# Cat® C15 DIESEL GENERATOR SETS

**Standby & Prime: 50Hz**

*Image shown might not reflect actual configuration*

| | |
|---|---|
| Engine Model | Cat® C15 In-line 6, 4-cycle Diesel |
| Bore x Stroke | 137mm x 171mm (5.4in x 6.8in) |
| Displacement | 15.2 L (928 in³) |
| Compression Ratio | 16.1:1 |
| Aspiration | Turbocharged Air-to-Air Aftercooled |
| Fuel Injection System | MEUI |
| Governor | Electronic ADEM™ A4 - G3 Class* capable |

| Model | Standby | Prime | Emission Strategy |
|---|---|---|---|
| **DE500E0** | **500 kVA, 400 ekW** | **450 kVA, 360 ekW** | **Non-Certified Emissions** |

## PACKAGE PERFORMANCE

| Performance | Standby | Prime |
|---|---|---|
| Frequency | 50 Hz | |
| Genset Power Rating | 500 kVA | 450 kVA |
| Genset power rating with fan @ 0.8 PF | 400 ekW | 360 ekW |
| Emissions | Non-Certified Emissions | |
| Performance Number | DM8491 | DM8490 |
| **Fuel Consumption** | | |
| 100% load with fan, L/hr (gal/hr) | 100.9 (26.6) | 91.9 (24.2) |
| 75% load with fan, L/hr (gal/hr) | 75.7 (20.6) | 69.9 (18.4) |
| 50% load with fan, L/hr (gal/hr) | 53.8 (14.6) | 50.1 (13.2) |
| 25% load with fan, L/hr (gal/hr) | 32.5 (8.8) | 30.7 (8.1) |
| **Cooling System[1]** | | |
| Radiator air flow restriction (system), kPa (in. Water) | 0.12 (0.48) | |
| Radiator air flow, m³/min (cfm) | 476 (16809) | |
| Engine coolant capacity, L (gal) | 20.8 (5.5) | |
| Radiator coolant capacity, L (gal) | 37 (9.7) | |
| Total coolant capacity, L (gal) | 57.8 (15.2) | |
| **Inlet Air** | | |
| Combustion air inlet flow rate, m³/min (cfm) | 29.3 (1036.4) | 27.3 (965.0) |
| Max. allowable air intake restriction (kPA) | 3.7 (clean element) / 6.2 (dirty element) | |
| **Exhaust System** | | |
| Exhaust stack gas temperature, °C (°F) | 523.6 (974.4) | 515.3 (959.5) |
| Exhaust gas flow rate, m³/min (cfm) | 79.4 (2802.2) | 73.1 (2580.2) |
| Exhaust system backpressure (maximum allowable) kPa (in. water) | 10 (40) | 10 (40) |
| **Heat Rejection** | | |
| Heat rejection to jacket water, kW (BTU/min) | 151 (8583) | 139 (7923) |
| Heat rejection to exhaust (total) kW (BTU/min) | 377 (21425) | 344 (19561) |
| Heat rejection to aftercooler, kW (BTU/min) | 71 (4053) | 61 (3450) |
| Heat rejection to atmosphere from engine, kW (BTU/min) | 44 (2477) | 42 (2396) |

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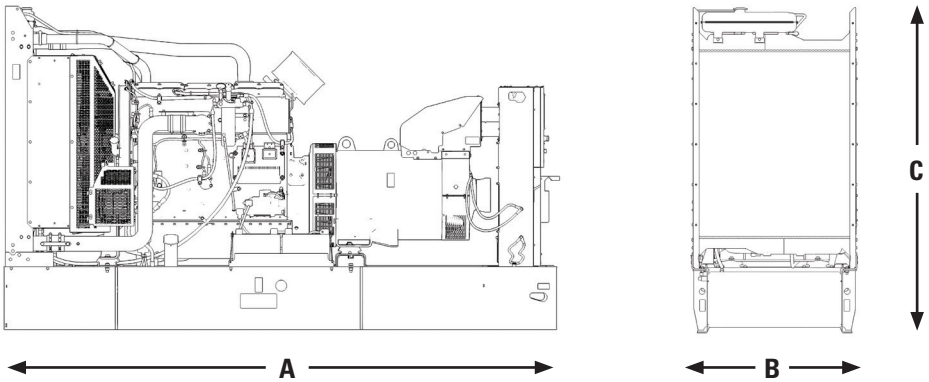
| Emissions (Nominal)[2] | Standby | Prime |
|---|---|---|
| NOx, mg/Nm³ (g/hp-hr) | 4185.1 (8.22) | 3357.6 (6.6) |
| CO, mg/Nm³ (g/hp-hr) | 320.1 (0.63) | 159.3 (0.3) |
| HC, mg/Nm³ (g/hp-hr) | 9.7 (0.02) | 6.6 (0.0) |
| PM, mg/Nm³ (g/hp-hr) | 15.1 (0.04) | 8.8 (0.0) |

| Alternator[3] | | | |
|---|---|---|---|
| Voltages | **415V** | **400V** | **380V** |
| Motor starting capability @ 30% Voltage Dip | 1439 skVA | 1066 skVA | 1207 skVA |
| Current | Standby: 695A, Prime: 626A | Standby: 722A, Prime: 650A | Standby: 747A, Prime: 650A |
| Frame Size | A2975L4 | A2975L4 | A2975L4 |
| Excitation | SE | SE | SE |
| Temperature Rise | SB:163°C, PP: 125°C | SB:163°C, PP: 125°C | SB:163°C, PP: 125°C |

## WEIGHTS & DIMENSIONS




| Dim "A" mm (in) | Dim "B" mm (in) | Dim "C" mm (in) | Dry Weight kg (lb) |
|---|---|---|---|
| **3830 (151)** | **1130 (44)** | **2255 (89)** | **3700 (8157)** |

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

## APPLICABLE CODES AND STANDARDS:

AS1359, IEC60034-1, ISO3046, ISO8528, NEMA MG1-33, EAC,CE,UKCA.
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.

**PRIME:** Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated ekW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year.

RATINGS: Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

## 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] 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.

[3] Generator temperature rise is based on a 40° C ambient per IEC60034-1.
* Governing Class capability as per ISO8528-5.Consult your local Cat dealer for configuration and site specific transient performance classification.

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