

## 250 kVA – 330 kVA



### BENEFITS & FEATURES

#### CAT® GENERATOR SET PACKAGE

Cat generator set packages have been fully prototype tested and certified torsional vibration analysis reports are available. The packages are designed to meet the NFPA 110 requirement for loading, conform to the ISO 8528-5 steady state and fill transient response requirements.

#### CAT DIESEL ENGINES

The four-cycle Cat diesel engine combines consistent performance with excellent fuel economy and transient response that meets or exceeds ISO 8528-5. The engines feature a reliable, rugged, and durable design that has been field proven in thousands of applications worldwide in emergency standby installations.

#### COOLING SYSTEM

The cooling system has been designed and tested to ensure proper generator set cooling, and includes the radiator, fan, belts, and all guarding installed as standard. Contact your Cat dealer for specific ambient and altitude capabilities.

#### GENERATORS

The generators used on Cat packages have been designed and tested to work with the Cat engine. The generators are built with robust Class H insulation and provide industry-leading motor starting capability and altitude capabilities.

#### EMCP CONTROL PANELS

The EMCP controller features the reliability and durability you have to come to expect from your Cat equipment. The EMCP 4 is a scalable control platform designed to ensure reliable generator set operation, providing extensive information about power output and engine operation. EMCP 4 systems can be further customized to meet your needs through programming and expansion modules.

### 50 Hz

	Standby	Prime
DE250E0	250 kVA	230 kVA
DE275E0, E3	260 kVA	240 kVA
DE300E0, E3	300 kVA	275 kVA
DE330E0, E3	330 kVA	300 kVA

### SPECIFICATIONS

#### ENGINE SPECIFICATIONS

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 in <sup>3</sup> )
Compression Ratio	16.1:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4
Emission Certifications Options	Non- Regulated & EU IIIA

#### GENERATOR SET SPECIFICATIONS

Alternator Design	Brushless Single Bearing, 4 Pole
Stator	2/3 Pitch
Available Voltage Options	230V/380V/400V/415V
Frequency	50Hz
Engine Alternator Voltage	24V
Alternator Insulation & IP	Class H; IP21; IP23(Optional)
Standard Temperature Rise	125 Deg C
Available Excitation Options	Self-Excited, PMG
Voltage Regulation, Steady State +/-	≤1%

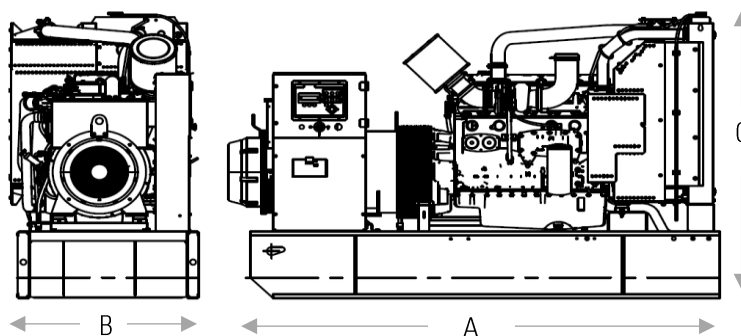
## STANDARD EQUIPMENT

Air inlet system	Air Cleaner. Light duty with disposable paper filter.
Control panels	EMCP4.2 control panel.
Cooling system	Radiator and cooling fan with guard Coolant drain line with valve Fan drive, battery charging alternator drive- Caterpillar Extended Life Coolant.
Exhaust system	Stainless steel exhaust flex, gaskets, rain cap & SAE exhaust flange.
Fuel system	Standard open set fuel tank / base supplied. Base, formed steel with single wall integral 8-hour fuel tank.
Generators and generator attachments	IP23 Protection. Voltage Regulator (single phase sensing) Power center, IP22 Segregated low voltage (AC/DC) wiring panel. Mandatory Option circuit breaker, IEC, 3 pole, mounted in Power-center.
Governing system	Cat Electronic Governor (ADEM A4).
Lube system	Oil cooler. Lubricating oil. Oil drain valves
Starting/charging system	24V battery with rack and cables
General	Engine and alternator pre-paint, Caterpillar Yellow

