C4.4 Generator Set
Electric Power

Picture 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	60 ekW (75 kVA)
Voltage	480 Volts
Frequency	60 Hz
Speed	1800 rpm

Generator Set Configurations	
Emissions/Fuel Strategy	U.S. EPA Certified for Stationary Emergency Application (Meets nonroad U.S. EPA Tier 3 equivalent emission standards)

Engine Specifications		
Engine Model	C4.4 Vertcal In-line 4, 4-cycle diesel	
Bore	105.0 mm	4.13 in
Displacement	4.4 L	268.5 in³
Stroke	127.0 mm	5.0 in
Compression Ratio	16.7:1	
Aspiration	Turbocharged	
Governor Type	Electronic	
Fuel System	Common Rail	

Package Dimensions*		
Length	1972 mm	77.6 in
Width	1000 mm	39.4 in
Height	1175 mm	46.3 in
Weight†	1018 kg	2244 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
- Field-proven in thousands of applications worldwide
- 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 2006, IBC 2009, IBC 2012, IBC 2015

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•S℠ program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products.

Standard Equipment

Air Inlet

- Single element Airfilter

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
- Battery with rack and cables

General

- Paint – Caterpillar Yellow except rails and radiators gloss black

Optional Equipment

Generator

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

Starting/Charging

- Battery charger – UL 10 amp
- Battery disconnect switch
- Battery removal (does not remove rack and cables)
- Jacket water heater

General

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

C4.4

60 ekW/ 75 kVA/ 60Hz / 1800 rpm/ 480V/ 0.8 Power Factor

Rating Type: STANDBY

Emissions: U.S. EPA Certified for Stationary Emergency Application (Meets nonroad U.S. EPA Tier 3 equivalent emission standards)

Image shown may not reflect actual configuration

D60-4LC
60 ekW/ 75 kVA
60Hz/ 1800 rpm/ 480V

Package Performance	
Generator Set Power Rating with Fan @ 0.8 Power Factor	60 ekW
Generator Set Power Rating	75 kVA

Fuel Consumption		
100% Load With Fan	18.9 L/hr	5.00 gal/hr
75% Load With Fan	16.1 L/hr	4.2 gal/hr
50% Load With Fan	12.3 L/hr	3.14 gal/hr

Cooling System[1]		
Engine Coolant Capacity	7.0 L	1.8 gal
Radiator Coolant Capacity	9.5 L	2.5 gal
Engine Coolant Capacity with Radiator/Exp Tank	16.5 L	4.4 gal
Air Flow Restriction (System)	0.12 kPa	0.48 in. water

Inlet Air		
Combustion Air Inlet Flow Rate	6.17 m^3/min	218 cfm

Exhaust System		
Exhaust Stack Gas Temperature	644°C	1191°F
Exhaust Gas Flow Rate	14.5 m^3/min	512 cfm
Exhaust System Backpressure (maximum allowable)	15.0 kPa	60.2 in. water
Exhaust Flange Size (internal diameter)	64 mm	2.51 in

Rating Type: STANDBY

Emissions: U.S. EPA Certified for Stationary Emergency Application (Meets nonroad U.S. EPA Tier 3 equivalent emission standards)

Heat Rejection		
Heat Rejection to Coolant (total)	47.1 kW	2678 Btu/min
Heat Rejection to Exhaust (total)	66.9 kW	3805 Btu/min
Heat Rejection to Atmosphere from Engine	11.9 kW	677 Btu/min
Heat Rejection to Atmosphere from Generator	5.7 kW	324.2 Btu/min

Alternator[2]		
Motor Starting Capability @ 30% Voltage Dip	157 skVA	
Frame	LC1514P	
Temperature Rise	130°C	234°F
Excitation	Self Excited	

Lube System		
Sump Refill with Filter	8.4 L	2.0 gal

Emissions (Nominal)[3]	
NOx + HC	g/kW-hr
CO	g/kW-hr
PM	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.

ELECTRIC POWER – Technical Spec Sheet
STANDARD

C4.4

60 ekW/ 75 kVA/ 60Hz / 1800 rpm/ 480V/ 0.8 Power Factor

Rating Type: STANDBY

Emissions: U.S. EPA Certified for Stationary Emergency Application (Meets nonroad U.S. EPA Tier 3 equivalent emission standards)

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.

STANDBY: Output available with varying load for the duration of the interruption of the normal source power. Averagepower output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 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.: P4506A
Feature Code: NAC224P
Generator Arrangement:4676051
Date: 09/09/2016
Source Country: U.S.

LEHE1047-00