

Standby & Prime: 50Hz



Image shown might not reflect actual configuration

Engine Model	Cat® C13 ACERT™ In-line 6, 4-cycle diesel
Bore x Stroke	130mm x 157mm (5.1 in x 6.2 in)
Displacement	12.5 L (763 in³)
Compression Ratio	16.3:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4

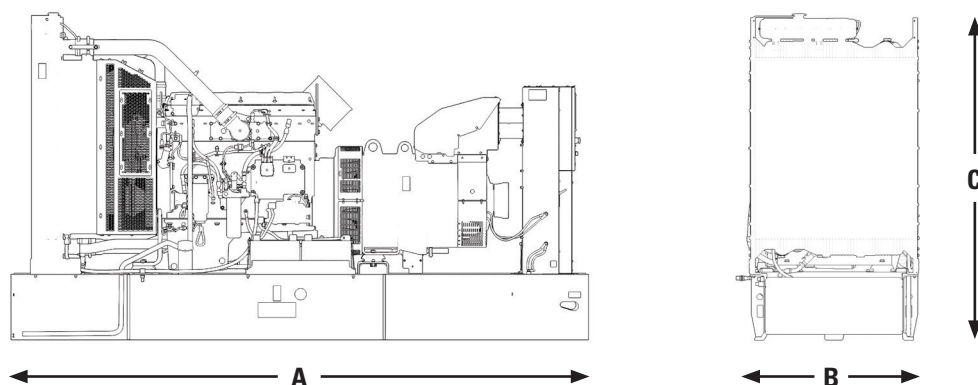
Model	Standby	Prime	Emission Strategy
DE450E3	450 kVA, 360 ekW	400 kVA, 320 ekW	EU III Certified Emissions

PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	50 Hz	
Genset Power Rating	450 kVA	400 kVA
Genset power rating with fan @ 0.8 power factor	360 ekW	320 ekW
Emissions	EU III Certified Emissions	
Performance Number	EM1443	EM0552
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	96.9 (25.6)	86.8 (22.9)
75% load with fan, L/hr (gal/hr)	75.8 (20.0)	69.5 (18.3)
50% load with fan, L/hr (gal/hr)	55.5 (14.7)	50.4 (13.3)
25% load with fan, L/hr (gal/hr)	32.4 (8.6)	27.9 (7.4)
Cooling System¹		
Radiator air flow restriction (system), kPa (in. Water)	0.12 (0.48)	0.12 (0.48)
Radiator air flow, m³/min (cfm)	398 (14055)	398 (14055)
Engine coolant capacity, L (gal)	14.2 (3.8)	14.2 (3.8)
Radiator coolant capacity, L (gal)	43 (11.5)	43 (11.5)
Total coolant capacity, L (gal)	57.2 (15.3)	57.2 (15.3)
Inlet Air		
Combustion air inlet flow rate, m³/min (cfm)	26.4 (931.9)	25.5 (899.7)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	48 (118)	46 (114)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	516.7 (962.1)	502.0 (935.6)
Exhaust gas flow rate, m³/min (cfm)	74.1 (2616.3)	69.7 (2461.3)
Exhaust system backpressure (maximum allowable) kPa (in. water)	10.0 (40.0)	10.0 (40.0)
Heat Rejection		
Heat rejection to jacket water, kW (Btu/min)	135 (7660)	122 (6946)
Heat rejection to exhaust (total) kW (Btu/min)	333 (18943)	300 (17055)
Heat rejection to aftercooler, kW (Btu/min)	80 (4561)	73 (4133)
Heat rejection to atmosphere from engine, kW (Btu/min)	75 (4260)	67 (3786)

Emissions (Nominal) ²	Standby		Prime
NOx, mg/Nm³ (g/hp-hr)	1669.7 (3.5)		1316.8 (2.8)
CO, mg/Nm³ (g/hp-hr)	483.2 (1.0)		431.2 (0.9)
HC, mg/Nm³ (g/hp-hr)	4.4 (0.0)		4.2 (0.0)
PM, mg/Nm³ (g/hp-hr)	22.9 (0.1)		27.5 (0.1)
Alternator ³			
Voltages	415V	400V	380V
Motor starting capability @ 30% Voltage Dip	1202 skVA	891 skVA	1005 skVA
Current	Standby: 626A, Prime: 556A	Standby: 650A, Prime: 577A	Standby: 664A, Prime: 577A
Frame Size	A2955L4	A2955L4	A2955L4
Excitation	SE	SE	SE
Temperature Rise	Standby: 163°C, Prime: 125°C	Standby: 163°C, Prime: 125°C	Standby: 163°C, Prime: 125°C

WEIGHTS & DIMENSIONS



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

Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
3830 (151)	1130 (44)	2156 (85)	3253 (7172)

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

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

² 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, NO_x. 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.

