

Standby & Prime: 50Hz, 230, 380, 400V & 415V



Image shown might not reflect actual configuration

Engine Model	Cat® C9 ACERT™ In-line 6, 4-cycle diesel
Bore x Stroke	112mm x 149mm (4.4in x 5.9in)
Displacement	8.8 L (538 in³)
Compression Ratio	16.1:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4

## PACKAGE PERFORMANCE

Model	Standby	Prime	Emissions Strategy
DE275E0	275 kVA, 220 ekW	250 kVA, 200 ekW	Non-Certified Emissions

Performance	Standby	Prime
Frequency	50 Hz	50 Hz
Genset Power Rating	275 kVA	250 kVA
Gen set power rating with fan @ 0.8 power factor	220 ekW	200 ekW
Fuelling strategy	Non-Certified Emissions	Non-Certified Emissions
Performance Number	EM0878	EM1035
Fuel Consumption		
100% load with fan	57.5 L/hr 15.1 gal/hr	52.4 L/hr 13.8 gal/hr
75% load with fan	44 L/hr, 11.6 gal/hr	40.3 L/hr, 10.6 gal/hr
50% load with fan	31.5 L/hr, 8.3 gal/hr	29.1 L/hr, 7.6 gal/hr
25% load with fan	19.4 L/hr, 5.1 gal/hr	18.3 L/hr, 4.8 gal/hr
Cooling System <sup>1</sup>		
Radiator air flow restriction (system)	0.12 kPa, 0.48 in. Water	0.12 kPa, 0.48 in. Water
Radiator air flow	409 m³/min, 14443 cfm	409 m³/min, 14443 cfm
Engine coolant capacity	13.9 L, 3.7 gal	13.9 L, 3.7 gal
Radiator coolant capacity	43 L, 11.5 gal	43 L, 11.5 gal
Total coolant capacity	56.9 L, 15.2 gal	56.9 L, 15.2 gal
Inlet Air		
Combustion air inlet flow rate	16.1 m³/min, 537 cfm	15.2 m³/min, 537 cfm
Max. Allowable Combustion Air Inlet Temp	48 °C, 118 °F	48 °C, 118 °F
Exhaust System		
Exhaust stack gas temperature	470 °C, 878 °F	471 °C, 880 °F
Exhaust gas flow rate	38.8 m³/min, 1371 cfm	39.1 m³/min, 1381 cfm
Exhaust system backpressure (maximum allowable)	10.0 kPa, 40.0 in. water	10.0 kPa, 40.0 in. water
Heat Rejection		
Heat rejection to jacket water	111 kW, 6312 Btu/min	103 kW, 5857 Btu/min
Heat rejection to exhaust (total)	177 kW, 10065 Btu/min	162 kW, 9212 Btu/min
Heat rejection to aftercooler	30.4 kW, 1729 Btu/min	27.6 kW, 1570 Btu/min
Heat rejection to atmosphere from engine	38 kW, 2161 Btu/min	32.8 kW, 1865 Btu/min

Emissions (Nominal) <sup>2</sup>								
NOx	4407 mg/Nm <sup>3</sup> , 9.1 g/hp-hr				4216 mg/Nm <sup>3</sup> , 8.8 g/hp-hr			
CO	845 mg/Nm <sup>3</sup> , 1.76 g/hp-hr				717 mg/Nm <sup>3</sup> , 1.5 g/hp-hr			
HC	15 mg/Nm <sup>3</sup> , 0.04 g/hp-hr				14.4 mg/Nm <sup>3</sup> , 0.03 g/hp-hr			
PM	33 mg/Nm <sup>3</sup> , 0.09 g/hp-hr				30.6 mg/Nm <sup>3</sup> , 0.08 g/hp-hr			
Alternator <sup>3</sup>								
Voltages	230V		380V		400V		415V	
Motor Starting Capability @ 30% Voltage Dip	546 skVA		493 skVA		546 skVA		588 skVA	
Current	690 amps		403 amps		397 amps		362 amps	
Frame Size	R2475L4		R2475L4		R2475L4		R2475L4	
Excitation	SE		SE		SE		SE	
Temperature Rise	130 °C	266 °F	130 °C	266 °F	130 °C	266 °F	130 °C	266 °F

## 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.

<sup>2</sup> 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, NOx. 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.

<sup>3</sup> 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.

## 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.

Fuel Rates are based on fuel oil of 35° API [16° C (60° F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/litre (7.001 lbs/U.S. gal.). Additional ratings may be available for specific customer requirements, contact your Caterpillar representative for details. For information regarding Low Sulfur fuel and Biodiesel capability, please consult your Cat dealer.

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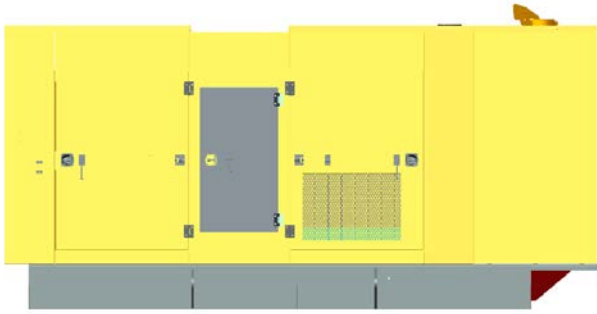


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## C9 ACERT™ Sound Attenuated Level 1 & Level 2 Enclosures

50 Hz: 230 – 330 kVA

60 Hz: 180 – 300 ekW

### FEATURES

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#### Robust / Highly Corrosion Resistant Construction

