

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

Image shown may not reflect actual configuration

Specifications

Generator Set Specifications	
Rating	135 ekW (168.8 kVA)
Voltage	480 Volts
Frequency	60 Hz
Speed	1800 rpm

Generator Set Configurations	
Emissions/Fuel Strategy	U.S. EPA Certified for Stationary Emergency Application (Tier 3 Nonroad Equivalent Emission Standards)

Engine Specifications		
Engine Model	C7.1 In-line 6, 4-cycle diesel	
Bore	105 mm	4.13 in
Displacement	7.01 L	427.8 in ³
Stroke	135 mm	5.31 in
Compression Ratio	16.7:1	
Aspiration	Turbocharged Air-to-Air-Aftercooled	
Governor Type	Electronic	
Fuel System	Common Rail	

Package Dimensions*		
Length	3037 mm	120 in
Width	1110 mm	44 in
Height	483 mm	58 in
Weight†	1652 kg	3642 lb

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

†Weight includes: Oversize generator, skid base, circuit breaker, oil, and coolant.

Benefits & Features

Cat® Diesel Engine

- 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 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.

Seismic Certification

- Seismic certification available.
- Anchoring details are site specific, and are dependent on many factors such as generator set size, weight, and concrete strength.
- IBC certification requires that the anchoring system used is reviewed and approved by a professional engineer.
- Seismic certification per applicable building codes: IBC 2000, IBC 2003, IBC 2006, IBC 2009, IBC 2012 CBC 2007, CBC 2010.

Design Criteria

- The generator set accepts 100% rated load in one step per NFPA 110 and meets ISO 8528-5 transient response.
- Cooling system designed to operate in 50°C/122°F ambient temperatures with an air flow restriction of 0.5 in. water.

UL 2200/CSA – Optional

- UL 2200 Listed
- CSA Certified. Certain restrictions may apply. Consult with your Cat dealer.

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 1,800 dealer branch stores operating in 200 countries. 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

- Dry replaceable paper element type with restriction indicator

Cooling

- Radiator and cooling fan complete with protective guards
- Standard ambient temperatures up to 50°C (122°F)

Exhaust

- Exhaust flange outlet

Fuel

- Primary and secondary fuel filters
- Fuel priming pump
- Flexible fuel lines

Generator

- Matched to the performance and output characteristics of Cat engines
- Load adjustment module provides engine relief upon load impact and improves load acceptance and recovery time
- IP23 protection
- Integrated Voltage Regulation

Governor

- Electronic governor – ADEM™ A4

Control Panels

- EMCP 4.2 Series generator set controller

Mounting

- Rubber vibration isolators

Starting/Charging

- 12 volt starting motor
- Batteries with rack and cables

General

- Paint – Caterpillar Yellow except rails and radiators gloss black

Optional Equipment

Exhaust

- Industrial, residential, critical mufflers

Generator

- Excitation: [] Permanent Magnet Excited (PM) [] Internally Excited (IE)
- Anti-condensation heater
- Oversize and premium generators

Starting/Charging

- Battery charger – UL 10 amp
- Battery disconnect switch
- Jacket water heater

General

- UL 2200
- CSA Certification
- Enclosures: sound attenuated, weather protective
- Sub-base dual wall UL Listed fuel tanks
- Automatic transfer switches (ATS)

**C7.1
135 ekW/ 168.8 kVA/ 60 Hz/ 1800 rpm/ 480V/ 0.8 Power Factor**

Rating Type: PRIME

**Emissions: U.S. EPA Certified for Stationary Emergency Application
(Tier 3 Nonroad Equivalent Emission Standards)**

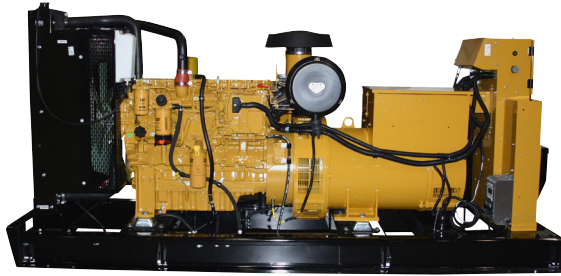


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**D150-10
135 ekW/ 168.8 kVA
60 Hz/ 1800 rpm/ 480V**

Package Performance	
Generator Set Power Rating with Fan @ 0.8 Power Factor	135 ekW
Generator Set Power Rating	168.8 kVA

Fuel Consumption		
100% Load With Fan	39.9 L/hr	10.6 g/hr
75% Load With Fan	32.0 L/hr	8.4 g/hr
50% Load With Fan	22.6 L/hr	6.0 g/hr

Cooling System¹		
Engine Coolant Capacity	9.5 L	2.5 gal
Radiator Coolant Capacity	11.5 L	3.0 gal
Engine Coolant Capacity with Radiator/Exp Tank	21.0 L	5.5 gal
Air Flow Restriction (System)	0.12 kPa	0.48 in Water

Inlet Air		
Combustion Air Inlet Flow Rate	14.9 m ³ /min	526.2cm

Exhaust System		
Exhaust Stack Gas Temperature	432°C	809°F
Exhaust Gas Flow Rate	30.6 m ³ /min	1081 cfm
Exhaust System Backpressure (maximum allowable)	15.0 kPa	60.2 in water
Exhaust Flange Size (internal diameter)	89.0 mm	3.5 in

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Heat Rejection		
Heat Rejection to Coolant (total)	69.0 kW	3918 Btu/min
Heat Rejection to Exhaust (total)	126.0 kW	7166 Btu/min
Heat Rejection to Aftercooler	35.0 kW	2013 Btu/min
Heat Rejection to Atmosphere from Engine	27.4 kW	1558 Btu/min
Heat Rejection to Atmosphere from Generator	9.5 kW	540.3 Btu/min
Alternator²		
Motor Starting Capability @ 30% Voltage Dip	452 skVA	
Frame	LC3114J	
Temperature Rise	105°C	189°F
Excitation	Self Excited	

Lube System		
Sump Refill with Filter	17.5 L	4.6 gal

Emissions (Nominal)³		
NOx + HC	4.0 g/kW-hr	
CO	1.0 g/kW-hr	
PM	0.2 g/kW-hr	

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 per NEMA MG1-32.

³ The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% Prime load. This information should not be used for permitting purposes and is subject to change without notice. Contact your Cat dealer for further details.

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DEFINITIONS AND CONDITIONS

Applicable Codes and Standards:

AS1359, CSA C22.2 No 100-04, UL142, UL489, UL601, UL869, UL2200, NFPA 37, NFPA 70, NFPA 99, NFPA 110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG 1-22, NEMA MG 1-33, 72/23/EEC, 98/37/EC, 2004/108/EC.

PRIME: Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated ekW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year.

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

Fuel Rates are based on fuel oil to specification EPA 2D 89.330-96 with a density of 0.845 – 0.850 kg/L (7.052 – 7.094 lbs/U.S. gal.) @ 15°C (59°F) and fuel inlet temperature 40°C (104°F).

Additional ratings may be available for specific customer requirements, contact your Cat representative for details.

Performance No.: P4390C-00
Feature Code: NAC164P
Generator Arrangement: 4545283
Date: 05/15/2015
Source Country: U.S.

LEHE0885-00

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The International System of Units (SI) is used in this publication.

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