

# 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 <sup>3</sup> )
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.

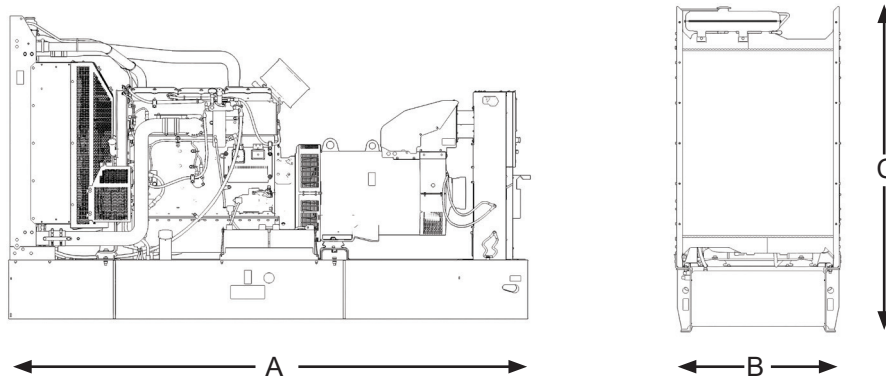
Model	Standby	Prime	Emission Strategy
C15	450 ekW, 563 kVA	410 ekW, 513 kVA	Low BSFC

### 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	Low BSFC	
Performance Number	DM8163-03	DM8162-03
<b>Fuel Consumption</b>		
100% load with fan, L/hr (gal/hr)	119.4 (31.5)	108.4 (28.6)
75% load with fan, L/hr (gal/hr)	89.6 (23.7)	82.1 (21.7)
50% load with fan, L/hr (gal/hr)	63.6 (16.8)	59.0 (15.6)
25% load with fan, L/hr (gal/hr)	39.1 (10.3)	36.7 (9.7)
<b>Cooling System<sup>1</sup></b>		
Radiator air flow restriction (system), kPa (in. Water)	0.12 (0.48)	0.12 (0.48)
Radiator air flow, m <sup>3</sup> /min (cfm)	720 (25427)	720 (25427)
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)
<b>Inlet Air</b>		
Combustion air inlet flow rate, m <sup>3</sup> /min (cfm)	34.2 (1207.5)	31.3 (1105.3)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50.4 (122.7)	52.0 (125.5)
<b>Exhaust System</b>		
Exhaust stack gas temperature, °C (°F)	513.6 (956.5)	514.6 (958.3)
Exhaust gas flow rate, m <sup>3</sup> /min (cfm)	94.5 (3336.6)	86.7 (3061.6)
Exhaust system backpressure (maximum allowable) kPa (in. water)	10.0 (40.0)	10.0 (40.0)
<b>Heat Rejection</b>		
Heat rejection to jacket water, kW (Btu/min)	183 (10406)	172 (9782)
Heat rejection to exhaust (total) kW (Btu/min)	441 (25077)	404 (22976)
Heat rejection to aftercooler, kW (Btu/min)	88 (4987)	73 (4123)
Heat rejection to atmosphere from engine, kW (Btu/min)	57 (3235)	47 (2673)
<b>Emissions (Nominal)<sup>2</sup></b>		
NO <sub>x</sub> , mg/Nm <sup>3</sup> (g/hp-hr)	3233.8 (6.4)	3282.9 (6.5)
CO, mg/Nm <sup>3</sup> (g/hp-hr)	242.9 (0.5)	238.2 (0.5)
HC, mg/Nm <sup>3</sup> (g/hp-hr)	4.3 (0.0)	4.4 (0.0)
PM, mg/Nm <sup>3</sup> (g/hp-hr)	10.6 (0.0)	13.6 (0.0)

Alternator <sup>3</sup>		
Voltages	220V	
Motor starting capability @ 30% Voltage Dip	1325 skVA	
Current	1477 amps	1346 amps
Frame Size	GTA311AE41	
Excitation	Auxiliary Coil	
Temperature Rise	130°C	125°C

**WEIGHTS & DIMENSIONS**



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
3830 (151)	1130 (44)	2255 (89)	3540 (7804)

**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 kW 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**

<sup>1</sup> For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.

<sup>2</sup> 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.

<sup>3</sup> 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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