the hot water heater is made of special stainless steel. The maximum service pressure of the tank is 1.0 MPa (10 bar). Exterior is made of white powder-painted steel sheet metal. Other colour options are available upon special order. Insulation in the hot water heater is pressure-moulded, freon-free polyurethane. The urethane fills the entire space between the exterior sheeting and the water tank, which results in excellent thermal insulation properties and top-notch energy-efficiency. Pressure-moulded polyurethane also acts as the frame of the storage tank and makes it sturdy and quiet by eliminating resonance sounds.

The heating element in the KVL300 is an Incoloy Electric immersion heater which can be used with either 1- or 3-phase connection. The advantage to the 3-phase connection is an even load for every phase lead. The KVL300 hot water heater is equipped with continuous heating temperature control, a maximum temperature limiter (thermostat and overheating protection) and an on-off switch.

The KVL300 hot water heater is equipped with continuous heating temperature control, a maximum temperature limiter (thermostat and overheating protection) and an on-off switch. Water heater's Internal electrical connections made at the factory enable 1- and 3-phase connection.

The hot water heater has a mixture valve and a set of safety valves (thermostat valve, shut-off/check valve, safety/drainage valve) for water connections. The set of safety valves include a safety valve that opens at 1.0 MPa (10 bar).

### Gebwell KVL300 hybrid

Gebwell KVL300 hybrid is a hot water heater equipped with a heating coil specially designed for heat pumps, but it may also be used with other sources of heat such as oil or wood boilers and even with solar heating systems. Using a coil to heat the water means that the hot water can be pumped out more quickly.

## Technical specifications

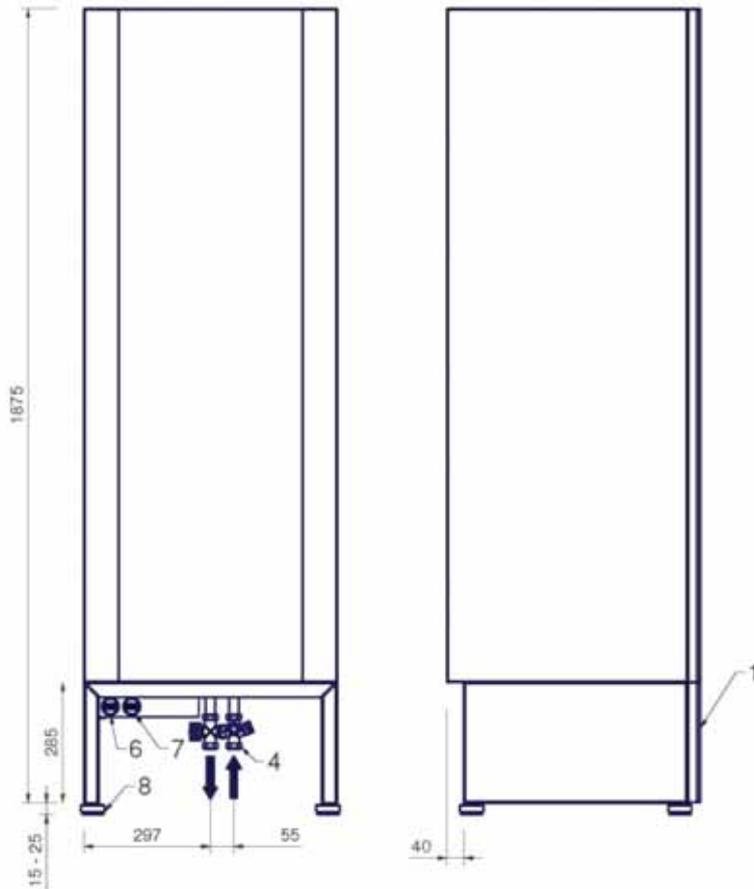
	Gebwell KVL300	Gebwell KVL300 hybrid
Volume	275 l	275 l
Max. temperature allowed	100 °C	100 °C
Min. temperature allowed	0 °C	0 °C
Max. operating pressure allowed	1,0 MPa	1,0 MPa
Power	3 kW	3 kW
Heating coil	no	yes
Max. heat pump capacity recommended	-	16 kW
Energy efficiency class		
Voltage	50/60 Hz 230/400 V 3P~/ 1P~	50/60 Hz 230/400 V 3P~/ 1P~
Protection class*	IPX4*	IPX4*
Recommended fuse size	3x6 / 1x16	3x6 / 1x16
Max. fuse size	3x16 / 1x16	3x16 / 1x16
Dimensions (depth, width, height), mm	595 x 595 x 1890	595 x 595 x 1890
Weight, kg	90	105

\* The IPX4 splash proof IP rating is achieved by installing the accumulator on a solid floor next to a wall.

