



Image shown may not reflect actual configuration

## FEATURES & BENEFITS

### 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.

## 200 ekW – 300 ekW

### 60 Hz

|              | Standby | Prime   |
|--------------|---------|---------|
| DE200SE0     | 200 kVA | 180 kVA |
| DE250SE0     | 250 kVA | 225 kVA |
| DE275SE0     | 275 kVA | 250 kVA |
| DE300SE0, E3 | 300 kVA | 270 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 in³)                         |
| 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           | 220V/240V/380V/440V/480V         |
| Frequency                           | 60Hz                             |
| 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%                              |

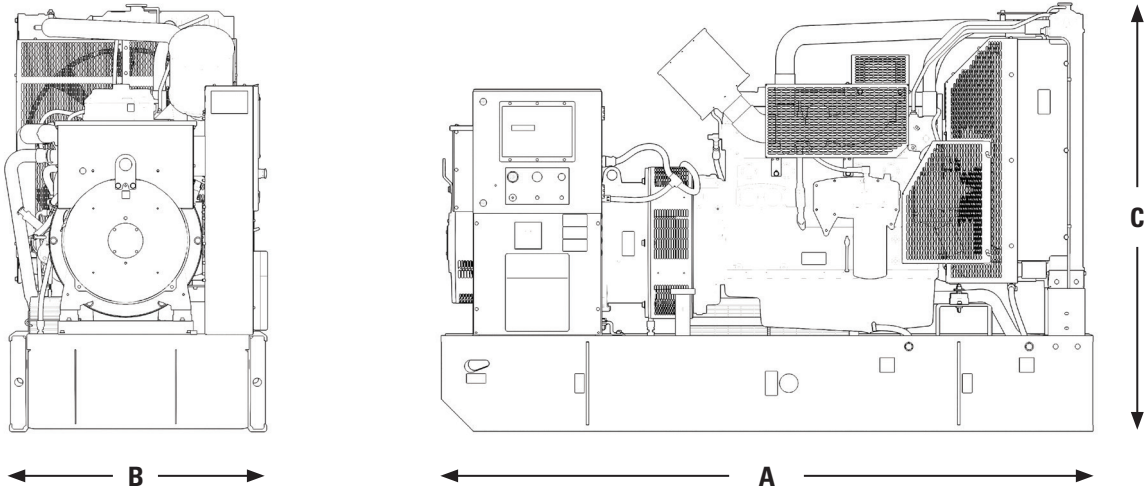
## STANDARD EQUIPMENT

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

## OPTIONAL EQUIPMENT

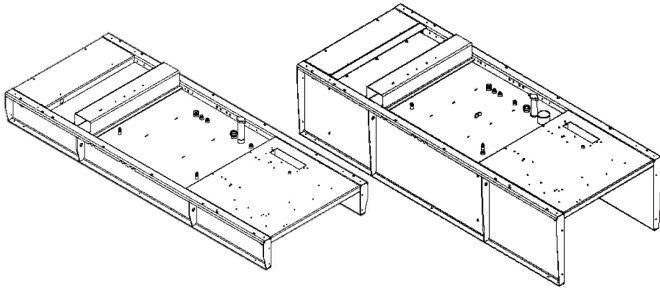
|                                      |                                                                                                                                                                          |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------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

WEIGHTS & DIMENSIONS



**Note:** General configuration not to be used for installation. See general dimension drawings for detail.

| Genset Package |         | Dim "A"<br>mm (in) | Dim "B"<br>mm (in) | Dim "C"<br>mm (in) | Open Std.<br>Generator Set | Enclosed<br>Generator Set |
|----------------|---------|--------------------|--------------------|--------------------|----------------------------|---------------------------|
| Standby        | Prime   |                    |                    |                    | Weight (Dry)<br>kg (lb)    | Weight (Dry)<br>kg (lb)   |
| 200 ekW        | 180 ekW | 2662 (104.8)       | 1030 (40.5)        | 1754 (69)          | 2096 (4620.8)              | 3385 (7462.6)             |
| 250 ekW        | 225 ekW | 2662 (104.8)       | 1030 (40.5)        | 1754 (69)          | 2096 (4620.8)              | 3385 (7462.6)             |
| 275 ekW        | 250 ekW | 2662 (104.8)       | 1030 (40.5)        | 1754 (69)          | 2110 (4651.7)              | 3429 (7559.6)             |
| 300 ekW        | 275 ekW | 2662 (104.8)       | 1030 (40.5)        | 1754 (69)          | 2261 (4984.6)              | 3429 (7559.6)             |



