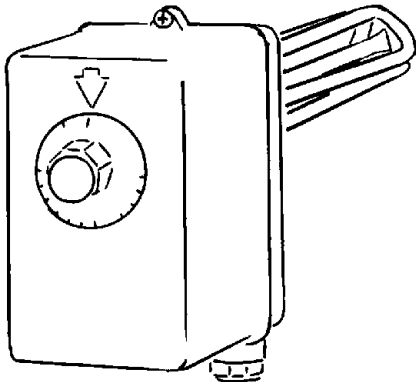
Installation, operation & care

Immersion heater

VB 4510 / VB 6010



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Made in Sweden

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General

Read this document carefully and follow the instructions.

Keep the instructions close to the immersion heater.

The burner must not be modified, changed or rebuilt.

Only use original spare parts. Spare parts not meeting the specifications of Värmebaronen may impair safety.

The type and serial number of the immersion heater must be quoted when ordering spare parts, see the rating plate.

For service issues, contact your installer.

Function

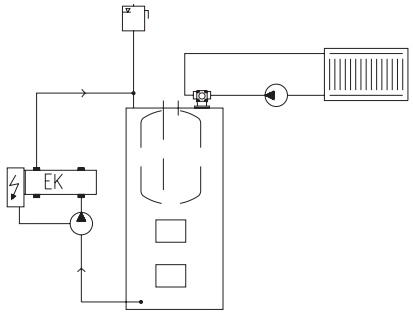
Immersion heaters VB 4510 - VB 6010

Immersion heaters with output 4.5 and 6 kW respectively. The temperature is adjustable in the range 30- 85°C.
The immersion heaters are easy to rewire for 400V3~, 230V3~ and 230V~.

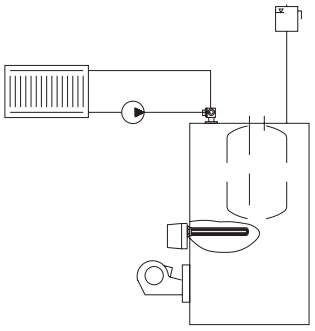
The immersion heater has: - Thermostat
- Overheating protection
- Indicator
- Stainless steel immersion heater.

Accessories

K-060: Immersion heater holder, creating an electrical cartridge with the immersion heater.



Immersion heater and K-060 connected to boiler



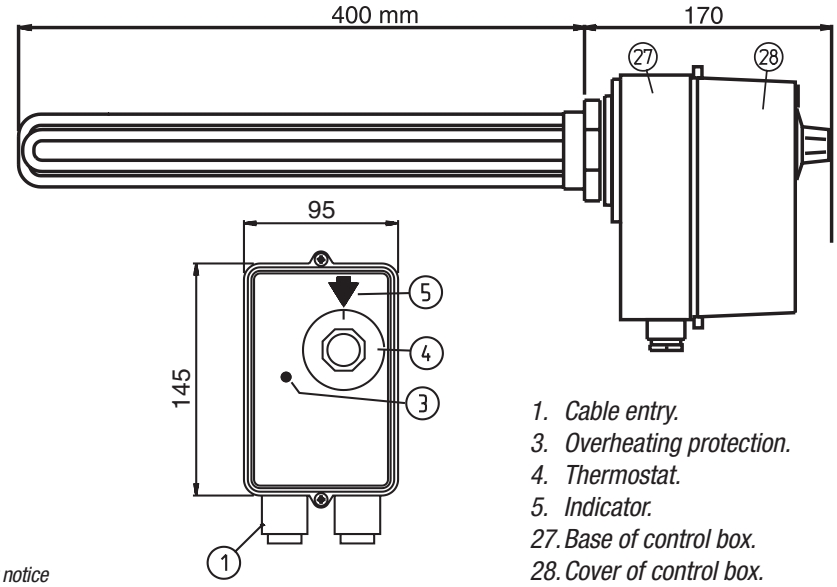
Immersion heater installed in boiler

Technical data

Weight:	1.9 - 2.1 kg
Max temp:	85°C
Protection class:	IP 21
Thread, immersion heater	R50 (2")

