



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

## Specifications

### Generator Set Specifications

Minimum Rating	275 ekW (275 kVA)
Maximum Rating	400 ekW (400 kVA)
Voltage	220 to 480 Volts
Frequency	50 or 60 Hz
Speed	1500 or 1800 RPM

### Generator Set Configurations

Emissions/Fuel Strategy	Low Fuel Consumption
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### Engine Specifications

Engine Model	3406C TA, I-6, 4-Stroke Water-Cooled Diesel	
Bore	137.2 mm	5.4 in
Displacement	14.64 L	893.39 in <sup>3</sup>
Stroke	165.1 mm	6.5 in
Compression Ratio	14.5:1	
Aspiration	TA	
Governor Type	Hydra-mechanical	
Fuel System	P&L	

## Benefits And 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

### 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. EMCP4 is a scalable control platform designed to ensure reliable generator set operation, providing extensive information about power output and engine operation. EMCP4 systems can be further customized to meet your needs through programming and expansion modules.

### Design Criteria

The generator set accepts 100% rated load in one step per NFPA 110 and meets ISO 8528-5 transient response.

### UL 2200 / CSA - Optional

- UL 2200 listed packages
- CSA Certified
- Certain restrictions may apply.
- Consult with your Cat® Dealer.

### Single-Source Supplier

Fully prototype tested with certified torsional vibration analysis available

### World Wide 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® SOSSM program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products.

## Standard Equipment

### Air Inlet

- Air Cleaner

### Cooling

- Package mounted radiator

### Exhaust

- Exhaust flange outlet

### Fuel

- Primary fuel filter with integral water separator
- Secondary fuel filter
- Fuel priming pump

### 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

### Power Termination

- Bus Bar

### Control Panel

- EMCP 4 Genset Controller

### Mounting

- Rubber vibration isolators

### Starting/Charging

- 24 volt starting motor
- Batteries

### 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

### Power Termination

- Circuit breakers, UL listed
- Circuit breakers, IEC compliant

### Control Panels

- EMCP (4.2) (4.3) (4.4)
- Local & remote annunciator modules
- Load share module
- Digital I/O module
- Remote monitoring software

### Starting/Charging

- Battery chargers
- Oversize batteries
- Jacket water heater
- Heavy-duty starting system
- Charging alternator

### General

- The following options are based on regional and product configuration:
- Seismic Certification per applicable building codes: IBC 2000, IBC 2003, IBC 2006, IBC 2009, CBC 2007
- UL 2200 package
- EU Certificate of Conformance (CE)
- CSA Certification
- EEC Declaration of Conformity
- Narrow, Wide or Skid Base
- Sound attenuated, weather protective or high ambient weather protective enclosure
- Single or dual wall integral fuel tanks
- Single or dual wall sub-base fuel tanks
- Integral & sub-base UL listed dual wall fuel tanks
- Automatic transfer switches (ATS)



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**3406C**  
**275 ekW/ 344 kVA/ 60 Hz/ 1800 rpm/ 480 V/ 0.8 Power Factor**

Rating Type: PRIME

Fuel Strategy: LOW FUEL CONSUMPTION

**3406C**  
**275 ekW/ 344 kVA**  
**60 Hz/ 1800 rpm/ 480 V**



Image shown may not reflect actual configuration

**Metric English**

**Package Performance**

Genset Power Rating with Fan @ 0.8 Power Factor	275 ekW	
Genset Power Rating	344 kVA	
Aftercooler (Separate Circuit)	78.0 ° C	172.4 ° F

**Fuel Consumption**

100% Load with Fan	79.6 L/hr	21.0 gal/hr
75% Load with Fan	61.6 L/hr	16.3 gal/hr
50% Load with Fan	44.7 L/hr	11.8 gal/hr
25% Load with Fan	28.5 L/hr	7.5 gal/hr

**Cooling System<sup>1</sup>**

Engine Coolant Capacity	N/A	N/A
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**Inlet Air**

Combustion Air Inlet Flow Rate	23.3 m <sup>3</sup> /min	822.0 cfm
Max. Allowable Combustion Air Inlet Temp	85 ° C	185 ° F

**Exhaust System**

Exhaust Stack Gas Temperature	528.5 ° C	983.4 ° F
Exhaust Gas Flow Rate	64.9 m <sup>3</sup> /min	2290.5 cfm
Exhaust System Backpressure (Maximum Allowable)	6.7 kPa	27.0 in. water



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**Fuel Strategy: LOW FUEL CONSUMPTION**

<b>Heat Rejection</b>		
Heat Rejection to Jacket Water	185 kW	10521 Btu/min
Heat Rejection to Exhaust (Total)	298 kW	16948 Btu/min
Heat Rejection to Aftercooler	22 kW	1263 Btu/min
Heat Rejection to Atmosphere from Engine	61 kW	3447 Btu/min
Heat Rejection to Atmosphere from Generator	17 kW	944 Btu/min

<b>Alternator<sup>2</sup></b>	
Motor Starting Capability @ 30% Voltage Dip	1309 skVA
Current	414 amps
Frame Size	LC6124D
Excitation	AR
Temperature Rise	80 ° C

<b>Emissions (Nominal)<sup>3</sup></b>		
NOx	3658.5 mg/Nm <sup>3</sup>	7.6 g/hp-hr
CO	458.2 mg/Nm <sup>3</sup>	1.0 g/hp-hr
HC	36.0 mg/Nm <sup>3</sup>	0.1 g/hp-hr
PM	116.9 mg/Nm <sup>3</sup>	0.3 g/hp-hr

**DEFINITIONS AND CONDITIONS**

1. For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.
2. UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics. Generator temperature rise is based on a 40° C ambient per NEMA MG1-32.
3. Emissions data measurement procedures are consistent with those described in EPA CFR 40 Part 89, Subpart D & E and ISO8178-1 for measuring HC, CO, PM, NOx. Data shown is based on steady state operating conditions of 77° F, 28.42 in HG and number 2 diesel fuel with 35° API and LHV of 18,390 btu/lb. The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% load and thus cannot be used to compare to EPA regulations which use values based on a weighted cycle.

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**Applicable Codes and Standards:**

AS1359, CSA C22.2 No100-04, UL142,UL489, UL869, UL2200,  
NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC60034-1, ISO3046, ISO8528,  
NEMA MG1-22,NEMA MG1-33, 72/23/EEC, 98/37/EC, 2004/108/EC

Note: Codes may not be available in all model configurations. Please consult your local Cat Dealer representative for availability.

**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 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. For information regarding Low Sulfur fuel and Biodiesel capability, please consult your Cat dealer.

[www.Cat-ElectricPower.com](http://www.Cat-ElectricPower.com)

Performance No.: DM2266-03

Feature Code: 406DES1

Generator Arrangement: 3382007

Date: 06/10/2015

Source Country: U.S.

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