*Image shown may not reflect actual configuration*

## INTEGRAL FUEL TANK BASES

**230 - 330 kVA 50 Hz**

**180 - 300 kW 60 Hz**

### 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

- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm

## Package Dimensions & Capacities

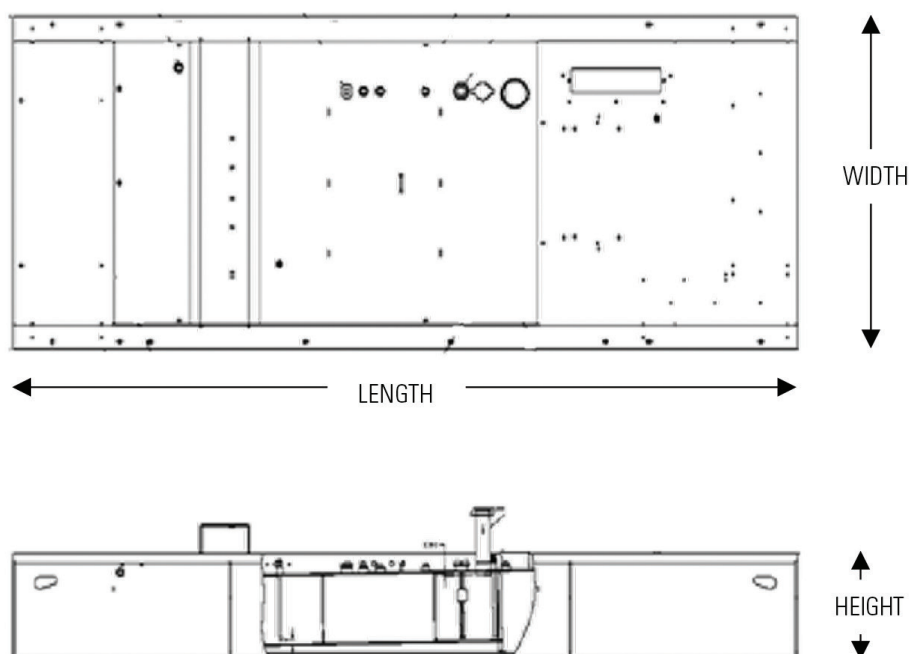
| Configuration<br>250-275 kVA<br>180-300 kW    | Single/<br>Dual Wall | Fillable<br>Capacity |     | Usable<br>Capacity |     | Dry Weight <sup>#</sup> |      | Width 'W' |      | Length 'L' |       | Height 'H' |      | Package<br>Height* |      |
|-----------------------------------------------|----------------------|----------------------|-----|--------------------|-----|-------------------------|------|-----------|------|------------|-------|------------|------|--------------------|------|
| OPEN                                          |                      | L                    | gal | L                  | gal | kg                      | lb   | mm        | in   | mm         | in    | mm         | in   | mm                 | in   |
| 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<br>Dual Wall                    | Dual                 | 530                  | 140 | 501                | 132 | 568                     | 1252 | 1400      | 55.1 | 3498       | 137.7 | 450        | 17.7 | 2132               | 84   |
| Heavy Duty<br>Wide Base                       | Single               | 542                  | 143 | 508                | 134 | 454                     | 1001 | 1410      | 55.5 | 3498       | 137.7 | 450        | 17.7 | 2032               | 80   |
| Heavy Duty Dual<br>Wall                       | Dual                 | 530                  | 140 | 501                | 132 | 647                     | 1427 | 1410      | 55.5 | 3498       | 137.7 | 450        | 17.7 | 2132               | 84   |
| Heavy Duty Dual<br>Wall (24hr)                | Dual                 | 1381                 | 365 | 1250               | 330 | 945                     | 2083 | 1400      | 55.1 | 3498       | 137.7 | 830        | 32.7 | 2512               | 99   |

### Notes:

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

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

All fuel tanks are shipped "installed."





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## SOUND ATTENUATED & HIGH AMBIENT ENCLOSURES

### Features

#### 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           | 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 |

### 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           | 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 |

