

Image shown might not reflect actual configuration

600 kVA – 850 kVA
500 ekW – 750 ekW
50/60 Hz

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® C18 ACERT In-line 6, 4-cycle diesel
Bore x Stroke	145mm x 183mm (5.7in x 7.2in)
Displacement	18.1 L (1106.2 in ³)
Compression Ratio	14.5:1[600-715kVA]; 14:1[780-850kVA]
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	Electronic Unit Injection
Governor	Electronic ADEM™ A4
Emission Certifications	Low Fuel Consumption

GENERATOR SET SPECIFICATIONS

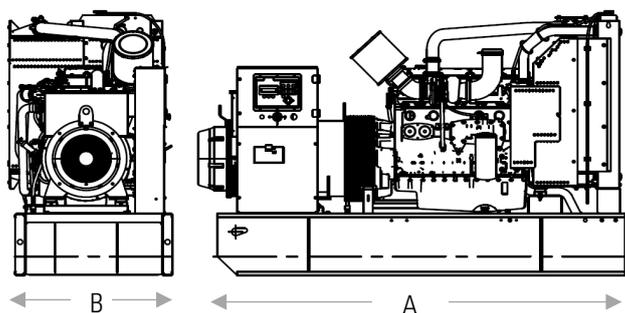
Alternator Design	Brushless Single Bearing, 4 Pole
Stator	2/3 Pitch
No. of Leads Options	6/12
Available Voltage Options	220/240/380/415/400/440/480V
Frequency	50 or 60Hz
Alternator Voltage	24V
Alternator Insulation & IP	Class H; IP21; IP23 (Optional)
Standard Temperature Rise	125/130 Deg C
Available Excitation Options	Self-Excited, AREP
Voltage Regulation, Steady State +/-	≤1 %

STANDARD EQUIPMENT

Air inlet system	Aftercooler core. Turbocharger
Control panels	EMCP4.2B control panel. Standard breaker <ul style="list-style-type: none"> • 3 Pole • Right mounted power centre
Cooling system	Radiator and cooling fan with belt guards Thermostats and housing. Coolant level sensor Coolant level sight gauge Jacket water pump, gear driven. Coolant drain valve; terminated on edge of base. Cooling system filled with Caterpillar Extended Life Coolant
Exhaust system	Exhaust manifold; dry.
Fuel system	Primary fuel filter w/integral water separator & secondary filter. Fuel cooler. Fuel priming pump. Flexible fuel lines. Engine fuel transfer pump
Generators and generator attachments	Brushless, self-excited 2/3 pitch, random wound. IP23 Protection. Insulation Class H and temperature rise Power centre, IP22 bottom cable entry Segregated low voltage wiring pane
Mounting System	Narrow skid base Generator mounting & Duct Plate Anti-vibration mounts (Non-captive)
Protection System	Overspeed High coolant temperature shutdown Low oil pressure shutdown Low Coolant level shutdown
Starting/charging system	24-Volt Electric Starting Motor 24V, 45 amp charging alternator Battery rack & cables
Certifications	EPA Stationary Emergency Use

OPTIONAL EQUIPMENT

Air inlet system	Dual Element air cleaner Heavy Duty Canister air filters
Control panels	EMCP 4.4 Local Annunciator Annunciators Box Remote E-Stop button Discrete I/O Module Volt Free Contact Earth (Ground) Fault Relay
Circuit Breakers	Single LSI motorised Circuit Breaker External Paralleling Auxiliary Contacts Neutral Bar (208V)
Enclosures	Sound Attenuated (SA). Weather Protective Aluminium Enclosure
Cooling system	Coolant Heater Jacket water heater with pump Stone guards.
Base / Fuel Tank	Audio & Visual Fuel Alarm Sub Base Dual Wall Fuel Tank: 1082L, 1316L
Fuel System	Integral 8hr Tank Base Integral Dual wall. Sub Tank Bases: 24Hr & 48Hr
Generators and generator attachments	PMG, AREP Oversize Coastal Protection (CIP) Space Heater Control
Starting/charging system	Standard Battery Set Oversize Battery Set. 5 Amp, 220-240vAC, Control panel mounted Battery charger.
Jacket Water Heater	240vAC Heater.
General	Tool Set.



WEIGHTS & DIMENSIONS

Genset Package	Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Generator Set Weight ¹ kg (lb)
Open (550-715kVA)	3910 (154)	1461 (58)	2156 (85)	3862 (8514)
Open (750-850kVA)	4130 (163)	1689 (67)	2570 (101)	4532 (9991)

¹ Weight includes standard generator, narrow skid base and power terminal strips

C18 Sound Attenuated Enclosures



These sound attenuated, factory installed enclosures incorporate internally mounted super critical level silencers, designed for safety and aesthetic value on integral fuel tank base or optional dual wall integral fuel tank base for total fluid containment. These enclosures are of extremely rugged construction to withstand exposure to the elements and provide weather protection.