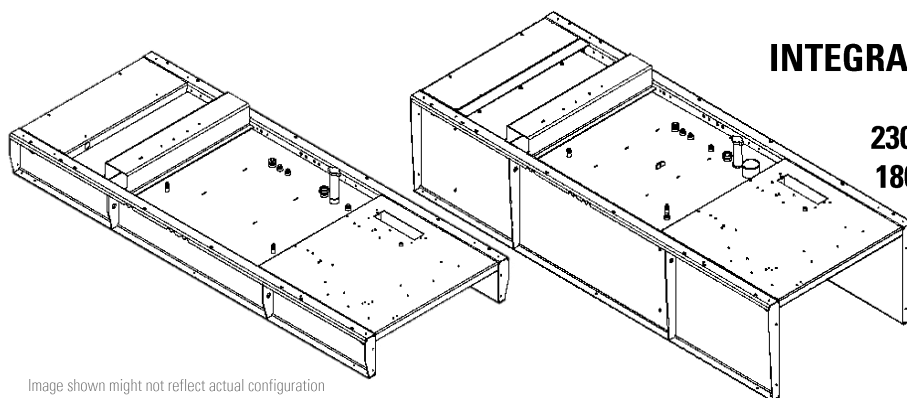
## OPTIONAL EQUIPMENT

Air inlet system	Single Element Air Cleaner Dual Element Air Cleaner
Control panels	EMCP 4.4 Local & Remote Annunciator
Circuit Breakers	3-Pole 100% Rated- Single (Manual & Motorised) 4-Pole 100% Rated- Single (Manual & Motorised)
Enclosures	Sound Attenuated level 1 & level 2 High Ambient Enclosures
Cooling system	Stone guards.
Radiator	High Ambient Radiator
Fuel storage	8 Hr Single & Dual Wall 8 Hr Dual Wall- Heavy Duty 24 Hr Dual Wall- Heavy Duty
Generators and generator attachments	Space heater control Permanent magnet generator Ingress Protection R- Frame Auxiliary winding LC & A-Frame Coastal Insulation Protection Optional LC- Frame
Mounting system	Captive linear vibration isolators
Starting/charging system	Battery Chargers Jacket Water Heater
General	Tool Set.

## WEIGHTS & DIMENSIONS



Genset Package		Dim "A" mm	Dim "B" mm	Dim "C" mm	Open Std. Generator Set Weight (Dry) kg	Enclosed Generator Set (Dry) kg
Standby	Prime					
<b>250 kVA</b>	<b>230 kVA</b>	2662	1030	1754	2096	3385
<b>260 kVA</b>	<b>240 kVA</b>	2662	1030	1754	2096	3385
<b>300 kVA</b>	<b>275 kVA</b>	2662	1030	1754	2110	3429
<b>330 kVA</b>	<b>300 kVA</b>	2662	1030	1754	2261	3429



## INTEGRAL FUEL TANK BASES

230 - 330 kVA 50 Hz  
180 - 300 kW 60 Hz

Image shown might not reflect actual configuration

### FEATURES

- 8 Hour Fuel tank design provides capacity for thermal expansion of fuel.
- Integral diesel fuel tank is incorporated into the generator set base frame.
- Direct reading fuel level gauge.
- Fuel supply dip tubes positioned so as not to pick up fuel sediment.
- Fuel return and supply dip tubes are separated by an internal baffle to prevent recirculation of heated return fuel.
- Raised Fuel fill neck for easy access 50.8 mm (2 in)
- Tanks designed with a Max pressure head of 1.4m above tank top.
- Heavy gauge steel 4point lifting gussets suitable for easy lifting of Genset package
- Polyester powder coating – Gloss black textured finish
- Primary tanks are equipped with customer connections for remote fuel transfer in (1”), return (1.5”) and vent (1”)
- Right side stub-up.

### Single Wall Tanks

#### A. Standard Duty Narrow and Wide Base options

- Construction: 4 mm (0.16 in) steel plate side channels and 3 mm (0.12 in) sheet steel tank design
- Standard offering for open and Level 1 & 2, Level 1HA enclosed generator sets.

#### B. Heavy Duty wide base option (FTSW001)

- Construction: 6 mm (0.24 in) steel plate side channels with end plates and 3 mm (0.12 in) sheet steel tank design
- Available for Level 2, Level 1HA enclosed generator sets

### Dual Wall tanks

- Secondary containment – closed top design
- Welded steel basin designed to contain a minimum of 110% of primary tank capacity (total fluid containment)
- Sloped top tank plate to front to contain accidental coolant, oil and fuel spillages with front ½” closed drain sockets and 4” open rear access drain socket. Multi containment setup. Auto drain with drip tray for service, with separate full fuel containment or Full containment of all fluids by removing ½” front drain plugs.
- Available for Level 2, Level 1HA enclosed generator sets.

#### FTBDW20 Standard Duty Dual Wall

- Construction: 4 mm (0.16 in) steel plate side channels and 3 mm (0.12 in) sheet steel tank design.

#### FTBDWH1 Heavy Duty Dual Wall

- Heavy construction 6 mm (0.24 in) steel plate side channels with End plates and 4mm (0.16 in) sheet steel tank design.

#### FTBDWH2 24Hr Heavy Duty Dual Wall

- Heavy construction 6 mm (0.24 in) steel plate side channels with End plates and 4mm (0.16 in) sheet steel tank design

### Options

- A. Low fuel level alarm
- B. Low fuel level shutdown
- C. High fuel level alarm

## Enclosure Package Dimensions & Capacities

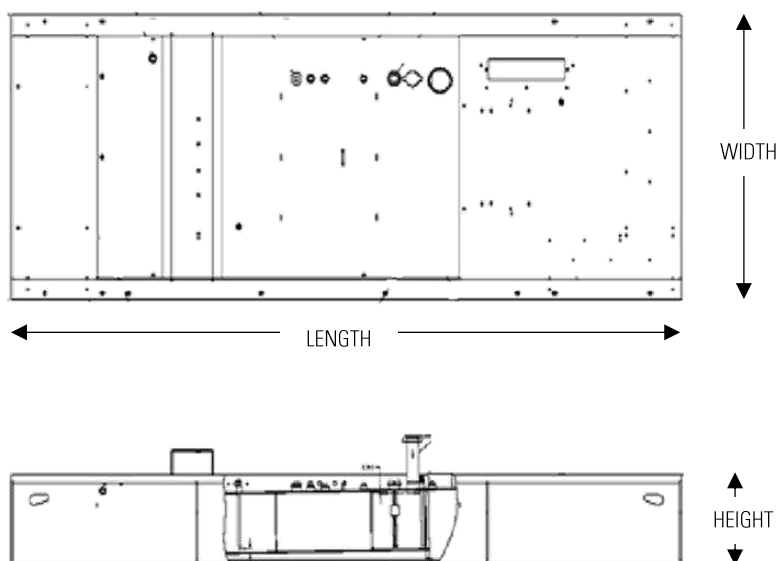
Configuration	Single /Dual Wall	Fillable Capacity		Useable Capacity		Dry Weight#		Width 'W'		Length 'L'		Height 'H'		Package Height*	
		L	US gal	L	US gal	Kg	lb	mm	in	mm	in	mm	in	mm	in
<b>OPEN</b>															
Standard Tank	Single	528	140	503	133	277	611	1030	40.6	2662	104.8	425	16.7	1818	72
MTSK001	Single	N.a	-	N.a	-	153	337	1030	40.6	2662	104.8	250	16.7	1643	65
<b>SA L1 Enclosure</b>															
Standard Tank	Single	473	125	438	116	316	697	1200	47.2	3483	137.2	350	13.8	1867	73.5
<b>SA L2 &amp; L1 High Ambient Enclosures</b>															
Standard Tank	Single	542	143	508	134	388	855	1400	55.1	3498	137.7	350	13.8	2032	80
Standard Duty Dual Wall	Dual	530	140	501	132	568	1252	1400	55.1	3498	137.7	350	13.8	2132	84
Heavy Duty Wide Base	Single	542	143	508	134	454	1001	1410	55.5	3498	137.7	450	17.7	1779	70
Heavy Duty Dual Wall	Dual	530	140	501	132	647	1427	1410	55.5	3498	137.7	830	32.7	1779	70
Heavy Duty Dual Wall (24hr)	Dual	1381	365	1250	330	945	2083	1400	55.1	3498	137.7	450	17.7	2512	99

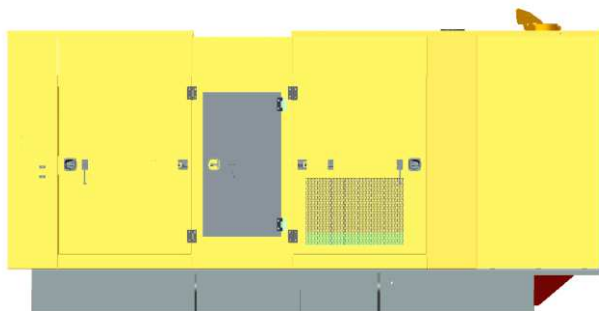
**Notes:**

\*The heights listed above do not include lumber used during manufacturing and shipping.

