

**Standby & Prime: 380/220V, 400/230V, 415/240V, 50Hz and 220/127V, 60 Hz**



Engine Model	Cat® C2.2 In-line 4, 4-cycle diesel
Bore x Stroke	84 mm x 100 mm (3.3 in x 3.9 in)
Displacement	2.2 L (135.2 in <sup>3</sup> )
Compression Ratio	23.3:1
Aspiration	Naturally Aspirated
Fuel Injection System	Inline
Governor	Mechanical

Model	Standby		Prime		Performance Strategy
	50 Hz	60 Hz	50 Hz	60 Hz	
DE18E3	18.0 kVA	22.0 kVA	16.5 kVA	20.0 kVA	EU IIIA

## PACKAGE PERFORMANCE

Performance	Standby		Prime	
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Genset Power Rating	18.0 kVA	22.0 kVA	16.5 kVA	20.0 kVA
Gen set power rating with fan @ 0.8 power factor	14.4 ekW	17.6 ekW	13.2 ekW	16.0 ekW
Fuelling strategy	EU IIIA	EU IIIA	EU IIIA	EU IIIA
<b>Fuel Consumption</b>				
110% Load with Fan	NA	NA	4.8 L/hr, 1.3 gal/hr	5.7 L/hr, 1.5 gal/hr
100% Load with Fan	4.8 L/hr, 1.3 gal/hr	5.7 L/hr, 1.5 gal/hr	4.4 L/hr, 1.2 gal/hr	5.2 L/hr, 1.4 gal/hr
75% Load with Fan	3.7 L/hr, 1.0 gal/hr	4.4 L/hr, 1.2 gal/hr	3.4 L/hr, 0.9 gal/hr	4.0 L/hr, 1.1 gal/hr
50% Load with Fan	2.7 L/hr, 0.7 gal/hr	3.3 L/hr, 0.9 gal/hr	2.6 L/hr, 0.7 gal/hr	3.1 L/hr, 0.8 gal/hr
<b>Cooling System<sup>1</sup></b>				
Radiator air flow restriction (system)	125 Pa, 0.5 in. Water	125 Pa, 0.5 in. Water	125 Pa, 0.5 in. Water	125 Pa, 0.5 in. Water
Radiator air flow	33 m <sup>3</sup> /min, 1165 cfm	41.4 m <sup>3</sup> /min, 1462 cfm	33 m <sup>3</sup> /min, 1165 cfm	41.4 m <sup>3</sup> /min, 1462 cfm
Total coolant capacity	6.5 L, 1.7 gal	6.5 L, 1.7 gal	6.5 L, 1.7 gal	6.5 L, 1.7 gal
<b>Inlet Air</b>				
Combustion air inlet flow rate	1.5 m <sup>3</sup> /min, 51 cfm	1.7 m <sup>3</sup> /min, 61 cfm	1.5 m <sup>3</sup> /min, 51 cfm	1.7 m <sup>3</sup> /min, 61 cfm
Max. Allowable Combustion Air Inlet Temp	50° C	50° C	50° C	50° C
<b>Exhaust System</b>				
Exhaust stack gas temperature	413° C, 776° F	459° C, 858° F	364° C, 687° F	396° C, 745° F
Exhaust gas flow rate	3.2 m <sup>3</sup> /min, 114 cfm	4.3 m <sup>3</sup> /min, 151 cfm	3.0 m <sup>3</sup> /min, 105 cfm	3.9 m <sup>3</sup> /min, 138 cfm
Exhaust system backpressure (maximum allowable)	10.2 kPa, 3 in. Hg	10.2 kPa, 3 in. Hg	10.2 kPa, 3 in. Hg	10.2 kPa, 3 in. Hg
<b>Heat Rejection</b>				
Heat Rejection to Jacket Water	15.2 kW, 864 Btu/min	17.2 kW, 978 Btu/min	13.7 kW, 779 Btu/min	15.5 kW, 881 Btu/min
Heat Rejection to Atmosphere from Engine & alternator	5.8 kW, 330 Btu/min	6.3 kW, 358 Btu/min	4.8 kW, 273 Btu/min	5.4 kW, 307 Btu/min

Alternator <sup>2</sup>	50 Hz			60 Hz
Voltages	415/240V	400/230V	380/220V	220/127V
Motor Starting Capability @ 30% Voltage Dip	38 kVA	36 kVA	33 kVA	36 kVA
Current	25 amps	26 amps	27.3 amps	57.7 amps
Frame Size	LC1114H			
Excitation	SE			
Temperature Rise	105 ° C			

## 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> 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.

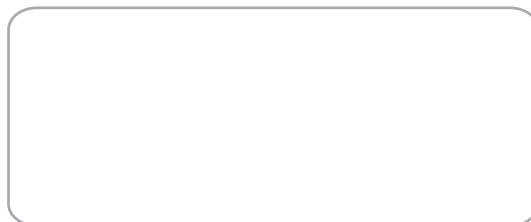
**STANDBY:** Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

**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** 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.

Media Number: LEHE1676



## BUILT FOR IT.™



Picture shown may not represent actual configuration

## Sound Attenuated Enclosure

### 6.8 – 22 kVA Range

The compact modular design of the 6.8 – 22 kVA SA Level enclosure range ensures optimum performance in the harshest of environments. Designed on modular principles, they have interchangeable components permitting on-site repair. Lift off doors and access panels provide optimal service and maintenance access.

Extremely durable and robust, the enclosures are designed to resist corrosion and handling damage with the ability to withstand rough handling common on many construction sites.

Developed through continuing research and development by our specialist engineers, the enclosures are fully weatherproof and incorporate internally mounted exhaust silencers.

