

## Service Side (Shown with Optional Sound Enclosure)

- DC wire harness plug-in.
- Vibration isolated junction box has AC terminal strip, DC breaker, 30 amp AC breaker and solid state AC automatic voltage regulator.
- Cast valve cover/intake manifold with oil fill and washable air filter. Sound Maze air intake has an acoustic chamber and formed hose to reduce valve train and intake pulsation noise.
- Bosch type in-line injection pump.
- Oil drain with integrated valve
- Top and side oil fills.
- Spin-on oil and fuel filters.
- Gear driven, seawater pump. Mechanical seals. No belt.
- Sound Maze air intake hose.
- Coolant expansion bottle keeps engine room clean and dry.

## Non-Service Side

- Removable heat exchanger end covers for easy core cleaning.
- Jacket water cooled with one piece, cast iron expansion tank and exhaust manifold with removable cupro-nickel heat exchanger core.
- Cast iron wet exhaust elbow.
- Tough, white polyurethane paint.
- 12 volt starter and battery charging alternator.
- Stainless steel fasteners used for long life.
- Northern Lights reconnectable direct coupled generator with auxiliary winding to power the AVR.
- Platform vibration mounts for smooth operation.

**6 kW**  
60 Hz / 1800 RPM

**5 kW**  
50 Hz / 1500 RPM

The ideal 6kW generator set is small and lightweight. The M673L3 certainly qualifies. But it stands apart through its remarkable long-life reliability. The reason? The M673L3 runs at 1800 rpm (1500 rpm for 50 Hz), instead of 3600 rpm.

Consider that during only 2000 hours of operation the 1800 rpm M673L3 will turn 216 million fewer revolutions than a 3600 rpm set. Its pistons will travel 38,522 fewer miles. Its cylinders will withstand 108 million fewer detonations. Which engine do you think will give more years of reliable service? We couldn't agree more.

The M673L3 has a balanced Luger three cylinder diesel instead of a rough two banger. Four platform isolation mounts reduce vibration transmission even more.

For maximum comfort afloat the new M673L3 has a Sound Maze air intake system. Air enters through a molded rubber hose and an acoustic dampening chamber. Air goes in but much less noise gets out. For maximum sound attenuation, specify a sound enclosure. It is constructed of electrogalvanized steel panels with a powder-coated aluminum extruded framework, and creates a 23% smaller overall package than previous versions.



The generator's automatic voltage regulator is powered by an auxiliary AC stator winding that isolates it from the main windings. The AVR always has clean power to provide excitation for faster load response and better motor starting. Your air conditioner and other motor driven equipment will love being matched with the 673.

A 30 amp AC circuit breaker in the junction box protects your wiring. Safety shutdowns for low oil pressure, high coolant temperature and high exhaust temperature protect your engine.

The M673L3 meets US EPA Tier III emission standards. You, your moorage neighbors and the environment will all benefit.



1800 rpm reliability, low emissions, quiet operation and strong motor starting. Good things do come in small packages.



AC Output <sup>1</sup>	
<b>6 kW</b>	60 Hz, 1800 RPM, 1 Ph, 1.0 PF, 120-240 V/25 A, 120 V/50A
<b>5 kW</b>	50 Hz, 1500 RPM, 1 Ph, 1.0 PF, 220 V/22.7 A

Voltage regulation  $\pm 5\%$

### Lugger L673L Engine

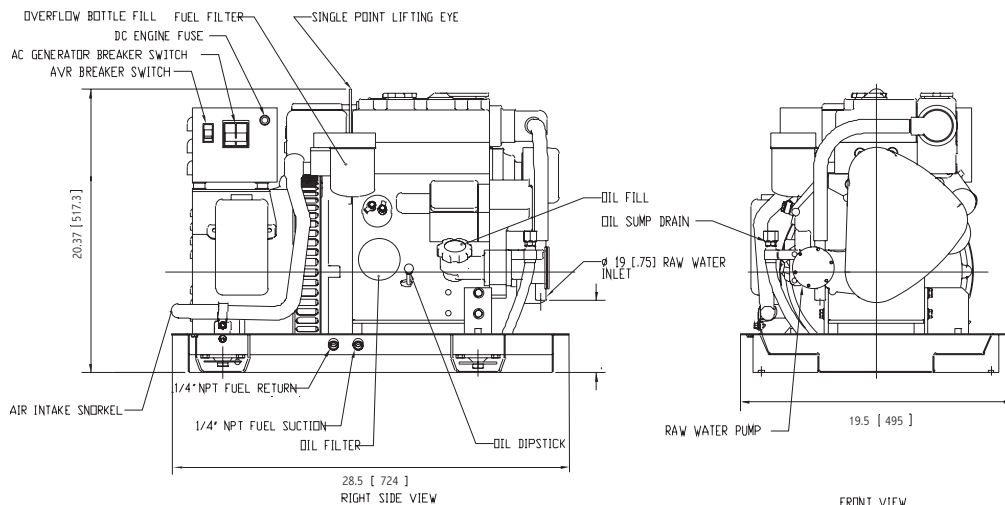
Type	Vertical inline 3 cylinder diesel
Displacement	46.4 in <sup>3</sup> (0.761 ltr)
Bore/Stroke	2.64/2.83 in (67/72 mm)
HP @ RPM	10.1/1800 8.4/1500
Approx. fuel use	
1800 RPM @ full load <sup>2</sup>	0.59 gph (2.2 lph)
1800 RPM @ half load <sup>2</sup>	0.32 gph (1.2 lph)
1500 RPM @ full load <sup>2</sup>	0.50 gph (1.9 lph)
1500 RPM @ half load <sup>2</sup>	0.28 gph (1.1 lph)

