

# NORTHERN LIGHTS



## M673D Marine Diesel Generator

The smallest in the Northern Lights line-up of marine diesel generators, the M673D delivers the trusted confidence and uncompromised reliability of the proven Northern Lights name. The M673D is ideal – powerful enough to run many shipboard items and start sizable motors, yet small enough to fit into tight engine rooms.

Running at 1800 rpm (60 Hz) or 1500 rpm (50 Hz), the M673D's slower speed means quiet and smooth operation as well as minimal stress on the engine. In comparison to higher rpm generators, the M673D turns over 216 million times less, its pistons travel 43,337 fewer miles, and its cylinders withstand 108 million fewer detonations over the course of 2,000 hours of operation – adding up to long-life dependability and outstanding fuel efficiency.

Four plateform isolation mounts prohibit vibration from passing through the generator to the hull, eliminating 98% of vibration – so your on-board environment is as smooth as it is quiet. For more comfort and enjoyment, install an optional Northern Lights sound enclosure – the industry leader in noise attenuation technology.

The M673D responds with ease to today's demands on electrical systems. Auxiliary windings provide independent voltage regulator power to enable the quick pick-up of large loads such as air conditioners, refrigerators, and water makers without dips in power. And a technologically advanced main stator with skewed windings produces a symmetrical sine wave for sensitive electrical equipment.

Northern Lights' revolutionary DC Logic System continuously controls and monitors vital engine functions and makes troubleshooting quick and easy. Safety shutdowns for low oil pressure, high exhaust temperature, and high coolant temperature come standard.

Since the M673D's service points are all located on one side, maintenance is simple and convenient. To reduce troublesome gaskets and hoses, the M673D's cast-iron exhaust manifold, expansion tank, and heat exchanger housing are combined into a single component, freshwater cooling system.

**5 kW**  
60 Hz / 1800 RPM

**4.5 kW**  
50 Hz / 1500 RPM

### STANDARD FEATURES

#### ■ Engine Block

Three-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 in heat exchanger or keel cooled configuration. One piece exhaust manifold, expansion tank, and heat exchanger housing. Cooling with cupro-nickel tube-type heat exchanger. Jabsco gear-driven raw water pump. Standard coolant recovery bottle.

#### ■ Fuel System

Self-venting fuel system. Bosch-type injection pump with 5% mechanical governor. Pintle injectors with replaceable tips. Reliable mechanical fuel lift pump with hand primer. Large spin-on fuel filter. Fuel shut-off solenoid.

#### ■ Intake and Exhaust

Cleanable dry-type air cleaner in cast aluminum, noise attenuating intake manifold. Cast-iron wet exhaust elbow.

#### ■ Lubrication System

Full flow, spin-on oil filter with bypass. 3.1 quart, 3.0 liter oil capacity. Oil drain for quick, clean oil changes.

#### ■ DC Electrical System

DC Logic System. 12-volt starter motor and battery charging alternator with belt guard. Remote mount S-1B panel with hourmeter, stop-start switch with run light, and preheat switch. 20-foot (6 meter) plug-in wire harness. Low oil pressure, high exhaust temperature, and high coolant temperature safety shutdowns.

#### ■ AC Generator

Reliable and robust 50 or 60 Hz direct coupled AC generator rated at 90° C rise. 4 lead/1 phase, 50 or 60 Hz AC power output. Skewed stator and oversized bearing. Voltage regulated to ±5% no load to full load. AVR circuit breaker overload protection.





# M673D Marine Diesel Generator

**5 kW**  
60 Hz / 1800 RPM

**4.5 kW**  
50 Hz / 1500 RPM

## OPTIONS & ACCESSORIES

- Sound Enclosure
- Additional Control Panels
- Wire Harness Extensions
- Wet Exhaust Muffler
- Exhaust / Water Separator
- Dry Exhaust
- Onboard Parts Kits
- Fuel Filter / Water Separators
- Shorepower Switches
- Overspeed Shutdowns

## PROVEN QUALITY



Lloyd's Register Type Approval is a rigorous testing process and design review, which confirms the M673D is built to the

highest design, manufacturing, materials, and quality control standards.

