# Cat® C15 DIESEL GENERATOR SETS

**Standby & Prime: 60Hz**

*Image shown might not reflect actual configuration*

| | |
|---|---|
| Engine Model | Cat® C15 In-line 6, 4-cycle Diesel |
| Bore x Stroke | 137 mm x 171 mm (5.4 in x 6.8 in) |
| 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 |

| Model | Standby | Prime | Emission Strategy |
|---|---|---|---|
| **C15** | **400 ekW, 500 kVA** | **365 ekW, 456 kVA** | **TIER III Non-Road** |

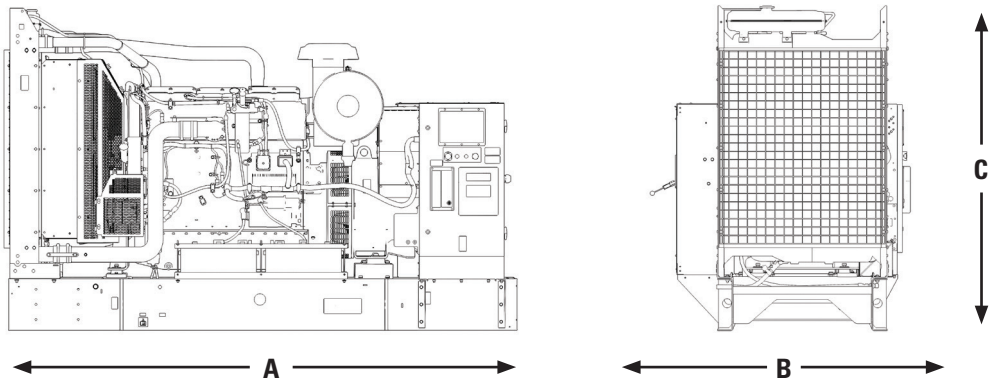
## PACKAGE PERFORMANCE

| Performance | Standby | Prime |
|---|---|---|
| Frequency | 60 Hz | |
| Genset Power Rating | 500 kVA | 456 kVA |
| Genset power rating with fan @ 0.8 power factor | 400 ekW | 365 ekW |
| Emissions | TIER III Non-Road | |
| Performance Number | DM8151 | DM8150 |
| **Fuel Consumption** | | |
| 100% load with fan, L/hr (gal/hr) | 116.8 (30.8) | 107.3 (28.3) |
| 75% load with fan, L/hr (gal/hr) | 94.6 (24.9) | 88.5 (23.3) |
| 50% load with fan, L/hr (gal/hr) | 69.9 (18.4) | 64.4 (17.0) |
| 25% load with fan, L/hr (gal/hr) | 39.9 (10.5) | 37.3 (9.8) |
| **Cooling System[1]** | | |
| Radiator air flow restriction (system), kPa (in. water) | 0.12 (0.48) | 0.12 (0.48) |
| Radiator air flow, m³/min (CFM) | 720 (25426) | 720 (25426) |
| Engine coolant capacity, L (gal) | 20.8 (5.5) | 20.8 (5.5) |
| Radiator coolant capacity, L (gal) | 54 (14) | 54 (14) |
| Total coolant capacity, L (gal) | 75 (20) | 75 (20) |
| **Inlet Air** | | |
| Combustion air inlet flow rate, m³/min (CFM) | 38.8 (1370.6) | 36.9 (1303.2) |
| Max. Allowable Combustion Air Inlet Temp, °C (°F) | 49 (120) | 48 (119) |
| **Exhaust System** | | |
| Exhaust stack gas temperature, °C (°F) | 487.0 (908.6) | 479.4 (894.9) |
| Exhaust gas flow rate, m³/min (CFM) | 102.8 (3629.1) | 96.2 (3395.2) |
| Exhaust system backpressure (maximum allowable), kPa (in. water) | 10.0 (40.0) | 10.0 (40.0) |
| **Heat Rejection** | | |
| Heat rejection to jacket water, kW (BTU/min) | 165 (9356) | 155 (8819) |
| Heat rejection to exhaust (total), kW (BTU/min) | 462 (26284) | 429 (24376) |
| Heat rejection to aftercooler, kW (BTU/min) | 111 (6340) | 98 (5578) |
| Heat rejection to atmosphere from engine, kW (BTU/min) | 75 (4272) | 69 (3937) |

