



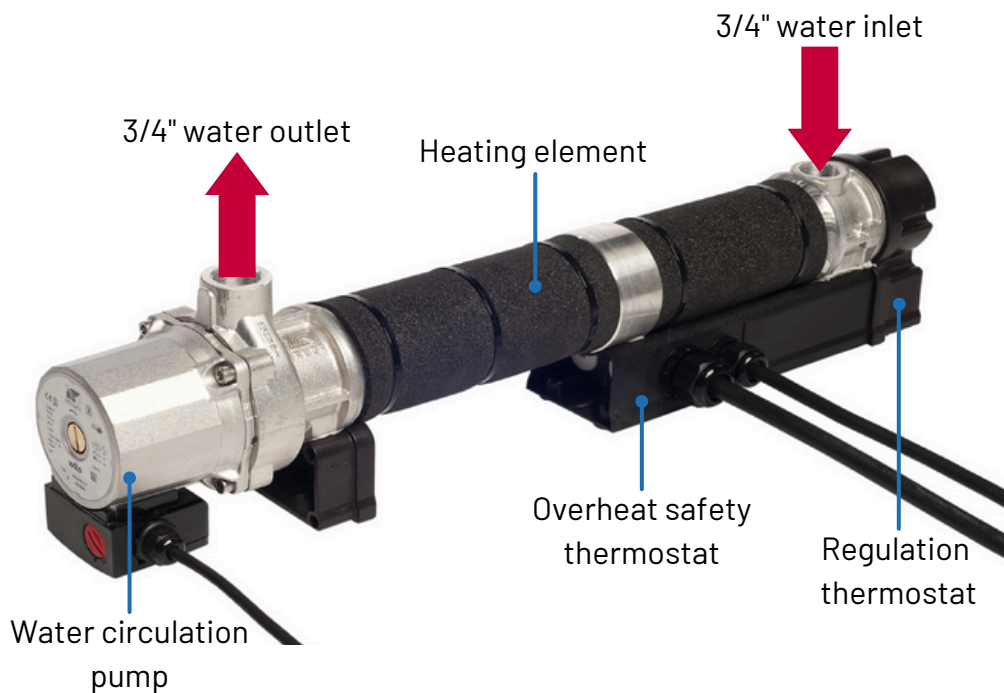
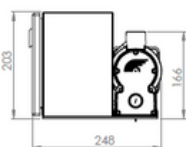
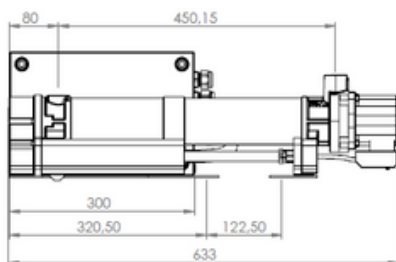
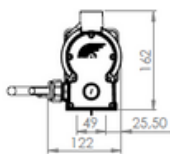
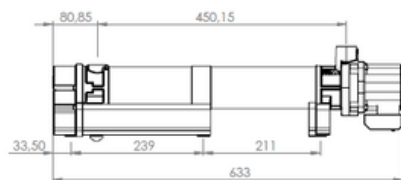
TopStart 4-12 kW

This electric coolant heater is designed for mid-size to larger engines. It is suitable for use in all land-based and maritime industrial applications.

The heater features an integrated pump, an adjustable control thermostat and a safety thermostat. The installation in by-pass to the engine's coolant system is simple. During intervals in operation, the heater automatically keeps the engine at the required temperature to enable reliable full power starts at any time.

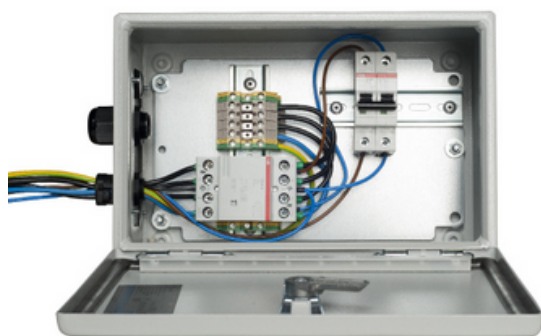
The TopStart 4-12 kW protects the engine from damage and wear caused by cold starts and ensures optimal operating conditions.

Heating unit	Circulating pump	Heating element
• Die casted aluminum body • PA66 protection covers and support base • 150 cm power cable • 3/4" water outlet and inlet + connection kit	• Flooded rotor pump • Max. flowrate: 1.6 to 2m³/h to 3m height manometer • Adjustable speed • Available voltage: 120V or 230V • Available frequencies: 50 Hz or 60 Hz	• Low watt density heating element made of Incoloy 800 (7,5W / cm²) which increases its lifetime and those of the coolant • Available powers: 4 Kw - 12 Kw • Available voltages: 230V / 400V / 440V / 480V / 690V
Safety thermostat	Water temperature control thermostat	Option: control terminal - available voltages
• Security thermostat with manual reset, rated 25A, 6.000 cycles (110 °C / 230°F)	• Adjustable thermostat 0°C - 80°C rated 25A, 100.000 cycles • Available temperature interval: 0°C - 80°C (32°F - 176°F)	• 3*400 V → 3*480V • 3*400V + N, 1*230V • 3*600V



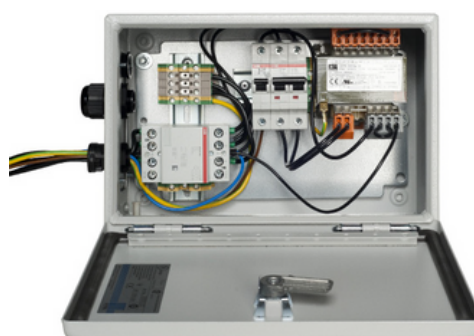
Weight TopStart 4-6 kW: 6.5 kg
Weight TopStart 9 kW: 7.5 kg
Weight Topstart 12 kW: 8.6 kg

Control box (230V / 3*400V + N)



Weight: 5.5 kg

Control box (3*400V / 3*480V)



Weight: 7.5 kg

The TopStart heater is delivered with:

Connection kit



Fixation kit