#Dry weight is for tank only. Does not include additions or removals required by price list.

All fuel tanks are shipped "installed."





## SOUND ATTENUATED & HIGH AMBIENT ENCLOSURES

Image shown might not reflect actual configuration

### FEATURES

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#### Robust / Highly Corrosion Resistant Construction

- Galvanized steel construction
- Galvanized steel construction level 2 enclosure meeting EU noise levels.
- Enclosures Designed for 43°C Ambient Capability.
- Factory installed Standard Fabricated 4mm steel base frame with integral fuel tank.
- 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.

#### 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
- Heavy Duty Fabricated 6mm Steel base 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)		m³/s	CFM	°C	°F
				75% Load	100% Load	75% Load	100% Load				
DE250E0	50	250	SB	83	84	73	74	4.5	158	47	117
	50	230	PP	83	84	73	74	4.5	158	50	122
DE275E0	50	275	SB	83	84	73	74	4.5	158	44	111
	50	250	PP	83	84	73	74	4.5	158	47	117
DE200SE0	60	250	SB	88	88	78	79	6	197	52	125
	60	225	PP	88	88	78	79	6	197	55	131
DE250SE0	60	313	SB	88	89	79	79	6	197	45	112
	60	281	PP	88	89	78	79	6	197	48	119

### 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)		m3/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	162.1	49	121
	50	230	PP	75.0	75.8	67.1	68.1	4.6	162.1	52	125
DE275E0	50	275	SB	75.5	76.3	67.7	68.9	4.6	162.1	47	116
	50	250	PP	75.2	76.0	67.3	68.5	4.6	162.1	49	121
DE275E3	50	275	SB	75.0	76.6	67.6	69.3	4.6	162.1	49	120
	50	250	PP	74.7	76.0	67.1	68.7	4.6	162.1	52	126
DE300E0	50	300	SB	75.7	76.6	68.0	69.3	4.6	162.1	44	111
	50	275	PP	75.5	76.3	67.7	68.9	4.6	162.1	47	116
DE300E3	50	300	SB	75.4	77.2	68.1	70.0	4.6	162.1	46	114
	50	275	PP	75.0	76.6	67.6	69.3	4.6	162.1	49	120
DE330E0	50	330	SB	76.0	76.9	68.4	69.7	4.6	162.1	40	104
	50	300	PP	75.7	76.6	68.0	69.3	4.6	162.1	44	111
DE300SE3	60	375	SB	79.7	81.3	72.0	74.2	5.5	195.9	44	111
	60	338	PP	79.2	80.6	71.3	73.3	5.5	195.9	48	118

## C. High Ambient- Level 1

Model	Hz	kVA	SB/PP	Sound Pressure Levels dBA				Air Flow Rate		Ambient Capability@100% Load	
				1m (3.3ft)		7m (23ft)		m³/S	CFM	°C	°F
				75% Load	100% Load	75% Load	100% Load				
DE250E0	50	250	SB	75.2	76	67.3	68.5	5.5	194.5	61	143
	50	230	PP	75	75.8	67.1	68.1	5.5	194.5	63	146
DE275E0	50	275	SB	75.5	76.3	67.7	68.9	5.5	194.5	59	138
	50	250	PP	75.2	76	67.3	68.5	5.5	194.5	61	143
DE275E3	50	275	SB	75	76.6	67.6	69.3	5.5	194.5	60	140
	50	250	PP	74.7	76	67.1	68.7	5.5	194.5	63	145
DE300E0	50	300	SB	75.7	76.6	68	69.3	5.5	194.5	57	134
	50	275	PP	75.5	76.3	67.7	68.9	5.5	194.5	59	138
DE300E3	50	300	SB	75.4	77.2	68.1	70	5.5	194.5	57	135
	50	275	PP	75	76.6	67.6	69.3	5.5	194.5	60	140
DE330E0	50	330	SB	76	76.9	68.4	69.7	5.5	194.5	54	129
	50	300	PP	75.7	76.6	68	69.3	5.5	194.5	57	134
DE330SE3	60	375	SB	79.7	81.3	72	74.2	6.7	235.1	51	124
	60	338	PP	79.2	80.6	71.3	73.3	6.7	235.1	55	131

