

# C32

## MARINE GENERATOR SET

590 bkW (791 bhp) @ 1500 rpm / 874 bkW (1172 bhp) @ 1500 rpm



C32 Marine Generator Set  
IMO II (Radiator Cooled)

### ENGINE SPECIFICATIONS

#### Configuration

Vee 12, 4-stroke-cycle diesel

#### Emissions

IMO II  
emissions certified

#### Rated Engine Speed

1500 rpm

#### Bore x Stroke

145 mm x 162 mm  
5.71 in x 6.38 in

#### Displacement

32.1 Liter  
1959 cu in

#### Aspiration

Turbocharged-aftercooled  
aspiration

#### Governor

Electronic (A4 ECM)

#### Refill Capacity

Lube Oil System w/ oil filter change:  
146 L (38.5 gal)

#### Oil Change Interval

750 hrs

#### Cooling

Heat exchanger, keel or  
radiator cooled

#### Generator

SR5 - Form Wound

### FEATURES AND BENEFITS

- Separate-circuit aftercooling – no sea water in aftercooler
- Reliable electronic controlled unit injector fuel system
- Enhanced control of fuel injection optimized through crank timing and A4 ECM technology
- Advanced combustion technology to optimize fuel consumption and meet emissions without aftertreatment
- Industry leading power reserve
- Wide range of available Marine Society certifications
- Industry-leading warranty coverage for factory packaged components
- Global dealer network for service in any location

### STANDARD ENGINE EQUIPMENT

- Separate circuit aftercooled (SCAC)
- Heat exchanger, keel or radiator cooled
- Watercooled exhaust manifold and turbocharger
- Right or left hand service sides
- Oil fill, simplex filter and dipstick
- Duplex fuel filters with hybrid fuel lines
- Hard seawater lines – no flexible hoses
- Fuel transfer and priming pump
- Customer wiring and service tool connector
- Flanges for cooling connections, ANSI or DIN
- 24V control system
- IP23, air cooled, form wound SR5 generator offered in 440, 480 and 690V
- Helical spring/rubber isolated mounting for vibration and structure borne noise reduction

### OPTIONAL ATTACHMENTS

- Starting motors – air, electric or dual
- Charging alternator
- Duplex oil filters
- EMCP 4.2 control panel
- MGCP II or MGCP IIIB control panel with Cat® Alarm and Protection System
- Closed crankcase fumes disposal
- Installed primary fuel filter with water separator and manual or electric priming pump
- SOLAS approved spray shielding
- Fuel cooler
- IP44 generator protection

### RATING DEFINITION AND CONDITIONS - PRIME POWER

Typical applications: For vessels operating with generator sets that provide power to the propulsion systems. All ratings are Prime Ratings according to ISO 8528-1 for unlimited usage per year at a load factor of  $\leq 70\%$ . 10% overload capability is required for a maximum of 1 hour out of every 12 and a maximum of 25 hours total per year.

Ratings are based on SAE J3046 and J1349 standard conditions of 100 kPa (29.61 in Hg) and 25°C (77°F). These ratings also apply at ISO8665, ISO3046-1:2002E, DIN6271-3, and BS5514 standard conditions of 100 kPa (29.61 in Hg), 27°C (81°F), and 60% relative humidity.

Fuel rates are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

Marine Auxiliary Engines are mainly used as generator set engines; however, they can be used for electrically driven pumps, winches, conveyors, thrusters, when it is specified. Engines can be radiator cooled or heat exchanger/keel cooled.

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# TECHNICAL DATA

## C32 Marine Generator Set

### FUEL CONSUMPTION - 1500 RPM/50 Hz

% Power	Brake Specific Fuel Consumption				
	ekW	bhp	lb/bhp-hr	bkW	g/bkW-hr
100	550	791	0.329	590	199.9
90	495	708	0.337	528	204.6
80	440	628	0.339	468	206.3
70	385	551	0.339	411	206.0
60	330	474	0.339	354	206.0
50	275	399	0.341	297	207.5
40	220	323	0.347	241	211.4
30	165	246	0.363	183	221.2

- ISO 3046/1 fluid consumption tolerance of -0/+5%
- Genset power without fan

% Power	Brake Specific Fuel Consumption				
	ekW	bhp	lb/bhp-hr	bkW	g/bkW-hr
100	830	1172	0.334	874	203.0
90	747	1056	0.341	788	207.5
80	664	941	0.347	702	210.8
70	581	826	0.346	616	210.3
60	498	710	0.342	530	208.1
50	415	595	0.341	443	207.7
40	332	480	0.346	358	210.3
30	249	365	0.356	272	216.0

- ISO 3046/1 fluid consumption tolerance of -0/+5%
- Genset power without fan

Note:

Please reference TMI Web for most current information (Cat dealers only)  
Consult your local Cat dealer to create a customized engine TCO (Total Cost of Ownership) analysis specific to your vessel.

### DIMENSIONS & WEIGHT

	Length (1)	Height (2)	Width (3)	Package Dry Weight
min.	167.2 in/4245 mm	70.4 in/1747 mm	59.9 in/1521 mm	15721 lb/7131 kg
max.	226.1 in/5742 mm	92.8 in/2356 mm	89.8 in/2280 mm	21998 lb/9978 kg

Note:  
Do not use these dimensions for installation design. See general dimension drawings for detail.

