

Phillips & Temro Industries is a global market leader through innovation, diversification of end markets and customer focus, while this building a culture of continuous improvement. They provide thermal and electrical products across diverse industries and markets that improve safety and comfort, while maximizing equipment performance and reliability.

PHILLIPS & TEMRO
industries®

Engine preheater

Thermosiphon

THERMO CAR: Tank-style engine heater systems without pump



The ThermoCar is an electric engine heater using the thermosiphon system. As the temperature of the coolant in contact with the heating element increases, its density will decrease, causing the coolant to move towards the upper part of the engine. The coolant leaving the heating unit of the ThermoCar is replaced by cold fluid from the engine. Repeating this cycle will enable the coolant to circulate naturally. The engine heater can be turned on a few hours before the engine is started, or operate on stand-by to maintain the engine at the required temperature at all times.

This ensures an easy full power start whatever the ambient temperature and avoids cold start mechanical damage. The system has the following advantages: fuel savings, decreasing pollution, reduced engine wear, no more difficult cold starts.

Pre-heating systems without pump

THERMO START: Tank-style engine pre-heating systems without pump



Like the Thermocar, the ThermoStart is a coolant preheater thermosiphon system. The ThermoStart is available in a maximum 4Kw power output. It is equipped with a regulation thermostat 0-80°C and is in machined aluminium monobloc.

The ThermoStart heaters are suited for all industrial applications, either stationary (small generator sets) or mobile (emergency vehicles, trucks, vans, etc.).

Engine preheater with circulation pump

Power under 4 kW



FLOWSTART: electric coolant engine heater for all types of water-cooled engines.

It is a system universal, reliable, easy to install and maintenance free. The FlowStart are suitable for all industrial applications either stationary (generator sets) or mobile (heavy-duty vehicle). The engine heater can be put into service a few hours before starting the engine or it can work in standby, in order to keep the engine permanently at the required temperature. This ensures an easy full power start whatever the ambient temperature and avoids cold start mechanical damages. The system has also following advantages: fuel savings, decreasing pollution, reduced engine wear, no more difficult cold starts.



The TopStart 0.5 – 4Kw is an electric coolant heater for all types of water-cooled engines. The heater can be put into service a few hours before starting the engine or work continuously in order to keep the engine permanently at the required temperature.

This ensures an easy full power start whatever the ambient temperature and avoids cold start mechanical damage. The system has the following advantages: fuel savings, decreasing pollution, reduced engine wear, no more difficult cold starts.

Higher power 4 kW



The **TopStart H 4-12 kW** is an electric coolant heater big size water-cooled engines. The heater can be put into service a few hours before starting the engine or work continuously in order to keep the engine permanently at the required temperature.

Products selection guide

CARACTERISTICS	THC	THS	FLOWSTART	TSW
GENSET		.	.	.
VEHICLE	.	.		
PUMP OUTPUT			.	.
PUMP OUTPUT			Low flow : 500l/h	High flow : 2000-3500l/h
FREQUENCY	50 - 60 Hz	50 - 60 Hz	50 / 60 Hz	50 / 60 Hz
VOLTAGE	From 120 to 230V	From 120 to 230V	From 120 to 230 V	From 120 to 480 V
PHASE	1	1	1	1/3/3N
POWER	1000 / 1500 W	500 to 3000 W	500 to 3000 W	500 to 9000 W
«OVERHEATING SAFETY THERMOSTAT WITH MANUAL RESET»	110°C	110°C	110°C	110°C
CONTROL THERMOSTAT	35 to 50 °C or 32 to 40 °C	0 to 80 °C	0 to 80 °C	0 to 80 °C
CONTROL BOX				.
CONTINUOUS RUNNING			.	.
OPTIONS				
HIGH FLOW GRUNDFOS PUMP				
IP66			.	
INOX				.
CABLE 5M			.	.
"SAFETY THERMOSTAT WITH AUTOMATIC RESET"			.	.
"THERM. REGULATION DIGITAL/PTC SENSOR ON CONTROL BOX"				.



Thermo Car



Thermo Start

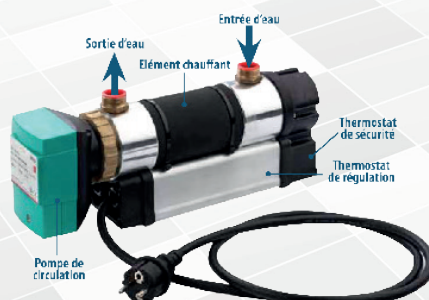
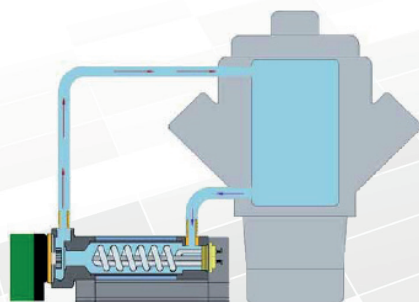


Top Start 1 à 3 kW



Top Start 4 à 9 kW

Functionning



Top Start W