# ELECTRIC POWER - Technical Spec Sheet STANDARD

#### C15 ACERT

## 400 ekW/ 500 kVA/ 50 Hz/ 1500 rpm/ 400 V/ 0.8 Power Factor

CAT

Rating Type: STANDBY Fuel Strategy: LOW FUEL CONSUMPTION



C15 ACERT 400 ekW/ 500 kVA 50 Hz/ 1500 rpm/ 400 V

Image shown may not reflect actual configuration

|   | Metric      | English        |
|---|-------------|----------------|
| Package Performance                             |             |                |
| Genset Power Rating with Fan @ 0.8 Power Factor | 400 ekW     |                |
| Genset Power Rating                             | 500 kVA     |                |
| Aftercooler (Separate Circuit)                  | N/A         | N/A            |
| Fuel Consumption                                |             |                |
| 100% Load with Fan                              | 103.7 L/hr  | 27.4 gal/hr    |
| 75% Load with Fan                               | 77.9 L/hr   | 20.6 gal/hr    |
| 50% Load with Fan                               | 55.3 L/hr   | 14.6 gal/hr    |
| 25% Load with Fan                               | 33.4 L/hr   | 8.8 gal/hr     |
| Cooling System¹                                 |             |                |
| Engine Coolant Capacity                         | N/A         | N/A            |
| nlet Air  |             |                |
| Combustion Air Inlet Flow Rate                  | 29.3 m³/min | 1036.4 cfm     |
| Max. Allowable Combustion Air Inlet Temp        | 48 ° C      | 118 ° F        |
| Exhaust System                                  |             |                |
| Exhaust Stack Gas Temperature                   | 523.6 ° C   | 974.4 ° F      |
| Exhaust Gas Flow Rate                           | 79.4 m³/min | 2802.2 cfm     |
| Exhaust System Backpressure (Maximum Allowable) | 10.0 kPa    | 40.0 in. water |

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| Heat Rejection                              |        |               |
|---|--------|---------------|
| Heat Rejection to Jacket Water              | 151 kW | 8583 Btu/min  |
| Heat Rejection to Exhaust (Total)           | 377 kW | 21425 Btu/min |
| Heat Rejection to Aftercooler               | 71 kW  | 4053 Btu/min  |
| Heat Rejection to Atmosphere from Engine    | 44 kW  | 2477 Btu/min  |
| Heat Rejection to Atmosphere from Generator | 28 kW  | 1592 Btu/min  |

| Alternator <sup>2</sup>                     |           |  |  |  |
|---|-----------|--|--|--|
| Motor Starting Capability @ 30% Voltage Dip | 1066 skVA |  |  |  |
| Current                                     | 722 amps  |  |  |  |
| Frame Size                                  | A2975L4   |  |  |  |
| Excitation                                  | SE        |  |  |  |
| Temperature Rise                            | 163 ° C   |  |  |  |

| Emissions (Nominal) <sup>3</sup> |                           |             |
|----------------------------------|---------------------------|-------------|
| NOx                              | 3458.8 mg/Nm <sup>3</sup> | 6.8 g/hp-hr |
| CO                               | 171.2 mg/Nm³              | 0.3 g/hp-hr |
| HC                               | 5.2 mg/Nm³                | 0.0 g/hp-hr |
| PM                               | 7.8 mg/Nm³                | 0.0 g/hp-hr |

#### **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. 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.
- 3. 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.

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### 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.

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

**Fuel Rates** are based on fuel oil of 35° API [16° C (60° F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.). Additional ratings may be available for specific customer requirements, contact your Cat representative for details. For information regarding Low Sulfur fuel and Biodiesel capability, please consult your Cat dealer.

www.Cat-ElectricPower.com

Performance No.: DM8491-03

FeatureCode:U.K:C15DEGE,China:C15DEH

E Generator Arrangement: 5027416

Date: 05/12/2016

Source Country: U.K.or China

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