# Cat® C1C2 Diesel Generator Sets



# Standby & Prime: 50 Hz & 60 Hz



Image shown might not reflect actual configuration.

Engine Model	Cat® C1.5 In-line 4, 4-cycle diesel
Bore x Stroke	84 mm x 90 mm (3.3 in x 3.5 in)
Displacement	1.5 L (91.3 in³)
Compression Ratio	22.5:1
Aspiration	Naturally Aspirated
Fuel Injection System	Inline
Governor	Mechanical

Model	Standby		Standby Prime		Emission Strategy
DE11E3S	50 Hz	60 Hz	50 Hz	60 Hz	EU IIIA
DETTESS	11 kVA	13 kVA	10 kVA	12 kVA	EU IIIA

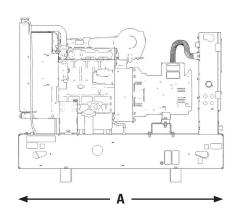
# PACKAGE PERFORMANCE

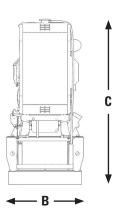
Performance	Standby		Prime		
Frequency	50 Hz	60 Hz	50 Hz	60 Hz	
Genset Power Rating	11 kVA	13 kVA	10 kVA	12 kVA	
Genset power rating with fan @ 1.0 power factor	11 ekW	13 ekW	10 ekW	12 ekW	
Emissions		EU	IIIA		
Fuel Consumption					
110% load with fan, L/hr (gal/hr)	N	А	4.1 (1.1)	4.8 (1.3)	
100% load with fan, L/hr (gal/hr)	4.1 (1.1)	4.8 (1.3)	3.6 (1.0)	4.3 (1.1)	
75% load with fan, L/hr (gal/hr)	2.9 (0.8)	3.5 (0.9)	2.7 (0.7)	3.3 (0.9)	
50% load with fan, L/hr (gal/hr)	2.1 (0.6)	2.6 (0.7)	2.0 (0.5)	2.4 (0.6)	
Cooling System <sup>1</sup>					
Radiator air flow restriction (system), kPa (in water)	125 (502.3)	125 (502.3)	125 (502.3)	125 (502.3)	
Radiator air flow, m³/min (CFM)	28.8 (1017)	37.2 (1314)	28.8 (1017)	37.2 (1314)	
Total coolant capacity, L (gal)	5.3 (1.4)	5.3 (1.4)	5.3 (1.4)	5.3 (1.4)	
Inlet Air					
Combustion air inlet flow rate, m³/min (CFM)	1.1 (38)	1.2 (43)	1.1 (38)	1.2 (43)	
Max. Allowable Combustion Air Inlet Temp, °C	50	50	50	50	
Exhaust System					
Exhaust stack gas temperature, °C (°F)	490 (914)	505 (941)	445 (833)	455 (851)	
Exhaust gas flow rate, m³/min (CFM)	2.9 (102)	3.4 (119)	2.7 (95)	3.1 (111)	
Exhaust system backpressure (maximum allowable), kPa (in water)	10.2 (41)	10.2 (41)	10.2 (41)	10.2 (41)	
Heat Rejection					
Heat rejection to jacket water, kW (BTU/min)	12.9 (734)	15.2 (864)	11.6 (660)	13.6 (773)	
Heat rejection to atmosphere from engine & alternator, kW (BTU/min)	5.4 (307)	6.7 (381)	4.9 (279)	6.0 (341)	



Alternator <sup>2</sup>			50 Hz				60 Hz				
Duty Cycle		Standby		Prime		Standby		Prime			
Phase		1-Phase		1-Phase		1-Phase		1-Phase			
Voltages, V Current, Amps L Frame Current, Amps M Frame		220/110	230/115	240/120	220/110	230/115	240/120	220/110	240/120	220/110	240/120
		50	48	46	46	44	42	59.1	54.2	54.5	50
		49	47	45	45	43	41		53.9		
Frame: LCB1114F	Temperature Rise, @ 40°C	163	163	163	125	125	125	130	130	125	105
Excitation: SE	Motor Starting Capability @ 30% Voltage Dip, skVA	21	22	24	21	22	24	19	21	19	21
Frame: M1415L4	Temperature Rise @ 40°C	150	150	150	125	125	125		163		
Excitation: SE	Motor Starting Capability @ 30% Voltage Dip, skVA	16	17	18	16	17	18		16		

#### **WEIGHTS & DIMENSIONS**





Dim "A"	Dim "B"	Dim "C"	Dry Weight	
mm (in)	mm (in)	mm (in)	kg (lb)	
1400 (55.1)	620 (24.4)	1054 (41.5)		

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

## **APPLICABLE CODES AND STANDARDS:**

CSA C22.2 No 100-14, UL 142, UL 489, UL 869A, UL 2200, IBC 2018, IBC 2018, ISO 3046, ISO 8528, and facilitates the compliance to NFPA 37, NFPA 70, NFPA 99, and NFPA 110.

**Note:** Codes may not be available in all model configurations. lease 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.

 ${\bf RATINGS:}$  Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO 3046 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.
- $^{\rm 2}$  Generator temperature rise is based on a 40  $^{\rm \circ}$  C ambient per IEC60034-1.

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