C32 ACERT™ Generator Set

Electric Power

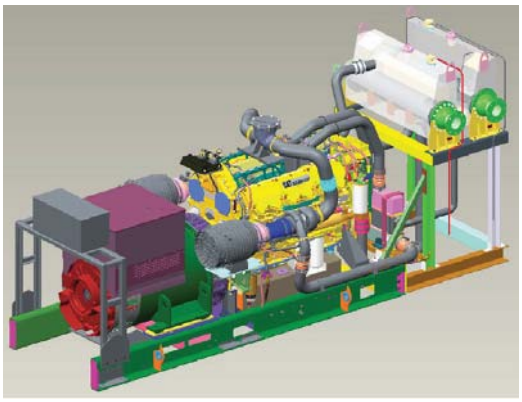

Image shown may not reflect actual configuration

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

Specifications

Generator Set Specifications	
Minimum Rating	808 ekW (1010 kVA)
Maximum Rating	880 ekW (1100 kVA)
Voltage	415 Volts
Frequency	50 Hz
Speed	1500 rpm

Generator Set Configurations	
Emissions/Fuel Strategy	Low Fuel Consumption

Engine Specifications	
Engine Model	C32 ACERT™ TA, V-12, 4-stroke Water-cooled Diesel
Bore	145 mm
Displacement	32.1 L
Stroke	162 mm
Compression Ratio	15.0:1
Aspiration	Turbocharged Aftercooled
Governor Type	ADEM™ A4
Fuel System	MEUI™

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

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.

Standard Equipment

Air Inlet

- Air cleaner

Cooling

- Package-mounted heat exchanger

Exhaust

- Exhaust muffler
- Exhaust flange outlet

Fuel

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

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 4.2 generator set controller

Mounting

- Rubber anti-vibration mounts

Starting/Charging

- Charging alternator

General

- 990 liter fuel tank
- Paint – Caterpillar Yellow except rails and heat exchanger black

Optional Equipment

Generator

- Winding and bearing temperature detectors
- Anti-condensation heater
- Oversize and premium generators

Control Panels

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

Starting/Charging

- Jacket water heater

General

- The following options are based on regional and product configuration:
  – Heavy-duty air cleaner
  – Option for remote mounting of UIP
  – Circuit breaker panel

Rating Type: PRIME

Fuel Strategy: Low Fuel Consumption

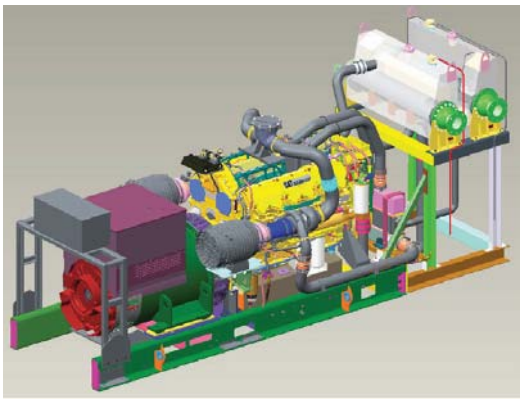

Image shown may not reflect actual configuration

C32 ACERT
808 ekW/ 1010 kVA
50 Hz/ 1500 rpm/ 415V

Package Performance	
Generator Set Power Rating with Fan @ 0.8 Power Factor	808 ekW
Generator Set Power Rating	1010 kVA
Aftercooler (separate circuit)	Air-to-Water

Fuel Consumption	
100% Load	200.7 L/hr
75% Load	149.8 L/hr
50% Load	103.1 L/hr
25% Load	60.0 L/hr

Cooling System[1]	
Engine Coolant Capacity	55.0 L
Coolant Capacity with Heat Exchanger	330 L
Raw Water Flow (min)	1000 LPM
Heat Load for Cooling Tower Sizing	500 kW

Inlet Air	
Combustion Air Inlet Flow Rate	62.2 m^3/min
Max. Allowable Combustion Air Inlet Temp	47°C

Rating Type: PRIME **Fuel Strategy: Low Fuel Consumption**

Exhaust System	
Exhaust Stack Gas Temperature	498.3°C
Exhaust Gas Flow Rate	166.2 m^3/min
Exhaust System Backpressure (maximum allowable)	10.0 kPa

Heat Rejection	
Heat Rejection to Jacket Water	301 kW
Heat Rejection to Exhaust (total)	749 kW
Heat Rejection to Aftercooler	155 kW
Heat Rejection to Atmosphere from Engine	108 kW
Heat Rejection to Atmosphere from Generator	41 kW

Alternator[2]	
Motor Starting Capability @ 30% Voltage Dip	2297 skVA
Current	1407 amps
Frame Size	1402
Excitation	IE
Temperature Rise	125°C

[1] For ambient and altitude capabilities consult your Cat dealer.

[2] Generator temperature rise is based on a 40°C (104°F) ambient per NEMA MG1-32.

ELECTRIC POWER – Technical Spec Sheet
STANDARD

C32 ACERT™
808 ekW/ 1010 kVA/ 50 Hz/ 1500 rpm/ 415V/ 0.8 Power Factor

Rating Type: PRIME **Fuel Strategy: Low Fuel Consumption**

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.

PRIME: Output available with varying load for unlimited time. Prime power in accordance with ISO 8528. 10% overload power in accordance with ISO 3046.

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 an LHV of 42 780 kJ/kg when used at 29°C and weighing 838.9 g/liter.

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.

Performance No.: DM9957-02
Generator Arrangement:4326118
Date: 08/11/2016
Source Country: India

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