

Cat® 3.3

Diesel Generator Sets



Standby & Prime: 50 Hz



Image shown might not reflect actual configuration.

| | |
|-----------------------|---------------------------------------|
| Engine Model | Cat® C3.3 Inline 4-stroke Diesel |
| Bore x Stroke | 105.0 mm x 127.0 mm (4.1 in x 5.0 in) |
| Displacement | 3.3 L (201.4 in³) |
| Compression Ratio | 18.23:1 |
| Aspiration | Turbocharged |
| Fuel Injection System | Inline |
| Governor | Mechanical |

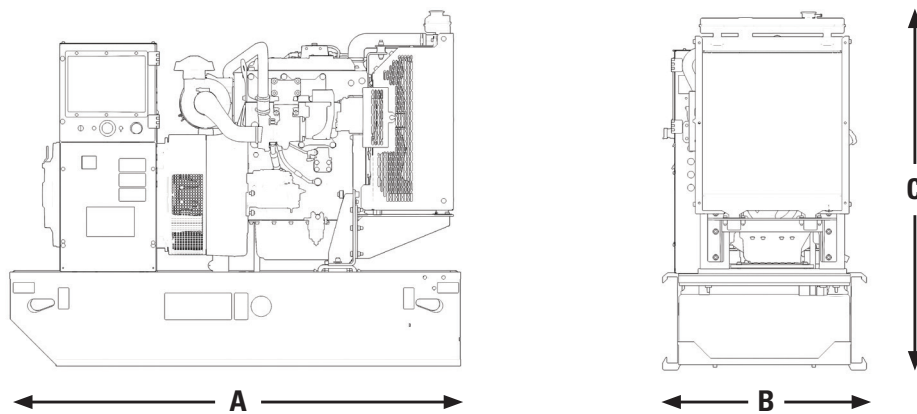
| Model | Standby | Prime | Emission Strategy |
|--------|--------------------|--------------------|-------------------|
| DE50E2 | 50 Hz | 50 Hz | EU II |
| | 50.0 kVA (40.0 kW) | 45.0 kVA (36.0 kW) | |

PACKAGE PERFORMANCE

| Performance | Standby | Prime |
|--|-------------|-------------|
| Frequency | 50 Hz | 50 Hz |
| Genset Power Rating | 50.0 kVA | 45.0 kVA |
| Genset power rating with fan @ 0.8 power factor | 40.0 kW | 36.0 kW |
| Emissions | EU II | |
| Performance Number | P3348A | |
| Fuel Consumption | | |
| Fuel Tank Capacity, litres (US gal) | 219 (57.9) | |
| 100% load with fan, L/hr (gal/hr) | 11.9 (3.1) | 10.6 (2.8) |
| 75% load with fan, L/hr (gal/hr) | 8.9 (2.4) | 8.0 (2.1) |
| 50% load with fan, L/hr (gal/hr) | 6.2 (1.6) | 5.7 (1.5) |
| Cooling System¹ | | |
| Radiator air flow, m³/min (cfm) | 62.4 (2204) | |
| Total coolant capacity, L (gal) | 10.2 (2.7) | |
| Inlet Air | | |
| Max. Combustion Air Intake Restriction, kPa (in H ₂ O) | 5.0 (20.1) | |
| Combustion air inlet flow rate, m³/min (cfm) | 3.1 (109) | 2.9 (102) |
| Max. Allowable Combustion Air Inlet Temp, °C (°F) | 50 (122) | |
| Exhaust System | | |
| Exhaust stack gas temperature, °C (°F) | 660 (1220) | 610 (1130) |
| Exhaust gas flow rate, m³/min (cfm) | 7.7 (272) | 7.0 (247) |
| Exhaust system backpressure (maximum allowable), kPa (in H ₂ O) | 12.0 (3.5) | |
| Heat Rejection | | |
| Heat rejection to jacket water, kW (Btu/min) | 29.0 (1649) | 26.4 (1501) |
| Heat rejection to alternator, kW (Btu/min) | 5.2 (296) | |
| Heat rejection to atmosphere from engine, kW (Btu/min) | 13.7 (779) | 12.1 (688) |

| Alternator ³ | 50 Hz | | |
|---|----------|------|------|
| | Voltages | 415V | 400V |
| Motor starting capability @ 30% Voltage Dip, skVA | 74 | 69 | 64 |
| Current, amps | 69 | 72 | 75 |
| Temperature Rise, °C | 125/40 | | |
| Frame Size | M1754L4 | | |
| Excitation | S.E | | |

WEIGHTS & DIMENSIONS



| Dim "A" mm (in) | Dim "B" mm (in) | Dim "C" mm (in) | Dry Weight kg (lb) |
|--------------------|--------------------|--------------------|-----------------------|
| 1925 (75.8) | 1120 (44.1) | 1361 (53.6) | 854 (1883) |

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

APPLICABLE CODES AND STANDARDS:

AS1359, NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-33, 2006/95/EC, 2006/42/EC, 2004/108/EC.

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 kW 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 NEMA MG1-32.

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