

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



Image shown might not reflect actual configuration

Engine Model	Cat [®] C18 ATAAC™ In-line 6, 4-cycle diesel
Bore x Stroke	145mm x 183mm (5.7in x 7.2in)
Displacement	18.13 L (1106.3 in ³)
Compression Ratio	14:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	Electronic Unit Injection
Governor	Electronic ADEM™ A4

Model	Standby	Prime	Emission Strategy
DE850E0	850 kVA	770 kVA	Low BSFC

PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency, Hz	50	50
Genset Power Rating, kVA	850	770
Gen set power rating with fan @ 0.8 power factor, kW	680	616
Fuelling strategy	Low BSFC	Low BSFC
Performance Number	EM3830	EM3831
Fuel Consumption		
100% load with fan, L/hr, gal/hr	180 (47.6)	162 (42.8)
75% load with fan, L/hr, gal/hr	132 (34.9)	118 (31.2)
50% load with fan, L/hr, gal/hr	87 (23)	80 (21.1)
25% load with fan, L/hr, gal/hr	47 (12.4)	44 (11.6)
Cooling System¹		
Radiator air flow restriction (system), kPa, in. Water	0.12 (0.48)	0.12 (0.48)
Radiator air flow, m ³ /min, cfm	852 (30088)	852 (30088)
Engine coolant capacity, L, gal	21 (5.5)	21 (5.5)
Radiator coolant capacity, L, gal	89 (23.5)	89 (23.5)
Total coolant capacity, L, gal	110 (29.1)	110 (29.1)
Inlet Air		
Combustion air inlet flow rate, m ³ /min, cfm	62 (2190)	58 (2048)
Max. Allowable Combustion Air Inlet Temp, °C, °F	NA	NA
Exhaust System		
Exhaust stack gas temperature, °C, °F	410 (770)	400 (752)
Exhaust gas flow rate, m ³ /min, cfm	142 (5015)	132 (4662)
Exhaust system backpressure (maximum allowable) kPa, in. water	8.5 (2.5)	8.5 (2.5)
Heat Rejection		
Heat rejection to jacket water, kW, Btu/min	205 (11658)	186 (10578)
Heat rejection to exhaust (total) kW, Btu/min	659 (37477)	585 (33268)
Heat rejection to aftercooler, kW, Btu/min	230 (13080)	209 (11886)
Heat rejection to atmosphere from engine, kW, Btu/min	107 (6085)	98 (5573)

Emissions (Nominal)	Standby			Prime		
NOx, mg/Nm ³ , g/hp-hr	2544.5 (5.57)			2547.5 (5.57)		
CO, mg/Nm ³ , g/hp-hr	535.1 (1.17)			268.3 (0.58)		
HC, mg/Nm ³ , g/hp-hr	35.1 (0.09)			14.0 (0.04)		
PM, mg/Nm ³ , g/hp-hr	36.0(0.09)			19.4 (0.05)		
Alternator	Standby			Prime		
Voltages, V	415	400	380	415	400	380
Motor Starting Capability @ 30% Voltage Dip & 0.6 p.f, skVA	2268	2118	1924	2268	2118	1924
Current, amps	1182.5	1227	1291.4	1071.2	1111.4	1170
Frame Size	LC7224L	LC7224L	LC7224L	LC7224L	LC7224L	LC7224L
Excitation	AREP	AREP	AREP	AREP	AREP	AREP
Temperature Rise, °C, °F	150, (302)	150, (302)	150, (302)	125, (257)	125, (257)	125, (257)

DEFINITIONS AND CONDITIONS

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

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.



LEHE1817-02 (10/18)



C18 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.

Image shown may not reflect actual configuration.

