Cat® C18 DIESEL GENERATOR SETS

Standby & Prime: 50Hz; 415V, 400V, & 380V

Image shown might not reflect actual configuration

Engine Model	Cat® C18 ACERT™ In-line 6, 4-cycle diesel
Bore x Stroke	145 mm x 183 mm (5.7 in x 7.2 in)
Displacement	18.1 L (1106 in³)
Compression Ratio	14.5:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4

Model	Standby	Prime	Emission Strategy
DE605E0	**605 kVA, 484 ekW**	**550 kVA, 440 ekW**	**Non-Certified Emissions**

PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	50 Hz	50 Hz
Genset Power Rating	605 kVA	550 kVA
Gen set power rating with fan @ 0.8 power factor	484 ekW	440 ekW
Fuelling strategy	Non-Certified Emissions	Non-Certified Emissions
Performance Number	DM9820	DM9819
Fuel Consumption		
100% Load with Fan	118.8 L/hr, 31.4 gal/hr	107.5 L/hr, 28.4 gal/hr
75% Load with Fan	89.1 L/hr, 23.5 gal/hr	81.2 L/hr, 21.5 gal/hr
50% Load with Fan	62.0 L/hr, 16.4 gal/hr	56.9 L/hr, 15.0 gal/hr
25% Load with Fan	36.0 L/hr, 9.5 gal/hr	33.3 L/hr, 8.8 gal/hr
Cooling System[1]		
Radiator air flow restriction (system)	0.12 kPa, 0.48 in. Water	0.12 kPa, 0.48 in. Water
Radiator air flow	373 m3/min, 13172 cfm	373 m3/min, 13172 cfm
Engine coolant capacity	20.8 L, 5.5 gal	20.8 L, 5.5 gal
Radiator coolant capacity	34 L, 8.9 gal	34 L, 8.9 gal
Total coolant capacity	54.8 L, 14.4 gal	54.8 L, 14.4 gal
Inlet Air		
Combustion air inlet flow rate	31.6 m³/min, 1117.5 cfm	29.2 m³/min, 1032.0 cfm
Max. Allowable Combustion Air Inlet Temp	49 ° C, 121 ° F	47 ° C, 117 ° F
Exhaust System		
Exhaust stack gas temperature	553.8 ° C, 1028.8 ° F	543.1 ° C, 1009.6 ° F
Exhaust gas flow rate	92.1 m³/min, 3251.0 cfm	83.5 m³/min, 2948.0 cfm
Exhaust system backpressure (maximum allowable)	10.0 kPa, 40.0 in. water	10.0 kPa, 40.0 in. water
Heat Rejection		
Heat rejection to jacket water	157 kW, 8945 Btu/min	146 kW, 8309 Btu/min
Heat rejection to exhaust (total)	449 kW, 25525 Btu/min	404 kW, 22965 Btu/min
Heat rejection to aftercooler	76 kW, 4313 Btu/min	63 kW, 3606 Btu/min
Heat rejection to atmosphere from engine	84 kW, 4784 Btu/min	78 kW, 4438 Btu/min
Heat Rejection to Atmosphere from Generator	36 kW, 2047 Btu/min	31 kW, 1763 Btu/min

Emissions (Nominal)[2]	Standby	Prime
NOx	3762.8 mg/Nm³, 7.7 g/hp-hr	4029.2 mg/Nm³, 8.1 g/hp-hr
CO	656.7 mg/Nm³, 1.3 g/hp-hr	615.0 mg/Nm³, 1.2 g/hp-hr
HC	3.2 mg/Nm³, 0.0 g/hp-hr	3.3 mg/Nm³, 0.0 g/hp-hr
PM	12.6 mg/Nm³, 0.0 g/hp-hr	10.4 mg/Nm³, 0.0 g/hp-hr

Alternator[3]			
Voltages	380V	400V	415V
Motor Starting Capability @ 30% Voltage Dip	1362 skVA	1507 skVA	1539 skVA
Current	SB: 919A PP: 811A	SB: 873A PP: 794A	SB: 842A PP: 765A
Frame Size	A3325L4	A3325L4	A3325L4
Excitation	SE	SE	SE
Temperature Rise	SB:163°C, 325°F PP: 125°C, 257°F		

SB: Standby PP: Prime Power

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.

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 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 fuel Consumption reported in accordance with ISO3046-1.

LEHE1658-00-ISO3046 (09/18)

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