Cat® C18 DIESEL GENERATOR SETS

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

Image shown might not reflect actual configuration

Engine Model	Cat® C18 ATAAC™ In-line 6, 4-cycle diesel
Bore x Stroke	145mm x 183mm (5.7in x 7.2in)
Displacement	18.13 L (1106.3 in³)
Compression Ratio	14:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	Electronic Unit Injection
Governor	Electronic ADEM™ A4

Model	Standby	Prime	Emission Strategy
DE780**E0**	780 **kVA**	706 **kVA**	**Low BSFC**

PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency, Hz	50	50
Genset Power Rating, kVA	780	706
Gen set power rating with fan @ 0.8 power factor, ekW	624	564
Fuelling strategy	Low BSFC	Low BSFC
Performance Number	EM3823	EM3824
Fuel Consumption		
load with fan, L/hr, gal/hr	160.6 (41.7)	145.3 (37.7)
75% load with fan, L/hr, gal/hr	118.9 (30.9)	107.6 (27.9)
50% load with fan, L/hr, gal/hr	82.4 (21.4)	75.8 (19.7)
25% load with fan, L/hr, gal/hr	48 (12.4)	44 (11.6)
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	852 (30088)	852 (30088)
Engine coolant capacity, L, gal	21 (5.5)	21 (5.5)
Radiator coolant capacity, L, gal	89 (23.5)	89 (23.5)
Total coolant capacity, L, gal	110 (29.1)	110 (29.1)
Inlet Air		
Combustion air inlet flow rate, m³/min, cfm	56 (1977)	52 (1836)
Max. Allowable Combustion Air Inlet Temp, °C, °F	NA	NA
Exhaust System		
Exhaust stack gas temperature, °C, °F	640 (1184)	614 (1137)
Exhaust gas flow rate, m³/min, cfm	131 (4662)	119 (4202)
Exhaust system backpressure (maximum allowable) kPa, in. water	8.5 (2.5)	8.5 (2.5)
Heat Rejection		
Heat rejection to jacket water, kW, Btu/min	180 (10236)	167 (9497)
Heat rejection to exhaust (total) kW, Btu/min	553 (31449)	497 (28264)
Heat rejection to aftercooler, kW, Btu/min	168 (9554)	170 (9667)
Heat rejection to atmosphere from engine, kW, Btu/min	91.1 (5180)	85 (4833)

Emissions (Nominal)	Standby	Prime
mg/Nm³, g/hp-hr	3,326.6 (7.06)	3227 (6.81)
CO, mg/Nm³, g/hp-hr	302.7 (0.65)	154.5 (0.58)
HC, mg/Nm³, g/hp-hr	60.1 (0.15)	26.5 (0.06)
PM, mg/Nm³, g/hp-hr	22 (0.06)	18 (0.05)

Alternator	Standby			Prime		
Voltages, V	415	400	380	415	400	380
Motor Starting Capability @ 30% Voltage Dip & 0.6 p.f, skVA	2278	2128	1935	2278	2128	1935
Current, amps	1085.1	1125.8	1185.1	982.2	1019	1072
Frame Size	LC7224J	LC7224J	LC7224J	LC7224J	LC7224J	LC7224J
Excitation	AREP	AREP	AREP	AREP	AREP	AREP
Temperature Rise, °C, °F	163, (325)	150, (302)	163, (325)	125, (257)	125, (257)	125, (257)

DEFINITIONS AND CONDITIONS

[1] For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.

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.

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