The sound attenuated enclosures reduce sound levels to comply with the stage II levels of the European Community Directive 2000/14/EC, effective from 3 January 2006.

## Features

### Durable and Robust Construction

- Galvanised steel protected by powder coat paint
- Single piece roof structure
- Baseframe extends beyond enclosure protecting against handling damage
- Black finish stainless steel locks and hinges
- Zinc plated / stainless steel fasteners

### Excellent Service and Maintenance Access

- Side hinged doors on both sides of the enclosure opening to 180°
- Side hinged doors lift off at 90°
- Removable front and rear access panels
- Coolant drain piped to baseframe, exterior to the enclosure

### Security and Safety

- Control panel viewing via large viewing window in lockable enclosure door
- Emergency stop push button mounted on enclosure exterior below control panel
- Cooling fan and battery charging alternator fully guarded
- Fuel fill and battery can only be reached via lockable access doors
- Exhaust silencing system totally enclosed for operator safety

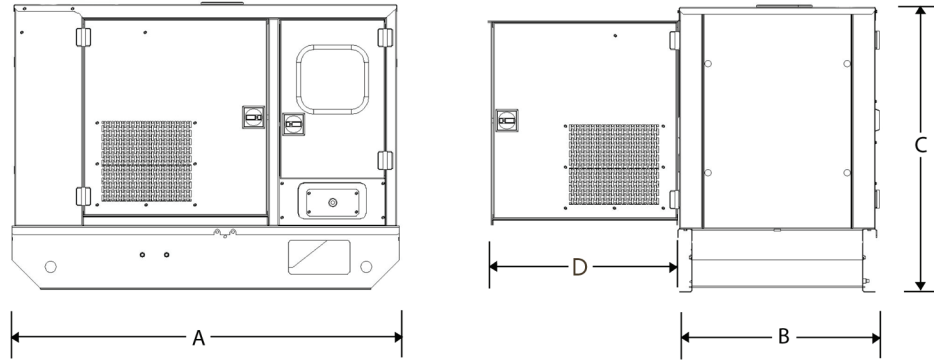
### Transportability

- Tested and certified single point lifting facility – Optional
- Drag points on baseframe facilitating handling from both sides
- Optional base feet to aid forklift handling

## Sound Pressure Levels (dBA)

Generating Set Model	Duty	LWA	50 Hz						60 Hz					
			15 m		7 m		1 m		15 m		7 m		1 m	
			75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load
DE9.5E3	Prime	90	58	58	64	64	75	76	58	58	64	64	76	76
	Standby	90	58	58	64	64	75	76	58	58	64	64	76	76
DE9.5E3 (EUR1)	Prime	90	58	58	64	64	75	76	58	58	64	64	76	76
	Standby	90	58	58	64	64	75	76	58	58	64	64	76	76
DE13.5E3	Prime	88	57	59	63	65	75	77	59	60	65	66	76	77
	Standby	88	58	60	64	66	75	77	59	61	65	67	76	77
DE18E3	Prime	91	58	59	64	65	74	74	60	62	66	68	77	78
	Standby	91	58	59	64	65	74	74	61	62	67	68	78	79
DE22E3	Prime	91	59	60	65	66	74	75	61	62	67	68	78	79
	Standby	91	59	60	65	66	74	75	61	63	67	69	78	80
DE7.5E3S	Prime	90	58	58	64	64	75	76	58	58	64	64	76	76
	Standby	90	58	58	64	64	75	76	58	58	64	64	76	76
DE11E3S	Prime	88	57	59	63	65	75	77	59	60	65	66	76	77
	Standby	88	58	60	64	66	75	77	59	61	65	67	76	77
DE14E3S	Prime	91	58	59	64	65	74	74	60	61	66	67	77	78
	Standby	91	58	59	64	65	74	74	61	62	67	68	77	79
DE16E3S	Prime	91	59	59	65	65	74	75	61	62	67	68	78	79
	Standby	91	59	60	65	66	74	75	61	63	67	69	78	80

## Dimensions and Weights



Generating Set Model	A: mm (in)	B: mm (in)	C: mm (in)	D*: mm (in)	Weight: kg (lb)	Fuel Tank Fillable Capacity: l (US gal)
DE9.5E3	1704 (67.1)	876 (34.5)	1268 (49.9)	884 (34.8)	575 (1267.7)	55,0 (14,5)
DE9.5E3 (EUR1)	1704 (67.1)	876 (34.5)	1268 (49.9)	884 (34.8)	582 (1283.1)	55,0 (14,5)
DE13.5E3	1704 (67.1)	876 (34.5)	1268 (49.9)	884 (34.8)	650 (1433.0)	55,0 (14,5)
DE18E3	1704 (67.1)	876 (34.5)	1268 (49.9)	884 (34.8)	706 (1556.5)	55,0 (14,5)
DE22E3	1704 (67.1)	876 (34.5)	1268 (49.9)	884 (34.8)	719 (1585.1)	55,0 (14,5)
DE7.5E3S	1704 (67.1)	876 (34.5)	1268 (49.9)	884 (34.8)	575 (1267.7)	55,0 (14,5)
DE11E3S	1704 (67.1)	876 (34.5)	1268 (49.9)	884 (34.8)	650 (1433.0)	55,0 (14,5)
DE14E3S	1704 (67.1)	876 (34.5)	1268 (49.9)	884 (34.8)	706 (1556.5)	55,0 (14,5)
DE16E3S	1704 (67.1)	876 (34.5)	1268 (49.9)	884 (34.8)	719 (1585.1)	55,0 (14,5)

Net weight with lube oil, and coolant, no fuel. \*Clearance required both sides.

[www.Cat-ElectricPower.com](http://www.Cat-ElectricPower.com)

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