

Dimensional Drawing

M864W3 - 25 kW/20 kW

AC Output¹

25 kW 60 Hz, 1800 RPM, 1 Ph, 1.0 PF,
120-240 V/66.6 A, 120 V/133 A

20 kW 50 Hz, 1500 RPM, 1 Ph, 1.0 PF,
220 V/54.4 A

Optional Three Phase with 0.8 PF

Voltage regulation ±1%

Lugger L864 Engine

Type Vertical inline 4 cylinder diesel

Displacement 152 in³ (2.5 ltr)

Bore/Stroke 3.40/4.20 in (86/107 mm)

HP @ RPM 39.4/1800 33.0/1500

Approximate fuel use

1800 RPM @ full load² 2.23 gph (8.40 lph)

1800 RPM @ half load² 1.17 gph (4.40 lph)

1500 RPM @ full load² 1.78 gph (6.73 lph)

1500 RPM @ half load² 0.93 gph (3.52 lph)

Installation Data & Weight

Wet exhaust elbow 3 inch (76 mm) OD

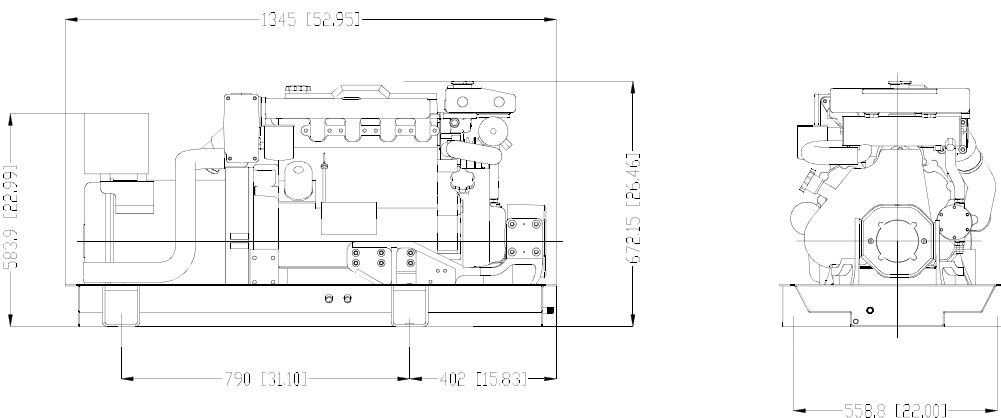
Raw water inlet 3/4 inch (19 mm) OD

Fuel inlet and return 1/4 inch NPT

Approximate dry weight 993 lbs (450 kg)

1. Based on SAE J1995 and ISO 3046.

2. Actual fuel consumption will vary depending on operating conditions



M864W3 Overall Dimensions L x W x H: 52.9 x 24.2 x 26.5 inch (1350 x 696 x 672 mm)
Sound Enclosure Dimensions L x W x H: 52.9 x 24.2 x 27.7 inch (1350 x 696 x 703 mm)
Sound Enclosure Weight: 140 lbs. (64 kg)

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

M864W3 Features and Benefits

Engine Block

- Four cycle, 4 cylinder, liquid cooled, naturally aspirated, overhead valve diesel.
- Induction hardened crankshaft. Forged carbon steel - stronger than cast iron.
- Helical cut and ground, carbon steel timing and PTO gears reduce noise.
- Cross flow head for efficient breathing. Glow plugs for quick cold starting.

Cooling System

- Freshwater cooling system in heat exchanger or keel cooled configuration.
- Large, easy-fill single-piece exhaust manifold is freshwater cooled for safety. No hot, dry risers. Fewer troublesome hoses and gaskets. Cast iron to resist corrosion and electrolysis.
- Zinc anode electrolysis protection.
- Heat exchanger cooling is standard. Cupro-nickel 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.
- Bosch-type in-line 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.
- Flexible fuel lines routed to base.
- Stop solenoid controls the fuel rack, not the throttle, to eliminate speed variances and linkage problems.

Intake and Exhaust

- Meets US EPA Tier III emission standards at date of manufacture.
- Washable air cleaner in cast intake manifold reduces intake noise.
- Cast iron, wet exhaust elbow for safety.

Lubrication System

- Full flow, spin-on oil filter with bypass.
- 6.9 qt (6.5 ltr) oil capacity for better lubrication. 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-3C has hour meter, stop-start switch with run light and preheat switch. Gauges for oil pressure, coolant temp and DC voltage. Safety shutdowns for low oil pressure, high coolant temp and high exhaust temp.
- 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.

AC Generator

- Northern Lights, direct coupled, brushless AC generator is maintenance free. 4 lead, 1 phase, 50 or 60 Hz output standard. 12 lead, 3 phase optional. Conservative heat rise rating: 95°F/50°C ambient.
- Automatic voltage regulator (AVR) is powered by dedicated AC winding for true 300% short circuit capability and circuit breaker protection. Quick ±1% RMS no load to full load voltage regulation.

- Generator features high quality, Class "H" accessible diodes, over-sized bearings and junction box

Special Equipment

- Welded steel base frame with drip pan.
- Four platform mounts isolate vibration.
- White, long-life polyurethane paint.
- Operator's and parts manuals standard.

Classification Standards

- Consult factory for details.



TYPE APPROVED

www.northern-lights.com

Dealer

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