



The C32 with the upgradeable packaging design has been developed for a wide range of applications, from emergency standby installations such as healthcare and datacenters to continuously powering remote installations. The packages can be optimized for performance to matters to you with either low emissions or low fuel consumption versions available. Backed by the worldwide network of Cat dealers ready to support your operation with technical support, service, parts, and warranty, Cat generator sets will provide the reliability and durability you expect.

Specifications

Generator Set Specifications	
Minimum Rating	830 ekW (910 kVA)
Maximum Rating	1000 ekW (1250 kVA)
Voltage	220 to 4160
Frequency	50 or 60 Hz
Speed	1500 or 1800 RPM

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

Engine Specifications	
Engine Model	C32 TA, V-12, 4-Stroke Water-Cooled Diesel
Bore	145 mm (5.71 in)
Displacement	32.1 L (1958.86 in3)
Compression Ratio	15.0:1
Aspiration	TA
Governor Type	Adem™A4
Fuel System	MEUI
Stroke	162 mm (6.38 in)
Exhaust Flange Size (Internal Diameter)	203.2 mm (8.0 in)
Air Inlet	Single element canister style with service indicator

Benefits And Features

Cat Generator Set Package

Cat generator set packages have been fully prototype tested, and certified torsional vibration analysis reports are available. The packages are designed to accept 100% load in one step, meet the NFPA 110 requirement for loading, and conform to the ISO 8528-5 steady state and transient response requirements.

Cat Diesel Engines

The four cycle Cat diesel engine combines consistent performance with excellent fuel economy and transient response that meets or exceeds ISO 8528-5. The engines have been designed and built for a wide range of applications and can be optimized for lowest fuel consumption, low emissions, or U.S. Environmental Protection Agency (EPA) certified configurations. The engines feature a reliable, rugged, and durable design that has been field proven in thousands of applications worldwide from emergency standby installations to continuously operating power plants.

Cooling System

The cooling system has been designed to operate in standard ambient temperatures up to 50°C (122°F), with optional high ambient radiators available. The factory installed cooling system has been designed and tested to ensure proper generator set cooling, and includes the radiator, fan, belts, and all guarding installed as standard. Contact your Cat Dealer for specific ambient and altitude capabilities.

Generators

The generators used on Cat packages have been designed and tested to work with the Cat engine. The generators are built with robust Class H insulation and provide industry leading motor starting capability. Random wound generators provide good generator performance in a majority of applications and form wound is available for harsh mechanical and electrical environments.

EMCP Control Panels

The EMCP controller features the reliability and durability you have come to expect from your Cat equipment. The 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.

World Wide Product Support

Cat Dealers have over 1,800 dealer branch stores operating in 200 countries, providing extensive pre-sale and post-sale support, from 98% parts availability within 24 hours to an individualized customer support agreement (CSA), the Cat dealer will provide support.

Optional Equipment

Engine Options

- Radiator duct flange
- Dual element air cleaners
- Heavy duty air cleaners
- Muffler (industrial grade)
- Exhaust guards / shields
- Heavy duty electric starting motors
- Battery Charger (10A)
- Heavy Duty Batteries
- Jacket water heater
- Rubber anti-vibration mounts (90% efficient)
- Spring type anti-vibration mounts (95% efficient)

Control System

- EMCP (4.2) (4.3) (4.4)
- Local annunciator module
- Remote annunciator module
- Expansion I/O module
- Remote monitoring software

Generators

- Temperature Rise over 40°C ambient: 150°C 125°C 105°C 80°C
- Winding: Random Random with coastal insulation Form
- Excitation: Permanent Magnet Excited (PM) Internally Excited (IE)
- Anti-condensation heaters
- Generator stator and bearing temperature monitoring & protection

Power Termination

- Circuit breaker, 100% Rated, UL Listed (fully rated)
- Circuit breaker, IEC listed (fully rated)
- Bus bars

Extended Service Contract

- 2 Year Extended Service Contract (ESC)
- 3 Year Extended Service Contract (ESC)
- 5 Year Extended Service Contract (ESC)

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C32 ACERT
1000 ekW/ 1250 kVA/ 60 Hz/ 1800 rpm/ 480 V/ 0.8 Power Factor

Rating Type: MISSION CRITICAL STANDBY

Fuel Strategy: LOW FUEL CONSUMPTION

C32 ACERT
1000 ekW/ 1250 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	1000 ekW	
Genset Power Rating	1250 kVA	
Aftercooler (Separate Circuit)	N/A	N/A

Fuel Consumption		
100% Load with Fan	262.7 L/hr	69.4 gal/hr
75% Load with Fan	195.9 L/hr	51.7 gal/hr
50% Load with Fan	135.9 L/hr	35.9 gal/hr
25% Load with Fan	80.8 L/hr	21.3 gal/hr

Cooling System ¹		
Engine Coolant Capacity	55.0 L	14.5 gal

Inlet Air		
Combustion Air Inlet Flow Rate	N/A	N/A
Max. Allowable Combustion Air Inlet Temp...	N/A	N/A

Exhaust System		
Exhaust Stack Gas Temperature	N/A	N/A
Exhaust Gas Flow Rate	N/A	N/A
Exhaust System Backpressure (Maximum Allowable)	10.0 kPa	40.0 in. water



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Heat Rejection		
Heat Rejection to Jacket Water	359 kW	20395 Btu/min
Heat Rejection to Exhaust (Total)	965 kW	54857 Btu/min
Heat Rejection to Aftercooler	249 kW	14173 Btu/min
Heat Rejection to Atmosphere from Engine	127 kW	7243 Btu/min
Heat Rejection to Atmosphere from Generator	55 kW	3122 Btu/min

Alternator²	
Motor Starting Capability @ 30% Voltage Dip	2734 skVA
Current	1504 amps
Frame Size	1402
Excitation	IE
Temperature Rise	125 ° C

Emissions (Nominal)³		
NOx	3009.7 mg/Nm ³	6.1 g/hp-hr
CO	89.8 mg/Nm ³	0.2 g/hp-hr
HC	5.1 mg/Nm ³	0.0 g/hp-hr
PM	8.3 mg/Nm ³	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.

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.



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MISSION CRITICAL STANDBY:Output available with varying load for the duration of the interruption of the normal source power. Average power output is 85% of the standby power rating. Typical peak demand up to 100% of standby rated ekW for 5% of the operating time. 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

Performance No.: EM0450-00

Feature Code: C32DR45

Generator Arrangement: 4326118

Date: 01/24/2015

Source Country: U.S.

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