ELECTRIC POWER - Technical Spec Sheet
STANDARD

C18 ACERT
520 ekW/ 650 kVA/ 50 Hz/ 1500 rpm/ 400 V/ 0.8 Power Factor

Rating Type: PRIME

Fuel Strategy: LOW FUEL CONSUMPTION

Image shown may not reflect actual configuration

C18 ACERT
520 ekW/ 650 kVA
50 Hz/ 1500 rpm/ 400 V

	Metric	English
Package Performance		
Genset Power Rating with Fan @ 0.8 Power Factor	520 ekW	
Genset Power Rating	650 kVA	
Aftercooler (Separate Circuit)	N/A	N/A
Fuel Consumption		
100% Load with Fan	130.6 L/hr	34.5 gal/hr
75% Load with Fan	96.9 L/hr	25.6 gal/hr
50% Load with Fan	67.0 L/hr	17.7 gal/hr
25% Load with Fan	38.8 L/hr	10.3 gal/hr
Cooling System[1]		
Engine Coolant Capacity	20.8 L	5.5 gal
Inlet Air		
Combustion Air Inlet Flow Rate	35.3 m³/min	1246.1 cfm
Max. Allowable Combustion Air Inlet Temp	49 ° C	119 ° F
Exhaust System		
Exhaust Stack Gas Temperature	550.5 ° C	1022.9 ° F
Exhaust Gas Flow Rate	101.2 m³/min	3572.0 cfm
Exhaust System Backpressure (Maximum Allowable)	10.0 kPa	40.0 in. water

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Heat Rejection		
Heat Rejection to Jacket Water	165 kW	9375 Btu/min
Heat Rejection to Exhaust (Total)	487 kW	27711 Btu/min
Heat Rejection to Aftercooler	91 kW	5192 Btu/min
Heat Rejection to Atmosphere from Engine	83 kW	4729 Btu/min
Heat Rejection to Atmosphere from Generator	28 kW	1592 Btu/min

Alternator[2]	
Motor Starting Capability @ 30% Voltage Dip	1644 skVA
Current	938 amps
Frame Size	A3355L4
Excitation	AR
Temperature Rise	125 ° C

Emissions (Nominal)[3]		
NOx	3135.1 mg/Nm³	6.2 g/hp-hr
CO	411.8 mg/Nm³	0.8 g/hp-hr
HC	7.2 mg/Nm³	0.0 g/hp-hr
PM	14.2 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.

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 35º API [16º C (60º F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29º C (85º 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.

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Performance No.: DM9823-02

Feature Code: U.K:C18DEAP,China :C18DEBP

Generator Arrangement: 5027420

Date: 05/20/2016

Source Country: U.K. or China

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