### T E C H N I C A L INFORMATION



# **Compact Electric Tank Heaters**

heatsystems compact electric tank heaters prevent liquid media from freezing by direct heating. They operate by immersion into the medium. The electric protection type is IP 68, 5 bar. A side connection below the medium level of the tank is unnecessary. The tank heater is inserted into the tank through an opening in the top section. This must have a diameter of 66 mm or 70 mm (for mounted magnetic clamps). A thermostat with a switch-off temperature of 40 °C is installed as standard.



Compact electric tank heater, retrofittable magnetic clamps.

heatsystems compact electric tank heaters are provided for heating the following media:

Diesel oil/heating oil:				Rape seed oil:			
Capacity	750 Watt	1.500 Watt	3.000 Watt	Capacity	750 Watt	1.500 Watt	3.000 Watt
Voltage	230 VoltAC	230 VoltAC	230 VoltAC	Voltage	230 VoltAC	230 VoltAC	230 VoltAC
Diameter	65 mm	65 mm	65 mm	Diameter	65 mm	65 mm	65 mm
Length	200 mm	300 mm	500 mm	Length	200 mm	300 mm	500 mm
Surface load	3.6 W/cm <sup>2</sup>	3.6 W/cm <sup>2</sup>	3.6 W/cm <sup>2</sup>	Surface load	3.6 W/cm <sup>2</sup>	3.6 W/cm <sup>2</sup>	3.6 W/cm <sup>2</sup>
ltem no.	T910 590	T910 591	T910 592	Item no	T910 590	T910 591	T910 592
Hydraulic oil type HFA:				Rape seed oil, mobile use in v	vehicles:		
Capacity	125 Watt	250 Watt	500 Watt	Capacity	150 Watt	300 Watt	600 Watt
Voltage	230 VoltAC	230 VoltAC	230 VoltAC	Voltage	24 Volt DC	24 Volt DC	24 Volt DC
Diameter	65 mm	65 mm	65 mm	Diameter	65 mm	65 mm	65 mm
Length	200 mm	300 mm	500 mm	Length	200 mm	300 mm	500 mm
Surface load	0.6 W/cm <sup>2</sup>	0.6 W/cm <sup>2</sup>	0.6 W/cm <sup>2</sup>	Surface load	< 1,0 W/cm <sup>2</sup>	<1,0 W/cm <sup>2</sup>	<1,0 W/cm <sup>2</sup>
ltem no.	T910 593	T910 594	T910 595	ltem no.	T910 596	T910 597	T910 598
Hydraulic oil type HLP:				Special features: designe	ed for load short vo	oltage 29 Volt.	
Capacity	250 Watt	500 Watt	1.000 Watt	External terminal box.			
Voltage	230 VoltAC	230 VoltAC	230 VoltAC	Water:			
Diameter	65 mm	65 mm	65 mm	Capacity	750 Watt	1.500 Watt	3.000 Watt
Length	200 mm	300 mm	500 mm	Voltage	230 VoltAC	230 VoltAC	230 VoltAC
Surface load	1.2 W/cm <sup>2</sup>	1.2 W/cm <sup>2</sup>	1.2 W/cm <sup>2</sup>	Diameter	65 mm	65 mm	65 mm
ltem no.	T910 588	T910 385	T910 571	Length	200 mm	300 mm	500 mm
				Surface load	3,6 W/cm <sup>2</sup>	3,6 W/cm <sup>2</sup>	3,6 W/cm <sup>2</sup>



Item no.

T910 590

T910 591

T910 592





## **Electric Tank Heaters**



Electric tank heater with built-in temperature limiter / capacity 12 kW.

**heatsystems** electric tank heaters are immersed completely into the medium to be heated. A complete program is available for the capacity range between 3 and 12 kW. Two versions are available per capacity which have different diameters and lengths.

