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# M984K, 32 kW

Marine Generator Set

# This Northern Lights 32 kW marine set combines the smooth, quiet Lugger 984 diesel with a 300K series generator end.

It takes a special generator set to fit all the requirements of 32 kW. First and foremost, it has to be able to deliver the kWs without complaint, yet it can't take up too much engine room space. It has to run smoothly, cleanly, efficiently and most of all reliably. The Northern Lights M984K is just such a genset, and has proven itself in years of service around the world.

Clean and quiet, the M984K has the latest in noise and vibration abatement features. Double wall oil pan, isolated No service points on this side lets you install the set facing a bulkhead. Features: Liquid cooled cast iron exhaust elbow, 12 volt starter and alternator.

valve cover, helical timing gears, soft mounts and a noise maze air intake silencer all reduce engine noise. For even quieter operation, consider an optional sound shield.

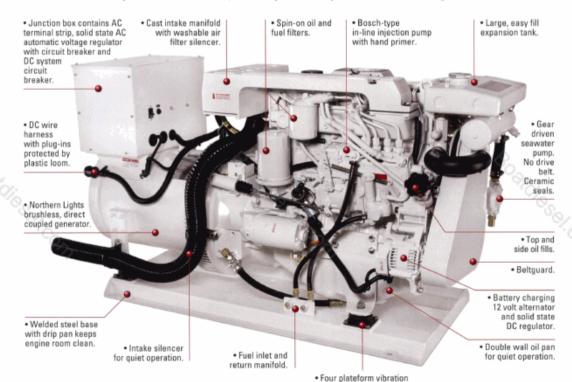
The M984K fits. At 54.57 inches long it can find a place in most engine rooms. Compact and light weight, the M984K weighs in at only 1219 lbs. (553 kg).

Versatile too. Need hydraulic power? Add a front power take-off with an electric clutch. At the touch of a switch you have up to 42 horsepower for bow thrusters, roller furling, anchor winches and other deck gear.

To all this add one-side service, plug-in instrument panels, safety shut-downs, polyurethane paint and a self-venting fuel system. In the end, you have more than a great generator. You have the confidence that comes with owning the very best...

a Northern Lights.

isolation mounts for smooth operation.



## M984K Specifications

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32	kW	60 Hz	1800	RPM, 1	Ph, 1.0 PF,	,
		120-2	40 V/1	33 A, 1	20 V/267 A	
25	kW	50 Hz	1500	RPM, 1	Ph, 1.0 PF,	,
		220 V	114 4	110 V	/220 A	

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35 kW	60 Hz, 1800 RPM, 3 Ph, 0.8 PF,
120/208 V/1	11.0 Å, 120/240 V/96 Å, 277/480 V/48 Å
27 kW	50 Hz, 1500 RPM, 3 Ph, 0.8 PF,
127/220 V/8	88 A, 220/380 V/51.2 A, 230/400 V/48.7 A
Voltage regulati	ion±1%
Engine	
Type	L984

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Approx. fuel use	@ full load2	2.6	gph	(9.8)	lph)
	@ half load?	1.4	anh	(5.3)	Inh!

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Wet exhaust elbow3"	(76mm) OI
Raw water inlets0.75"	(20mm) OD
Fuel inlet and return	1/4" NPTI

# Weight

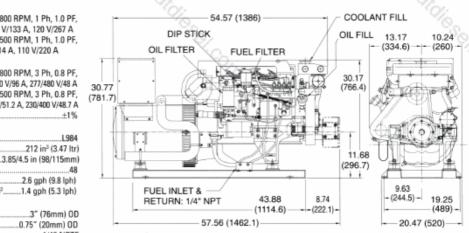
Displacement

HP @ 1900 PPM

Bore/Stroke

Approx. dry weight .... .1219 lbs (553 kg)

### Dimensional Data



Main dimensions given in inches (mm). Dimensions subject to change without notice. Unit shown with optional PTO.

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

### M984K Features and Benefits

#### **Engine Block**

- . Lugger, four cycle, 4 cylinder liquid cooled, naturally aspirated, overhead valve marine diesel based on an industrial engine block.
- · Crankshaft is induction hardened, forged carbon steel; stronger than cast iron. Eight point 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 keel cooled configuration.
- · Large, easy fill expansion tank.
- Cast iron exhaust manifold is freshwater. cooled for safety. No hot, dry risers.
- Zinc anode electrolysis protection.
- Heat exchanger cooling includes: Easy to clean cupro-nickel tube-type heat exchanger. Raw water pump of bronze and stainless steel is accessible.
- Gear driven pump requires no drive belts.

#### **Fuel System**

- · Fuel system is self-venting.
- · Direct injection for fuel economy, clean exhaust and fast starting.
- . Bosch-type in-line injection pump with 5% mechanical governor for close AC output frequency control.
- Hole type injectors. Replaceable tips.
- · Mechanical fuel lift pump with hand primer.
- · Large spin-on fuel filter.
- · Flexible fuel lines routed to base.

. Stop solenoid controls fuel rack, not throttle, for fast engine shutdowns.

#### **Lubrication System**

- . Full flow, spin-on oil filter with bypass.
- · Large capacity, center well oil pan.
- · Lube oil drain for quick oil changes.

#### **DC Electrical System**

- · 12 volt starter and battery charging alternator with regulator.
- . Standard panel: Remote mount S-3C with gauges for oil pressure, water temperature, hours and DC voltage.
- · Optional: S-4 panel has engine instruments plus AC meters.
- · 20 ft plug-in panel harness lets you monitor your set from the bridge. Better than unit mount panels that are prone to vibration problems. Harness extensions and Y's for

multi-panel systems are available.

· For safety, low 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 power output is standard. 12 wire/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.

#### Standard Features

- Aluminum drip pan.
- · Vibration isolation mounts for smooth, quiet operation.
- Closed circuit crankcase vent recycles oil vapors for a cleaner engine room.
- Belt guard standard.
- · White polyurethane paint.
- · Parts and operator's manuals. Classification Standards

. The M984K is built to major classification society standards. Consult factory for details.

### PTO Versatility

· Optional B-spline 2 or 4 bolt, front power take-off with 12 or 24 volt electric clutch. Take up to 42 hp to run your bow thruster, sail handling, deck winches and other shipboard hydraulic equipment.

#### Options

- 24V and isolated ground system available.
- · Maximize your onboard comfort with a sound enclosure. The all-aluminum, powder coated construction provides a superior finish that is resistant to corrosion in the marine environment. Sandwich layered foam includes a decoupler barrier, sound absorption barrier and a polyester film finish assuring it is maintenance friendly.

#### Dealer:

