

Standby & Prime: 50Hz & 60 Hz, 230/400V, 277/480V; 3-Ph



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 in ³)
Compression Ratio	18.2:1
Aspiration	Turbocharged Water cooled
Governor	Mechanical
Emission Strategy	Non-Certified Emissions

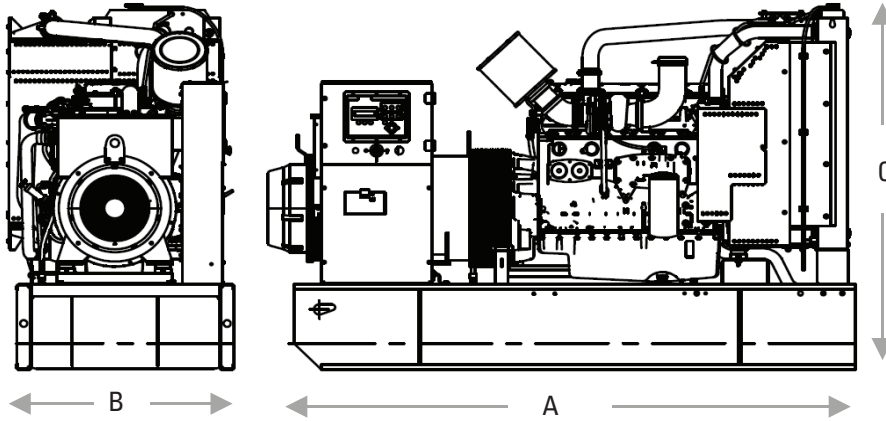
Model	Voltage/Frequency	Standby	Prime
DE150E0	400/230 V, 50 Hz	150 kVA, 120 ekW	135 kVA, 108 ekW
	480/277 V, 60 Hz	165 kVA, 132 ekW	150 kVA, 120 ekW

PACKAGE PERFORMANCE

Technical Data	50 Hz		60 Hz	
	Standby	Prime	Standby	Prime
Engine Speed: RPM	1500		1800	
Gross Engine Power: kW (hp)	136.9 (184.0)	123.7 (166.0)	155.4 (208.0)	140.5 (188.0)
BMEP: kPa (psi)	1562.0 (226.5)	1411.0 (204.6)	1477.0 (214.2)	1336.0 (193.7)
Regenerative Power: kW	6.2		7.0	
Fuel System¹ : L/hr (US gal/hr)				
110% Load	-NA-	-NA-	33.4 (8.8)	36.7 (9.7)
100% Load	33.4 (8.8)	36.7 (9.7)	29.9 (7.9)	33.1 (8.7)
75% Load	24.9 (6.6)	27.5 (7.3)	22.6 (6.0)	25.5 (6.7)
50% Load	17.6 (4.6)	20.7 (5.5)	16.2 (4.3)	19.7 (5.2)
Fuel Filter Type	Replaceable Element			
Recommended Fuel	Class A2 Diesel or BSEN590			
Air System				
Combustion Air Flow: m ³ /min (cfm)	8.1 (286)	11.5 (405)	7.6 (270)	11.0 (387)
Air Filter Type	Paper Element			
Max. Combustion Air intake restriction: kPa (in H ₂ O)	5.0 (20.1)		5.0 (20.1)	
Radiator Cooling Air flow: m ³ /min (cfm)	228.6 (8073)		234.0 (8264)	
External Restriction to Cooling Air Flow: Pa (in H ₂ O)	125 (0.5)		125 (0.5)	
Cooling System²				
Heat Rejected to Water & Lube Oil: kW (Btu/min)	82.0 (4663)	74.9 (4259)	92.0 (5232)	84.2 (4788)
Heat Radiated from Engine & Alternator: kW (Btu/min)	25.9 (1473)	21.6 (1228)	27.0 (1535)	24.1 (1371)
Cooling System Capacity: l (US gal)	21.0 (5.5)		21.0 (5.5)	
Radiator Fan Load: kW (hp)	5.0 (6.7)		7.0 (9.4)	
Water Pump Type	Centrifugal			

Exhaust System		50 Hz				60 Hz			
		Standby		Prime		Standby		Prime	
Exhaust Gas Flow: m ³ /min (cfm)		22.7 (800)		20.8 (733)		29.1 (1026)		27.2 (959)	
Exhaust Gas Temperature: °C (°F)		576 (1069)		576 (1069)		526 (979)		526 (979)	
Silencer Type		Industrial							
Silencer Model & Quantity		EXSY1 (1)							
Pressure Drop Across Silencer System: kPa (in Hg)		0.45 (0.133)				0.72 (0.213)			
Silencer Noise Reduction Level: dB		10				10			
Max. Allowable Back Pressure: kPa (in. Hg)		6.0 (1.8)				6.0 (1.8)			
Generator Performance Data ³		50 Hz				60 Hz			
Voltage		415/240V	400/230V 230/115V 200/115V	380/220V 220/110V	220/127V	480/277V 240/139V	380/220V 220/110V	240/120V 208/120V	440/254V 220/127V
Motor Starting Capability* kVA		281	260	233	307	306	195	231	262
Short Circuit Capacity** %		300	300	300	300	300	300	300	300
Reactances: Per Unit									
Xd		2.508	2.700	2.881	2.231	2.750	2.683	3.328	3.273
X'd		0.183	0.197	0.210	0.163	0.201	0.272	0.243	0.239
X''d		0.090	0.097	0.103	0.080	0.099	0.134	0.120	0.118
Generator Technical Data									
Physical Data					Operating Data				
Frame Model		R2273L4			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: 10.6 (603) 60 Hz: 12.1 (688)	
Capacities									
50 Hz					60 Hz				
Voltage	Prime		Standby		Voltage	Prime		Standby	
	kVA	kW	kVA	kW		kVA	kW	kVA	kW
415/240V	135.0	108.0	150.0	120.0	480/277V	150.0	120.0	165.0	132.0
400/230V	135.0	108.0	150.0	120.0	220/127V	150.0	120.0	165.0	132.0
380/220V	130.0	104.0	142.0	113.6	380/220V	140.0	112.0	153.0	122.4
230/115V	135.0	108.0	150.0	120.0	240/120V	150.0	120.0	165.0	132.0
220/127V	135.0	108.0	148.0	118.4	220/110V	140.0	112.0	153.0	122.4
220/110V	130.0	104.0	142.0	113.6	208/120V	150.0	120.0	165.0	132.0
200/115V	135.0	108.0	150.0	120.0	240/139V	150.0	120.0	165.0	132.0

Weight: kg (lb)			Dimensions: mm (in)		
Net (+ lube oil)	Wet (+ lube oil & coolant)	Fuel, lube oil & coolant	Length, A	Width, B	Height, C
1569 (3459)	1590 (3505)	1886 (4157)	2500 (98.4)	1120 (44.1)	1430 (56.3)



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:

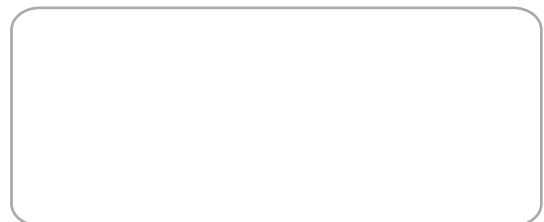
STANDBY: Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

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.

LEHE1148-01 (04/18)



BUILT FOR IT.™



Enclosure pictured may include optional accessories

SOUND ATTENUATED LEVEL 2 ENCLOSURES

24 – 220 kVA Range

These sound attenuated Level 2, factory installed enclosures incorporate internally mounted critical level silencers, designed for safety and aesthetic value on an integral fuel tank base. Extremely durable, the enclosures are designed to resist corrosion and handling damage.

The enclosures are the result of continuing research and development by our specialist acoustic engineers. These enclosures reduce sound levels to comply with the stage 2 levels of the European Community Directive 2000/14/EC which became effective 3 January 2006.

FEATURES

DURABLE AND ROBUST CONSTRUCTION

- Manufactured from galvanised steel
- Advanced powder coating paint finish
- Single piece main roof
- Baseframe extends beyond enclosure protecting against handling damage
- Minimal external fixings exposed to environment
- Zinc plated fasteners
- Corner posts and air handling units manufactured from high grade composite material

EXCELLENT SERVICE AND MAINTENANCE ACCESS

- Side hinged doors on both sides of the enclosure incorporating lift-off hinges at 45 degrees
- Radiator fill via removable, flush mounted rain cap fitted with compression seal
- Lube oil cooling water drains piped to baseframe side rail, on exterior
- Removable end panels allow access to radiator, exhaust outlet and alternator rear
- Doors positioned for optimum access of frequently service items

SECURITY AND SAFETY

- Secure, lockable doors prevent unauthorised access to control panel, fuel fill and battery
- Emergency stop button mounted on exterior, convenient to control panel
- Cooling fan and battery charging alternator fully guarded

TRANSPORTABILITY

- Tested and certified single point lifting facility
- Lifting and drag points on baseframe facilitating handling from both sides

SOUND PRESSURE LEVELS (dBA)

Generator Set Model Three Phase		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
DE33E0	Prime	94	60.5	61.8	66.5	67.8	76.3	78.4	60.6	62.7	66.6	68.7	77.6	79.9
	Standby	94	60.9	62.4	66.9	68.4	76.9	79.4	61.2	63.8	67.2	69.8	78.2	81.1
DE33E3	Prime	94	59.4	61.3	65.4	67.3	76.5	78.6	-	-	-	-	-	-
	Standby	94	60.0	62.1	66.0	68.1	77.1	79.6	-	-	-	-	-	-
DE50E0	Prime	93	56.7	57.7	62.7	63.7	76.7	77.9	59.7	60.8	65.7	66.8	79.5	80.8
	Standby	93	56.9	58.2	62.9	64.2	77.0	78.5	60.1	61.5	66.1	67.5	80.0	81.6
DE50E2	Prime	93	55.7	56.4	61.7	62.4	75.3	75.5	-	-	-	-	-	-
	Standby	93	55.9	56.7	61.9	62.7	75.4	75.6	-	-	-	-	-	-
DE55E0	Prime	93	56.9	58.2	62.9	64.2	77.0	78.5	60.1	61.5	66.1	67.5	80.0	81.6
	Standby	93	57.3	58.9	63.3	64.9	77.4	79.2	60.5	62.2	66.5	68.2	80.5	82.4
DE55E2	Prime	93	56.2	56.5	62.2	62.5	75.3	75.5	-	-	-	-	-	-
	Standby	93	56.3	56.7	62.3	62.7	75.3	75.6	-	-	-	-	-	-
DE65E0	Prime	93	57.6	59.4	63.6	65.4	77.8	79.7	61.0	63.0	67.0	69.0	81.0	83.3
	Standby	93	58.1	60.5	64.1	66.5	78.3	80.8	61.5	63.8	67.5	69.8	81.6	84.2
DE65E3	Prime	93	57.7	58.5	63.7	64.5	75.8	77.1	-	-	-	-	-	-
	Standby	93	57.9	58.9	63.9	64.9	76.2	77.8	-	-	-	-	-	-
DE88E0	Prime	93	57.7	59.1	63.7	65.1	76.0	77.0	60.6	61.2	66.6	67.2	79.0	79.5
	Standby	93	58.1	59.8	64.1	65.8	76.2	77.4	60.8	61.5	66.8	67.5	79.2	79.6
DE88E3	Prime	97	61.3	61.4	67.3	67.4	80.1	80.2	-	-	-	-	-	-
	Standby	97	61.3	61.5	67.3	67.5	80.2	80.3	-	-	-	-	-	-
DE110E2	Prime	97	62.4	63.1	68.4	69.1	80.4	81.0	65.2	65.4	71.2	71.4	84.4	84.6
	Standby	97	62.6	63.5	68.6	69.5	80.6	81.3	65.2	65.5	71.2	71.5	84.5	84.7
DE110E3	Prime	97	61.4	61.6	67.4	67.6	80.2	80.3	-	-	-	-	-	-
	Standby	97	61.5	61.7	67.5	67.7	80.2	80.4	-	-	-	-	-	-
DE165E0	Prime	-	58.5	58.9	64.5	64.9	78	78.2	61.3	61.9	67.3	67.9	82.1	82.4
	Standby	-	58.6	59.1	64.6	65.1	78.1	78.3	61.5	62.1	67.5	68.1	82.2	82.7
DE200E0	Prime	97	62.0	62.4	68.0	68.4	80.2	80.4	-	-	-	-	-	-
	Standby	97	62.1	62.7	68.1	68.7	80.2	80.5	-	-	-	-	-	-
DE220E0	Prime	97	62.3	63.5	68.3	69.5	80.0	80.7	-	-	-	-	-	-
	Standby	97	62.7	64.0	68.7	70.0	80.2	81.1	-	-	-	-	-	-

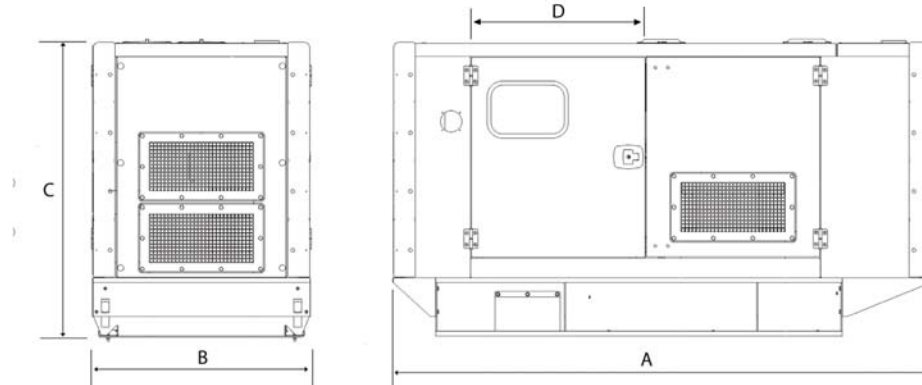
Levels in accordance with European Noise Directive (2000/14/EC).

SOUND PRESSURE LEVELS (dBA)

Generator Set Model Single Phase		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
DE26E0S	Prime	94	60.5	61.8	66.5	67.8	76.3	78.4	-	-	-	-	-	-
	Standby	94	60.9	62.4	66.9	68.4	76.9	79.4	-	-	-	-	-	-
DE26E3S	Prime	94	60.5	61.8	66.5	67.8	76.3	78.4	-	-	-	-	-	-
	Standby	94	60.9	62.4	66.9	68.4	76.9	79.4	-	-	-	-	-	-
DE40E2S	Prime	93	55.7	56.4	61.7	62.4	75.3	75.5	-	-	-	-	-	-
	Standby	93	55.9	56.7	61.9	62.7	75.4	75.6	-	-	-	-	-	-
DE40E0S	Prime	93	56.7	57.7	62.7	63.7	76.7	77.9	59.7	60.8	65.7	66.8	79.5	80.8
	Standby	93	56.9	58.2	62.9	64.2	77.0	78.5	60.1	61.5	66.1	67.5	80.0	81.6
DE50E0S	Prime	93	58.1	59.1	64.1	65.1	76.6	77.3	61.1	62.1	67.1	68.1	78.9	80.0
	Standby	93	58.5	59.5	64.5	65.5	76.9	77.6	61.4	62.5	67.4	68.5	79.3	80.5
DE55E3S	Prime	93	57.7	58.5	63.7	64.5	75.8	77.1	-	-	-	-	-	-
	Standby	93	57.9	58.9	63.9	64.9	76.2	77.8	-	-	-	-	-	-
DE90E2S	Prime	97	62.2	62.8	68.2	68.8	80.2	80.8	65.1	65.3	71.1	71.3	84.4	84.6
	Standby	97	62.4	63.1	68.4	69.1	80.4	81.0	65.2	65.4	71.2	71.4	84.4	84.6
DE90E3S	Prime	97	61.3	61.5	67.3	67.5	80.2	80.3	-	-	-	-	-	-
	Standby	97	61.4	61.6	67.4	67.6	80.2	80.3	-	-	-	-	-	-

Levels in accordance with European Noise Directive (2000/14/EC)

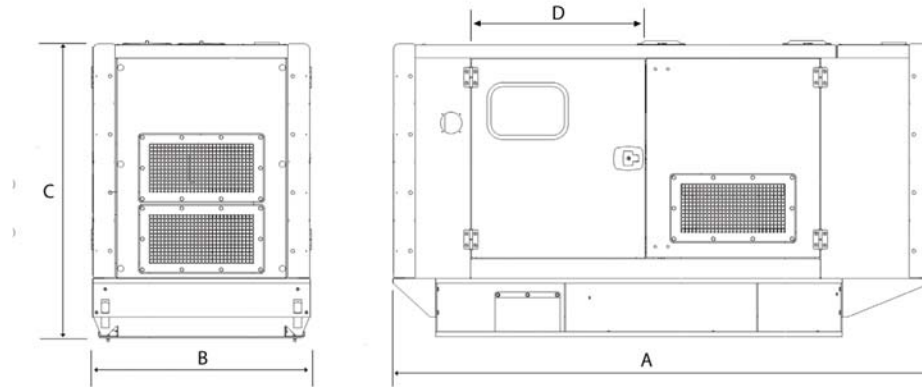
DIMENSIONS AND WEIGHTS



Generator Set Model Three Phase	A: mm (in)	B: mm (in)	C: mm (in)	D*: mm (in)	Fuel Capacity: l (US gal)	Weight: kg (lb)
DE33E0	2120 (83.5)	970 (38.2)	1525 (60.0)	718 (28.3)	161 (43.0)	991 (2185)
DE33E3	2120 (83.5)	970 (38.2)	1525 (60.0)	718 (28.3)	161 (43.0)	991 (2185)
DE50E2	2300 (90.6)	1120 (44.1)	1525 (60.0)	795 (31.3)	219 (58.0)	1183 (2608)
DE50E0	2300 (90.6)	1120 (44.1)	1525 (60.0)	795 (31.3)	219 (58.0)	1191 (2626)
DE55E0	2300 (90.6)	1120 (44.1)	1525 (60.0)	795 (31.3)	219 (58.0)	1196 (2637)
DE55E2	2300 (90.6)	1120 (44.1)	1525 (60.0)	795 (31.3)	219 (58.0)	1236 (2725)
DE65E0	2300 (90.6)	1120 (44.1)	1525 (60.0)	795 (31.3)	219 (58.0)	1207 (2661)
DE65E3	2300 (90.6)	1120 (44.1)	1525 (60.0)	795 (31.3)	219 (58.0)	1247 (2749)
DE88E0	2300 (90.6)	1120 (44.1)	1525 (60.0)	795 (31.3)	219 (58.0)	1391 (3067)
DE88E3	2770 (109.1)	1120 (44.1)	1525 (60.0)	899 (35.4)	250 (66.0)	1529 (3371)
DE110E2	2770 (109.1)	1120 (44.1)	1525 (60.0)	899 (35.4)	250 (66.0)	1547 (3411)
DE110E3	2770 (109.1)	1120 (44.1)	1525 (60.0)	899 (35.4)	250 (66.0)	1637 (3609)
DE165E0	3520 (138.6)	1120 (44.1)	1815 (71.5)	1145 (45.1)	349 (92.2)	2016 (4445)
DE200E0	3520 (138.6)	1320 (52.0)	1815 (71.5)	1080 (42.5)	418 (110.0)	2198 (4836)
DE220E0	3520 (138.6)	1320 (52.0)	1815 (71.5)	1080 (42.5)	418 (110.0)	2238 (4934)

*Clearance required on both sides of set.
Weight with lube oil and coolant, no fuel.

DIMENSIONS AND WEIGHTS



Generator Set Model Single Phase	A: mm (in)	B: mm (in)	C: mm (in)	D*: mm (in)	Fuel Capacity: l (US gal)	Weight: kg (lb)
DE26E0S	2120 (83.5)	970 (38.2)	1525 (60.0)	718 (28.3)	161 (43.0)	991 (2185)
DE26E3S	2120 (83.5)	970 (38.2)	1525 (60.0)	718 (28.3)	161 (43.0)	991 (2185)
DE40E2S	2300 (90.6)	1120 (44.1)	1525 (60.0)	795 (31.3)	219 (58.0)	1199 (2643)
DE40E0S	2300 (90.6)	1120 (44.1)	1525 (60.0)	795 (31.3)	219 (58.0)	1247 (2749)
DE50E0S	2300 (90.6)	1120 (44.1)	1519 (59.8)	795 (31.3)	219 (58.0)	1315 (2899)
DE55E3S	2300 (90.6)	1120 (44.1)	1519 (59.8)	795 (31.3)	219 (58.0)	1355 (2987)
DE90E2S	2770 (109.1)	1120 (44.1)	1525 (60.0)	899 (35.4)	250 (66.0)	1613 (3556)
DE90E3S	2770 (109.1)	1120 (44.1)	1525 (60.0)	899 (35.4)	250 (66.0)	1653 (3644)

*Clearance required on both sides of set.
Weight with lube oil and coolant, no fuel.

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