



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

Image shown is for radiator version.  
Images shown might not reflect actual configuration

### Specifications

Generator Set Specifications	
Rating (ekW)	1800
Rating (kVA)	2250
Voltage	415 Volts
Frequency	50 Hz
Speed	1500 rpm

Generator Set Configuration	
Emissions / Fuel Strategy	Low Fuel Consumption

Engine Specifications	
Engine Model	3516B TA, V16, 4-stroke Water-cooled Diesel
Bore	170 mm
Displacement	69 L
Stroke	190 mm
Compression Ratio	14.0:1
Aspiration	Turbocharged Aftercooled
Governor Type	ADEM™ A3
Fuel System	Electronic Unit Injection

## **Benefits & Features**

### **Cat<sup>®</sup> 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. 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 step as per ISO 8528-5. Conforms to ISO 8528-5 G3 load acceptance requirements.

### **Single-source Supplier**

Fully Prototype tested with certified torsional vibration analysis.

### **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 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

- Package-mounted SCAC Radiator.
- Radiator fan and belt drive.
- Fan and belt guard
- Coolant drain valve.

#### Exhaust

- Dry Exhaust manifold.
- Flange faced outlets.
- Mufflers.
- Stainless Steel Exhaust Flex fitting.
- Flanges.

#### Fuel

- Primary fuel filter with integral water separator.
- Secondary fuel filter.
- Fuel priming pump.
- Flexible fuel lines.
- Fuel cooler.

#### Generator

- Matched to the performance and output characteristics of Cat engines.
- IP23 Protection.
- AREP Excitation.
- Class H Insulation, Class H temperature rise.
- Form wound.
- R 449 voltage regulator with R 731 3-phase sensing module
- Load Acceptance Module (LAM).
- Droop kit.
- Winding temperature detector.
- Bearing temperature detector.
- Anticondensation heater.

### Power Termination

- Bus Bar.
- Right side standard.
- Top and bottom cable entry.

### Control Panel

- EMCP 4.2 Genset Controller.
- Voltage and speed adjust.
- Emergency Stop Button.
- User interface panel (UIP) -Rear mount.

### Mounting

- Anti-vibration Mounts.

### Starting/Charging

- Batteries with mounting rack and cables (standard).
- Charging alternator – 45 Amps, 24 Volts.
- Heavy duty starting system – 24 Volts.

### General

- 990 liters fuel tank.
- Paint – Caterpillar Yellow except rails and Heat exchanger in gloss black.

### Optional Equipment

- Air starting motor with control and silencer.
- Jacket water heater.
- Barring tool device.
- Air inlet shutoff.
- Duplex fuel filter
- Heavy-duty air cleaner.
- Option for remote mounting of UIP.
- Duplex oil filter.
- Electric pre-lube pump.

**3516B**

**1800 ekW / 2250 kVA / 50 Hz / 1500 rpm / 415V / 0.8 Power Factor**

Rating Type: Standby

Fuel Strategy: Low Fuel Consumption

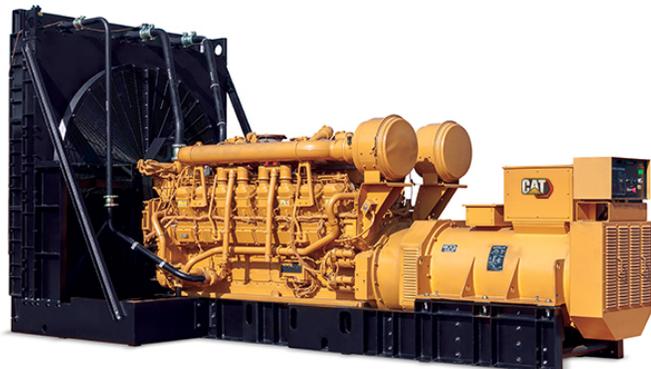


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<b>Package Performance</b>	
Generator set power rating with Fan @ 0.8 power factor	1800 ekW
Generator set power rating	2250 kVA
Aftercooler (separate circuit)	90 °C

<b>Fuel Consumption</b>	<b>Radiator</b>
100% load	457.5 L/hr
75% load	345.4 L/hr
50% load	240.5 L/hr

<b>Cooling System</b>	
Engine coolant capacity	275 L
Coolant capacity with radiator	590L

<b>Air intake system</b>	<b>Radiator</b>
Combustion Air inlet flow rate	130.5 m <sup>3</sup> /min
Max. Allowable combustion Air inlet temp	47°C

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Rating Type: **Standby**

Fuel Strategy: **Low Fuel Consumption**

Exhaust System	Radiator
Exhaust stack gas temperature	523°C
Exhaust gas flow rate	366 m <sup>3</sup> /min
Exhaust system back pressure (max. allowable)	6.7 kPa

Heat Rejection	Radiator
Heat Rejection to Jacket Water	727 kW
Heat Rejection to Exhaust (total)	1719 kW
Heat Rejection to Aftercooler	319 kW
Heat Rejection to Atmosphere from Engine	160 kW
Heat Rejection to Atmosphere from Generator	85 kW

Alternator	
Motor Starting Capability @ 30% Voltage Dip at 0.4PF	5957 skVA
Current	3130 Amps
Frame size	LSC 86 M1
Excitation	AREP
Temperature rise	125°C

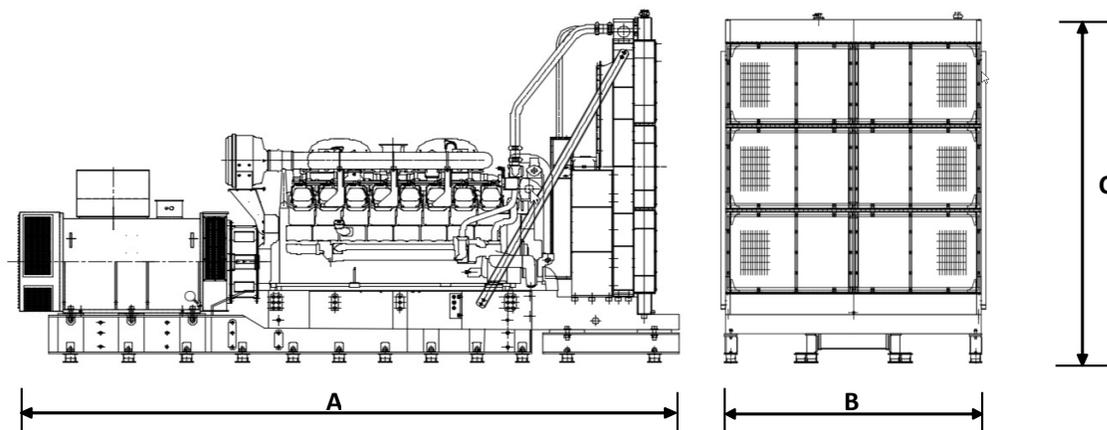
- For ambient and altitude capabilities consult your Cat dealer.
- Air flow restriction (system) is added to existing restriction from factory.
- Generator temperature rise is based on a 40°C (104°F) ambient.

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Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
6392.1(251.66)	2850 (112.20)	3765.8 (148.26)	16955(37,467)

**DEFINITIONS AND CONDITIONS**

**Applicable Codes and Standards:**

ISO3046, ISO8528, IEC60034-1, IS4722.

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 duration of interruption of the reliable Power source, for a maximum of 500 hours per year. Standby power in accordance with ISO 8528.

**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] gravity having a LHV of 42,780 kJ/kg when used at 29°C 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.com/electricpower](http://www.cat.com/electricpower)

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