## WARRANTY & SUPPORT

This generator is backed by an unmatched, transferable global warranty. Northern Lights' worldwide dealer network is more than 300 strong, and Northern Lights' helpful dealers offer parts, accessories, and service in more than 40 countries. Visit our web site at [www.northern-lights.com](http://www.northern-lights.com) to locate the dealer nearest you.

60 Hz / 1800 rpm <sup>1</sup>	<b>5 kW</b>
50 Hz / 1500 rpm <sup>1</sup>	<b>4.5 kW</b>
Phase	<b>1</b>
Power Factor	<b>1.0</b>
Volts/Amps	<b>120-240V / 20.8A (60 Hz)</b> <b>120V / 41.6A (60 Hz)</b> <b>220V / 20.5A (50 Hz)</b>
Voltage Regulation	<b>±5%</b>

## ENGINE DATA

Type	<b>Vertical Inline Diesel</b>
Aspiration	<b>Natural</b>
Cylinders	<b>3</b>
Bore	<b>2.64 in (67 mm)</b>
Stroke	<b>2.52 in (64 mm)</b>
Displacement	<b>41.1 cid (0.676 ltr)</b>
Horsepower	<b>9.25 hp @ 1800 rpm</b> <b>8.3 hp @ 1500 rpm</b>

## APPROX. FUEL RATE

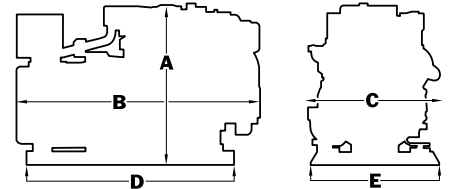
1800 rpm / full load <sup>2</sup>	<b>0.53 gph (2.0 lph)</b>
1800 rpm / half load <sup>2</sup>	<b>0.30 gph (1.1 lph)</b>
1500 rpm / full load <sup>2</sup>	<b>0.48 gph (1.8 lph)</b>
1500 rpm / half load <sup>2</sup>	<b>0.26 gph (.98 lph)</b>

## NOTES:

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

## DIMENSIONAL DATA

A - Height	<b>19.5 in (494 mm)</b>
B - Length	<b>27.1 in (688 mm)</b>
C - Width	<b>17.1 in (434 mm)</b>
D - Base Length	<b>27.1 in (688 mm)</b>
E - Base Width	<b>17.1 in (434 mm)</b>
Approx. Wet Weight	<b>350 lbs (159 kg)</b>



## INSTALLATION DATA

Wet Exhaust Elbow	<b>1.5 in (38 mm) OD</b>
Raw Water Inlet	<b>3/4 in (20 mm) OD</b>
Fuel Inlet & Return	<b>5/16 in NPT</b>

**Standard Panel:**  
Remote mount S-1B includes hourmeter, stop-start switch with run light, and preheat switch.



**Sound Enclosure Dimensions – Length x Width x Height:**  
32.5 in x 21.2 in x 21.8 in (826 mm x 538 mm x 552 mm)

## ENGINEERED FOR SILENCE

With a newly refined line-up of sound enclosures, experience why Northern Lights continuously raises marine industry standards. Dual sound-dampening barriers ensure optimum sound absorption, and damper-sheet-coated internal air ductings keep your generator quiet and cool. Easy-to-use trigger latches allow quick access and easy maintenance. The construction features rigid, powder-coated aluminum for an extraordinarily robust, corrosion-resistant enclosure that compliments any engine room. For the quietest and most reliable power in the marine industry, choose Northern Lights.



4420 14th Avenue NW  
PO Box 70543  
Seattle, WA 98107-0543  
Phone: 206-789-3880  
Fax: 206-782-5455  
Toll-Free: 800-762-0165



[www.northern-lights.com](http://www.northern-lights.com)