

Cat® C18

Diesel Generator Sets



Standby & Prime: 60 Hz



Image shown might not reflect actual configuration

| | |
|-----------------------|---|
| Engine Model | Cat® C18 In-line 6, 4-cycle Diesel |
| Bore x Stroke | 145 mm x 183 mm (5.7 in x 7.2 in) |
| Displacement | 18.13 L (1106.3 in³) |
| Compression Ratio | 14:1 |
| Aspiration | Turbocharged Air-to-Air Aftercooled |
| Fuel Injection System | Electronic Unit Injection |
| Governor | Electronic ADEM™ A4 - G3 Class* capable |

| Model | Standby | Prime | Emission Strategy |
|----------|---------|---------|-------------------|
| DE750SE0 | 750 ekW | 680 ekW | Low BSFC |

PACKAGE PERFORMANCE

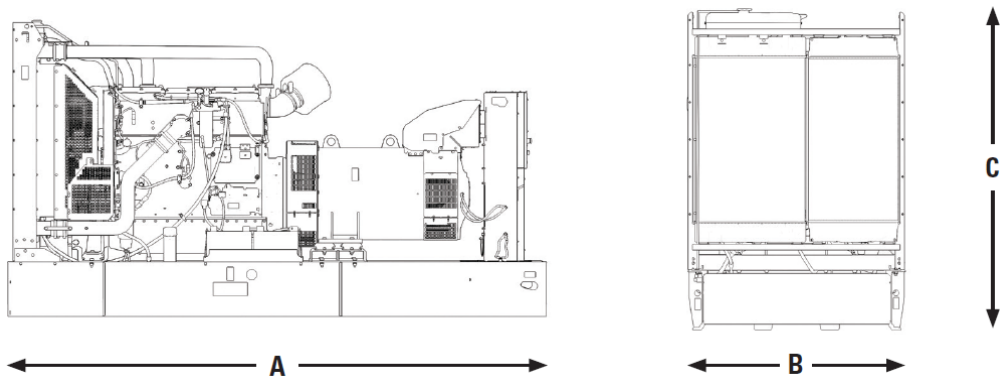
| Performance | Standby | Prime |
|--|---------------|----------------|
| Frequency | 60 Hz | 60 Hz |
| Genset power rating | 937.5 kVA | 850 kVA |
| Genset power rating with fan @ 0.8 pf | 750 ekW | 680 ekW |
| Emissions | Low BSFC | |
| Performance Number | EM3836 | EM3837 |
| Fuel Consumption | | |
| 100% load with fan, L/hr (gal/hr) | 199.1 (52.5) | 182.6 (48.2) |
| 75% load with fan, L/hr (gal/hr) | 145.2 (38.3) | 130.3 (34.4) |
| 50% load with fan, L/hr (gal/hr) | 97.0 (25.6) | 89.4 (23.6) |
| 25% load with fan, L/hr (gal/hr) | 57.2 (15.1) | 53.5 (14.1) |
| Cooling System¹ | | |
| Radiator air flow restriction (system), kPa (in. water) | 0.12 (0.48) | 0.12 (0.48) |
| Radiator air flow, m³/min (CFM) | 899 (31748) | |
| Engine coolant capacity, L (gal) | 21 (5.5) | 21 (5.5) |
| Radiator coolant capacity, L (gal) | 89 (23.5) | 89 (23.5) |
| Total coolant capacity, L (gal) | 110 (29.1) | 110 (29.1) |
| Inlet Air | | |
| Combustion air inlet flow rate, m³/min (CFM) | 67.0 (2364.8) | 65.3 (2304.7) |
| Max. Allowable Combustion Air Inlet Temp, °C (°F) | 49 (120) | 49 (120) |
| Exhaust System | | |
| Exhaust stack gas temperature, °C (°F) | 444.5 (832.1) | 424.4 (795.9) |
| Exhaust gas flow rate, m³/min (CFM) | 167.6 (5918) | 157.7 (5568.5) |
| Exhaust system backpressure (maximum allowable), kPa (in. water) | 10 (40.1) | |
| Heat Rejection | | |
| Heat rejection to jacket water, kW (Btu/min) | 230 (13091) | 211 (12019) |
| Heat rejection to exhaust (total), kW (Btu/min) | 733 (41680) | 673 (38259) |
| Heat rejection to aftercooler, kW (Btu/min) | 265 (15091) | 247 (14056) |
| Heat rejection to atmosphere from engine, kW (Btu/min) | 109 (6199) | 101 (5762) |
| Emissions (Nominal)² | | |
| NOx, mg/Nm³ (g/hp-hr) | 2543.7 (5.51) | 2290.4 (5.04) |
| CO, mg/Nm³ (g/hp-hr) | 216 (0.47) | 144.4 (0.31) |
| HC, mg/Nm³ (g/hp-hr) | 37.2 (0.09) | 27.3 (0.07) |
| PM, mg/Nm³ (g/hp-hr) | 19.6 (0.05) | 15.2 (0.04) |



ALTERNATOR DATA

| Alternator ³ | | | | | | | | |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Voltages, V | 220 | 480 | 440 | 380 | 220 | 480 | 440 | 380 |
| Motor starting capability @ 30% Voltage Dip, skVA | 2666 | 2501 | 2129 | 2029 | 2666 | 2501 | 2129 | 2029 |
| Current, A | 2460.3 | 1127.6 | 1230.1 | 1424.4 | 2230.7 | 1022.4 | 1115.3 | 1291.4 |
| Frame Size | LC7224N | LC7224L | LC7224L | LC7224N | LC7224N | LC7224L | LC7224L | LC7224N |
| Excitation | AREP | AREP | AREP | AREP | AREP | AREP | AREP | AREP |
| Temperature Rise, °C | 105 | 105 | 130 | 150 | 105 | 125 | 125 | 125 |

WEIGHTS & DIMENSIONS



| Length "A" mm (in) | Width "B" mm (in) | Height "C" mm (in) | Dry Weight kg (lb) |
|-----------------------|----------------------|-----------------------|-----------------------|
| 3910 (154) | 1461 (58) | 2156 (85) | 3862 (8514) |

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, NO_x. 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.

LET'S DO THE WORK.™

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