## 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           | 11654 | 61                            | 143 |
|          | 50 | 230 | PP    | 75                        | 75.8      | 67.1      | 68.1      | 5.5           | 11654 | 63                            | 146 |
| DE275E0  | 50 | 275 | SB    | 75.5                      | 76.3      | 67.7      | 68.9      | 5.5           | 11654 | 59                            | 138 |
|          | 50 | 250 | PP    | 75.2                      | 76        | 67.3      | 68.5      | 5.5           | 11654 | 61                            | 143 |
| DE275E3  | 50 | 275 | SB    | 75                        | 76.6      | 67.6      | 69.3      | 5.5           | 11654 | 60                            | 140 |
|          | 50 | 250 | PP    | 74.7                      | 76        | 67.1      | 68.7      | 5.5           | 11654 | 63                            | 145 |
| DE300E0  | 50 | 300 | SB    | 75.7                      | 76.6      | 68        | 69.3      | 5.5           | 11654 | 57                            | 134 |
|          | 50 | 275 | PP    | 75.5                      | 76.3      | 67.7      | 68.9      | 5.5           | 11654 | 59                            | 138 |
| DE300E3  | 50 | 300 | SB    | 75.4                      | 77.2      | 68.1      | 70        | 5.5           | 11654 | 57                            | 135 |
|          | 50 | 275 | PP    | 75                        | 76.6      | 67.6      | 69.3      | 5.5           | 11654 | 60                            | 140 |
| DE330E0  | 50 | 330 | SB    | 76                        | 76.9      | 68.4      | 69.7      | 5.5           | 11654 | 54                            | 129 |
|          | 50 | 300 | PP    | 75.7                      | 76.6      | 68        | 69.3      | 5.5           | 11654 | 57                            | 134 |
| DE330SE3 | 60 | 375 | SB    | 79.7                      | 81.3      | 72        | 74.2      | 6.7           | 14197 | 51                            | 124 |
|          | 60 | 338 | PP    | 79.2                      | 80.6      | 71.3      | 73.3      | 6.7           | 14197 | 55                            | 131 |

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

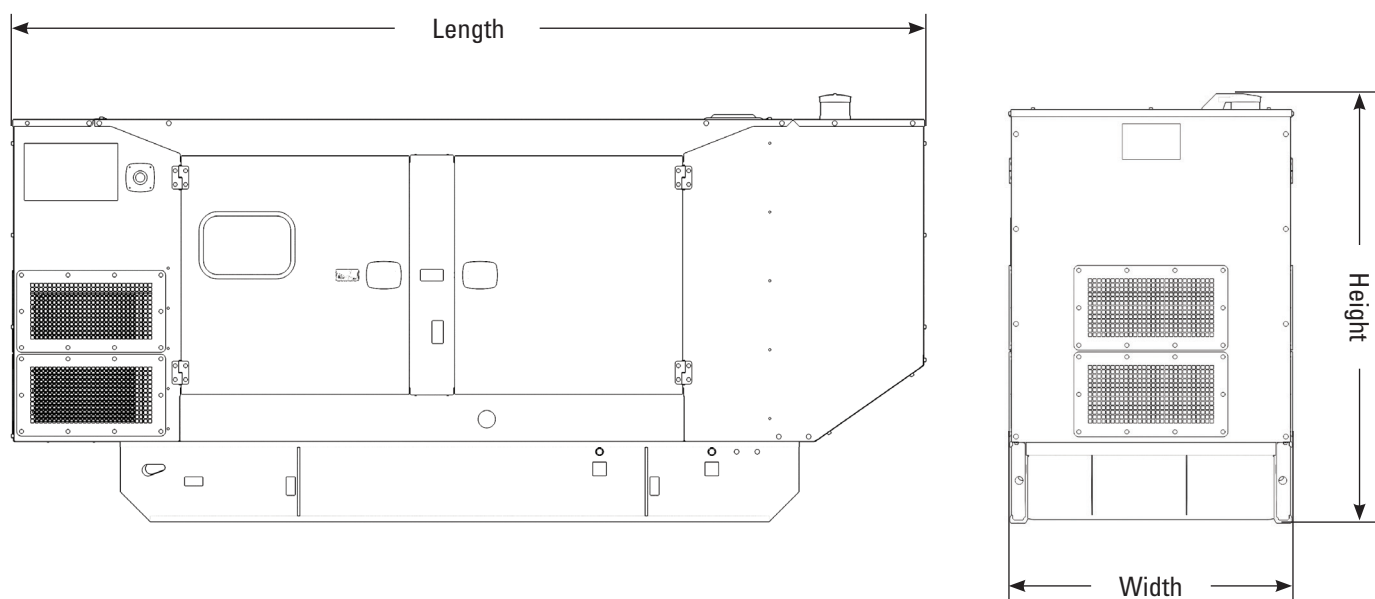
## Weights & Dimensions

### A. Level 1

| Model                        | Weight |      | Genset Overall Size(mm) |       |        |
|------------------------------|--------|------|-------------------------|-------|--------|
|                              | kg     | lb   | Length                  | Width | Height |
| DE250E0, 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   |



## 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)
- kW, 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<sup>®</sup> SOS<sup>SM</sup> program effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products.

# LET'S DO THE WORK.™