

**C18 ACERT**  
**500 ekW/ 625 kVA/ 60 Hz/ 1800 rpm/ 480 V/ 0.8 Power Factor**

Rating Type: PRIME

Fuel Strategy: LOW FUEL CONSUMPTION



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**60 Hz/ 1800 rpm/ 480 V**

Image shown may not reflect actual configuration

**Metric English**

Package Performance		
Genset Power Rating with Fan @ 0.8 Power Factor	500 ekW	
Genset Power Rating	625 kVA	
Aftercooler (Separate Circuit)	N/A	N/A

Fuel Consumption		
100% Load with Fan	133.9 L/hr	35.4 gal/hr
75% Load with Fan	101.1 L/hr	26.7 gal/hr
50% Load with Fan	70.8 L/hr	18.7 gal/hr
25% Load with Fan	43.3 L/hr	11.4 gal/hr

Cooling System <sup>1</sup>		
Engine Coolant Capacity	20.8 L	5.5 gal

Inlet Air		
Combustion Air Inlet Flow Rate	42.0 m <sup>3</sup> /min	1483.1 cfm
Max. Allowable Combustion Air Inlet Temp	46 ° C	115 ° F

Exhaust System		
Exhaust Stack Gas Temperature	466.0 ° C	870.8 ° F
Exhaust Gas Flow Rate	109.5 m <sup>3</sup> /min	3866.8 cfm
Exhaust System Backpressure (Maximum Allowable)	10.0 kPa	40.0 in. water



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<b>Heat Rejection</b>		
Heat Rejection to Jacket Water	161 kW	9156 Btu/min
Heat Rejection to Exhaust (Total)	468 kW	26617 Btu/min
Heat Rejection to Aftercooler	109 kW	6199 Btu/min
Heat Rejection to Atmosphere from Engine	124 kW	7052 Btu/min
Heat Rejection to Atmosphere from Generator	27 kW	1535 Btu/min

<b>Alternator<sup>2</sup></b>	
Motor Starting Capability @ 30% Voltage Dip	1633 skVA
Current	752 amps
Frame Size	A3325L4
Excitation	AR
Temperature Rise	125 ° C

<b>Emissions (Nominal)<sup>3</sup></b>		
NOx	3530.2 mg/Nm <sup>3</sup>	7.0 g/hp-hr
CO	87.1 mg/Nm <sup>3</sup>	0.2 g/hp-hr
HC	4.8 mg/Nm <sup>3</sup>	0.0 g/hp-hr
PM	5.8 mg/Nm <sup>3</sup>	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.

**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** 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](http://www.Cat-ElectricPower.com)

Performance No.: DM9831-02

Feature Code: UK: C18DEAU, China: C18DEBU

Generator Arrangement: 5027418

Date: 05/20/2016

Source Country: U.K.or China

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