Cat® C4.4
Diesel Generator Sets

Standby & Prime: 50 Hz & 60 Hz

Image shown might not reflect actual configuration

Engine Model	Cat® C4.4 Inline 4-stroke Diesel
Bore x Stroke	105.0 mm x 127.0 mm (4.1 in x 5.0 in)
Displacement	4.4 L (268.5 in³)
Compression Ratio	18.3:1
Aspiration	Turbocharged Air To Air Charge Cooled
Fuel Injection System	Inline
Governor	Electronic

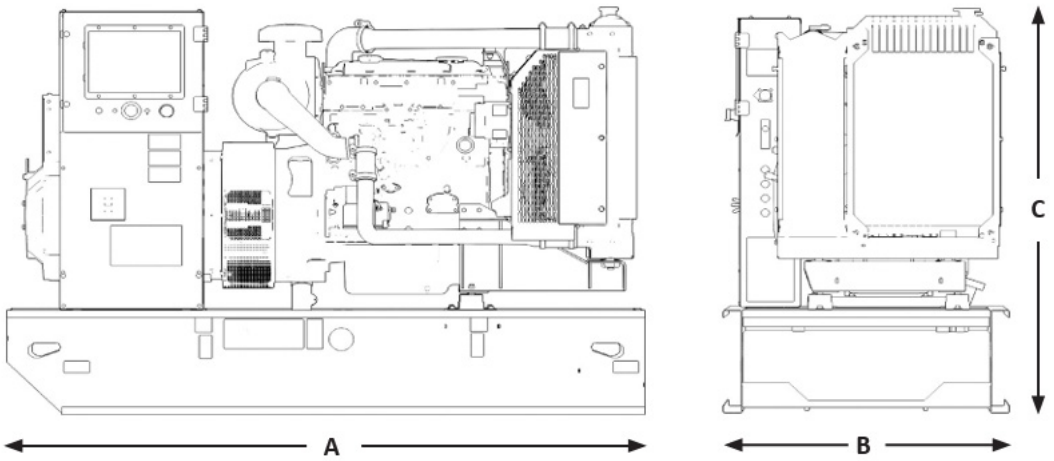
Model	Standby		Prime		Emission Strategy
DE90E2S	50 Hz	60 Hz	50 Hz	60 Hz	EU II
	90.0 kVA (90.0 kW)	99.5 kVA (99.5 kW)	82.0 kVA (82.0 kW)	90.0 kVA (90.0 kW)	

PACKAGE PERFORMANCE

Performance	Standby		Prime	
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Genset Power Rating	90.0 kVA	99.5 kVA	82.0 kVA	90.0 kVA
Genset power rating with fan @ 1.0 power factor	90.0 kW	99.5 kW	82.0 kW	90.0 kW
Emissions	EU II			
Performance Number	P2634B	P2634A	P2634B	P2634A
Fuel Consumption				
Fuel Tank Capacity, litres (US gal)	250 (66.0)			
100% load with fan, L/hr (gal/hr)	24.3 (6.4)	28.8 (7.6)	22.1 (5.8)	26.0 (6.9)
75% load with fan, L/hr (gal/hr)	18.3 (4.8)	21.6 (5.7)	16.8 (4.4)	19.7 (5.2)
50% load with fan, L/hr (gal/hr)	12.8 (3.4)	15.3 (4.0)	11.9 (3.1)	14.1 (3.7)
Cooling System[1]				
Radiator air flow, m³/min (CFM)	187.8 (6632)	244.2 (8624)	187.8 (6632)	244.2 (8624)
Total coolant capacity, L (gal)	17.5 (4.6)			
Inlet Air				
Max. Combustion Air Intake Restriction, kPa (in water)	8.0 (32.1)			
Combustion air inlet flow rate, m³/min (CFM)	6.3 (221)	7.8 (275)	6.0 (212)	7.8 (274)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50 (122)			
Exhaust System				
Exhaust stack gas temperature, °C (°F)	494 (921)	517 (963)	463 (865)	469 (876)
Exhaust gas flow rate, m³/min (CFM)	15.0 (530)	18.0 (636)	14.0 (494)	17.0 (600)
Exhaust system backpressure (maximum allowable), kPa (in water)	18.0 (5.3)	15.0 (4.4)	18.0 (5.3)	15.0 (4.4)
Heat Rejection				
Heat rejection to jacket water, kW (BTU/min)	50.7 (2883)	64.0 (3640)	46.1 (2622)	57.7 (3281)
Heat rejection to alternator, kW (BTU/min)	7.8 (444)	9.5 (540)	7.8 (444)	9.5 (540)
Heat rejection to atmosphere from engine, kW (BTU/min)	15.3 (870)	18.9 (1075)	13.6 (773)	16.6 (944)

Alternator[2]		50 Hz						60 Hz			
Duty Cycle		Standby			Prime			Standby		Prime	
Phase		1-Phase			1-Phase			1-Phase		1-Phase	
Voltages, V		220/110	230/115	240/120	220/110	230/115	240/120	220/110	240/120	220/110	240/120
Current, Amps		409	391	375	373	357	342	452.3	414.6	409.1	375
Frame: LCB3114H Excitation: SE	Temperature Rise @ 40°C	163	163	163	125	125	125				
	Motor Starting Capability @ 30% Voltage Dip, skVA	218	233	247	218	233	247				
Frame: LC3114D Excitation: SE	Temperature Rise, @ 40°C							163	163	125	125
	Motor Starting Capability @ 30% Voltage Dip, skVA							191	217	191	217
Frame: M2256L4 Excitation: SE	Temperature Rise @ 40°C	163	163	163	125	125	125	163	163	125	125
	Motor Starting Capability @ 30% Voltage Dip, skVA	218	233	247	218	233	247	191	217	191	217

WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
2089 (82.2)	1120 (44.1)	1375 (54.1)	1195 (2635)

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

APPLICABLE CODES AND STANDARDS:

AS1359, IEC60034-1, ISO 3046, ISO 8528, NEMA MG1-33, EAC, CE, UKCA.

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

RATINGS: Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO 3046 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] Generator temperature rise is based on a 40°C ambient per IEC60034-1.