### Installation Data & Weight

Wet exhaust elbow	1.5 inch (38 mm) OD
Raw water inlet	3/4 inch (19 mm) OD
Fuel inlet and return	5/16 inch ID Hose
Approximate dry weight	377 lbs (171 kg)

1. Based on SAE J1995 and ISO 3046. 2. Actual fuel consumption will vary depending on operating conditions.

## M673L3 Dimensional Drawing



**M673L3 Overall Dimensions L x W x H:** 28.5 x 19.5 x 20.4 inch (724 x 495 x 517 mm)  
**Sound Enclosure Dimensions L x W x H:** 28.5 x 19.5 x 20.8 inch (724 x 495 x 528 mm)  
**Sound Enclosure Weight:** 48 lbs (22 kg)

Dimensions given in inches (mm). Dimensions subject to change without notice. Contact dealer or visit [www.northern-lights.com](http://www.northern-lights.com) for most current installation drawings.

## M673L3 Features and Benefits

### Engine Block

- Four cycle, 3 cylinder, liquid cooled, naturally aspirated, overhead valve diesel.
- Swirl combustion chambers improve fuel efficiency and reduce smoke.
- Glow plugs for quick cold starting.

### Cooling System

- Freshwater cooling with siphon break.
- Heat exchanger or keel cooled.
- One-piece heat exchanger, expansion tank and liquid cooled exhaust manifold. Fewer troublesome hoses and gaskets. Cast iron to resist corrosion and electrolysis.
- Heat exchanger cooling is standard. Cupronickel, tube-type heat exchanger has removable ends for easy cleaning. Rubber impeller seawater pump of bronze and stainless steel is gear driven; no belt.

### Fuel System

- Fuel system is self-venting.
- Injection pump with 5% mechanical governor for close AC frequency control.
- Pintle injectors with replaceable tips.
- Mechanical lift pump with hand primer. No electric pump to fail.
- Large spin-on fuel filter.
- Steel fuel lines.
- Stop solenoid acts directly on the fuel rack eliminating linkage problems.

### Intake and Exhaust

- Meets US EPA Tier III emission standards.
- Washable air cleaner.
- Cast aluminum intake manifold with Sound Maze air intake reduces intake noise.
- Cast iron, wet exhaust elbow for safety.



### Lubrication System

- Full flow, spin-on oil filter with bypass.
- 3.1 qt (3 ltr) oil capacity for better lubrication and 200 hour oil change intervals.
- Oil drain for quick, clean oil changes.
- Closed crankcase vent system traps oil vapor and keeps engine room clean.

### DC Electrical System

- DC system uses reliable relays instead of an unrepairable printed circuit board.
- 12 volt starter motor and battery charging alternator with regulator and belt guard.
- Standard panel: Remote mount S-1B has hour meter, stop-start switch with run light and preheat switch.
- Expandable to six panels up to 110 feet from the set.
- 20 foot (6m) plug-in panel harness lets you mount your panel anywhere onboard. Better than inaccessible unit mount panels that are prone to vibration problems.
- Low oil pressure, high coolant temp and high exhaust temp safety shutdowns standard.



### AC Generator

- Northern Lights, direct coupled, four pole, revolving field, four lead reconnectable generator with Class "H" insulation and prelubricated bearing. Conservative heat rise rating: 95°C/50°C ambient.
- External automatic voltage regulator gives you  $\pm 5\%$  voltage regulation. AVR powered by dedicated AC winding for improved motor starting. AVR circuit breaker.
- 30 amp mainline circuit breaker protects generator from AC overloads and shorts.

## New enclosure package is 23% smaller than previous design

Northern Lights' revolutionary new sound enclosure shares a base frame with the generator set, creating a compact power and sound attenuation package and boasts 23% less overall cubic volume than the previous enclosed units.



- Vibration isolation mounts for smooth, quiet performance
- Stainless steel paddle latch on service side.
- Interior panel retention system allows generator access at nonservice panels without using tools.
- Electrogalvanized steel composition allows for single layer of foam insulation, with superior noise attenuation.
- Protective film coating ensures safety and longevity.
- External fuel connections for easy installation.
- Front exhaust exit option.
- Tough, white, powder-coat finish.

### Dealer

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