

C7.1 ACERT™

MARINE GENERATOR SET

99, 118, 150 ekW (125, 148, 188 kVA) 50 Hz
118, 150, 175, 200 ekW (148, 188, 219, 250 kVA) 60 Hz



Image shown
may not reflect
actual engine

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

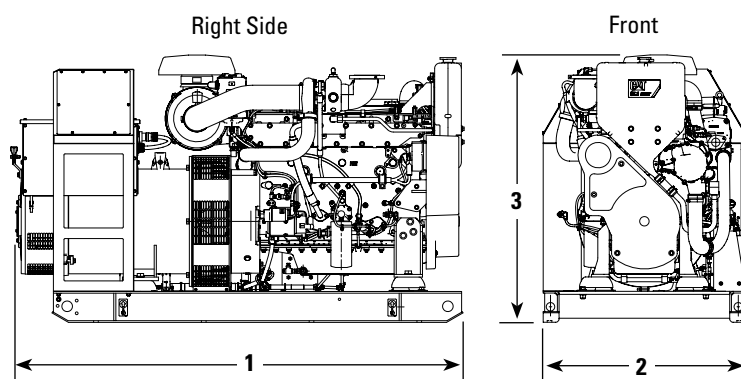
- EPA Tier 3/IMO compliant/CCNR Stage 2
- 7.01 liter displacement
- 50 Hz 1500 rpm/60 Hz 1800 rpm rated engine speed
- 105 mm (4.13 in) bore x 135 mm (5.32 in) stroke
- Turbocharged-aftercooled aspiration
- Electronically governed
- Heat exchanger or keel cooled
- Refill capacity
 - Cooling system: 38 L (10.0 U.S. gal) — hex
 - Lube oil system: 21 L (5.6 gal)
- Counterclockwise rotation from flywheel end
- 500-hour oil change interval



STANDARD ENGINE EQUIPMENT

- Crankcase ventilation system
- Common Rail fuel system
- 12V and 24V starter motor and battery charging alternator
- Mounted air cleaner
- Integral plate-type oil cooler
- 3-phase AREP generators which provide the functionality of a permanent magnet excitation system
- EMCP4.2 control panel with remote monitoring capability
- Isolated sump
- Anti-vibration engine mounts
- Glowplugs aid starting in cold weather
- Gear-driven sea-water and jacket-water pumps
- Safety shutdowns for low oil pressure, high water temperature, and overspeed
- Worldwide Extended Service Coverage (ESC) available
- 7 available ratings to cover power demand of both 50 Hz and 60 Hz
- Watercooled exhaust manifold and turbocharger

DIMENSIONS



ENGINE DIMENSIONS & WEIGHT

(1) Length	2142-2185 mm	84.3-86.0 in
(2) Width	965 mm	38.0 in
(3) Height	1263 mm	49.7 in
Weight, Net Dry (approx)	1652-1840 kg	3634-4026 lb

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

MARINE ENGINE PERFORMANCE

50 Hz

% Load	ekW	g/bkW-hr	ekW	g/bkW-hr	ekW	g/bkW-hr
100	99	229.6	118.0	227.5	150.0	216.5
75	75	247.8	88.5	246.3	112.5	236.5
50	50	254.3	59.0	251.2	75.0	239.3
25	25	290.9	29.5	284.5	37.5	261.9

60 Hz

% Load	ekW	g/bkW-hr	ekW	g/bkW-hr	ekW	g/bkW-hr	ekW	g/bkW-hr
100	118.0	233.6	150.0	219.4	175.0	219.5	200.0	216.4
75	88.5	248.1	112.5	232.0	131.2	229.0	150.0	225.9
50	59.0	263.5	75.0	245.9	87.5	243.5	100.0	242.7
25	29.5	308.7	37.5	280.5	43.7	276.4	50.0	274.0

OPTIONAL ATTACHMENTS

- **Control System**
Governor droop kit (selecting this kit enables paralleling with appropriate customer-supplied switchgear)
- **Generators & Generator Attachments**
Space heater kit, installed — 120V AC, 240V AC
- **Fuel System**
Double wall fuel lines with enclosed common rail and mounted alarm reservoir, duplex fuel filters
- **Lube System**
Duplex oil filters
- **Starting System**
Additional 12V or 24V electric starter, air starter, jacket water heater options
- **Marine Classification Society (MCS) Approval – Pending**
ABS, BV, DNV, LR, GL, PRS, RINA, CCS, RS
- **General**
PGS test report @ 0.8 power factor, extra literature, storage preservation, export packing: single engine shipment to U.S., 20-foot container engine shipments, 40-foot container engine shipments

CATERPILLAR GENERATOR

Power Factor 0.8
 Frame 44.2/46.2
 Insulation Class H
 Temperature Rise
 @ 40°C Ambient (110%) Class H (150°K)
 @ 50°C Ambient (110%) Class H (140°K)
 Winding Pitch Code 2/3
 Terminals 12-lead reconnectable

Drip Proof IP 23
 Air Flow 60 Hz 0.32 m³/s (678 cfm)
 Excitation System AREP
 Voltage Regulation (steady state) ±0.5%
 Total Harmonic Content LL/LN <4%
 Wave Form: NEMA=TIF <50
 Wave Form: I.E.C.=THF <2%

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