



Image shown may not reflect actual configuration.

350 kVA – 500 kVA

60 Hz

Standby	Prime
350 ekW	320 ekW
400 ekW	365 ekW
450 ekW	410 ekW
500 ekW	455 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 full 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.

GCCP CONTROL PANELS

The GCCP controller features the reliability and durability you have to come to expect from your Cat equipment. Monitoring an extensive number of engine parameters, the controller will display warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LEDs and remote PC. The controllers offer extensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet the most demanding industry requirements.

SPECIFICATIONS

ENGINE SPECIFICATIONS

Engine Model	Cat [®] C15 In-line 6, 4-cycle diesel
Bore x Stroke	137 mm x 171 mm (5.4 in x 6.8 in)
Displacement	15.2L (928 in ³)
Compression Ratio	16.1:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4
Emission Certifications	EPA TIER III

GENERATOR SET SPECIFICATIONS

Alternator Design	Brushless Single Bearing, 4 Pole
Stator	2/3 Pitch
No. of Leads	12
Available Voltage Options	600V/480V/440V/240V/220V
Frequency	60 Hz
Alternator Voltage	24V
Alternator Insulation & IP	Class H; IP23
Standard Temperature Rise	125/130 Deg C
Available Excitation Options	Self-Excited, PMG
Voltage Regulation, Steady State+/-	≤1%

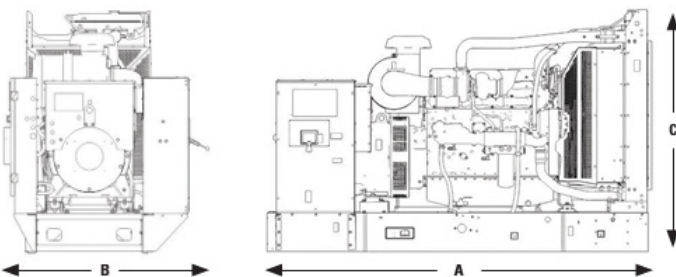
STANDARD EQUIPMENT

Air inlet system	Aftercooler core Turbocharger
Control panels	GCCP1.3 control panel
Cooling system	Coolant drain line with valve; terminated on edge of base Fan and belt guards Coolant level sensor Thermostats and housing, full open temperature 92 deg C (198 deg F) Coolant level sight gauge Jacket water pump, gear driven, centrifugal Caterpillar Extended Life Coolant
Exhaust system	Exhaust manifold; dry
Telematics	PL444 4G LTE
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 panel
Governing system	Cat electronic governor (ADEM A4)
Protection system	Safety shutoff – High water temperature Safety shutoff – Low oil pressure Safety shutoff – Overspeed Coolant level sensor
Base/fuel tank	Narrow skid Wide/standard Sub tank base – UL & ULC Listed Integral tank base – UL & ULC Listed Spill containment Overfill prevention valve
Starting/charging system	24-Volt electric starting motor Charging alternator
Certifications	EPA Stationary Emergency Use

OPTIONAL EQUIPMENT

Air inlet system	Single element air cleaner Dual element air cleaner
Control panels	GCCP1.5 Local annunciator Remote annunciators Discrete I/O module Device server Volt free contact Earth (ground) fault relay
Circuit breakers	3-Pole 100% rated – Single (manual & motorized) 3-Pole 100% rated – Dual & third (manual) External paralleling Auxiliary contacts Neutral bar
Enclosures	Sound attenuated (SA) Weather protective
Cooling system	Stone guards
Telematics	PLG601, PLG641
Mufflers	Industrial grade (10 dBA) Residential and critical grade (25 dBA)
Base/fuel tank	Audio & visual fuel alarm
Fuel system	Integral 670 gal tank base Sub tank sases: 660, 1000, 1900, 2200 Gal
Generators and generator attachments	Excitation – Self Excitation – Internal/AREP/PMG Oversize Coastal protection (CIP) Space heater control
Starting/charging system	Standard battery set Oversize battery set
Certifications	UL2200 Listed CSA 22.2 Certification of Compliance – IBC Seismic Certification of Compliance – IBC Seismic and HCAI
General	Tool set

