

IMAGE IS NOT
AVAILABLE

CATERPILLAR® ENGINE SPECIFICATIONS

V-8, 4-Stroke-Cycle-Diesel

Emissions IMO compliant
Bore 170 mm (6.7 in.)
Stroke — mm (in.)..... 190 mm (7.5 in.)
Displacement — L (cu in) ... 34.5 L (2,105 cu. in.)
Rotation (from flywheel end)... Counterclockwise
Compression Ratio 14.0:1
Capacity for Liquids
Cooling System (engine and
expansion tank)..... 285 L (75.3 gal)
Lube Oil System (refill) 223 L (59 gal)
Oil Change Interval 500 hr
Engine Weight,
Net Dry (approx) 5148 kg (11,350 lbs)
Minimum Lubrication Oil Grade (required). . CF-4
*Meets or exceeds Marine Society requirements

CATERPILLAR SR4B GENERATOR

- Brushless, revolving field, PM excited
- Two bearing, close coupled construction
- Three-phase, wye connection, 10 wire
- Class F insulation with tropicalization and anti-abrasion
- Pilot shaft alignment
- Generator-mounted Volts-per-Hertz voltage regulator
- Less than 1% voltage regulation
- Adjustable voltage droop for parallel operation
- Adjustable voltage gain
- Space heater
- 695 frame generator approx. net weight 3700 kg (8,140 lb)
- 50 Hz voltage, 190-380 volts, adjustable +10%, -5%
- Meets or exceeds Marine Society requirements as stated below

PERFORMANCE DATA

Turbocharged-Separate Circuit Aftercooled

DM4561-00 60°C (140°F) Aftercooler Temperature

1000 kVA (.8 pf) 800 ekW			
% load	kVA	Lph	g/bkW-hr
100	1000	217.1	216.2
75	750	160.1	213.6
50	500	110.6	221.3
25	250	61.8	242.8

DM4555-01 30°C (86°F) Aftercooler Temperature

1000 kVA (.8 pf) 800 ekW			
% load	kVA	Lph	g/bkW-hr
100	1000	215.2	214.4
75	750	159.0	212.1
50	500	108.6	217.3
25	250	60.2	236.5

ENGINE AND GENERATOR CERTIFICATIONS

Engine or Generator	bkW/ekW @ rpm	ABS	BV	DnV	GL	LR
Engine 3508B DITA	856 bkW @ 1500 rpm	X	X	X	X	X
Generator 695 Frame	800 ekW @ 1500 rpm				X	X

STANDARD EQUIPMENT

Marine auxiliary packaged generator set with Caterpillar 3508B DITA SCAC Marine Society certified engine, low emissions optimized and with MSC approvable alarms and shutdowns, Caterpillar SR4B permanent magnet excited generator; flexible fuel lines; air starting motor; automatic air start; air start silencer; premium wiring harness for engine and Marine Society approved alarm and shutdowns; digital voltage indicator 190-380V/50 Hz; manual voltage control; drip pan with 60 mm (2.4 in) sides and hose barb connection for customer connection under both fuel filter and oil filter; cable trays

Customer Interface Panel

Engine controls — off/reset, auto, manual start, cool down, emergency stop; shutdown lamp and alarm — emergency stop, low oil pressure (low speed), low oil pressure (high speed), high jacket water temperature, engine overspeed; alarm acknowledgement button; interconnect receptacle for remote engine control and monitoring

Contactors Panel

Pressure and temperature sensors and controllers — low oil pressure shutdown at low speed and high speed, low oil pressure alarm at low speed and high speed, low jacket water pressure alarm, low fuel pressure alarm, high jacket water temperature alarm and shutdown, high oil temperature alarm, water level sensor

Terminal Box

Circuit breakers, relays, terminal points, isolated power supply

Exterior Grease Fitting in Generator for Bearing Lubrication

IP23 Enclosure to Generator

Duplex Fuel Filter

OPTIONAL EQUIPMENT

Duplex Primary Fuel Filter/Water Separator (shipped loose)

Duplex Oil Filters

Sump Pump

Jacket Water Heater/Circulation Pump

Air Inlet Overspeed Shutoff

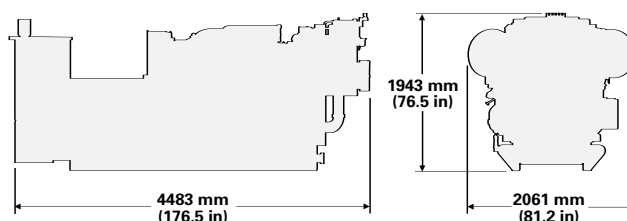
Annunciation Panel (shipped loose)

Emergency stop; engine controls — off/reset, auto, manual start, cool down; annunciation — low oil pressure shutdown and alarm, high jacket water temperature shutdown and alarm, engine overspeed shutdown, low jacket water pressure alarm, low jacket water level alarm, high oil temperature alarm, low starting air pressure alarm; alarm acknowledgement; lamp test; start/run contact; voltage adjust potentiometer; speed raise/lower contacts; signal outputs — alarms, shutdowns, engine running, engine controls, magnetic pickup

GL Package — special GL requirements

Metal air hose (air supply line to starter); gauges — fuel pressure, oil pressure, tachometer

DIMENSIONS



RATING DEFINITIONS AND CONDITIONS

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 ISO3046/1, DIN6271, and BS5514 standard conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

Prime Power — For continuous electrical service with 10% overload capability (ISO power with 10% overload for one hour in 12 in accordance with ISO3046/1, DIN6271, BS5514).

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).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for details.

Performance data is calculated in accordance with tolerances and conditions stated in this specification sheet and is only intended for purposes of comparison with other manufacturers' engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar's control.

Power produced at the flywheel will be within standard tolerances up to 49°C (120°F) combustion air temperature measured at the air cleaner inlet, and fuel temperature up to 49°C (120°F) measured at the fuel filter base. Power rated in accordance with NMMA procedure as crankshaft power. Reduce crankshaft power by 3% for propeller shaft power.

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