



Image shown might not reflect actual configuration

## 40 ekW- 60 ekW

### 60 Hz

	Standby	Prime
	40 ekW	36 ekW
	50 ekW	45 ekW
	60 ekW	55 ekW

## 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.

## SPECIFICATIONS

### ENGINE SPECIFICATIONS

Engine Model	Cat® C4.4 In-line 4, 4-cycle diesel
Bore x Stroke	105mm x 127mm (4.1in x 5.0 in)
Displacement	4.4 L (269 in <sup>3</sup> )
Compression Ratio	18.2:1
Aspiration	Turbocharged
Fuel Injection System	Common Rail
Governor	Electronic & ADEM™
Emission Certifications	US EPA TIER III Non-Road

### GENERATOR SET SPECIFICATIONS

Alternator Design	Brushless Single Bearing, 4 Pole
Stator	2/3 Pitch
No. of Leads	12
Available Voltage Options	480/240/208V
Frequency	60Hz
Alternator Voltage	12V
Alternator Insulation & IP	Class H; IP23
Standard Temperature Rise	125/130 Deg C
Available Excitation Options	Self-Excited, AREP
Voltage Regulation, Steady State +/-	≤0.5%

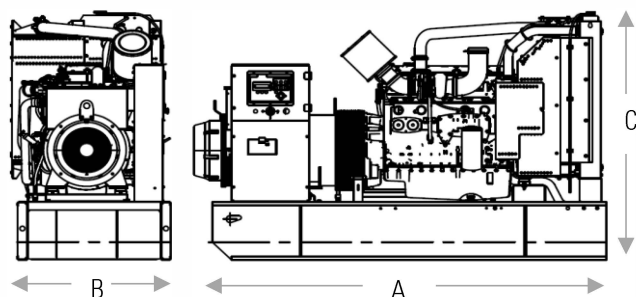
## STANDARD EQUIPMENT

Control panels	EMCP4.2 control panel.
Cooling system	Radiator and cooling fan complete with protective guards. Standard ambient temperatures up to 50degC (122degF). 50% coolant antifreeze/corrosion inhibitor. Coolant Reservoir
Fuel system	Primary & secondary fuel filters. Flexible fuel lines.
Generators and generator attachments	Brushless, self-excited 2/3 pitch, random wound. IP23 Protection. Insulation Class H and temperature rise Integrated Voltage Regulator
Governing system	Cat Electronic Governor (ADEM A4).
Protection System	Safety Shutoff – Low Oil Pressure Safety Shutoff – Overspeed Coolant Level Sensor
Starting/charging system	12-Volt Electric Starting Motor Batteries with rack & cables
General	Paint – Caterpillar Yellow except rails and radiators gloss black

## OPTIONAL EQUIPMENT

Exhaust	Silencer System 10, 25, 35 dBA
Control panels	Remote Annunciators NFPA110 bundle Oil temp guage & sender Earth (Ground) Fault Relay Discrete i/o module
Circuit Breakers	3-Pole 100% Rated – Single & Dual breaker combination.
Enclosures	Sound Attenuated (SA)- Level 1 & Level 2 Weather Protective
Cooling system	Radiator Stone guards. Radiator transition flange
Fuel System	Integral & Sub Base Fuel Tanks: 146, 271 Gal
Generators and generator attachments	AREP, PMG
Starting/charging system	Standard Battery Set
Certifications	IBC Seismic & Wind Certifications
General	Tool Set.

## WEIGHTS & DIMENSIONS



Standby Ratings	Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Generator Set Weight <sup>†</sup> kg (lb)
<b>C4.4</b>	1932 (76)	1110 (44)	1767 (70)	890 (1962)

<sup>†</sup>Weight includes: Oversize generator, skid base, circuit breaker, oil, and coolant



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## INTEGRAL & SUB BASE FUEL TANKS

### FEATURES

- UL Listed for United States (UL 142) and Canada (CAN/ULC S601)
- Facilitate compliance with NFPA 30 code, NFPA 37 and 110 standards and CSA C282 code and B139-09 standard
- Welded, heavy steel gauge construction with a containment basin sized as a minimum 110% of the tank
- Gloss black polyester triglycidyl isocyanurate
- (TGIC) powder coating
- Dedicated external customer interface area with access to the 4" (101.6 mm) fuel fill, visual level gauge, normal and emergency vents
- Rear electrical stub-up area with removable access panel
- Removable engine supply and return dip tubes
- Two additional 1" (25.4 mm) ports for customer use
- Tanks are rated to safely support the weight of the generator
- 8 gal (30.3 L) drip pan for oil and coolant (for generator sets up to 60 kW only)
- Standard NPT tank fittings
- UL listed emergency vents sized as per UL standards 3" (76.2 mm), 4" (101.6 mm), and
- 5" (127 mm) NPT
- Normal atmospheric vent 1-1/4" (31.75 mm)
- Top-mounted fuel level sensor with control panel alarms
- Top-mounted leak detection switch
- Lockable fuel fill cap, 4" (101.6 mm) NPT.

