

Standby & Prime: 50Hz, 400/230V; 3-Ph



Image shown might not reflect actual configuration

Engine Model	Cat® C7.1 In-line 6, 4-cycle diesel
Bore x Stroke	105 mm x 135 mm (4.1 in x 5.3 in)
Displacement	7.0 L (427.8 in³)
Compression Ratio	16.8:1
Aspiration	Turbocharged Water cooled
Fuel Injection System	Mechanical
Governor	EU stage IIIA emissions compliant

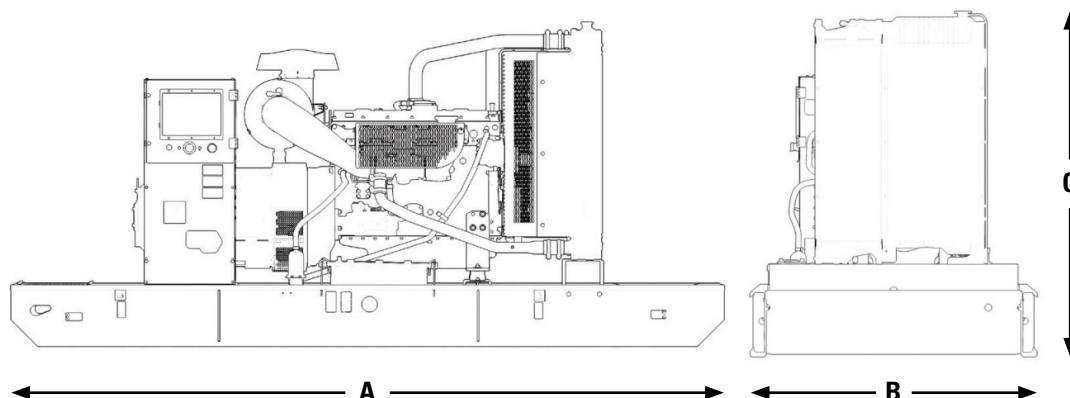
Model	Voltage/Frequency	Standby	Prime
DE200E3	400/230 V, 50 Hz	200 kVA, 160 ekW	180 kVA, 144 ekW

PACKAGE PERFORMANCE

Performance	50 Hz	
	Standby	Prime
Engine Speed: RPM	1500	
Gross Engine Power: kW (hp)	188.7 (253.0)	171.5 (230.0)
BMEP: kPa (psi)	2153.0 (312.2)	1956.0 (283.7)
Regenerative Power: kW	14.5	
Fuel System ¹ : L/hr (US gal/hr)		
110% Load	-	43.8 (11.6)
100% load	43.8 (11.6)	40.0 (10.6)
75% load	34.4 (9.1)	36.6 (8.3)
50% load	24.9 (6.6)	22.9 (6.1)
Fuel Filter Type	Replaceable Element	
Recommended Fuel	Class A2 Diesel or BSEN590	
Air System		
Combustion Air Flow: m³/min (cfm)	13.2 (466)	12.8 (452)
Air Filter Type	Paper Element	
Max. Combustion Air intake restriction: kPa (in H2O)	8.0 (32.1)	
Radiator Cooling Air flow: m³/min (cfm)	328.0 (11583)	
External Restriction to Cooling Air Flow: Pa (in H2O)	125 (0.5)	
Cooling System ²		
Heat Rejected to Water & Lube Oil: kW (Btu/min)	80.8 (4595)	72.7 (4134)
Heat Radiated from Engine & Alternator: kW (Btu/min)	42.0 (2388)	38.7 (2201)
Cooling System Capacity: l (US gal)	27.0 (7.1)	
Radiator Fan Load: kW (hp)	6.3 (8.5)	
Water Pump Type	Centrifugal	

Exhaust System		50 Hz		
		Standby		Prime
Exhaust Gas Flow: m³/min (cfm)		31.7 (1119)		30.2 (1067)
Exhaust Gas Temperature: °C (°F)		530 (986)		530 (986)
Silencer Type		Industrial		
Silencer Model & Quantity		EXSY1 (1)		
Pressure Drop Across Silencer System: kPa (in Hg)		0.24 (0.071)		
Silencer Noise Reduction Level: dB		10		
Max. Allowable Back Pressure: kPa (in. Hg)		15.0 (4.4)		
Generator Performance Data³				
Voltage		415/240V	400/230V	380/220V
Motor Starting Capability* kVA		238	221	199
Short Circuit Capacity** %		300	300	300
Reactances: Per Unit				
Xd		3.037	3.269	3.622
X'd		0.259	0.279	0.309
X''d		0.104	0.112	0.124
Generator Technical Data				
Physical Data				
		Operating Data		
Frame Model	R2453L4	Overspeed: RPM		2250
No. of Bearings	1	Voltage Regulation: (steady state)		+/- 0.5%
Wires	12	Wave Form NEMA = TIF:		50
IP Rating & Insulation Class	IP23 & H	Wave Form IEC = THF:		2.0%
Winding Pitch-Code	2/3 - M0	Total Harmonic Content LL/LN:		2.0%
Excitation	SHUNT	Radio Interference:		Suppression is in line with European Standard EN61000-6
AVR Model	Mark V	Radiant Heat: kW (Btu/min)		50 Hz: 12.2 (694)
Capacities				
50 Hz				
Voltage	Prime		Standby	
	kVA	kVA	kVA	kVA
415/240V	180.0	144.0	200.0	160.0
400/230V	180.0	144.0	200.0	160.0
380/220V	180.0	144.0	200.0	160.0

Weight: kg (lb)			Dimensions: mm (in)		
Net (+ lube oil)	Wet (+ lube oil & coolant)	Fuel, lube oil & coolant	Length, A	Length, B	Length, C
1597 (3521)	1624 (3580)	1978 (4361)	2510 (98.8)	1010 (39.8)	1640 (64.6)



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

NOTES:

¹ Based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2.

² Cooling system designed to operate in ambient conditions up to 50°C (122°F). Contact your local Cat dealer for power ratings at specific site conditions.

³ Reactances shown are applicable to prime ratings. *Based on 30% voltage dip at 0 power factor and shunt excitation system. **With optional Auxiliary winding.

DEFINITIONS

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.

STANDARD REFERENCE CONDITIONS: Note: Standard reference conditions 25°C (77°F) air inlet temp, 100m (328ft) A.S.L. 30% relative humidity.

Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.

QUALITY STANDARDS: The equipment meets the following standards: IEC60034-1, IEC60034-22, ISO3046, ISO8528, NEMA MG 1-32, NEMA MG 1-33, 2004/108/EC, 2006/42/EC, 2006/95/EC.

FUEL RATES: Fuel consumption reported in accordance with ISO3046-1.

LET'S DO THE WORK.™