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 - Compatible Classe G3*

Model	Standby	Prime	Emission Strategy
C18	**600 ekW, 750 kVA**	**545 ekW, 681 kVA**	**TIER II Non-Road**

PACKAGE PERFORMANCE

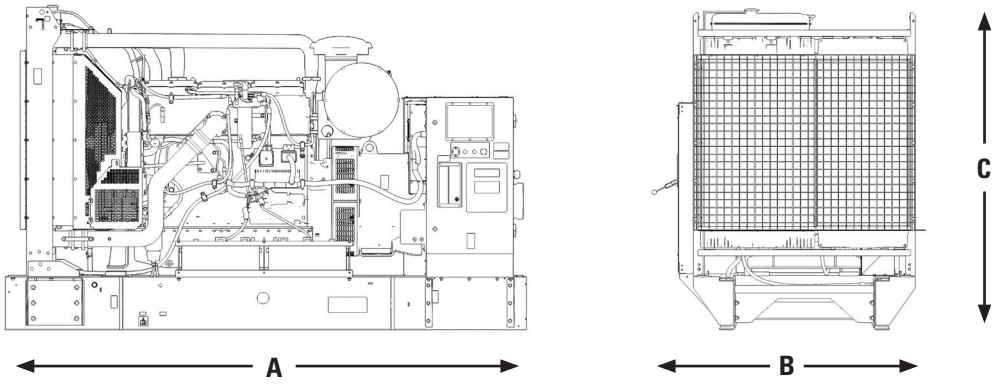
Performance	Standby	Prime
Frequency	60 Hz	
Genset Power Rating	750 kVA	681 kVA
Genset power rating with fan @ 0.8 power factor	600 ekW	545 ekW
Emissions	TIER II Non-Road	
Performance Number	DM8518	DM8522
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	157.2 (41.5)	147.0 (38.8)
75% load with fan, L/hr (gal/hr)	126.1 (33.3)	120.2 (31.7)
50% load with fan, L/hr (gal/hr)	89.2 (23.5)	86.7 (22.9)
25% load with fan, L/hr (gal/hr)	45.5 (12.0)	47.4 (12.5)
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)	47.8 (1687.8)	46.7 (1649.0)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	49 (120)	49 (120)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	534.6 (994.3)	518.2 (964.8)
Exhaust gas flow rate, m³/min (CFM)	135.5 (4784.4)	129.6 (4576.4)
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)	189 (10747)	175 (9953)
Heat rejection to exhaust (total), kW (BTU/min)	634 (36053)	596 (33895)
Heat rejection to aftercooler, kW (BTU/min)	153 (8700)	142 (8076)
Heat rejection to atmosphere from engine, kW (BTU/min)	86 (4902)	83 (4726)

Emissions (Nominal)[2]	Standby	Prime
NOx, mg/Nm³ (g/hp-hr)	2798.7 (5.8)	2462.2 (5.1)
CO, mg/Nm³ (g/hp-hr)	225.2 (0.5)	195.1 (0.4)
HC, mg/Nm³ (g/hp-hr)	3.8 (0.01)	5.0 (0.01)
PM, mg/Nm³ (g/hp-hr)	13.3 (0.03)	13.1 (0.03)

Alternator[3]													
Duty Cycle		Standby						Prime					
Phase		3-Phase						3-Phase					
Voltages*, V		208	220	240	380	480	600	208	220	240	380	480	600
Current, Amps		2082	1968	1804	1139	902	722	1891	1788	1639	1035	819	656
Frame: LC7024H Excitation: AREP	Temperature Rise @ 40°C						130						105
	Motor Starting Capability @ 30% Voltage Dip, skVA						2023						2023
Frame: LC7024J Excitation: AREP	Temperature Rise @ 40°C	130	105	105	130	105		105	105	80	105	80	
	Motor Starting Capability @ 30% Voltage Dip, skVA	1524	1694	1993	1283	1993		1524	1694	1993	1283	1993	
Frame: LC7024F Excitation: AREP	Temperature Rise @ 40°C			150		150			125	125		125	
	Motor Starting Capability @ 30% Voltage Dip, skVA			1633		1633			1387	1633		1633	
Frame: LC7024L Excitation: SE	Temperature Rise @ 40°C					105	105					105	105
	Motor Starting Capability @ 30% Voltage Dip, skVA					2304	2311					2304	2311

*Note: 220 V and 380 V are additional offerings for the Latin America market.

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, UL489, UL869, UL2200, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-22, NEMA MG 1-33 and facilitates the compliance to NFPA 37, NFPA70, NFPA 99, NFPA110.

Note: Codes may not be available for all model configurations. Site level review needed for NFPA 70. Please consult your Cat Dealer 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 ISO 3046 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.

*Governing Class capability as per ISO 8528-5. Consult your local Cat dealer for configuration and site specific transient performance classification.

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