

## Coolant Heating System **CLM**



Hotstart's CLM heating system is a coolant preheater, developed to heat marine engines as well as diesel and gas engines for stationary land power, and mining equipment.



### CLEAN, FULL POWER STARTS

Marine heating systems allow large-displacement propulsion engines to start clean and deliver full-power right away without a warm-up delay or costly idling. Engine heating in humid marine environments prevents condensation from forming in the cylinders during cool down periods – eliminating starting issues and reducing maintenance.



### COMPACT PACKED DESIGN

Designed with usability, reliability and safety in mind, the CLM's compact configuration features a remote automatic function, customer interface connections, pressure relief valve and two PT-100 sensors for accurate temperature monitoring and control.



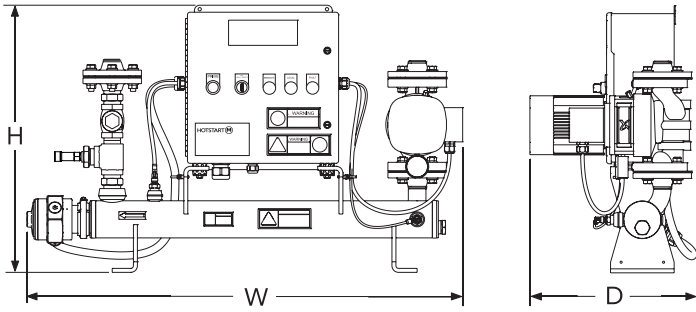
### DESIGN FLEXIBILITY

The CLM heater is available in a range of voltages up to 690 V, custom interfaces as needed and component configuration for 50 and 60 Hz allowing for easy integration into existing ship power.



### SUPPORT & SERVICE

Hotstart's offices in North America, Europe and Asia – combined with our partner and dealer network around the globe, decrease delivery times and provide localized service and support.



## MODEL INFORMATION

Proper heating system specification is dependent on multiple factors, including heated area dimensions, fluid volumes, ambient conditions, and other considerations. Additional heating system options not listed, including heat power, may be available. For assistance in selecting the heating system for your application, contact the Hotstart Europe office at [europa@hotstart.com](mailto:europa@hotstart.com).

Height (H)	Width (W)	Depth (D)	Weight
26"	42"	16"	171 lbs
660 mm	1067 mm	406 mm	77.6 kg

System	
Phase	three-phase (3 Ø)
Voltage (50 Hz)	400V (380 - 415 V)   690V
Voltage (60 Hz)	380 V   440 V   480 V   600V   690V
Control Box Ingress	NEMA 4 / IP66
Motor Ingress	IP55
Min./Max. Ambient Temp.	-4 °F / 104 °F (-20 °C / 40 °C)
Certification	CSA C/US CE conformance Marine Society certification available

Coolant	
Fluid Type	Coolant mix (50% water / 50% glycol)
Heat Power	27 kW   30 kW   33 kW   36 kW
Temp. Control	32–176 °F (0–80 °C), adjustable
Control Set Point	122 °F (50 °C), factory set
Temp. High-limit	195 °F (90 °C)
Pump Power	0.75 hp (0.55 kW)
Flow (50 Hz)	39 gpm @ 25 ft H <sub>2</sub> O (8.9 m <sup>3</sup> /hr @ 7.6 m H <sub>2</sub> O)
Flow (60 Hz)	39 gpm @ 33 ft H <sub>2</sub> O (8.9 m <sup>3</sup> /hr @ 10 m H <sub>2</sub> O)
Inlet/Outlet	1" NPT
Pressure Relief	100 psi (690 kPa)
Max. Pressure	100 psi (690 kPa)

Options shown represent typical tested or certified configurations. Additional options or configurations may be available. For assistance with your heating system application, contact Hotstart at [europa@hotstart.com](mailto:europa@hotstart.com).