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

## Weights & Dimensions

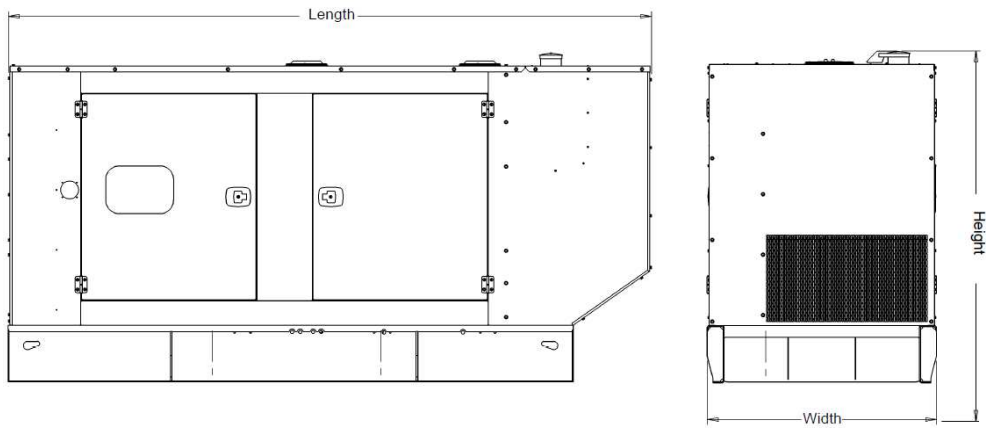
### A. Level 1

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



## B. Level 2

Model	Weight		Genset Overall Size(mm)		
	Kg	lb	Kg	lb	Kg
<b>DE250E0</b>	2859	6303	3981	1410	2032
<b>DE275E0</b>	2859	6303	3981	1410	2032
<b>DE275E3</b>	3404	7505	4300	1410	2165
<b>DE300E3</b>	3404	7505	4300	1410	2165
<b>DE300E0</b>	3404	7505	4300	1410	2165
<b>DE330E0</b>	3524	7769	4300	1410	2165
<b>DE300SE0</b>	3404	7769	4300	1410	2165



## EMCP 4 CONTROL KEY FEATURES

### EMCP 4 control features

- Run / Auto / Stop Control
- Speed and Voltage Adjust
- Engine Cycle Crank
- 24-volt DC operation
- Environmental sealed front face
- Text alarm/event descriptions

### Digital indication for:

- RPM
- DC volts
- Operating hours
- Oil pressure (psi, kPa or bar)
- Coolant temperature
- Volts (L-L & L-N), frequency (Hz)
- Amps (per phase & average)
- ekW, kVA, kVAR, kW-hr, %kW, PF (4.2 only)

### Warning/shutdown with common LED indication of:

- Low oil pressure
- High coolant temperature
- Overspeed
- Emergency Stop
- Failure to start (overcrank)
- Low coolant temperature
- Low coolant level



### Programmable protective relaying functions:

- Generator phase sequence
- Over/Under voltage (27/59)
- Over/Under Frequency (81 o/u)
- Reverse Power (kW) (32) (4.2 only)
- Reverse reactive power (kVAR) (32RV)
- Overcurrent (50/51)

### Communications:

- 4 digital inputs & 4 relay outputs (4.1)
- 6 digital inputs & 8 relay outputs (4.2)
- 12 digital inputs & 8 relay outputs (4.4)
- Customer data link (Modbus RTU) (4.2 only)
- Accessory module data link (4.2 only)
- Serial annunciator module data link (4.2 only)
- Emergency stop pushbutton

### Compatible with the following:

- Digital I/O module
- Local Annunciator
- Remote CAN annunciator
- Remote serial annunciator

## FINANCING

Caterpillar offers an array of financial products to help you succeed through financial service excellence. Options include loans, finance lease, operating lease, working capital, and revolving line of credit. Contact your local Cat dealer for availability in your region.

## WORLDWIDE PRODUCT SUPPORT

Cat dealers provide extensive post-sale support including maintenance and repair agreements. Cat dealers have over 1,800 dealer branch stores operating in 200 countries. The Caterpillar® SOS<sup>SM</sup> program effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products.

## BUILT FOR IT.™

[www.Cat.com/electricpower](http://www.Cat.com/electricpower)

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