Features

Robust/Highly Corrosion Resistant Construction

- Factory installed on integral fuel tank base
- Environmentally friendly, polyester powder baked paint
- 1.6 mm (0.063 in) galvanized steel
- All round overhanging base to protect enclosure
- High-grade engineering thermoplastic corner posts for protection
- Compression door latches giving solid door seal
- Zinc plated or black coated stainless steel fasteners
- Internally mounted super critical exhaust silencing system

Excellent Access

- Large cable entry area for installation ease
- Accommodates rear mounted breaker and control panel
- Double doors on both sides
- Vertically hinged doors with solid bar door stays to hold doors open at 135° rotation
- Lube oil and coolant drains pipes to exterior of enclosure and terminated drain valves

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
- Integral dual wall fuel tank base for total fluid containment (fuel, oil and coolant)

Enclosure Package Operating Characteristics

Model	kVA	ekW	SB/PP	LWA	Sound Pressure Levels dBA				Air Flow Rate		Ambient Capability at 100% Load*	
					1m (3.3 ft)		7m (23 ft)		m ³ /s	cfm	°C	°F
					75% Load	100% Load	75% Load	100% Load				
50 Hz												
DE605E0	550	440	PP	105	82	82	72	72	5.6	11866	43	109
	605	484	SB	105	82	83	72	72	5.6	11866	46	115
DE660E0	600	480	PP	105	82	83	72	72	5.6	11866	41	106
	660	528	SB	105	82	83	72	73	5.6	11866	43	109
DE715E0	650	520	PP	105	82	83	72	73	5.6	11866	36	97
	715	572	SB	105	82	83	72	73	5.6	11866	41	106
DE780E0	706	565	PP	106	85	85	74	75	12.6	26698	53	127
	780	624	SB	106	85	85	74	75	12.6	26698	56	133
DE850E0	770	616	PP	106	85	85	74	75	12.6	26698	51	124
	850	680	SB	106	85	85	74	75	12.6	26698	54	129
60 Hz												
DE550SE0	625	500	PP	-	84	84	73	74	7.8	16563	47	117
	688	550	SB	-	84	84	73	74	7.8	16563	48	118
DE600SE0	681	545	PP	-	84	84	73	74	7.8	16563	42	108
	750	600	SB	-	84	84	73	74	7.8	16563	43	109
DE650SE0	750	600	PP	-	85	86	75	75	12.8	27122	53	128
	812	650	SB	-	85	86	74	75	12.8	27122	56	133
DE715SE0	812	650	PP	-	86	86	75	76	12.8	27122	50	122
	895	716	SB	-	85	86	75	75	12.8	27122	54	128
DE750SE0	850	680	PP	-	86	86	75	76	12.8	27122	49	120
	937.5	750	SB	-	86	86	75	76	12.8	27122	52	126

WEIGHTS & DIMENSIONS

Model	kVA	ekW	SB/PP	LENGTH, L		WIDTH, W		HEIGHT, H		WEIGHT *	
				mm	in	mm	in	mm	in	kg	lb
50 Hz											
DE605E0	550	440	PP	5320	209.4	1920	75.6	2289	90.1	5952	13122
	605	484	SB	5320	209.4	1920	75.6	2289	90.1	5952	13122
DE660E0	600	480	PP	5320	209.4	1920	75.6	2289	90.1	5952	13122
	660	528	SB	5320	209.4	1920	75.6	2289	90.1	5952	13122
DE715E0	650	520	PP	5320	209.4	1920	75.6	2289	90.1	5952	13122
	715	572	SB	5320	209.4	1920	75.6	2289	90.1	5952	13122
DE780E0	706	565	PP	5572	219.3	2170	85.4	2398	94.4	6629	14614
	780	624	SB	5572	219.3	2170	85.4	2398	94.4	6629	14614
DE850E0	770	616	PP	5572	219.3	2170	85.4	2398	94.4	6690	14748
	850	680	SB	5572	219.3	2170	85.4	2398	94.4	6690	14748
60 Hz											
DE550SE0	625	500	PP	5320	209.4	1920	75.6	2289	90.1	5952	13122
	688	550	SB	5320	209.4	1920	75.6	2289	90.1	5952	13122
DE600SE0	681	545	PP	5320	209.4	1920	75.6	2289	90.1	5952	13122
	750	600	SB	5320	209.4	1920	75.6	2289	90.1	5952	13122
DE650SE0	750	600	PP	5572	219.3	2170	85.4	2398	94.4	6484	14294
	812	650	SB	5572	219.3	2170	85.4	2398	94.4	6484	14294
DE715SE0	812	650	PP	5572	219.3	2170	85.4	2398	94.4	6629	14614
	895	716	SB	5572	219.3	2170	85.4	2398	94.4	6629	14614
DE750SE0	850	680	PP	5572	219.3	2170	85.4	2398	94.4	6690	14748
	937.5	750	SB	5572	219.3	2170	85.4	2398	94.4	6690	14748