	Type	Output (kW)	Current (A)	Fuse (A)
400V 3~	VB 4510	4,5	6,5	3 x 10
	VB 6010	6,0	8,7	3 x 10
230 V 3~	VB 4510	4,5	11,3	3 x 16
	VB 6010	6,0	15	3 x 16
230 V~	VB 4510	4,5	19,6	20
	VB 6010	6,0	26	35

The manufacturer reserves the right to make design changes without notice



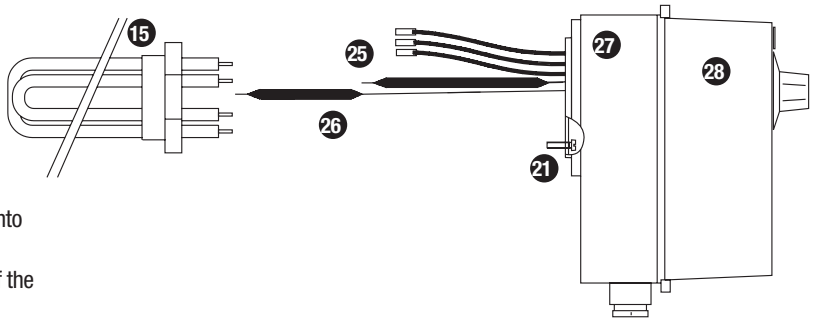
1. Cable entry.
3. Overheating protection.
4. Thermostat.
5. Indicator.
27. Base of control box.
28. Cover of control box.

The installation must comply with the Regulations for New Buildings and the Hot Water Instructions.
The unit must be installed so that the control box is not subjected to harmful heat.
The immersion heater must be installed horizontally.
The ambient temperature must not exceed 30°C.
Hard water with a high mineral content is not suitable in heating systems, as it may produce scale that can damage the immersion heater.
To minimise corrosion of the immersion heater and the heating system, the pH value should not be below 7, neutral = pH7.
Stainless steel immersion heaters must not be used in water with a high chloride content or in systems with a large volume of water containing chloride. Because of galvanic corrosion, a stainless steel immersion heater must not be installed in a copper vessel.

Installation

1. Open the control box by loosening the screws holding the cover, 28, and the base, 27, together. Loosen the cables and the screws, 21, from the immersion heater.
2. Separate the immersion heater elements slightly. If the supplied O-ring cannot be used, pack the thread of the immersion heater with flax. Screw the immersion heater, 15, into the existing 1½" socket or into container type K-060.
3. Fill the system, vent it and check for leaks at the connection of the immersion heater.
4. Fasten the bottom part to the immersion heater using the screws, 21. Before tightening, adjust the position of the control box. Now tighten the screws properly and check that the bottom part cannot slide against the top of the immersion heater.
5. Straighten out the capillary tubes for the sensors, 25 and 26, so they are as straight as possible, and feed them all the way into the immersion tube. The capillary tubes are thin tubes filled with liquid, and must be handled with care. If any of them are damaged, the thermostat or overheating protection must be replaced.
6. Fit the cover to the bottom part.

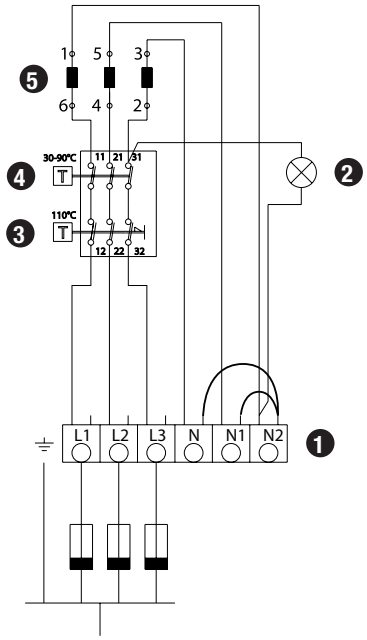
Check that no cables or capillary tubes are trapped between the cover and the bottom part or are arranged badly inside the control box. The capillary tube must not be placed next to live components.



