

Standby & Prime: 60Hz & 50Hz



Image shown might not reflect actual configuration

| | |
|-----------------------|-------------------------------------|
| Engine Model | Cat® C2.2 In-line 4, 4-cycle diesel |
| Bore x Stroke | 84mm x 100mm (3.3in x 3.9in) |
| Displacement | 2.2 L (135.2 in ³) |
| Compression Ratio | 23.3:1 |
| Aspiration | Naturally Aspirated |
| Fuel Injection System | Inline |
| Governor | Mechanical |

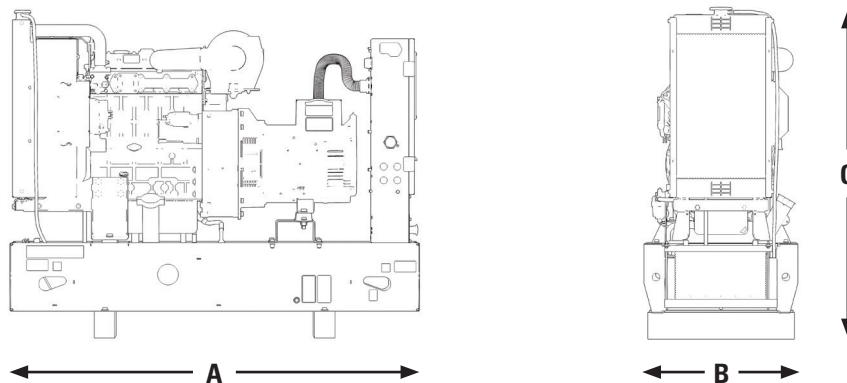
| Model | Standby | | Prime | | Emission Strategy |
|---------|----------|----------|----------|----------|-------------------|
| | 50 Hz | 60 Hz | 50 Hz | 60 Hz | |
| DE16E3S | 16.5 kVA | 19.4 kVA | 15.0 kVA | 17.6 kVA | EU IIIA |

PACKAGE PERFORMANCE

| Performance | Standby | | Prime | |
|---|-------------|-------------|------------|-------------|
| | 50 Hz | 60 Hz | 50 Hz | 60 Hz |
| Frequency | 50 Hz | 60 Hz | 50 Hz | 60 Hz |
| Genset Power Rating | 16.5 kVA | 19.4 kVA | 15.0 kVA | 17.6 kVA |
| Genset power rating with fan @ 0.8 power factor | 16.5 ekW | 19.4 ekW | 15.0 ekW | 17.6 ekW |
| Emissions | EU IIIA | | | |
| Fuel Consumption | | | | |
| 110% load with fan, L/hr (gal/hr) | NA | | 5.5 (1.5) | 6.3 (1.7) |
| 100% load with fan, L/hr (gal/hr) | 5.5 (1.5) | 6.3 (1.7) | 4.9 (1.3) | 5.7 (1.5) |
| 75% load with fan, L/hr (gal/hr) | 4.0 (1.1) | 4.8 (1.3) | 3.7 (1.0) | 4.4 (1.2) |
| 50% load with fan, L/hr (gal/hr) | 2.9 (0.8) | 3.5 (0.9) | 2.7 (0.7) | 3.3 (0.9) |
| Cooling System¹ | | | | |
| Radiator air flow restriction (system), kPa (in. Water) | 125 (0.5) | 125 (0.5) | 125 (0.5) | 125 (0.5) |
| Radiator air flow, m ³ /min (cfm) | 33 (1165) | 41.4 (1462) | 33 (1165) | 41.4 (1462) |
| Total coolant capacity, L (gal) | 6.5 (1.7) | 6.5 (1.7) | 6.5 (1.7) | 6.5 (1.7) |
| Inlet Air | | | | |
| Combustion air inlet flow rate, m ³ /min (cfm) | 1.5 (51) | 1.7 (61) | 1.5 (51) | 1.7 (61) |
| Max. Allowable Combustion Air Inlet Temp, °C | 50 | 50 | 50 | 50 |
| Exhaust System | | | | |
| Exhaust stack gas temperature, °C (°F) | 505 (941) | 510 (950) | 445 (833) | 440 (824) |
| Exhaust gas flow rate, m ³ /min (cfm) | 3.9 (139) | 4.8 (168) | 3.6 (129) | 4.3 (153) |
| Exhaust system backpressure (maximum allowable), kPa (in. Hg) | 10.2 (3) | 10.2 (3) | 10.2 (3) | 10.2 (3) |
| Heat Rejection | | | | |
| Heat rejection to coolant, kW (Btu/min) | 19.6 (1115) | 22.2 (1262) | 17.0 (967) | 19.9 (1132) |
| Heat rejection to atmosphere from engine & alternator, kW (Btu/min) | 6.9 (392) | 7.7 (438) | 5.4 (307) | 6.4 (364) |

| Alternator ³ | 50 Hz | | | 60 Hz | |
|---|---------|---------|---------|----------|----------|
| Voltages | 240V | 230V | 220V | 220/110V | 240/120V |
| Motor starting capability @ 30% Voltage Dip | 41 kVA | 39 kVA | 37 kVA | 37 kVA | 41 kVA |
| Current | 69 amps | 72 amps | 75 amps | 83 amps | 81 amps |
| Frame Size | M1455L4 | | | | |
| Excitation | SE | | | | |
| Temperature Rise | 105°C | | | | |

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) |
|-----------------|-----------------|-----------------|--------------------|
| 1500 (59.1) | 620 (24.4) | 1115 (43.9) | 447 (985) |

APPLICABLE CODES AND STANDARDS:

AS1359, CSA C22.2 No100-04, UL142, UL489, UL869, UL2200, 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 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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