### Description

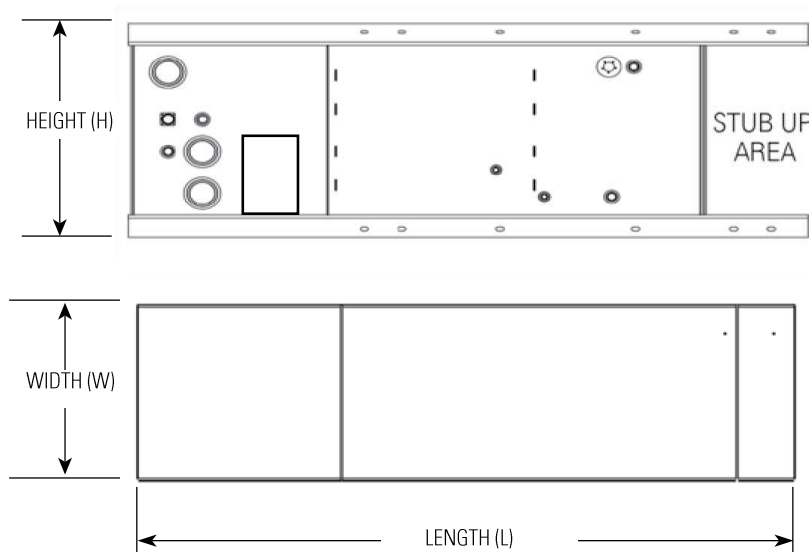
- Dual wall, secondary containment
- Pressure tested to UL requirements
- Fuel tank mounts directly below generator skid base
- Modular tank design is compatible with all factory units open and enclosed

### Options

- Emergency vent and normal vent extension kits 12' (3.66 m)
- 5 gal (18.9 L) spill containment
- Overfill prevention valve
- Tank riser to allow for visual secondary containment leak inspection
- Drop tube

## Sub-Base Fuel Tank Capacities with Fuel Tank Dimensions

Engine Model	Tank Feature Code	Generator Set Rating kW	Est. Run Time hrs	Fillable Capacity		Usable Capacity		Vent	Length 'L'		Width 'W'		Height 'H'		Weight (Dry)	
				L	gal	L	gal		in	mm	in	mm	in	mm	in	kg
C4.4	INTFT140 SBT140	40	36	520	137	508	134	3	2483	97.8	1000	39.4	533	21.0	336	740
		50	29													
		60	26													
	INTFT250 SBT250	40	68	965	255	952	251	3					864	34.0	466	1027
		50	55													
		60	49													



Tanks are UL Listed and constructed in accordance with UL Standard for Safety UL 142, Steel Aboveground Tanks for Flammable and Combustible Liquids and Canada CAN/ULC Fabricated Steel above ground Horizontal Tanks for Flammable and Combustible Liquids.

Fuel tanks facilitate compliance with the following United States NFPA Code and Standards:

- N FPA 30: Flammable and Combustible Liquids code
- NFPA 37: Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines.
- NFPA 110: Standard for Emergency and Standby Power Systems

Fuel tanks facilitate compliance with the following Canadian Standard and Code:

- CSA C282 – Emergency Electrical Power Supply for Buildings.
- CSA B139-09 – Installation Code for Oil-Burning Equipment.



## Weather Protective and Sound Attenuated Enclosures 60 Hz

### FEATURES

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#### Robust / Highly Corrosion Resistant Construction

- Stainless steel flush fitting latches and hinges tested and proven to withstand extreme conditions of corrosion
- Zinc plated or stainless steel fastener

#### Excellent Access

- Single side access for service and controls
- All non-service sides have removable doors and/or panels
- Radiator fill access
- Lube oil and coolant drains piped to the exterior of the enclosure base
- Large cable entry area for installation ease
- Double doors on both sides
- Vertically hinged doors with solid bar door stays to hold doors in place when open

#### 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
- Stub-up area is rodent proof.

#### Options

- Weather Protective Enclosure
- Sound Attenuated Enclosure – Weather protective with critical silencer
- Cat Yellow or white paint
- UL Listed fuel tanks

#### Transportability

- These enclosures are of extremely rugged construction to withstand outdoor exposure and rough handling common on many construction sites. The sound deadening material is of a self-extinguishing design
- This range of enclosures are designed on modular principles with many interchangeable components permitting on site repair

## Enclosure Sound Pressure Levels (SPL) at 100%

Weather Protective Enclosure		Cooling Air Flow Rate		SPL @7m (23ft)
Model	Standby ekW	m <sup>3</sup> /s	cfm	dBA
D40-2LC	40	1.7	3602	85
D50-2LC	50	1.7	3602	86
D60-2LC	60	1.9	4026	88
Sound Attenuated Enclosure				
Model	Standby ekW	m <sup>3</sup> /s	cfm	dBA
D40-2LC	40	1.7	3602	74
D50-2LC	50	1.7	3602	74
D60-2LC	60	1.9	4026	74

