



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	1640 ekW
Maximum Rating	2250 ekW
Voltage	220 to 13800
Frequency	60 Hz
Speed	1800 RPM

Generator Set Configurations	
Emissions/Fuel Strategy	Low Fuel Consumption, Low Emissions

Engine Specifications		
Engine Model	3516B TA, V-16, 4-Stroke Water-Cooled Diesel	
Bore	170 mm	6.69 in
Displacement (Std)	69 L	4210.64 in <sup>3</sup>
Displacement (HD)	78.08 L	4764.73 in <sup>3</sup>
Stroke (Std)	190 mm	7.48 in
Stroke (HD)	215 mm	8.46 in
Compression Ratio	14.0:1 Std 15.5:1 HD	
Aspiration	TA	
Governor Type	Adem™3	
Fuel System	Electronic unit injection	

## 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 Caterpillar S•O•S<sup>SM</sup> 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

- IP23 Protection

### Power Termination

- Bus Bar

### Control Panel

- EMCP 4 Genset Controller

### General

- Paint - Caterpillar Yellow except rails and radiators gloss black

## Optional Equipment

### Exhaust

- Exhaust mufflers

### Generator

- Anti-condensation heater
- Internal excitation (IE)
- Permanent magnet excitation (PMG)
- Oversize and premium generators

### Power Termination

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

### Control Panels

- EMCP 4.2
- EMCP 4.3
- EMCP 4.4
- Generator temperature monitoring & protection
- Load share module
- Digital I/O module
- Remote monitoring software

### Mounting

- Rubber anti-vibration mounts
- Spring-type vibration isolator
- IBC isolators

### Starting/Charging

- Battery chargers
- Oversize batteries
- Jacket water heater
- Heavy-duty starting system
- Charging alternator
- Air starting motor with control and silencer



### 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
- Enclosures: sound attenuated, weather protective
- Automatic transfer switches (ATS)
- Integral & sub-base fuel tanks
- Integral & sub-base UL listed dual wall fuel tanks

The International System of Units (SI) is used in this publication. CAT, CATERPILLAR, their respective logos, ADEM, EUI, S-O-S, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

3516B

2000 ekW/ 2500 kVA/ 50 Hz/ 1500 rpm/ 11000 V/ 0.8 Power Factor

Rating Type: STANDBY

Fuel Strategy: LOW EMISSIONS

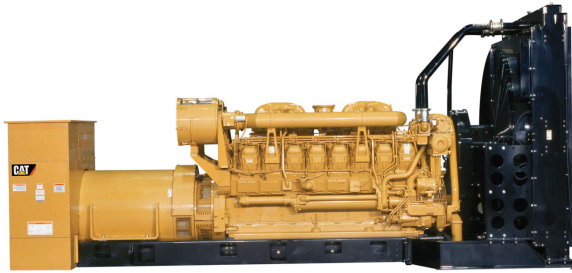


Image shown may not reflect actual configuration

**3516B**  
**2000 ekW/ 2500 kVA**  
**50 Hz/ 1500 rpm/ 11000 V**

	Metric	English
<b>Package Performance</b>		
Genset Power Rating with Fan @ 0.8 Power Factor	2000 ekW	
Genset Power Rating	2500 kVA	
Aftercooler (Separate Circuit)	90.0 ° C	194.0 ° F
<b>Fuel Consumption</b>		
100% Load with Fan	525.4 L/hr	138.8 gal/hr
75% Load with Fan	395.8 L/hr	104.6 gal/hr
50% Load with Fan	268.5 L/hr	70.9 gal/hr
25% Load with Fan	153.6 L/hr	40.6 gal/hr
<b>Cooling System<sup>1</sup></b>		
Engine Coolant Capacity	233.0 L	61.6 gal
<b>Inlet Air</b>		
Combustion Air Inlet Flow Rate	158.2 m <sup>3</sup> /min	5586.2 cfm
Max. Allowable Combustion Air Inlet Temp	102 ° C	215 ° F
<b>Exhaust System</b>		
Exhaust Stack Gas Temperature	540.0 ° C	1004.0 ° F
Exhaust Gas Flow Rate	453.6 m <sup>3</sup> /min	16017.0 cfm
Exhaust System Backpressure (Maximum Allowable)	6.7 kPa	27.0 in. water



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Heat Rejection		
Heat Rejection to Jacket Water	759 kW	43164 Btu/min
Heat Rejection to Exhaust (Total)	2117 kW	120392 Btu/min
Heat Rejection to Aftercooler	406 kW	23089 Btu/min
Heat Rejection to Atmosphere from Engine	175 kW	9952 Btu/min
Heat Rejection to Atmosphere from Generator	83 kW	4737 Btu/min

Alternator <sup>2</sup>	
Motor Starting Capability @ 30% Voltage Dip	4196 skVA
Current	131 amps
Frame Size	2770
Excitation	PM
Temperature Rise	130 ° C

Emissions (Nominal) <sup>3</sup>		
NOx	3059.2 mg/Nm <sup>3</sup>	6.5 g/hp-hr
CO	323.3 mg/Nm <sup>3</sup>	0.7 g/hp-hr
HC	55.2 mg/Nm <sup>3</sup>	0.1 g/hp-hr
PM	12.6 mg/Nm <sup>3</sup>	0.0 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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**2000 ekW/ 2500 kVA/ 50 Hz/ 1500 rpm/ 11000 V/ 0.8 Power Factor**

**Rating Type: STANDBY**

**Fuel Strategy: LOW EMISSIONS**

**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, 2006/95/EC, 2006/42/EC, 2004/108/EC.

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

**STANDBY:**Output available with varying load for the duration of the interruption of the normal source power. Average power 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 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.: DM7975-02

Feature Code: 516DR8A

Generator Arrangement: 2524246

Date: 02/01/2017

Source Country: CHINA

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