- Galvanized steel construction
- Factory installed on integral fuel tank base
- Environmentally friendly, polyester powder baked paint
- Compression door latches giving solid door seal
- Zinc-plated or black-coated stainless-steel fasteners
- Internally-mounted critical exhaust silencing system
- All-round overhanging base to protect enclosure (Lvl-1, Lvl2: 275-330 kVA)
- High grade engineering thermoplastic corner posts for protection

#### Excellent Access

- Large cable entry area for installation ease
- Accommodates side mounted breaker and control panel
- Vertically-hinged double doors on both sides
- Removable ducts providing maintenance access with enclosure in place.
- Lube oil and coolant drains piped to base frame side rail, on exterior.
- 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) DEFRA compliant (Lvl-1, Lvl2: 275-330 kVA)
- Integral lifting frame

## Enclosure Package Operating Characteristics

### A. Sound Attenuated- Level 1

Model	Hz	kVA	SB/PP	Sound Pressure Levels dBA				Air Flow Rate		Ambient Capability@100% Load	
				1m (3.3ft)		7m (23ft)		m <sup>3</sup> /s	CFM	°C	°F
				75% Load	100% Load	75% Load	100% Load				
DE250E0	50	250	SB	83	84	73	74	4.5	9535	47	117
	50	230	PP	83	84	73	74	4.5	9535	50	122
DE275E0	50	275	SB	83	84	73	74	4.5	9535	44	111
	50	250	PP	83	84	73	74	4.5	9535	47	117
DE200SE0	60	250	SB	88	88	78	79	6.0	12173	52	125
	60	225	PP	88	88	78	79	6.0	12173	55	131
DE250SE0	60	313	SB	88	89	79	79	6.0	12173	45	112
	60	281	PP	88	89	78	79	6.0	12173	48	119

**Note:** Sound level measurements are subject to instrumentation, installation and manufacturing variability, as well as ambient site conditions.

### B. Sound Attenuated- Level 2

Model	Hz	kVA	SB/PP	Sound Pressure Levels dBA				Air Flow Rate		Ambient Capability@100% Load	
				1m (3.3ft)		7m (23ft)		m <sup>3</sup> /s	cfm	°C	°F
				75% Load	100% Load	75% Load	100% Load				
DE250E0	50	250	SB	75.2	76.0	67.3	68.5	4.6	9747	49	121
	50	230	PP	75.0	75.8	67.1	68.1	4.6	9747	52	125
DE275E0	50	275	SB	75.5	76.3	67.7	68.9	4.6	9747	47	116
	50	250	PP	75.2	76.0	67.3	68.5	4.6	9747	49	121
DE275E3	50	275	SB	75.0	76.6	67.6	69.3	4.6	9747	49	120
	50	250	PP	74.7	76.0	67.1	68.7	4.6	9747	52	126
DE300E0	50	300	SB	75.7	76.6	68.0	69.3	4.6	9747	44	111
	50	275	PP	75.5	76.3	67.7	68.9	4.6	9747	47	116
DE300E3	50	300	SB	75.4	77.2	68.1	70.0	4.6	9747	46	114
	50	275	PP	75.0	76.6	67.6	69.3	4.6	9747	49	120
DE330E0	50	330	SB	76.0	76.9	68.4	69.7	4.6	9747	40	104
	50	300	PP	75.7	76.6	68.0	69.3	4.6	9747	44	111
DE300SE3	60	375	SB	79.7	81.3	72.0	74.2	5.5	11654	44	111
	60	338	PP	79.2	80.6	71.3	73.3	5.5	11654	48	118

## Weights & Dimensions

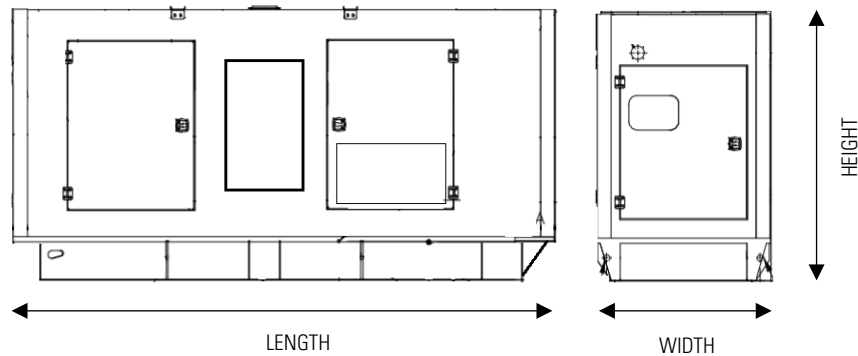
### A. Level 1

Model	Weight*		Genset Overall Size(mm)		
	Kg	lb	Length	Width	Height
DE250E0, DE275E0, DE250SE0	2447	5395	3988	1208	1779
DE300E3, DE300E0	3276	7222	3985	1410	2165
DE330E0	3396	7487	3985	1410	2165
DE275SE0, DE300SE0, DE300SE3	3276	7222	3988	1208	1779

### B. Level 2

Model	Weight*		Genset Overall Size(mm)		
	Kg	lb	Length	Width	Height
DE250E0, DE275E0	2859	6303	3981	1410	2032
DE275E3, DE300E3, DE300E0	3404	7505	4300	1410	2165
DE330E0	3524	7769	4300	1410	2165
DE300SE0	3404	7769	4300	1410	2165

\*Weight with lube oil, coolant, no fuel. Exact weight is dependent on options.



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