## Installation

Electrical connections are to be performed by a qualified electrician, who leads the supply line to the plug in the electrical box. The electric box need not to be opened. Plug can be detached and reattached by the HVAC-installer or property owner to ease installation and maintenance. In the back of the hot water heater, there is room on both sides of the tank for pipe installations directing either up or to the side.

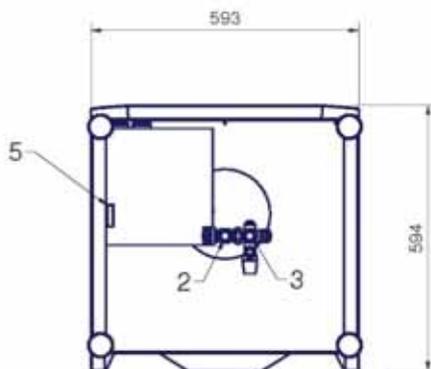
## Dimensions and connections



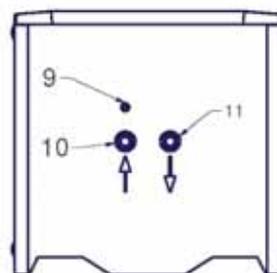
### Hot water heater components:

- 1 Openable front door
- 2 Hot domestic water, out
- 3 Cold water, in
- 4 Safety valve set and mixing valve
- 5 Electricity supply
- 6 Temperature control thermostat
- 7 Power switch
- 8 Levelling foot
- 9 Sensor pocket (KVL300 hybrid)
- 10 Heating coil in (KVL300 hybrid)
- 11 Heating coil out (KVL300 hybrid)

### Connections on the base

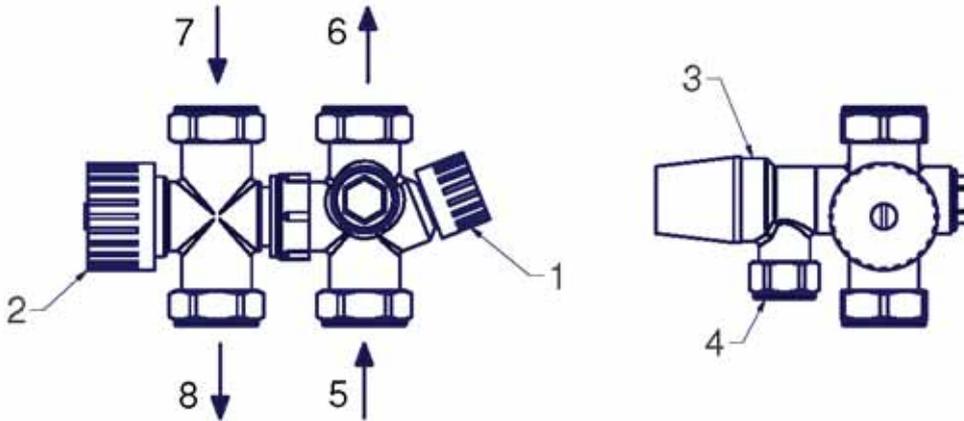


### Connections on the top (KVL300 hybrid)



## Mixing valve components:

- 1 Shut-off valve
- 2 Thermostatic mixing valve, domestic hot water temperature control 38 - 65 °C
- 3 Safety valve 10 bar
- 4 Safety valve overflow,  $\varnothing$  15 mm, clamp connector
- 5 Cold water to the hot water heater,  $\varnothing$  22 mm, clamp connector
- 6 Cold water to the hot water heater,  $\varnothing$  22 mm, connected to the water heater's cold-water pipe
- 7 Hot water from the water heater,  $\varnothing$  22 mm, connected to the water heater's hot water pipe
- 8 Domestic hot water to the piping,  $\varnothing$  22 mm, clamp connector



*The electrical safety of the product is tested by a third party at Nemco Oy for demonstrating the compliance with essential safety requirements for CE-marking.*

## Maintenance duties

Hot water heater does not require any special maintenance procedures. The outer surface of the heater can be wiped with mild detergents. Safety valve shall be tested every 4 months.

## Water quality

If the cold domestic water is sourced from a well, spring, etc., the quality of the water should be ensured to avoid damage to the equipment. If necessary, the system can be equipped with a filter.

High chloride content in the domestic water can cause pitting. If the limestone content is high, i.e., if the water is hard, limestone build-up will increase the risk of pitting also at low chloride concentrations. The recommended maximum content of chloride in domestic water is 250mg/l. However, to prevent pitting, the content should not exceed 25mg/l.

Gebwell Ltd. reserve the right to changes.

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