



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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ELECTRIC POWER - Technical Spec Sheet

STANDARD



C32 ACERT
880 ekW/ 1100 kVA/ 50 Hz/ 1500 rpm/ 400 V/ 0.8 Power Factor

Rating Type: MISSION CRITICAL STANDBY

Fuel Strategy: LOW FUEL CONSUMPTION



C32 ACERT
880 ekW/ 1100 kVA
50 Hz/ 1500 rpm/ 400 V

Image shown may not reflect actual configuration

Metric

English

Package Performance

| | | |
|---|----------|-----|
| Genset Power Rating with Fan @ 0.8 Power Factor | 880 ekW | |
| Genset Power Rating | 1100 kVA | |
| Aftercooler (Separate Circuit) | N/A | N/A |

Fuel Consumption

| | | |
|--------------------|------------|-------------|
| 100% Load with Fan | 226.4 L/hr | 59.8 gal/hr |
| 75% Load with Fan | 170.3 L/hr | 45.0 gal/hr |
| 50% Load with Fan | 117.6 L/hr | 31.1 gal/hr |
| 25% Load with Fan | 69.1 L/hr | 18.3 gal/hr |

Cooling System¹

| | | |
|-------------------------|--------|----------|
| Engine Coolant Capacity | 55.0 L | 14.5 gal |
|-------------------------|--------|----------|

Inlet Air

| | | |
|---|--------------------------|------------|
| Combustion Air Inlet Flow Rate | 66.0 m ³ /min | 2332.0 cfm |
| Max. Allowable Combustion Air Inlet Temp... | N/A | N/A |

Exhaust System

| | | |
|---|---------------------------|----------------|
| Exhaust Stack Gas Temperature | 508.7 ° C | 947.7 ° F |
| Exhaust Gas Flow Rate | 180.1 m ³ /min | 6359.7 cfm |
| Exhaust System Backpressure (Maximum Allowable) | 10.0 kPa | 40.0 in. water |

C32 ACERT
880 ekW/ 1100 kVA/ 50 Hz/ 1500 rpm/ 400 V/ 0.8 Power Factor**Rating Type: MISSION CRITICAL STANDBY****Fuel Strategy: LOW FUEL CONSUMPTION****Heat Rejection**

| | | |
|---|--------|---------------|
| Heat Rejection to Jacket Water | 319 kW | 18167 Btu/min |
| Heat Rejection to Exhaust (Total) | 818 kW | 46518 Btu/min |
| Heat Rejection to Aftercooler | 181 kW | 10283 Btu/min |
| Heat Rejection to Atmosphere from Engine | 120 kW | 6797 Btu/min |
| Heat Rejection to Atmosphere from Generator | 49 kW | 2804 Btu/min |

Alternator²

| | |
|---|-----------|
| Motor Starting Capability @ 30% Voltage Dip | 2297 skVA |
| Current | 1588 amps |
| Frame Size | 1402 |
| Excitation | IE |
| Temperature Rise | 150 ° C |

Emissions (Nominal)³

| | | |
|-----|---------------------------|-------------|
| NOx | 2966.9 mg/Nm ³ | 5.8 g/hp-hr |
| CO | 308.9 mg/Nm ³ | 0.6 g/hp-hr |
| HC | 4.0 mg/Nm ³ | 0.0 g/hp-hr |
| PM | 14.1 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.

C32 ACERT
880 ekW/ 1100 kVA/ 50 Hz/ 1500 rpm/ 400 V/ 0.8 Power Factor

Rating Type: MISSION CRITICAL STANDBY

Fuel Strategy: LOW FUEL CONSUMPTION

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.: EM0447-01

Feature Code: C32DR46

Generator Arrangement: 4326118

Date: 02/03/2015

Source Country: U.S.

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