## Cat<sup>®</sup> DE1100 GC DIESEL GENERATOR SETS



Standby: 50Hz



| Engine Model                       | Cat <sup>®</sup> C32 |
|------------------------------------|----------------------|
| Bore, mm (in)                      | 145 (5.7)            |
| Stroke, mm (in)                    | 162 (6.4)            |
| Displacement, L (in <sup>3</sup> ) | 32.1 (1959)          |
| Compression Ratio                  | 15.0:1               |
| Aspiration                         | TA                   |
| Fuel System                        | EUI                  |
| Governor Type                      | ADEM™ A4             |

| Model     | Standby          | Emission Strategy                  |
|-----------|------------------|------------------------------------|
| DE1100 GC | 1100kVA (880ekW) | Optimized for Low Fuel Consumption |

### **Cat® Diesel Engine**

- Designed and optimized for low fuel consumption.
- Reliable and consistent performance proven in thousands of applications worldwide

#### **Generator Set Package**

- Matched to the performance and output characteristics of Cat engines
- Industry-leading mechanical and electrical design
- · Industry-leading motor starting capabilities
- High efficiency

#### Alternators

- Superior motor starting capability minimizes the need for oversizing the generator
- Designed to match the performance and output characteristics of Cat diesel engines

#### **Cooling System**

- Cooling systems available to operate in ambient temperatures up to 50°C (122°F)
- Tested to ensure proper generator set cooling.

#### **Design Criteria**

- Accepts 100% block load in one step and meets NFPA 110 loading requirements.
- Conforms to ISO 8528-5 G3 load acceptance requirements.

#### **GCCP Control Panels**

- User-friendly set-up and button layout for ease of use .
- Multiple parameters are monitored & displayed simultaneously for full visibility.
- The module can be configured to suit a wide range of applications for user flexibility

#### Warranty

- 24 months/1000-hour warranty for standby ratings.
- Extended service protection is available to provide extended coverage options.

#### **Worldwide Product Support**

- Cat dealers have over 1,800 dealer branch stores operating in 200 countries
- Your local Cat dealer provides extensive post-sale support, including maintenance and repair agreements

#### Financing

- Caterpillar offers an array of financial products to help you succeed through financial service excellence.
- Options include loans, finance lease, operating lease, working capital, and revolving line of credit.
- Contact your local Cat dealer for availability in your region.



### **STANDARD & OPTIONAL EQUIPMENT**

#### Engine

#### Air Cleaner

- □ Single element
- Dual element

#### Starting

□ Standard batteries

### Alternator

Output voltage

- □ 400V
- □ 415V

## Temperature Rise (over 40°C ambient)

□ 150°C Standby

## Winding type

□ Random wound

### Excitation

- □ Internal excitation (IE)
- Permanent magnet (PM)

#### **Control Panel**

GCCP1.3 Control Panel

#### **Power Termination (Rear mounted)**

- □ 1600A, 3-pole, Manually operated.
- □ 1600A Power Terminal Strips.

### Charging

□ 10A Battery Charger (Installed)

#### **Vibration Isolators**

- Rubber Pucks
- □ Spring Isolators (Non-Seismic)

#### **Extended Service Options**

Terms:

- □ 2 year
- □ 3 year
- □ 4 year

### Coverage

- □ Silver
- □ Gold
- **CAT Connect**
- Ethernet (PLG 601)
- Cellular (PLG 641)

