



Image shown may not reflect actual configuration

Caterpillar is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost-effectiveness.

Specifications

Generator Set Specifications	
Rating	400 ekW 500 KVA
Voltage	415 Volts
Frequency	50 Hz
Speed	1500 rpm

Generator Set Configurations	
Emissions/Fuel Strategy	Certified to meet India CPCB norms

Engine Specifications		
Engine Model	C15 ATAAC, I-6, 4-Stroke Water-Cooled Diesel	
Bore	137.2 mm	5.4 in
Displacement	15.2 L	927.56 in ³
Stroke	171.5 mm	6.75 in
Compression Ratio	17:1	
Aspiration	Air-to-Air-Aftercooled	
Governor Type	ADEM™ A4	
Fuel System	MEUI™	

Package Dimensions*	
Length	6000 mm
Width	1800 mm
Height	2210 mm
Weight	5700 kg

*Note: For reference only – do not use for installation design. Please contact your local dealer for exact weight and dimensions.

Benefits & Features

Cat® Diesel Engine

- Uses ACERT™ Technology
- Reliable, rugged, durable design
- Four-stroke cycle diesel engine combines consistent performance and excellent fuel economy with minimum weight
- Electronic engine control

Generator

- Matched to the performance and output characteristics of Cat engines
- Industry-leading mechanical and electrical design
- Industry-leading motor starting capabilities
- High efficiency

Cat Noise Enclosure

- CPCB approved as per India regulations
- Noise enclosure designed for easy access of all engine parts, lube oil, fumes disposal radiator drains
- Lockable doors to ensure safety
- Non-igniting, self-extinguishing mineral wool, 100 mm thick with resin bonded, used for noise and thermal insulation

Cat EMCP Control Panel

The EMCP controller features the reliability and durability you have come to expect from your Cat equipment. EMCP 4 is a scalable control platform designed to ensure reliable generator set operation, providing extensive information about power output and engine operation. EMCP 4 systems can be further customized to meet your needs through programming and expansion modules.

Design Criteria

The generator set meets transient response and block loading steps as per ISO 8528-5.

Single-Source Supplier

Fully prototype tested with certified torsional vibration analysis.

Worldwide Product Support

Cat dealers provide extensive post sale support, including maintenance and repair agreements. Cat dealers have over 40-plus dealer branch stores operating in India. The Cat S•O•SSM program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products.

Standard Equipment

Air Inlet

- Single element canister-type air cleaner
- Service indicator

Cooling

- Radiator fan and belt drive
- Fan and belt guard
- Coolant drain line with valve
- Coolant level sensor
- Cat extended life coolant

Exhaust

- Dry exhaust manifold
- Flanged faced outlets
- Exhaust mufflers
- Stainless steel exhaust flex fittings
- Flanges

Fuel

- Primary and secondary fuel filters
- Fuel priming pump
- Flexible fuel lines
- Engine fuel transfer pump
- Integrated fuel cooler
- Enclosure integrated fuel tank

Generator

- Self-excited
- Class H insulation
- Class H temperature rise
- Random wound
- R450M voltage regulator
- Load Acceptance Module (LAM)
- Paralleling kit droop transformer
- Power terminal strip connections
- IP 23 protection

Governor

- Electronic governor – ADEM A4

Standard Equipment (continued)

Control Panels

- EMCP 4.1 Series generator set controller
- Speed adjust
- Emergency stop pushbutton

Lube

- Lubricating oil and filter
- Oil drain line with valves
- Fumes disposal
- Gear-type lube oil pump
- Lube oil level indicator (dip stick)

Mounting

- Anti-vibration mounts

Starting/Charging

- 24 volt starting motor
- Batteries with rack and cables
- 45 amp charging alternator

General

- SAE standard rotation
- Flywheel – SAE No. 14
- Flywheel housing – SAE No. 0.5
- Paint – Caterpillar Yellow (except rails and radiators that are gloss black)

Optional Equipment

Air Inlet

- Heavy-duty air cleaner

Control Panels

- EMCP 4.2

**C15 ACERT
400 ekW/ 500 kVA/ 50 Hz/ 1500 rpm/ 415V/ 0.8 Power Factor**

Rating Type: PRIME

Emissions: Certified to meet India CPCB Norms



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**C15 ACERT
400 ekW/ 500 kVA
50 Hz/ 1500 rpm/ 415V**

Package Performance

Generator Set Power Rating with Fan @ 0.8 Power Factor	400 ekW
Generator Set Power Rating	500 kVA

Fuel Consumption

100% Load With Fan	110.2 L/hr
75% Load With Fan	86.9 L/hr
50% Load With Fan	62.2 L/hr

Cooling System¹

Engine Coolant Capacity	20.8 L
Radiator Coolant Capacity	20.0 L
Engine Coolant Capacity with Radiator/Exp Tank	48.8 L
Air Flow (Max @ Rated Speed for Radiator Arrangement)	660 m ³ /min

Inlet Air

Combustion Air Inlet Flow Rate	35.9 m ³ /min
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Exhaust System

Exhaust Stack Gas Temperature	471.2°C
Exhaust Gas Flow Rate	91.4 m ³ /min
Exhaust System Backpressure (maximum allowable)	10 kPa
Exhaust Flange Size (internal diameter)	152.4 mm



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Heat Rejection	
Heat Rejection to Coolant (total)	153 kW
Heat Rejection to Exhaust (total)	400 kW
Heat Rejection to Atmosphere from Engine	59.2 kW
Heat Rejection to Atmosphere from Generator	23.3 kW

Alternator²	
Motor Starting Capability @ 30% Voltage Dip	1296 skVA
Frame	LC6124F
Temperature Rise	125°C
Excitation	Self-excited

Lube System	
Sump Refill with Filter	62 L

¹ For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to the existing restriction from the factory.

² Generator temperature rise is based on a 40°C (104°F) ambient.

DEFINITIONS AND CONDITIONS

Applicable Codes and Standards:

ISO3046, ISO8528, IEC60034-1, IS4722

PRIME: Output available with varying load for an unlimited time. Prime power in accordance with ISO 8528. 10% overload power in accordance with ISO 3046.

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

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, contact your Cat representative for details.

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Performance No. EM0430-03
Feature Code: TBD
Generator Arrangement: 437-7450
Date: 03/18/2016
Source Country: India
LEHE0363-04

Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.

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