| Emissions (Nominal)[2] | Standby | Prime |
|---|---|---|
| NOx, mg/Nm³ (g/hp-hr) | 1578.5 (3.5) | 1455.3 (3.2) |
| CO, mg/Nm³ (g/hp-hr) | 162.5 (0.4) | 272.0 (0.6) |
| HC, mg/Nm³ (g/hp-hr) | 17.3 (0.04) | 19.5 (0.05) |
| PM, mg/Nm³ (g/hp-hr) | 13.9 (0.04) | 16.3 (0.04) |

| Alternator[3] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Duty Cycle | | Standby | | | | | Prime | | | | |
| Phase | | 3-Phase | | | | | 3-Phase | | | | |
| Voltages, V | | 208 | 220 | 240 | 480 | 600 | 208 | 220 | 240 | 480 | 600 |
| Current, Amps | | 1388 | 1312 | 1203 | 601 | 481 | 1266 | 1197 | 1098 | 549 | 439 |
| Frame: LC6124D Excitation: AREP | Temperature Rise @ 40°C | 130 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| | Motor Starting Capability @ 30% Voltage Dip, skVA | 1008 | 1118 | 1309 | 1309 | 1408 | 1008 | 1118 | 1309 | 1309 | 1408 |
| Frame: LC6124F Excitation: AREP | Temperature Rise @ 40°C | 130 | 105 | 105 | 150 | 105 | 105 | 105 | 105 | 125 | 80 |
| | Motor Starting Capability @ 30% Voltage Dip, skVA | 1325 | 1466 | 1712 | 1712 | 1714 | 1325 | 1466 | 1712 | 1712 | 1714 |
| Frame: LC6124B Excitation: AREP | Temperature Rise @ 40°C | 150 | 150 | 150 | 150 | 150 | 125 | 125 | 125 | 125 | 125 |
| | Motor Starting Capability @ 30% Voltage Dip, skVA | | | 1055 | 1055 | 1057 | | 901 | 1055 | 1055 | 1057 |
| Frame: LC6114D Excitation: SE | Temperature Rise @ 40°C | 130 | 105 | 105 | 105 | | 105 | 105 | 105 | 105 | |
| | Motor Starting Capability @ 30% Voltage Dip, skVA | 839 | 930 | 1089 | 1089 | | 839 | 930 | 1089 | 1089 | |
| Frame: LC6114F Excitation: SE | Temperature Rise @ 40°C | 105 | 105 | 105 | 105 | | 80 | 80 | 80 | 80 | |
| | Motor Starting Capability @ 30% Voltage Dip, skVA | 1104 | 1222 | 1428 | 1428 | | 1104 | 1222 | 1428 | 1428 | |
| Frame: LC6114B Excitation: SE | Temperature Rise @ 40°C | 150 | 150 | 150 | 150 | | 125 | 125 | 125 | 125 | |
| | Motor Starting Capability @ 30% Voltage Dip, skVA | | | 880 | 880 | | | 751 | 880 | 880 | |

## WEIGHTS & DIMENSIONS




| Dim "A" mm (in) | Dim "B" mm (in) | Dim "C" mm (in) | Dry Weight kg (lb) |
|---|---|---|---|
| 3476 (137) | 1628 (64) | 2128 (84) | 4066 (8963) |

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

## APPLICABLE CODES AND STANDARDS:

CSA C22.2 No 100-04, UL142, UL489, UL869, cUL/UL2200, NFPA 37, NFPA 70, NFPA 99,NFPA 110, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-33.

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] 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.

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