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#### PACKAGE PERFORMANCE

| Performance  | Standby        |  |
|--|----------------|--|
| Frequency  | 50 Hz          |  |
| Genset Power Rating with fan                                     | 880 ekW        |  |
| Genset power rating with fan @ 0.8 power factor                  | 1100 kVA       |  |
| Emissions  | Low Fuel       |  |
| Performance Number   | DM9951-02      |  |
| Fuel Consumption   |                |  |
| 100% load with fan, L/hr (gal/hr)                                | 226.4 (59.8)   |  |
| 75% load with fan, L/hr (gal/hr)                                 | 170.3 (45.0)   |  |
| 50% load with fan, L/hr (gal/hr)                                 | 117.4 (31.0)   |  |
| 25% load with fan, L/hr (gal/hr)                                 | 69.1 (18.3)    |  |
| Cooling System <sup>1</sup>                                      |                |  |
| Radiator air flow restriction (system), kPa (in. Water)          | 0.12 (0.48)    |  |
| Radiator air flow, m³/min (cfm)                                  | 1143 (40364)   |  |
| Engine coolant capacity, L (gal)                                 | 55.0 (14.5)    |  |
| Total coolant capacity, L (gal)                                  | 116.0 (30.6)   |  |
| Inlet Air  |                |  |
| Combustion air inlet flow rate, m <sup>3</sup> /min (cfm)        | 66.0 (2332.0)  |  |
| Exhaust System   |                |  |
| Exhaust stack gas temperature, °C (°F)                           | 508.7 (947.7)  |  |
| Exhaust gas flow rate, m <sup>3</sup> /min (cfm)                 | 180.1 (6359.7) |  |
| Exhaust system backpressure (maximum allowable), kPa (in. water) | 6.7 (27.0)     |  |
| Heat Rejection   |                |  |
| Heat rejection to jacket water, kW (Btu/min)                     | 319 (18167)    |  |
| Heat rejection to exhaust (total), kW (Btu/min)                  | 818 (46518)    |  |
| Heat rejection to aftercooler, kW (Btu/min)                      | 181 (10283)    |  |
| Heat rejection to atmosphere from engine, kW (Btu/min)           | 120 (6797)     |  |
| Heat rejection from alternator, kW (Btu/min)                     | 49 (2789)      |  |
| Emissions* (Nominal)   |                |  |
| NOx, mg/Nm <sup>3</sup> (g/hp-h)                                 | 2966.9 (5.84)  |  |
| CO, mg/Nm <sup>3</sup> (g/hp-h)                                  | 308.9 (0.61)   |  |
| HC, mg/Nm <sup>3</sup> (g/hp-h)                                  | 4.0 (0.01)     |  |
| PM, mg/Nm <sup>3</sup> (g/hp-h)                                  | 14.1 (0.03)    |  |
| Emissions** (Potential Site Variation)                           |                |  |
| NOx, mg/Nm <sup>3</sup> (g/hp-h)                                 | 3589.9 (7.07)  |  |
| CO, mg/Nm <sup>3</sup> (g/hp-h)                                  | 577.6 (1.14)   |  |
| HC, mg/Nm <sup>3</sup> (g/hp-h)                                  | 7.5 (0.02)     |  |
| PM, mg/Nm <sup>3</sup> (g/hp-h)                                  | 27.5 (0.07)    |  |

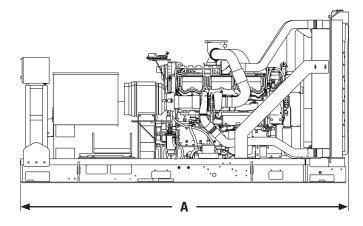
\*Contact your local Cat dealer.

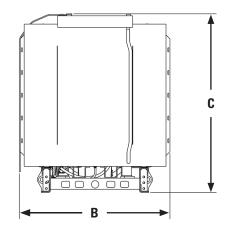
\*\*mg/Nm<sup>3</sup> levels are corrected to 5%  $O_{Z}$ . Contact your local Cat dealer for further information.



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#### **WEIGHTS & DIMENSIONS**





Note: General configuration not to be used for installation. See general dimension drawings for detail.

| Dim "A" mm (in) | Dim "B" mm (in) | Dim "C" mm (in) | Dry Weight kg (lb) |  |
|-----------------|-----------------|-----------------|--------------------|--|
| 4111 (161.85)   | 1822.5 (71.75)  | 2161.8 (85.11)  | 6700 (14770)       |  |

#### **RATINGS & DEFINITIONS**

**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**

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.)

#### 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

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.



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