Legendary Northern Lights features in a 25 kW size.

The M864K combines ample power with features vessel owners have come to expect from Northern Lights in a compact package. Exceptionally clean and quiet, it makes life aboard comfortable while providing the confidence that comes with owning a Northern Lights.

The Lugger engine features indirect fuel injection for cleaner exhaust and quieter operation. A copper-nickel heat exchanger and gear-driven seawater pump are just two of the many built-in features ensuring the ultimate in reliability.

Reliability is only one demand on today's generator sets. Noise must be kept to a minimum. M864K noise is reduced at the design stage with several features. A double-wall oil pan and an isolated rocker arm cover contain the noise at its source. A rotor more air intake silencers limits the broadest of noise while captive isolation mount limit transmission of vibration to the rest of the vessel.

The K-type brushless generator end was designed to handle challenging loads such as electric motor starting with ease. The rotor, exciter, and stator are coated in epoxy for protection against the corrosive marine environment. The band-wound rotor is skewed, mixing electricity with a symmetrical wave form that today's electrical equipment demands. An automatic voltage regulator (AVR) regulates voltage to within ±1%. Close H insulation, low 99°F bearing and high copper content are further signs of quality.

Single side servicing, spin-on oil and fuel filters, an easily accessed air filter and Northern Lights' unique DC relay logic system make routine maintenance single and fast. The M864K is built to accommodate a fens PTOC, making it possible to utilize up to 37 HP for powering hydraulics accessories such as bow thrusters, roller furling, anchor winches and other deck gear.

Like all Northern Lights generator sets, the M864K has plug-in wire harnesses, VDO instruments and is painted with gleaming white polycarbonate for a tough, long-lasting finish.

- Junction box contains AC terminal strip, solid state AC automatic voltage regulator with circuit breaker and DC system circuit breaker.
- Cast intake manifold with washable air filter silencer.
- Spin-on oil and fuel filters.
- Tom and side oil filters.
- Bosch-type in-line injection pump with hand primer.
- Large, easy fill expansion tank.
- Rear driven seawater pump. No drive belt. Mechanical seals.
- Belt guard.
- Silent cast-iron fan and ball bearing (inlet manifold).
- Battery charging 12 volt alternator and solid state DC regulator.
- Oil drain for quick, clean oil changes.
- Welded steel base with drip pan keeps engine room clean.
**M864K Specifications**

**AC Rating**
- 25 kW @ 1800 RPM, 1 Ph, 1.8 PF, 120-208 V/1/60 A, 120/208 V
- 20 kW @ 1500 RPM, 1 Ph, 1.8 PF, 720 V/5 A

**Voltage regulation**
- 1% at 1.0 PF, 2% at 0.8 PF

**Engine**
- Type: V-hold 4 cylinder diesel
- Displacement: 1.4 L (87 in³)
- Bore/Stroke: 3.8 x 3.8 (100/100 mm)
- HP @ 1800 RPM: 45 hp
- Approx. fuel at full load: 23.0 gal (87 liters)
- @ half load: 12.1 gal (45 liters)

**Installation Data**
- Wet exhaust elbow: 3" (76 mm) OD
- Raw water inlet: 0.75" (20 mm) OD
- Fuel inlet and return: 1/4" NPT
- Coolant capacity (MIE): 2.2 gal (8.3 liters)
- Oil capacity: 7.8 qts (7.4 liters)

**Weight**
- Approx. dry weight: 496 lbs (225 kg)

**Dimensional Data**
- Main dimensions given in inches (mm), Dimensions subject to change without notice.

**M864K Features and Benefits**

**Engine Block**
- Larger, four-cylinder, 4 cylinder liquid-cooled, naturally aspirated, overhead valve marine diesel based on an Industrial engine block.
- Crankcase is induction hardened, forged carbon steel, stronger than cast iron.
- Eight-pole balancing for smoothness.
- Helical cut and ground, carbon steel timing and PTO gears reduce noise.
- Cross flow head for efficient breathing.
- Sandwich oil pan reduces noise.

**Cooling System**
- Freshwater cooling system in heat exchanger or heat exchanger configuration.
- Large, easy expansion tank.
- Cast iron exhaust manifold is freshwater cooled for safety. No hot, dry motors.
- Zircowool exhaust protection.
- Heat exchanger cooling includes: Easy to clean, pipe-type heat exchanger. Raw water pump of bronze and stainless steel is accessible.

**Fuel System**
- Dual versions: self-igniting.
- Twin-bore in-line injection pump with 3% mechanical governor for close AC output frequency control.
- Electronic fuel injectors. Replaceable tips.
- Mechanical fuel lift pump with hand primer.
- Large, spin-on fuel filter.
- Service fuel lines route to base.
- Stop solenoid controls fuel rack, not the engine, for fast engine shutdowns.

**Lubrication System**
- Full-flow, spin-on oil filter with bypass.
- Large capacity oil pan.
- Lubric oil drain for quick oil changes.

**DC Electrical System**
- 12 volt starter and battery charging alternator with regulator.
- Standard package: Remote mount S-AC with gauges for oil pressure, water temperature, hours and DC voltage.
- Optional: 3-4 speed bus engine instruments plus AC meters.
- 20 ft plug-in panel ensures you maintain your set from the bridge. Better than unit mounted panels that are prone to vibration problems. Harness extensions and Y's for multi-unit systems are available.
- For safety, high oil pressure, high water temperature and high exhaust temperature shutdowns are standard.

**AC Generator**
- Northern Lights direct coupled, brushless AC generator is maintenance free.
- 4 lead/1 phase for 50 or 60 hertz AC output is standard. 12 lead/3 phase generator available.
- Generator features high quality Class H insulation, accessible diodes, oversized bearings and junction box for AC wiring connections.
- Automatic voltage regulator gives quick response to load changes. Voltage regulated to 1% RMS no load to full load.

**Classification Standards**
- The M864K is built to major classification society standards. Consult factory for details.

**Special Equipment**
- Steel base frame with drip pan.
- Vibrator isolation mounts for smooth, quiet operation.
- Closed crankcase vent recycles oil vapors for a cleaner engine room.
- Belt guard standard.
- White polycarbonate panel.
- Ports and covers made.

**PToF Versatility**
- Optional B-line 2 or 4 belt, front power take off with 12 or 24 volt electric clutch. Takes up to 37 hp so run your bow thruster, winch handling, deck winches and other hydraulic/hydraulic equipment.

**Optional Sound Enclosure**
- Mounts your ordered comfort. Powder coated marine aluminum panels lined with foam, deaden noise yet allow service access.