



CE

Hotstart's CGM heating system is a circulating 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 idling. Engine heating in humid marine environments prevents condensation from forming in the cylinders during cool down periods – eliminating starting issues and reducing maintenance.



COMPLETE PACKAGED DESIGN

Designed with usability, reliability and safety in mind, the CGM's design features three selectable power levels, customer connections for remote control and system status, pressure relief valve and two PT-100 sensors for accurate temperature monitoring and control.



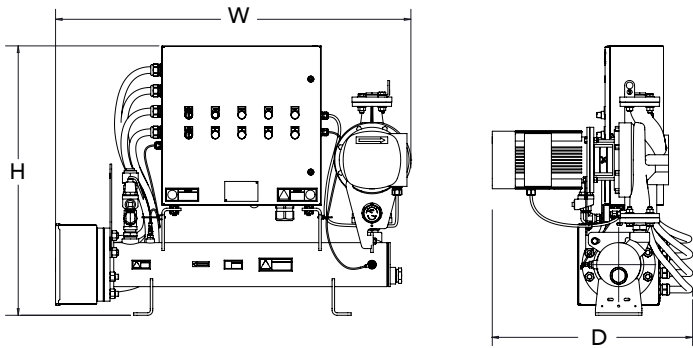
DESIGN FLEXIBILITY

The CGM heater is available in a range of heater power levels, 50 and 60 Hz voltages up to 690 V, and custom interfaces and fluid connections as needed, allowing for easy integration into existing power, control systems, and plumbing.



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 Hotstart at marine@hotstart.com.

| Height (H) | Width (W) | Depth (D) | Weight |
|------------|-----------|-----------|---------|
| 41" | 54" | 32" | 440 lbs |
| 1041 mm | 1372 mm | 813 mm | 200 kg |

| System | |
|-------------------------|--|
| Phase | three-phase (3 Ø) |
| Voltage (50 Hz) | 220 V 380 V 400 V (380-415 V) 415 V 690 V |
| Voltage (60 Hz) | 220 V 240 V 380 V 440 V 480 V 600 V 690 V |
| Control Box Ingress | NEMA 4 / IP66 |
| Motor Ingress | IP55 |
| Wiring | Halogen-free standard |
| Min./Max. Ambient Temp. | -4 °F / 104 °F (-20 °C / 40 °C) |
| Certification | CE conformance Marine Society certification available |

| Coolant | | | | | | | | | |
|-------------------|---|--------|--------|-------|-------|--------|--------|--------|--------|
| Fluid Type | Water Coolant mix (50% water / 50% glycol) | | | | | | | | |
| Heat Power* | <table border="1"> <tr> <td>72 kW</td> <td>81 kW</td> <td>90 kW</td> <td>99 kW</td> </tr> <tr> <td>108 kW</td> <td>120 kW</td> <td>132 kW</td> <td>144 kW</td> </tr> </table> | 72 kW | 81 kW | 90 kW | 99 kW | 108 kW | 120 kW | 132 kW | 144 kW |
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| 108 kW | 120 kW | 132 kW | 144 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 | 5.5 hp (4 kW) | | | | | | | | |
| Flow (50 Hz) | 78 gpm @ 66 ft H ₂ O (17.7 m ³ /hr @ 20m H ₂ O) | | | | | | | | |
| Flow (60 Hz) | 99 gpm @ 91 ft H ₂ O (22.5 m ³ /hr @ 27.7 m H ₂ O) | | | | | | | | |
| Inlet/Outlet | 1.5" NPT standard, ANSI or metric flanges optional | | | | | | | | |
| Pressure Relief | 100 psi (690 kPa) | | | | | | | | |
| Max. Pressure | 100 psi (690 kPa) | | | | | | | | |

*Max heat power - system has three heat output settings. Wattage options limited for some voltages.

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 marine@hotstart.com.

