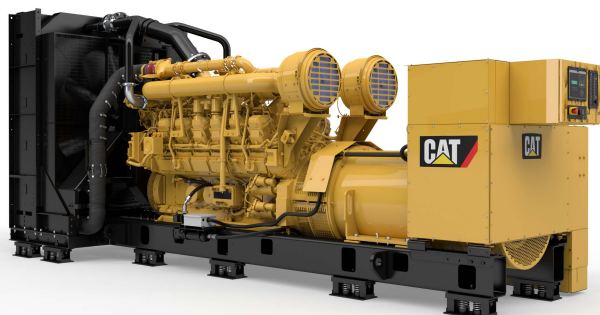


Caterpillar is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost-effectiveness.



Specifications

Generator Set Specifications

| | |
|----------------|--------------------|
| Standby Rating | 1750 ekW |
| Voltage | 380 to 13800 Volts |
| Frequency | 60 Hz |
| Speed | 1800 RPM |

Generator Set Configurations

| | |
|-------------------------|---|
| Emissions/Fuel Strategy | U.S. EPA Certified for Stationary Emergency Use Only (Tier 2 Nonroad Equivalent Emission Standards) |
|-------------------------|---|

Engine Specifications

| | | |
|-------------------|--|----------|
| Engine Model | 3512C HD ATAAC, V-12, 4-Stroke Water-Cooled Diesel | |
| Compression Ratio | 14.7:1 | |
| Aspiration | TA | |
| Governor Type | Adem™3 | |
| Fuel System | Electronic unit injection | |
| Bore | 170 mm | 6.69 in |
| Displacement | 58.6 L | 3574 in³ |
| Stroke | 215 mm | 8.46 in |

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 G3 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
- IP23 Protection
- Permanent magnet excitation (PMG)

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
- Oversize and premium generators

Power Termination

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

Control Panels

- EMCP 4.2B
- 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
- CSA Certification
- Automatic transfer switches (ATS)

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.

3512C

1750 ekW/ 2188 kVA/ 60 Hz/ 1800 rpm/ 480 V/ 0.8 Power Factor

Rating Type: STANDBY

Emissions: U.S. EPA Certified for Stationary Emergency
Use Only (Tier 2 Nonroad Equivalent Emission Standards)

3512C

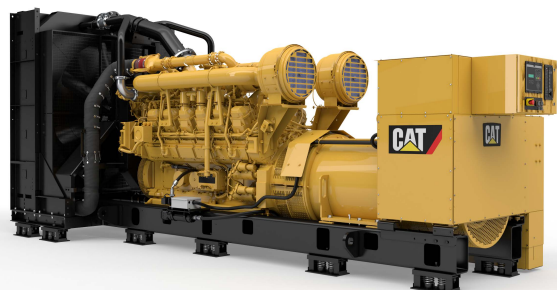
1750 ekW/ 2188 kVA
60 Hz/ 1800 rpm/ 480 V

Image shown may not reflect actual configuration

Metric

English

Package Performance

| | | |
|---|----------|-----|
| Genset Power Rating | 1750 ekW | |
| Genset Power Rating with Fan @ 0.8 Power Factor | 2188 kVA | |
| Aftercooler (Separate Circuit) | N/A | N/A |

Fuel Consumption

| | | |
|--------------------|------------|--------------|
| 100% Load with Fan | 467.1 L/hr | 123.4 gal/hr |
| 75% Load with Fan | 356.8 L/hr | 94.3 gal/hr |
| 50% Load with Fan | 261.6 L/hr | 69.1 gal/hr |
| 25% Load with Fan | 160.4 L/hr | 42.4 gal/hr |

Cooling System¹

| | | |
|---|--------------------------|------------|
| Engine Coolant Capacity | 234 L | 62 gal |
| Radiator Air Flow @ 0.12 kPa external restriction | 2075 m ³ /min | 73,280 cfm |

Inlet Air

| | | |
|--|-------------------------|----------|
| Combustion Air Inlet Flow Rate | 164 m ³ /min | 5792 cfm |
| Max. Allowable Combustion Air Inlet Temp | 50° C | 122° F |

Exhaust System

| | | |
|---|---------------------------|----------------|
| Exhaust Stack Gas Temperature | 462.7° C | 864.9° F |
| Exhaust Gas Flow Rate | 417.3 m ³ /min | 14,740 cfm |
| Exhaust System Backpressure (Maximum Allowable) | 6.7 kPa | 27.0 in. water |

Rating Type: STANDBY

Emissions: U.S. EPA Certified for Stationary Emergency
Use Only (Tier 2 Nonroad Equivalent Emission Standards)

Heat Rejection

| | | |
|---|---------|---------------|
| Heat Rejection to Jacket Water | 599 kW | 34095 Btu/min |
| Heat Rejection to Exhaust (Total) | 1597 kW | 90950 Btu/min |
| Heat Rejection to Aftercooler | 566 kW | 32217 Btu/min |
| Heat Rejection to Atmosphere from Engine | 145 kW | 8250 Btu/min |
| Heat Rejection to Atmosphere from Generator | 86 kW | 4891 Btu/min |

Alternator²

| | |
|---|-----------|
| Motor Starting Capability @ 30% Voltage Dip | 5077 skVA |
| Current | 2631 amps |
| Frame Size | 1602 |
| Excitation | PMG |
| Temperature Rise | 125°C |

Genset Dimensions

| | | |
|------------|-----------|-----------|
| Length | 6172 mm | 243.0 in |
| Width | 2281 mm | 89.8 in |
| Height | 2794 mm | 110.0 in |
| Mass (Dry) | 14,200 kg | 31,240 lb |

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

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.

Generator Arrangement: 2523838

Date: 11/18/2016

Source Country: U.S.

www.Cat-ElectricPower.com

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