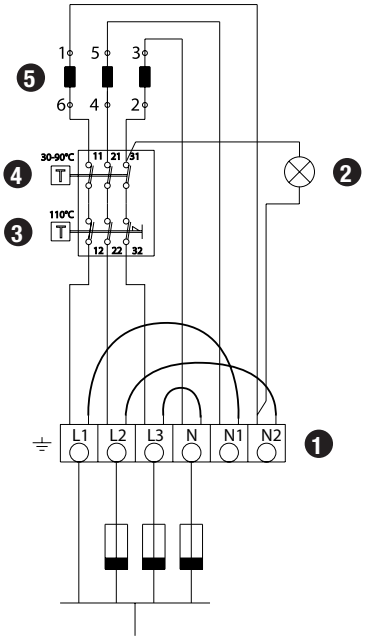
Electrical installation

Electrical installation must be in accordance with the High Current Regulations, under the supervision of an authorised electrical installer. An all-pole circuit breaker with a contact gap of at least 3 mm must be installed ahead of the immersion heater.

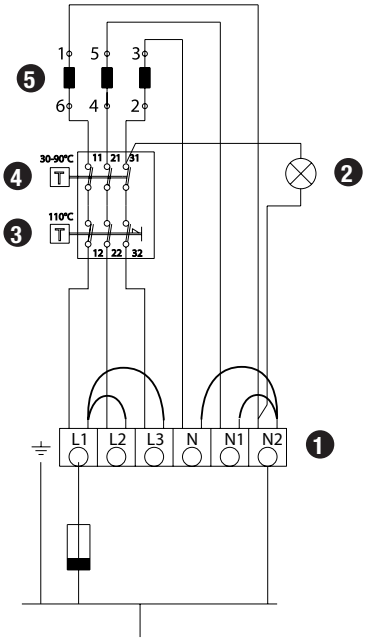
Connection for 400V 3~
VB 4510: 4.5 kW, 6.5 A
VB 6010: 6 kW, 8.7 A



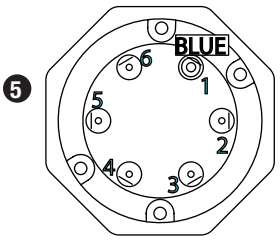
Connection for 230V 3~
VB 4510: 4.5 kW, 11.3 A
VB 6010: 6 kW, 15 A



Connection for 230V~
VB 4510: 4.5 kW, 19.6 A
VB 6010: 6 kW, 26 A



1. Terminal block.
2. Indicator.
3. Overheating protection.
4. Thermostat.
5. Immersion heater.



General

After installation, check with the installer that the system is in perfect condition. Ask the installer to demonstrate the settings and functions so you know how to operate and care for the system.

1. Check that the heating system is filled with water and vented.
2. Turn the main switch to position 1.
3. Set the desired temperature on the thermostat.
4. The immersion heater heats the water until the temperature reaches the thermostat setting.

Operation and care

Operation

VB 4510 - VB 6010 have a single stage thermostat with a switching difference of approx. 7°C.

Overheating protection

The overheating protection is triggered when the temperature exceeds approx. 95°C. The overheating protection can be reset on the front of the control box, but only after the water temperature has fallen to approx. 80°C. You need to push quite hard to reset the overheating protection.

Bleeding/topping up

Check there is water in the system on a regular basis. After bleeding, check the pressure and add water if necessary.

Draining

To drain the system, you must switch off the immersion heater.

If there is a risk of freezing

In severe cold weather, no part of the heating system should be turned off as this would involve a risk of burst pipes. Call the installer if you suspect that any part of the heating system might be frozen.

Troubleshooting

Problem	Likely cause	Remedy
The “on” indicator is off. No heat.	Main switch turned off.	Turn the main switch to position 1.
	No power to immersion heater.	Check the fuses.
	Overheating protection triggered.	If the overheating protection is triggered, you must check the operation of the circulation pumps and valves in the system. To reset, press the overheating protection button once the temperature has fallen to below 80°C.
Group fuses for the immersion heater triggered.	Immersion heater faulty.	Switch off the main switch and perform an isolation test on the immersion heater. If any of the elements are faulty, replace the immersion heater.

Component specification

Component		prod. no.
Immersion heater, heating element	VB 4510	11 00 13
	VB 6010	11 00 15
Thermostat / overheating prot.		12 00 01
Thermostat dial		12 00 05
Indicator		19 00 01