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
- 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 (3.3 ft)		7m (23 ft)		m ³ /s	cfm	°C	°F
					75% Load	100% Load	75% Load	100% Load				
50 Hz												
DE605EO	550	440	pp	105	82	82	72	72	5.6	11866	43	109
	605	484	SB	105	82	83	72	72	5.6	11866	46	115
DE660EO	600	480	pp	105	82	83	72	72	5.6	11866	41	106
	660	528	SB	105	82	83	72	73	5.6	11866	43	109
DE715EO	650	520	pp	105	82	83	72	73	5.6	11866	36	97
	715	572	SB	105	82	83	72	73	5.6	11866	41	106
DE780EO	780	624	SB	106	85	85	74	75	12.6	26698	56	133
	706	565	PP	106	85	85	74	75	12.6	26698	53	127
DE850EO	850	680	SB	106	85	85	74	75	12.6	26698	54	129
	770	616	PP	106	85	85	74	75	12.6	26698	51	124
60 Hz												
DE550SE0	625	500	pp	-	84	84	73	74	7.8	16563	47	117
	688	550	SB	-	84	84	73	74	7.8	16563	48	118
DE600SE0	681	545	pp	-	84	84	73	74	7.8	16563	42	108
	750	600	SB	-	84	84	73	74	7.8	16563	43	109
DE650SE0	812.5	750	pp	-	85	86	74	75	12.8	27122	56	133
	750	600	SB	-	85	86	75	75	12.8	27122	53	128
DE715SE0	895	716	pp	-	85	86	75	75	12.8	27122	54	128
	812.5	650	SB	-	86	86	75	76	12.8	27122	50	122
DE750SE0	937.5	750	pp	-	86	86	75	76	12.8	27122	52	126
	850	680	SB	-	86	86	75	76	12.8	27122	49	120

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



WEIGHTS & DIMENSIONS

Model	kVA	ekW	SB/PP	LENGTH, L		WIDTH, W		HEIGHT, H		WEIGHT *	
				mm	in	mm	in	mm	in	kg	lb
50 Hz											
DE605E0	550	440	pp	5320	209.4	1920	75.6	2289	90.1	5952	13122
	605	484	SB	5320	209.4	1920	75.6	2289	90.1	5952	13122
DE660E0	600	480	pp	5320	209.4	1920	75.6	2289	90.1	5952	13122
	660	528	SB	5320	209.4	1920	75.6	2289	90.1	5952	13122
DE715E0	650	520	pp	5320	209.4	1920	75.6	2289	90.1	5952	13122
	715	572	SB	5320	209.4	1920	75.6	2289	90.1	5952	13122
DE780E0	780	624	SB	5572	219.3	2170	85.4	2398	94.4	6629	14614
	706	565	PP	5572	219.3	2170	85.4	2398	94.4	6629	14614
DE850E0	850	680	SB	5572	219.3	2170	85.4	2398	94.4	6690	14748
	770	616	PP	5572	219.3	2170	85.4	2398	94.4	6690	14748
60 Hz											
DE550SE0	625	500	pp	5320	209.4	1920	75.6	2289	90.1	5952	13122
	688	550	SB	5320	209.4	1920	75.6	2289	90.1	5952	13122
DE600SE0	681	545	pp	5320	209.4	1920	75.6	2289	90.1	5952	13122
	750	600	SB	5320	209.4	1920	75.6	2289	90.1	5952	13122
DE650SE0	812.5	750	pp	5572	219.3	2170	85.4	2398	94.4	6484	14294
	750	600	SB	5572	219.3	2170	85.4	2398	94.4	6484	14294
DE715SE0	895	716	pp	5572	219.3	2170	85.4	2398	94.4	6629	14614
	812.5	650	SB	5572	219.3	2170	85.4	2398	94.4	6629	14614
DE750SE0	937.5	750	pp	5572	219.3	2170	85.4	2398	94.4	6690	14748
	850	680	SB	5572	219.3	2170	85.4	2398	94.4	6690	14748

* Approximate weight of enclosure package: Exact weight is dependent on options.

Enclosure weight includes: sound attenuated enclosure, exhaust system, base and generator set.

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