Cat® C7.1
Diesel Generator Sets

Standby & Prime: 50 Hz & 60 Hz



Image shown might not reflect actual configuration.

Engine Model	Cat® C7.1 Inline 4-stroke Diesel
Bore x Stroke	105.0 mm x 135.0 mm (4.1 in x 5.3 in)
Displacement	7.0 L (427.8 in³)
Compression Ratio	16.0:1
Aspiration	Turbocharged Air To Air Charge Cooled
Fuel Injection System	Inline
Governor	Mechanical – G2 Class* capable (60 Hz)

Model	Standby		Prime		Emission Strategy
DE200E0	50 Hz	60 Hz	50 Hz	60 Hz	Low BSFC
	200.0 kVA (160.0 kW)	218.8 kVA (175.0 kW)	180.0 kVA (144.0 kW)	199.4 kVA (159.5 kW)	

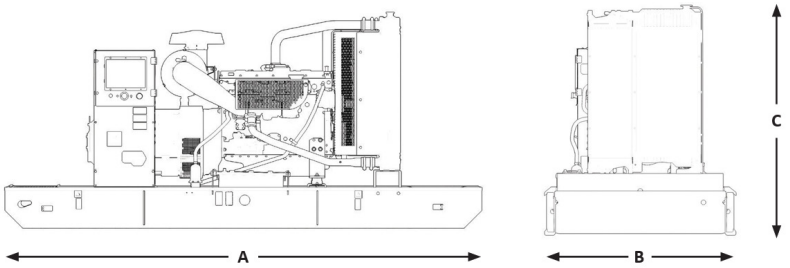
PACKAGE PERFORMANCE

Performance	Standby		Prime	
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Genset Power Rating	200.0 kVA	218.8 kVA	180.0 kVA	199.4 kVA
Genset power rating with fan @ 0.8 power factor	160.0 kW	175.0 kW	144.0 kW	159.5 kW
Emissions	Low BSFC			
Performance Number	P4196A	P4198A	P4196A	P4198A
Fuel Consumption				
Fuel Tank Capacity, litres (US gal)	394 (104.1)			
100% load with fan, L/hr (gal/hr)	43.8 (11.6)	50.8 (13.4)	40.2 (10.6)	46.5 (12.3)
75% load with fan, L/hr (gal/hr)	34.2 (9.0)	39.0 (10.3)	30.9 (8.2)	35.5 (9.4)
50% load with fan, L/hr (gal/hr)	22.3 (5.9)	26.1 (6.9)	19.7 (5.2)	23.6 (6.2)
Cooling System[1]				
Radiator air flow restriction (system), kPa (in. water)	3.0 (12.0)			
Radiator air flow, m³/min (CFM)	307.2 (10849)	378.0 (13349)	307.2 (10849)	378.0 (13349)
Total coolant capacity, L (gal)	27.0 (7.1)			
Inlet Air				
Combustion air inlet flow rate, m³/min (CFM)	13.9 (490)	16.4 (578)	13.0 (457)	15.5 (546)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50 (122)			
Exhaust System				
Exhaust stack gas temperature, °C (°F)	538 (1000)	485 (905)	538 (1000)	485 (905)
Exhaust gas flow rate, m³/min (CFM)	33.9 (1195)	38.4 (1354)	31.6 (1114)	35.4 (1251)
Exhaust system backpressure (maximum allowable), kPa (in water)	6.0 (24.1)			
Heat Rejection				
Heat rejection to jacket water, kW (BTU/min)	76.4 (4345)	88.3 (5022)	74.2 (4220)	81.5 (4635)
Heat rejection to alternator, kW (BTU/min)	13.2 (751)	14.0 (796)	13.2 (751)	14.0 (796)
Heat rejection to atmosphere from engine, kW (BTU/min)	25.6 (1456)	33.5 (1905)	22.7 (1291)	29.5 (1678)

Alternator[2]		50 Hz											
Duty Cycle		Standby						Prime					
Phase		3-Phase						3-Phase					
Voltages, V		200/115	220/127	230/115	380/220	400/230	415/240	200/115	220/127	230/115	380/220	400/230	415/240
Current, Amps		576		501	304	289	278	520		452	274	260	250
Frame: LC5114D Excitation: SE	Temperature Rise @ 40°C	163		163	163	163	163	125		125	125	125	125
	Motor Starting Capability @ 30% Voltage Dip, skVA	402		400	369	402	428	402		400	369	402	428
Frame: M2294L4 Excitation: SE	Temperature Rise @ 40°C	130	150		150	130	130	105	125		125	105	105
	Motor Starting Capability @ 30% Voltage Dip, skVA	83	100		280	307	328	83	100		280	307	328

Alternator[2]		60 Hz										
Duty Cycle		Standby							Prime			
Phase		3-Phase							3-Phase			
Voltages, V		208/120	220/127	240/139	240/120	380/220	440/254	480/277	220/127	240/139	440/254	480/277
Current, Amps			574.1	526.2			287	263.1				
Frame: LC3114H Excitation: SE	Temperature Rise, @ 40°C		150	130			150	130				
	Motor Starting Capability @ 30% Voltage Dip, skVA		405	468			405	468				
Frame: M2294L4 Excitation: SE	Temperature Rise, @ 40°C		150	150	130	163	130	105				
	Motor Starting Capability @ 30% Voltage Dip, skVA		75	84	100	237	310	361				

WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
2510 (98.8)	1010 (39.8)	1640 (64.6)	1547 (3411)

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.

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