³ 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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Materials and specifications are subject to change without notice. The International System of Units (SI) is used in this publication.
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C13 Sound Attenuated Enclosures

50 Hz / 60 Hz

These sound attenuated, factory installed enclosures incorporate internally mounted super critical level silencers, designed for safety and aesthetic value on integral fuel tank base or optional dual wall integral fuel tank base for total fluid containment. These enclosures are of extremely rugged construction to withstand exposure to the elements and provide weather protection.

Features

Robust/Highly Corrosion Resistant Construction

- Factory installed on integral fuel tank base
- Environmentally friendly, polyester powder baked paint
- 1.6 mm (0.063 in) galvanized steel
- All round overhanging base to protect enclosure
- High-grade engineering thermoplastic corner posts for protection
- Integral lifting frame
- Compression door latches giving solid door seal
- Zinc plated or black coated stainless steel fasteners
- Internally mounted super critical exhaust silencing system

Excellent Access

- Large cable entry area for installation ease
- Accommodates rear mounted breaker and control panel
- Double doors on both sides
- Vertically hinged doors with solid bar door stays to hold doors open at 135° rotation
- Lube oil and coolant drains pipes to exterior of enclosure and terminated drain valves
- Radiator fill cover

Security and Safety

- Lockable access doors which give full access to control panel and breaker
- Cooling fan and battery charging alternator fully guarded
- Fuel fill, oil fill and battery can only be reached via lockable access
- Externally mounted emergency stop button
- Designed for spreader-bar lifting to ensure safety
- Control panel viewing window
- Stub-up area is rodent proof

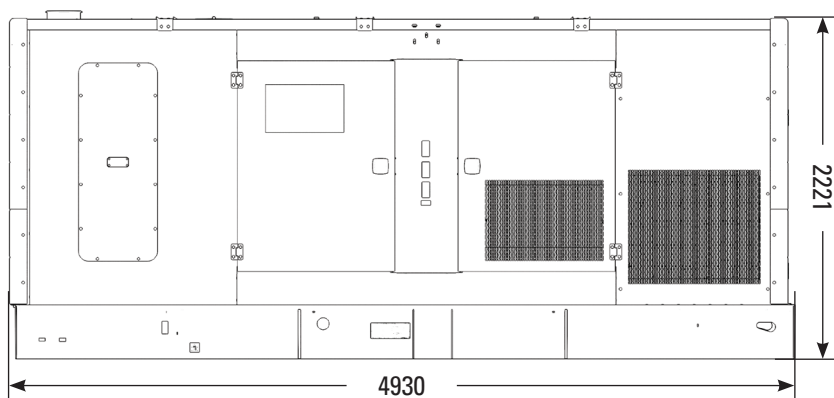
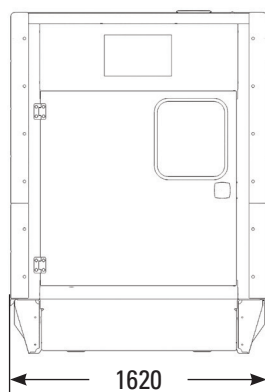
Options

- Caterpillar yellow or white paint
- Integral dual wall fuel tank base for total fluid containment (fuel, oil and coolant)

Enclosure Package Operating Characteristics

Model	kVA	ekW	SB/ PP	LWA	Sound Pressure Levels dBA				Air Flow Rate		Ambient Capability at 100% Load*	
					1m (3.3ft)		7m (23ft)		m³/s	cfm	°C	°F
					75% Load	100% Load	75% Load	100% Load				
50 Hz												
DE400E0	350	280	PP	97	79	80	69	70	5.6	11866	54	129
	400	320	SB	97	80	80	70	70	5.6	11866	54	129
DE450E0	400	320	PP	98	80	80	70	70	5.6	11866	49	120
	450	360	SB	98	80	81	70	71	5.6	11866	49	120
DE450E3	400	320	PP	—	80	80	70	70	5.6	11866	58	136
	450	360	SB	—	80	80	70	71	5.6	11866	54	129
60 Hz												
DE350SE0	400	320	PP	—	82	82	72	72	7.9	16739	56	133
	438	350	SB	—	82	83	72	72	7.9	16739	57	135
DE400SE0	438	350	PP	—	82	83	72	72	7.9	16739	52	126
	500	400	SB	—	82	83	72	73	7.9	16739	51	124

*Ambient capability measured with the Cat extended life coolant at sea level.



Approximate weight of enclosure package: 4667 kg (10289 lb), **4770 kg (10516 lb) DE450E3. Exact weight is dependent on options. Enclosure weight includes: Sound attenuated enclosure, exhaust system, base and generator set.

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