C32

MARINE GENERATOR SET

830 ekW @ 1500 rpm, 50 Hz

Image shown is for illustration purposes only and may not reflect actual product.

ENGINE SPECIFICATIONS

Configurations
Vee 12, 4-stroke-cycle diesel

Emissions
IMO III emissions certified (SCR required)

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 (A5 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

- Utilizes SCR Technology to enable IMO III emission regulations compliance while lowering operational costs
- Utilizes closed loop air assisted DEF dosing control strategy that delivers:
  - Highest efficiency mixing and control to lower operational costs
  - Extends emissions useful life
  - Ensures compliance
  - Flexible to urea quality
- Enhanced control of fuel injection optimized through crank timing and the A5 ECM technology
- 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 or Keel Cooling
- Watercooled exhaust manifold and turbocharger
- Right or left hand service sides
- Oil fill, simplex filter and dipstick
- Duplex fuel filters with hybrid fuel lines
- Primary fuel filter with water separator installed on base frame
- Air Cleaner
- Hard seawater lines – no flexible hoses
- 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 380, 400, 415 and 690 V
- Helical spring/rubber Isolated mounting for vibration and structure borne noise reduction

OPTIONAL ATTACHMENTS

- Closed crankcase fumes disposal
- Starting motors – air, electric or redundant
- Charging alternator
- Duplex oil filters
- MGCP III B control panel with Cat® Alarm and Protection System
- Manual or electric fuel priming pump
- Water-in-fuel and exhaust temperature sensors
- Fuel cooler
- SOLAS approved spray shielding
- 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 ≤ 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.

TECHNICAL DATA

C32 Marine Generator Set

CONSTANT SPEED FUEL & DEF CONSUMPTION - 1500 RPM, 50 HZ

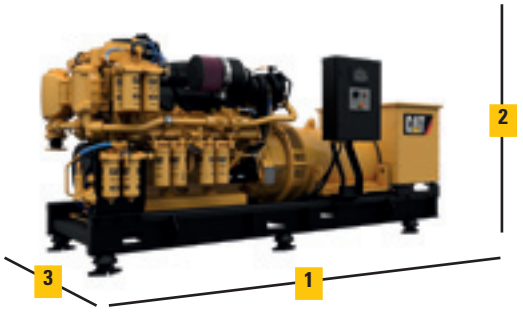
	Brake Specific Fuel Consumption					DEF Consumption 32.5 % Concentration		DEF Consumption 40 % Concentration	
% Power	eKW	bhp	lb/bhp-hr	bkW	g/bkW-hr	Gal/hr	Liters/hr	Gal/hr	Liters/hr
100	830	1178	0.326	878	198.3	3.8	14.3	2.8	10.8
90	747	1060	0.327	790	199.3	3.2	12.4	2.5	9.3
80	664	942	0.332	703	202.0	2.6	9.8	2.0	7.4
70	581	825	0.331	615	201.5	2.4	8.8	1.8	6.7
60	498	710	0.335	529	203.9	1.9	7.0	1.4	5.2
50	415	595	0.342	443	207.9	1.4	5.1	1.0	3.8
40	332	480	0.349	358	212.4	1.1	4.0	0.8	3.0
30	249	365	0.358	272	217.8	0.8	2.9	0.6	2.3

- ISO 3046/1 fluid consumption tolerance of -0/+5%
- Reference 32.5% DEF density of 1.0895 kg/L
- Reference 40% DEF density of 1.1120 kg/L
- Consult your local Cat® dealer to create a customized engine TCO (Total Cost of Ownership) analysis specific to your vessel.
- For Cat® dealers:
  Please reference TMI Web for most current information.

DIMENSIONS & WEIGHT

	Length (1)	Height (2)	Width (3)	Engine 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.

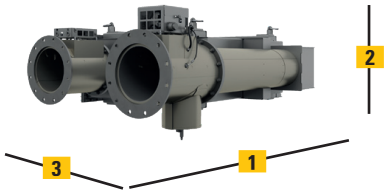


CLEAN EMISSIONS MODULE (CEM)

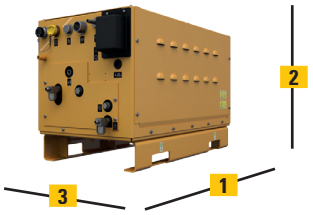
Dimensions & Weight				
Model	Length (1)	Height (2)	Width (3)	Weight[1]
6 Brick Z-Flow	147.7 in/3751 mm	23.5 in/597 mm	43.5 in/1106 mm	1246 lb/565 kg
6 Brick U-Flow	85.0 in/2159 mm	23.5 in/597 mm	56.9 in/1445 mm	1235 lb/560 kg
Dosing Cabinet	37.4 in/949 mm	22.8 in/579 mm	18.8 in/477 mm	209 lb/95 kg

[1] Weight with catalysts installed

Clean Emissions Module (CEM)
Available in U-flow configurations (shown) and Z-flow configurations.



Dosing Cabinet



The C32 engine requires Selective Catalyst Reduction (SCR) technology.
The easy-to-install Cat® SCR System is an exhaust gas aftertreatment solution compliant with IMO III emission standards.

- Proven technology to meet IMO III emission standards
- Maintains engine efficiency, durability and reliability
- Easy to install with minimum impact to vessel design
- Compact package from one single source
- Available for new builds and retrofits
- For detailed dimensions and installation requirements, please refer to latest revision of A&I guide LEBM0023.

LEHM0300-00
To find your nearest dealer, please visit: www.cat.com/marine