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 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
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 N	lon-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)		

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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)

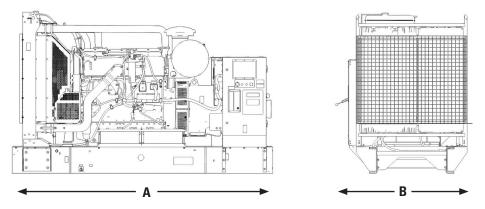
Alternator ³											
Duty Cycle		Standby			Prime						
Phase		3-Phase			3-Phase						
Voltages, V	Voltages, V		220	240	480	600	208	220	240	480	600
Current, Amps		2082	1968	1804	902	722	1891	1788	1639	819	656
Frame: LC7024H Excitation: AREP	Temperature Rise @ 40°C					130					105
	Motor Starting Capability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

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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.

LET'S DO THE WORK.