* Approximate weight of enclosure package: Exact weight is dependent on options.

Enclosure weight includes: sound attenuated enclosure, exhaust system, base and generator set.



C18 INTEGRAL FUEL TANK BASE

550-850 kVA 50 Hz
500-750 kW 60 Hz

FEATURES

- 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
- Fuel fill - 76.2 mm (3 in)
- Tanks are leak tested at 31 kPa (4.5 psi) minimum
- Heavy gauge steel gussets suitable for lifting package
- Polyester powder coating - Gloss black textured finish
- Primary tanks are equipped with customer connections for remote fuel transfer, return and vent
- Sloped top tank plate to front to contain accidental coolant, oil and fuel spillages
- Sloped bottom tank plate to middle for fuel drainage
- Rear stub-up access

DESCRIPTION- Single wall tanks

- Single wall design- Heavy construction 6 mm (0.24 in) steel plate side channels and 4 mm (0.16 in) sheet steel tank design
- Standard offering for open and enclosed (High Ambient and Sound Attenuated) generator sets

DESCRIPTION - Dual wall tanks

- Secondary containment - Open top design, Welded steel basin designed to contain a minimum of 110% of primary tank capacity (total fluid containment).
- Heavy construction 6 mm (0.24 in) steel plate side channels and 4 mm (0.16 in) sheet steel tank design
- Option for enclosed (High Ambient and Sound Attenuated) generator sets

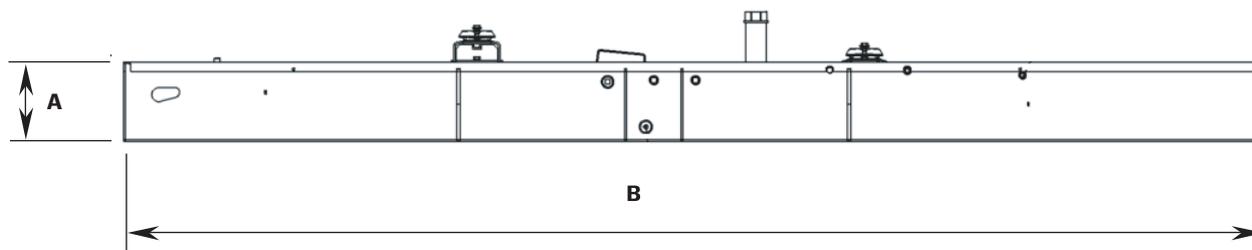
OPTIONS

- Manual fuel transfer pump
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm

CAPACITIES & DIMENSIONS

Configuration	kVA	Single/ Dual Wall	Fillable Capacity		Usable Capacity		Weight		Width		Length [B]		Height [A]		Package Height	
			L	gal	L	gal	kg	lb.	mm	in	mm	in	mm	in	mm	in
Open (STD)	550-715	Single	1132	299	1075	284	665	1,466	1461	57.5	3900	153.5	395	15.6	2155	84.8
Open (STD)	750-850	Single	1788	472	1623	429	782	1724	1671	65.8	4130	162.5	590	23.2	2570	101.2
Enclosed* (STD)	550-715	Single	1157	306	1099	290	995	2,194	1920	75.6	5320	209.4	370	14.6	2245	88.4
Enclosed* (STD)	750-850	Single	1613	426	1413	373	1222	2694	2170	85.4	5572	219.3	475	18.7	2398	94.4
Enclosed* (FTBDW56)	550-715	Dual	1131	299	1071	283	1237	2,727	1920	75.6	5320	209.4	425	16.7	2300	90.6
Enclosed* (FTBDW6Y)	750-850	Dual	1373	363	1307	345	1446	3188	2170	85.4	5572	219.3	496	19.5	2419	95.2

*Enclosed includes both Sound Attenuated and High Ambient configurations.



Note: The heights listed above do not include lumber used during manufacturing and shipping. Weight is for tank only. Does not include additions or removals required by price list.

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[®] S-O-SSM program effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products.

