Cat® C18 DIESEL GENERATOR SETS

Standby & Prime: 50Hz



Image shown might not reflect actual configuration

Engine Model	Cat® C18 ACERT™ In-line 6, 4-cycle diesel
Bore x Stroke	145mm x 183mm (5.7in x 7.2in)
Displacement	18.1 L (1106 in^3)
Compression Ratio	14.5:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4

Model	Standby	Prime	Emission Strategy
DE715E0	**715 kVA, 572 ekW**	**650 kVA, 520 ekW**	**Non-Certified Emissions**

PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	50 Hz	
Genset Power Rating	715 kVA	650 kVA
Genset power rating with fan @ 0.8 power factor	572 ekW	520 ekW
Emissions	Non-Certified Emissions	
Performance Number	DM9824	DM9823
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	144.5 (38.2)	130.6 (34.5)
75% load with fan, L/hr (gal/hr)	107.0 (28.3)	96.9 (25.6)
50% load with fan, L/hr (gal/hr)	73.5 (19.4)	67.0 (17.7)
25% load with fan, L/hr (gal/hr)	42.3 (11.2)	38.8 (10.3)
Cooling System[1]		
Radiator air flow restriction (system), kPa (in. Water)	0.12 (0.48)	0.12 (0.48)
Radiator air flow, m^3/min (cfm)	374 (13207)	374 (13207)
Engine coolant capacity, L (gal)	20.8 (5.5)	20.8 (5.5)
Radiator coolant capacity, L (gal)	34 (8.9)	34 (8.9)
Total coolant capacity, L (gal)	54.8 (14.4)	54.8 (14.4)
Inlet Air		
Combustion air inlet flow rate, m^3/min (cfm)	37.5 (1325.8)	35.3 (1246.1)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	51 (124)	49 (119)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	568.2 (1054.8)	550.5 (1022.9)
Exhaust gas flow rate, m^3/min (cfm)	110.6 (3906.1)	101.2 (3572.0)
Exhaust system backpressure (maximum allowable) kPa (in. water)	10.0 (40.0)	10.0 (40.0)
Heat Rejection		
Heat rejection to jacket water, kW (Btu/min)	179 (10181)	165 (9375)
Heat rejection to exhaust (total) kW (Btu/min)	541 (30791)	487 (27711)
Heat rejection to aftercooler, kW (Btu/min)	107 (6091)	91 (5192)
Heat rejection to atmosphere from engine, kW (Btu/min)	89 (5064)	83 (4729)

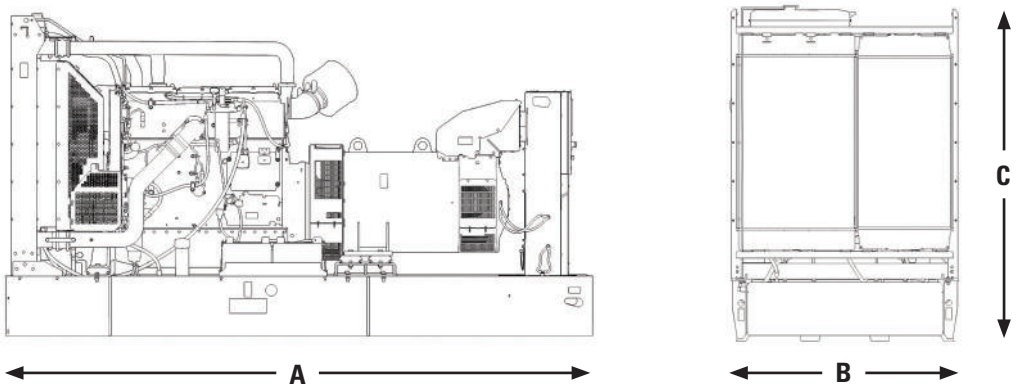
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Emissions (Nominal)[2]	Standby	Prime
NOx, mg/Nm³ (g/hp-hr)	2989.7 (6.1)	3135.1 (6.2)
CO, mg/Nm³ (g/hp-hr)	354.8 (0.7)	411.8 (0.8)
HC, mg/Nm³ (g/hp-hr)	4.3 (0.0)	7.2 (0.0)
PM, mg/Nm³ (g/hp-hr)	9.4 (0.0)	14.2 (0.0)

Alternator[3]			
Voltages	**380V**	**400V**	**415V**
Motor starting capability @ 30% Voltage Dip	1859 skVA	2064 skVA	2228 skVA
Current	SB: 1086A, PP: 988A	SB: 1032A, PP: 938A	SB: 995A, PP: 904A
Frame Size	A3355L4	A3355L4	A3355L4
Excitation	SE	SE	SE
Temperature Rise	SB: 163°C, PP: 125°C		

SB: Standby PP: Prime Power

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)
3910 (154)	**1461 (58)**	**2156 (85)**	**3862 (8514)**

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: 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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