

Image may not reflect actual engine

CATERPILLAR® ENGINE SPECIFICATIONS

I-4, 4-Stroke-Cycle-Diesel

Emissions 60 Hz meets EPA Tier 3*,
50 Hz meets EU 97/68EC Stage II regulations
Displacement 2.2 L (135 cu. in.)
Bore 84 mm (3.31 in.)
Stroke 100 mm (3.94 in.)
Aspiration **Naturally Aspirated**
Governor Electrical Isochronous
Estimated Dry Weight
Open Set 389 kg (857 lb)
Enclosed Set 466 kg (1027 lb)
Refill Capacity
Cooling System
(engine and expansion tank) 9 L (2.4 U.S. gal)
Lube Oil System 10.6 L (2.8 U.S. gal)
Oil Change Interval 500 hrs
Rotation (from flywheel end) Counterclockwise

*EPA Tier 3 enforced from January 1, 2008 for engines < 37 kW

STANDARD EQUIPMENT

Air Inlet System

Air cleaner, single element canister type with rain cap (open generator set only)

Control System

Electronic isochronous governor

Cooling System

Belt-driven centrifugal jacket water pump, gear-driven seawater pump, heat exchanger with copper nickel tubes, expansion tank

Exhaust System

Watercooled exhaust manifold and elbow

Fuel System

Fuel filter — RH or LH service, fuel priming, fuel transfer pump, flexible fuel lines

Generator

Single-phase — brushless, shunt excited, 4-pole, 4-lead reconnectable with class H insulation, automatic voltage regulation ±0.5%, 2/3 pitch, IP23 water protection, solid state voltage regulator with integral voltage adjustment potentiometer, connection poles;

Three-phase — brushless, separately excited from auxiliary winding, 4-pole, 12-lead reconnectable with class H insulation, automatic voltage regulation ±0.5%, 2/3 pitch, IP23 water protection, solid state voltage regulator with integral voltage adjustment potentiometer, connection poles

Lube System

Lubricating oil, oil filter (RH), dipstick (RH), fumes disposal (closed system)

Mounting System

Anti-vibration mounts, connected to drip tray and steel base sitting on PVC foam sound-absorbent pad

Protection System

Electronic automatic safety shutdown for low oil pressure, high water temperature, high exhaust (wet exhaust only) temperature, and overspeed

Starting System

12 or 24 volt electronic starting motor, 12 volt 55 amp alternator

General

Single-side service (RH), decals, literature

PERFORMANCE DATA

60 Hz

Fuel Consumption

@ Full Power 6.2-8.5 L/hour 1.64-2.25 gph

50 Hz

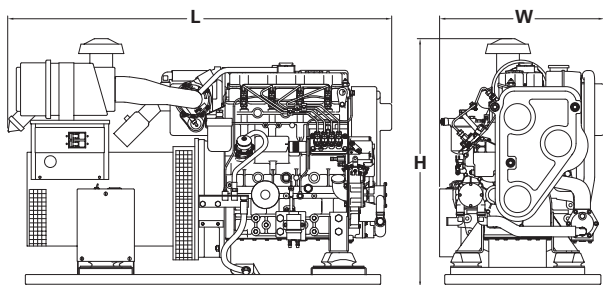
Fuel Consumption

@ Full Power 5.2-7.1 L/hour 1.37-1.88 gph

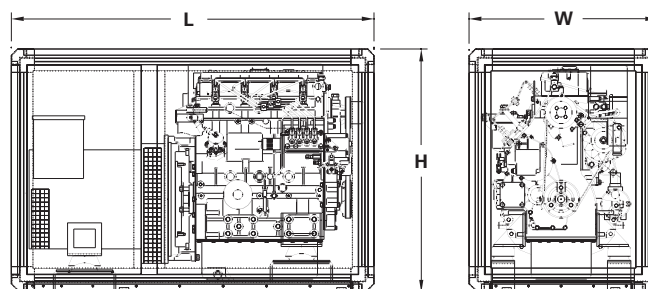
C2.2 Naturally Aspirated Ratings Chart			
Speed	Power Factor	Rating ekW	Arrangement
1500	0.8	17.5	318-1681
1500	1.0	18.0	
1800	0.8	21.0	
1800	1.0	21.5	

DIMENSIONS

Open Set



Enclosed Set



Engine Dimensions		
	Open mm (in)	Enclosed mm (in)
Overall Length	1147 (45)	1170 (46)
Overall Height	825 (32)	775 (31)
Overall Width	521 (20.5)	608 (24)

OPTIONAL ATTACHMENTS

- Sound attenuated enclosure
- Deluxe instrument panel
- Basic instrument panel
- Remote instrument panel extension harness
- AC circuit breakers
- Flexible fuel lines
- Primary fuel filter/water separator
- Siphon break
- Keel-cooling kit
- Exhaust system components
- Oil drain pump
- Insulated electric system
- Noise reducing air inlet duct

CATERPILLAR GENERATOR

Power Factor	1.0
Frame	2.2
Insulation	Class H
Temperature Rise	
@ 40°C Ambient	Class H (150°K)
Winding Pitch Code	2/3
Terminals	12 lead reconnectable
Drip Proof	IP 23
Air Flow 60 Hz	0.44 m ³ /s (932 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%

RATING CONDITIONS

Ratings are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 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/L (7.001 lb/U.S. gal).

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

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.

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