Cat® C15 DIESEL GENERATOR SETS

Standby & Prime: 60Hz

Image shown might not reflect actual configuration

Engine Model	Cat® C15 In-line 6, 4-cycle Diesel
Bore x Stroke	137 mm x 171 mm (5.4 in x 6.8 in)
Displacement	15.2 L (928 in³)
Compression Ratio	16.1:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4 - G3 Class* capable

Model	Standby	Prime	Emission Strategy
C15	**450 ekW, 563 kVA**	**410 ekW, 513 kVA**	**TIER III Non-Road**

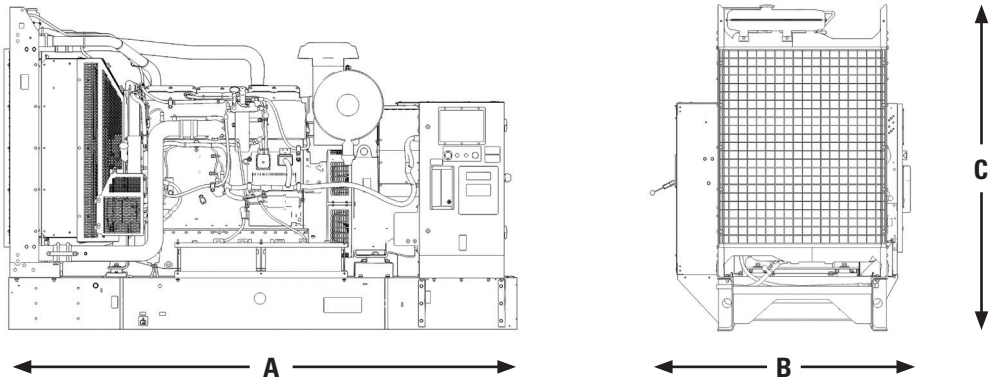
PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	60 Hz	
Genset Power Rating	563 kVA	513 kVA
Genset power rating with fan @ 0.8 power factor	450 ekW	410 ekW
Emissions	TIER III Non-Road	
Performance Number	DM8153	DM8152
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	128.7 (33.9)	118.4 (31.2)
75% load with fan, L/hr (gal/hr)	103.8 (27.4)	96.4 (25.4)
50% load with fan, L/hr (gal/hr)	77.3 (20.4)	70.9 (18.7)
25% load with fan, L/hr (gal/hr)	44.0 (11.6)	40.7 (10.7)
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)	720 (25426)	720 (25426)
Engine coolant capacity, L (gal)	20.8 (5.5)	20.8 (5.5)
Radiator coolant capacity, L (gal)	54 (14)	54 (14)
Total coolant capacity, L (gal)	75 (20)	75 (20)
Inlet Air		
Combustion air inlet flow rate, m³/min (CFM)	41.9 (1479.6)	40.1 (1416)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	48 (118)	47 (116)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	491.3 (916.3)	482 (898)
Exhaust gas flow rate, m³/min (CFM)	111.3 (3930)	104.9 (3704)
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)	177 (10065)	166 (9440)
Heat rejection to exhaust (total), kW (BTU/min)	505 (38718)	470 (26728)
Heat rejection to aftercooler, kW (BTU/min)	133 (7563)	119 (6767)
Heat rejection to atmosphere from engine, kW (BTU/min)	70 (3980)	71 (4037)

Emissions (Nominal)[2]	Standby	Prime
NOx, mg/Nm³ (g/hp-hr)	1704.7 (3.7)	1519.4 (3.4)
CO, mg/Nm³ (g/hp-hr)	118.2 (0.3)	199.2 (0.4)
HC, mg/Nm³ (g/hp-hr)	10.6 (0.03)	14.3 (0.04)
PM, mg/Nm³ (g/hp-hr)	9.9 (0.03)	10.9 (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		1561	1476	1353	677	541	1423	1345	1233	616	493
Frame: LC6124D Excitation: AREP	Temperature Rise @ 40°C	150	150	130	130	130	125	125	105	105	105
	Motor Starting Capability @ 30% Voltage Dip, skVA	1008	1118	1309	1309	1408	1008	1118	1309	1309	1408
Frame: LC6124F Excitation: AREP	Temperature Rise @ 40°C	130	105	105	105	105	105	105	105	105	105
	Motor Starting Capability @ 30% Voltage Dip, skVA	1325	1466	1712	1712	1714	1325	1466	1712	1712	1714
Frame: LC6124G Excitation: AREP	Temperature Rise @ 40°C	105	105	105			105	80	80		
	Motor Starting Capability @ 30% Voltage Dip, skVA	1335	1479	1729			1335	1479	1729		
Frame: LC6114D Excitation: SE	Temperature Rise @ 40°C	150	150	130	130		125	125	105	105	
	Motor Starting Capability @ 30% Voltage Dip, skVA	839	930	1089	1089		839	930	1089	1089	
Frame: LC6114F Excitation: SE	Temperature Rise @ 40°C	130	105	105			105	105	105		
	Motor Starting Capability @ 30% Voltage Dip, skVA	1104	1222	1428			1104	1222	1428		
Frame: LC6114G Excitation: SE	Temperature Rise @ 40°C	105	105	105			105	80	80		
	Motor Starting Capability @ 30% Voltage Dip, skVA	1116	1236	1445			1116	1236	1445		

WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
3476 (137)	1628 (64)	2128 (84)	4115 (9071)

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.

* Governing Class capability as per ISO8528-5.Consult your local Cat dealer for configuration and site specific transient performance classification.