Cat® C18 DIESEL GENERATOR SETS

Standby & Prime: 60Hz

Image shown might not reflect actual configuration

Engine Model	Cat® C18 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
C18	**550 ekW, 688 kVA**	**500 ekW, 625 kVA**	**TIER II Non-Road**

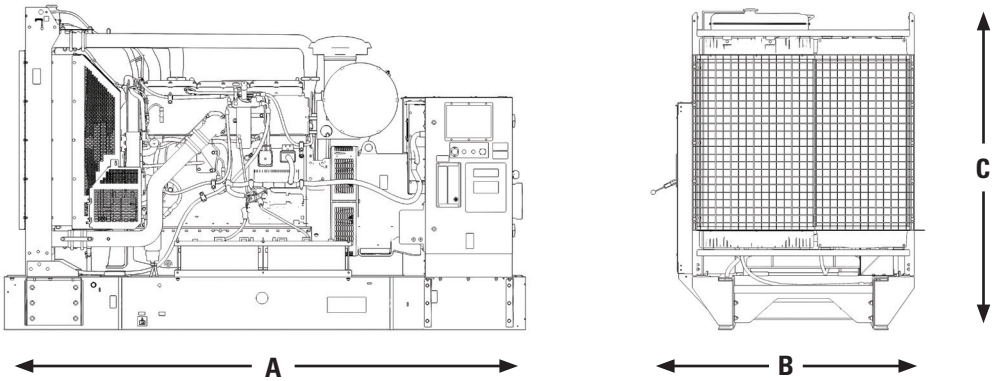
PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	60 Hz	
Genset Power Rating	688 kVA	625 kVA
Genset power rating with fan @ 0.8 power factor	550 ekW	500 ekW
Emissions	TIER II Non-Road	
Performance Number	DM8517	DM8521
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	147.0 (38.8)	135.0 (35.6)
75% load with fan, L/hr (gal/hr)	114.9 (30.3)	109.3 (28.8)
50% load with fan, L/hr (gal/hr)	83.7 (22.1)	79.6 (21.0)
25% load with fan, L/hr (gal/hr)	43.0 (11.3)	42.5 (11.2)
Cooling System[1]		
Radiator air flow restriction (system), kPa (in. water)	0.12 (0.48)	0.12 (0.48)
Radiator air flow, m³/min (CFM)	803 (28357)	803 (28357)
Engine coolant capacity, L (gal)	20.8 (5.5)	20.8 (5.5)
Radiator coolant capacity, L (gal)	61 (16)	61 (16)
Total coolant capacity, L (gal)	82 (22)	82 (22)
Inlet Air		
Combustion air inlet flow rate, m³/min (CFM)	46.3 (1634.9)	44.8 (1581.9)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50 (121)	49 (120)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	520.6 (969.1)	501.5 (934.7)
Exhaust gas flow rate, m³/min (CFM)	128.9 (4551.5)	121.5 (4290.4)
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)	180 (10236)	166 (9441)
Heat rejection to exhaust (total), kW (BTU/min)	595 (33837)	549 (31223)
Heat rejection to aftercooler, kW (BTU/min)	141 (8019)	129 (7336)
Heat rejection to atmosphere from engine, kW (BTU/min)	77 (4379)	69 (3941)

Emissions (Nominal)[2]	Standby	Prime
NOx, mg/Nm³ (g/hp-hr)	2703.5 (5.5)	2454.0 (5.1)
CO, mg/Nm³ (g/hp-hr)	161.0 (0.3)	108.8 (0.2)
HC, mg/Nm³ (g/hp-hr)	4.6 (0.01)	4.6 (0.01)
PM, mg/Nm³ (g/hp-hr)	13.2 (0.03)	11.9 (0.03)

Alternator[3]											
Duty Cycle		Standby					Prime				
Phase		3-Phase					3-Phase				
Voltages, V		208	220	240	480	600	208	220	240	480	600
Current, Amps		1908	1804	1654	827	662	1735	1640	1504	752	601
Frame: LC6124G Excitation: AREP	Temperature Rise @ 40°C	150	150	130	130	130	125	125	105	105	105
	Motor Starting Capability @ 30% Voltage Dip, skVA	1335	1479	1729	1729	1731	1335	1479	1729	1729	1731
Frame: LC7024H Excitation: AREP	Temperature Rise @ 40°C					105					105
	Motor Starting Capability @ 30% Voltage Dip, skVA					2023					2023
Frame: LC7024J Excitation: AREP	Temperature Rise @ 40°C	105	105	105	105		80	80	80	80	
	Motor Starting Capability @ 30% Voltage Dip, skVA	1524	1694	1993	1993		1524	1694	1993	1993	
Frame: LC7024F Excitation: AREP					130					105	
					1633					1633	
Frame: LC6114G Excitation: SE	Temperature Rise @ 40°C	150	130	130	130		125	105	105	105	
	Motor Starting Capability @ 30% Voltage Dip, skVA		1236	1445	1445		1116	1236	1445	1445	

WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
3477 (137)	1628 (64)	2102 (83)	4431 (9769)

Note: General configuration not to be used for installation. See general dimension drawings for detail.

APPLICABLE CODES AND STANDARDS:

CSA C22.2 No 100-04, UL142, UL489, UL869, cUL/UL2200, NFPA 37, NFPA 70, NFPA 99,NFPA 110, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-33.

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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