Capacity	3.0 kW	4.5 kW	6.0 kW	7.5 kW	9.0 kW	10.5 kW	12.0 kW
Voltage	400 Volt 3ph	400 Volt 3ph	400 Volt 3ph	400 Volt 3ph	400 Volt 3ph	400 Volt 3ph	400 Volt 3ph
Current	4.3 Ampere 3 ph	6.5 Ampere 3 ph	6.7 Ampere 3 ph	10.8 Ampere 3 ph	13.0 Ampere 3 ph	15.2 Ampere 3 ph	17.3 Ampere 3 ph
Diameter	66 mm	66 mm	66 mm	66 mm	66 mm	66 mm	66 mm
Length	500 mm	680 mm	860 mm	1040 mm	1200 mm	1390 mm	1560 mm
Item no.	T910 908	T910 910	T910 912	T910 914	T910 916	T910 918	T910 020
Diameter	103 mm	103 mm	103 mm	103 mm	103 mm	103 mm	103 mm
Length	330 mm	420 mm	500 mm	590 mm	680 mm	770 mm	869 mm
ltem no.	T910 909	T910 911	T910 913	T910 915	T910 917	T910 919	T910 921



### ECHNICAL NFORMATION



# **Electric Tank Heaters**

The standard versions are suitable for the following media:

- diesel oil
- rape seed oil
- circuit water low oxygen
- tap water

Please state the medium and application temperature in your order.

If you have to heat tanks with media which are not listed here, please call our specialists. We will be glad to advise you.

#### Product advantages:

- wall thickness of the heating elements at least 1 mm
- welded version
- length of connecting cable 4 m medium touched parts made of stainless stainless steel AISI 316Ti (1.4571),

brass or plastic built-in temperature controller for

- direct switching built-in temperature limiter for direct switching
- no separate switching contactors required

retrofittable magnetic clamps, set of two, part no. T910 585

compact design

#### **Optionally available:**

- different capacities
- different voltages
- longer connecting cable
- temperature regulator with different switching point
- better corrosion resistance due to higher quality materials
- control indicator heating/fault in external housing
- connecting cable protected by Z-shaped stainless steel pipe
- connecting cable in different qualities

#### Instructions for installation and operation:

heatsystems compact electric tank heaters can be installed horizontally or vertically on the wall or floor of the tank. The tank heater must be covered by the medium at least 50 mm for operation. If not there is a danger of damaging or destroying the medium and/or tank heater.

The connecting cable is fed out through the tank wall or tank lid and fixed with a screw cable gland. The electric connection may only be done by a qualified electrician.

It is possible to retrofit magnetic clamps to the tank heaters on steel tanks to fasten them to the tank walls. The magnetic clamps also serve to "collect" iron particles in the tank.



Available magnetic clamps.



### T E C H N I C A L INFORMATION



# **Frost Protection Heaters**

This vessels are used to improve the energy input and efficiency of systems. They are an essential component of regenerative energies, e.g. in wood or pellet systems. In different countries, they are officially supported depending on the location.

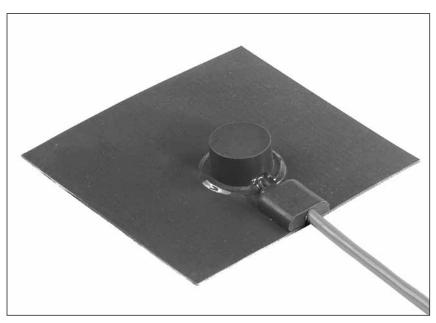
Hand fired systems must be kept free from frost also when the operator is absent.

For this, the **heatsystems** frost protection heating was designed. It is stuck to the wall of the vessel underneath the insulation, insulated and connected electrically.

The **heatsystems** frost protection heating reliably protects the water against freezing.

#### Product advantages:

- ready to connect version with 2 m cable
- built-in thermostat as a temperature controller
- simple, fast assembly by single side self-adhesive foil, pull off foil and stick to the vessel
- live parts protected against liquids and touch, type of protection IP 68
- several frost protection heaters can be used in larger systems
- no supports required on the tank



Frost protection heating for buffer store.

#### Version available within short notice:

Capacity	2 kW
Voltage	230 Volt AC
Current	8.7 Ampere AC
Item no.	T910 922
Size	280 x 440 mm
Setting thermostat	prot frost ection

#### Other options:

- different capacities
- different voltage
- longer connecting cable
- temperature controller with different switching point
- different size
- control indicator heating/fault in external housing

