Cat[®] C15 Diesel Generator Set



Standby & Prime: 60 Hz



Engine Model	Cat [®] C15 ACERT™ 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 in ³)	
Compression Ratio	16.1:1	
Aspiration	Turbocharged Air-to-Air Aftercooled	
Fuel Injection System	MEUI	
Governor	Electronic ADEM™ A4	

Image shown might not reflect actual configuration.

Model	Standby	Prime	Emission Strategy	
C15	500 ekW, 625 kVA	455 ekW, 569 kVA	Low BSFC	
PACKAGE PERFORMANCE				
Performance		Standby	Prime	
Frequency			60 Hz	
Genset Power Rating		625 kVA	569 kVA	
Genset power rating with fan @ 0.8 power factor		500 ekW	455 ekW	
Emissions		L	Low BSFC	
Performance Number		DM8165-03	DM8164-03	
Fuel Consumption				
100% load with fan, L/hr (gal/hr)		127.2 (33.6)	117.3 (31.0)	
75% load with fan, L/hr (gal/hr)		98.3 (26.0)	90.4 (23.9)	
50% load with fan, L/hr (gal/hr)		69.8 (18.4)	64.6 (17.1)	
25% load with fan, L/hr (gal/hr)		41.7 (11.0)	39.1 (10.3)	
Cooling System ¹				
Radiator air flow restriction (syste	em), kPa (in. Water)	0.12 (0.48)	0.12 (0.48)	
Radiator air flow, m³/min (cfm)		840 (29664)	840 (29664)	
Engine coolant capacity, L (gal)		20.8 (5.5)	20.8 (5.5)	
Radiator coolant capacity, L (gal)		37.0 (9.7)	37.0 (9.7)	
Total coolant capacity, L (gal)		57.8 (15.2)	37.0 (9.7)	
Inlet Air				
Combustion air inlet flow rate, m³/min (cfm)		37.9 (1337.4)	35.2 (1241.5)	
Max. Allowable Combustion Air Inlet Temp, °C (°F)		47.5 (117.4)	47.3 (117.1)	
Exhaust System				
Exhaust stack gas temperature, °C (°F)		510.3 (950.6)	505.4 (941.7)	
Exhaust gas flow rate, m³/min (cfm)		102.7 (3627.4)	94.2 (3327.5)	
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)		185 (10501)	180 (10224)	
Heat rejection to exhaust (total) kW (Btu/min)		477 (27109)	436 (24783)	
Heat rejection to aftercooler, kW (Btu/min)		108 (6125)	91 (5186)	
Heat rejection to atmosphere from	n engine, kW (Btu/min)	33 (1890)	33 (1874)	
Emissions (Nominal) ²				
NOx, mg/Nm ³ (g/hp-hr)		3377.5 (6.6)	3329.0 (6.6)	
CO, mg/Nm³ (g/hp-hr)		197.8 (0.4)	186.1 (0.4)	
HC, mg/Nm ³ (g/hp-hr)		3.0 (0.0)	2.8 (0.0)	
PM, mg/Nm ³ (g/hp-hr)		9.0 (0.0)	11.1 (0.0)	

C15 Diesel Generator Set Electric Power



Alternator ³						
Voltages	220V					
Motor starting capability @ 30% Voltage Dip	1325 skVA					
Current	1640 amps	1493 amps				
Frame Size	GTA311AE41					
Excitation	Auxiliary Coil					
Temperature Rise	150°C	125°C				

WEIGHTS & DIMENSIONS



Dim "A"	Dim "B"	Dim "C"	Dry Weight
mm (in)	mm (in)	mm (in)	^{kg (lb)}
3830 (151)	1130 (44)	2255 (89)	

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

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 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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