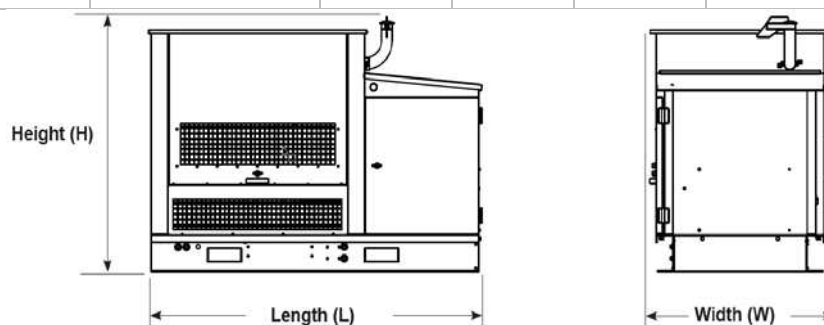
## Weights & Dimensions

### Weights:

Model	Standby ekW	Skid Base		WP Enclosure		SA Enclosure	
		kg	lb	kg	lb	kg	lb
D40-2LC	40	80	176	121	267	137	302
D50-2LC	50						
D60-2LC	60						

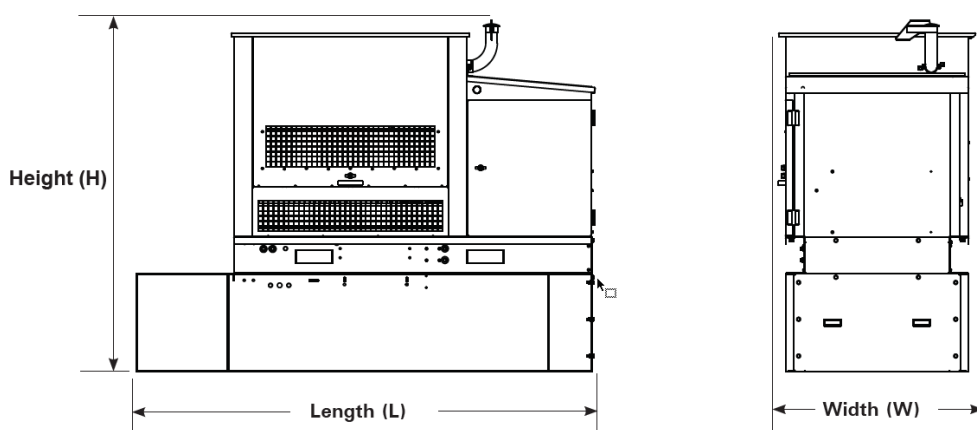
### Enclosure Dimensions: Skid Bases

Engine Model	Generator Set Rating ekW	Enclosure	Width 'W'		Length 'L'		Height 'H'	
			mm	in	mm	in	mm	in
C4.4	40	Weather Protective/ Sound Attenuated	1075	42.3	1972	77.6	1378	54.3
	50							
	60							



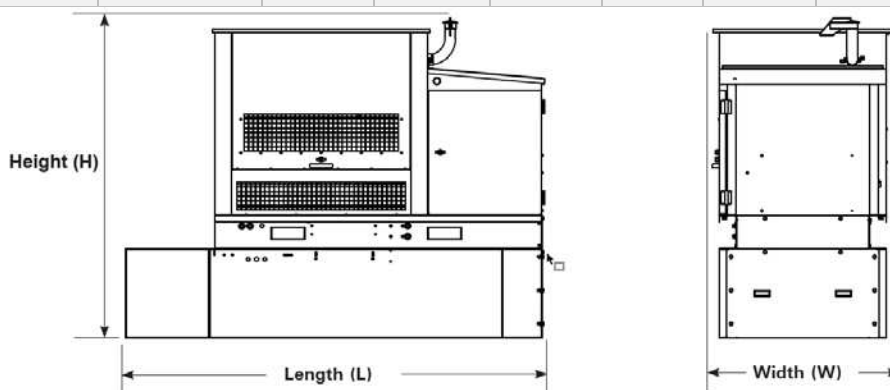
## Enclosure Dimensions: UL Listed Sub Tank Base.

Engine Model	Generator Set Rating ekW	Enclosure	137 Gallon Sub Base Tank				255 Gallon Sub Base Tank			
			Length 'L'		Height 'H'		Length 'L'		Height 'H'	
			mm	in	mm	in	mm	in	mm	in
C4.4	40	Weather Protective/ Sound Attenuated	2503	98.5	1912	75.3	2503	98.5	2241	88.2
	50									
	60									



## Enclosure Dimensions: UL Listed Integral Tanks.

Engine Model	Generator Set Rating ekW	Enclosure	137 Gallon Sub Base Tank				255 Gallon Sub Base Tank			
			Length 'L'		Height 'H'		Length 'L'		Height 'H'	
			mm	in	mm	in	mm	in	mm	in
C4.4	40	Weather Protective/ Sound Attenuated	2503	98.5	1712	67.4	2503	98.5	2041	80.4
	50									
	60									



## 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<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.™

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

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