

## Standby & Prime: 60Hz



Engine Model	Cat <sup>®</sup> 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 in <sup>3</sup> )
Compression Ratio	14:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	Electronic Unit Injection
Governor	Electronic ADEM™ A4

Image shown might not reflect actual configuration

## PACKAGE PERFORMANCE

Model	Standby	Prime	Emission Strategy
<b>C18</b>	<b>650 kW 812 kVA,</b>	<b>600 kW 750 kVA</b>	<b>EPA TIER II</b>

Performance	Standby	Prime
Frequency, Hz	60	60
Genset Power Rating, kVA	812	750
Gen set power rating with fan @ 0.8 power factor, kW	650	600
Fuelling strategy	EPA TIER II	EPA TIER II
Performance Number	EM3838	EM3839
Fuel Consumption		
100% load with fan, L/hr, gal/hr	185.0, 48.8	169.6, 44.8
75% load with fan, L/hr, gal/hr	140.4, 37.0	128.0, 33.8
50% load with fan, L/hr, gal/hr	97.1, 25.6	90.8, 23.9
25% load with fan, L/hr, gal/hr	57.9, 15.29	54.7, 14.4
Cooling System <sup>1</sup>		
Radiator air flow restriction (system), kPa, in. Water	0.12, 0.48	0.12, 0.48
Radiator air flow, m <sup>3</sup> /min, cfm	900, 31783	900, 31783
Engine coolant capacity, L, gal	20.8, 5.5	20.8, 5.5
Radiator coolant capacity, L, gal	77, 20.3	77, 20.3
Total coolant capacity, L, gal	97.8, 25.8	97.8, 25.8
Inlet Air		
Combustion air inlet flow rate, m <sup>3</sup> /min, cfm	65.3, 2306	63.1, 2228.3
Max. Allowable Combustion Air Inlet Temp, °C, °F	48, 119	48, 118
Exhaust System		
Exhaust stack gas temperature, °C, °F	424.9, 797	402.6, 756
Exhaust gas flow rate, m <sup>3</sup> /min, cfm	159.1, 5618	148.2, 5233
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	207, 11772	189, 10748
Heat rejection to exhaust (total) kW, Btu/min	659, 37477	597, 33951
Heat rejection to aftercooler, kW, Btu/min	248, 14104	229, 13023
Heat rejection to atmosphere from engine, kW, Btu/min	121, 6881	113, 6426

<b>Emissions (Nominal)<sup>2</sup></b>					
NOx, mg/Nm <sup>3</sup> , g/hp-hr	2047, 4.59		2149, 4.77		
CO, mg/Nm <sup>3</sup> , g/hp-hr	93.9, 0.21		116.8, 0.28		
HC, mg/Nm <sup>3</sup> , g/hp-hr	33.9, 0.09		64.2, 0.16		
PM, mg/Nm <sup>3</sup> , g/hp-hr	12.9, 0.03		20.5, 0.05		
<b>Alternator<sup>3</sup></b>					
Voltages, V	<b>208V</b>	<b>220V</b>	<b>240V</b>	<b>480V</b>	<b>600V</b>
Motor Starting Capability @ 30% Voltage Dip, skVA	1917	1647	2147	2147	1598
Current, amps	2255.3	1968.2	1954.6	977.3	781.8
Frame Size	LC7224L	LC7224L	LC7224H	LC7224H	LC7224L
Excitation	AREP	AREP	AREP	AREP	AREP
Temperature Rise, °C, °F	105, 225	105, 225	130, 266	130, 266	105, 225

## DEFINITIONS AND CONDITIONS

<sup>1</sup> For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.

<sup>2</sup> 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.

<sup>3</sup> 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 kW 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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