

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 . . . . . **Turbocharged**  
 Governor . . . . . Electrical Isochronous  
 Estimated Dry Weight  
 Open Set . . . . . 420 kg (926 lb)  
 Enclosed Set . . . . . 527 kg (1162 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

Cast aluminum expansion tank and exhaust manifold, triple pass heat exchanger with optional keel cooling, seawater pump with ceramic seals

### 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

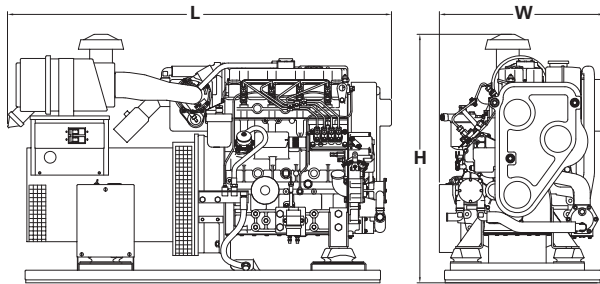
Fuel Consumption

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

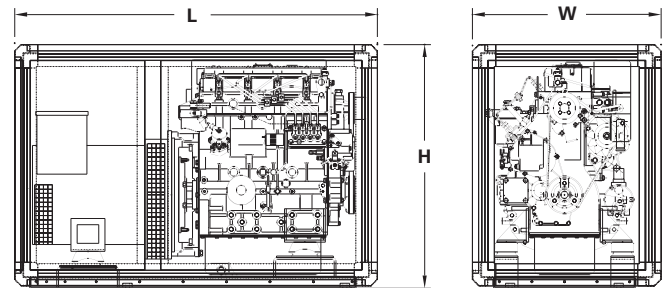
C2.2 Turbocharged Ratings Chart			
Speed	Power Factor	Rating ekW	Arrangement
1500	0.8	24.5	318-1680
1500	1.0	24.5	
1800	0.8	30.0	
1800	1.0	29.5	

### DIMENSIONS

**Open Set**



**Enclosed Set**



Engine Dimensions		
	Open mm (in)	Enclosed mm (in)
<b>Overall Length</b>	1290 (50.8)	1297 (51.1)
<b>Overall Height</b>	825 (32.5)	783 (30.8)
<b>Overall Width</b>	553 (21.8)	628 (24.7)

### 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 <sup>3</sup> /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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