WEIGHTS & DIMENSIONS



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

Genset Package	Length "A" mm (in)	Width "B" mm (in)	Height "C" mm (in)	Generator Set Weight kg (lb)
350 ekW	3476 (137)	1628 (64)	2128 (84)	3939 (8683)
400 ekW	3476 (137)	1628 (64)	2128 (84)	4066 (8963)
450 ekW	3476 (137)	1628 (64)	2128 (84)	4115 (9071)
500 ekW	3476 (137)	1628 (64)	2128 (84)	4365 (9623)



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FEATURES

- UL Listed for United States (UL 142) and Canada (CAN/ULC S601)
- Facilitates compliance with NFPA 30 code, NFPA 37 and 110 standards and CSA C282 code
- Dual wall
- Lockable fuel fill cap, 4" (101.6 mm) NPT
- Low fuel level warning standard, customer configurable warning or shutdown
- Primary tank leak detection switch in containment basin
- Tank design provides capacity for thermal expansion of fuel
- Fuel supply dip tube is positioned so as not to pick up fuel sediment
- Fuel return and supply dip tube is separated by an internal baffle to prevent immediate re-supply of heated return fuel
- Pressure washed with an iron phosphate solution
- Interior tank surfaces coated with a solvent-based thin-film rust preventative
- Heavy gauge steel gussets with internal lifting rings
- Primary and secondary tanks are leak tested at 20.7 kPa (3 psi) minimum
- Compatible with open packages and enclosures
- Gloss black polyester alkyd enamel exterior paint
- Welded steel containment basin (minimum of 110% of primary tank capacity)
- Direct reading fuel gauge with variable electrical output
- Emergency vents on primary and secondary tanks are sized in accordance with NFPA 30
- Rear stub-up access

INTEGRAL & SUB BASE FUEL TANKS

SUB BASE

- The sub-base fuel tank mounts below the generator set wide base

INTEGRAL

- Integral diesel fuel tank is incorporated into the generator set base frame
- Robust base design includes linear vibration isolators between tank base and engine generator

OPTIONS

- Audio/visual fuel level alarm panel
- 5 gal (18.9 L) spill containment
- 5 gal (18.9 L) spill containment with fuel fill drop tube with in 6" (152 mm) from bottom of tank
- 5 gal (18.9 L) spill containment with overfill prevention valve and fuel fill drop tube with in 6" (152 mm) from bottom of tank
- ULC Listed 7.5gal (28.4 L) spill containment with vent extensions, vent whistle, and drop tube facilitating compliance with CSA B139-09
- ULC Listed 7.5gal (28.4 L) spill containment with overfill prevention valve, vent extensions, vent whistle and drop tube facilitating compliance with CSA B139-09

INTEGRAL & SUB-BASE FUEL TANK BASE USABLE CAPACITIES WITH FUEL TANK DIMENSIONS & WEIGHTS

Integral – Width (W) 2014 mm (79.3 in)

Sub-base – Width (W) 2056 mm (81.0 in)

A. OPEN SET & WEATHER PROTECTIVE ENCLOSURE

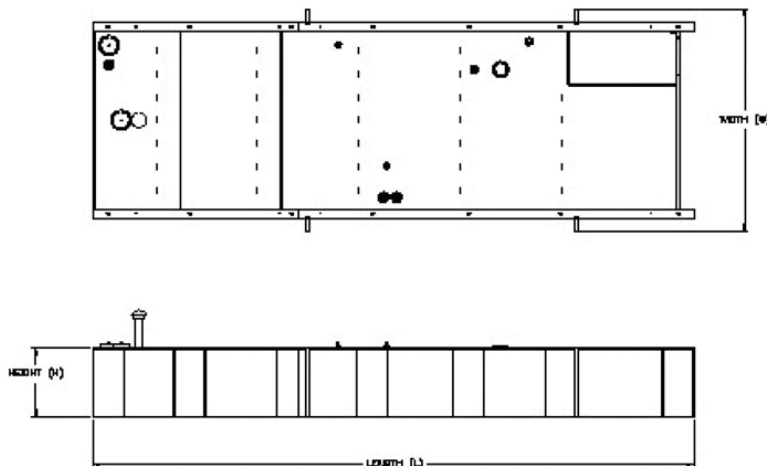
C15 Tank Design	Feature Code	Total Capacity		Usable Capacity		Tank Only						Overall Package height with Tank			
		L	gal	L	gal	Dry Weight		Height 'H'		Length 'L'		Open		Enclosure	
						kg	lb	mm	in	mm	in	mm	in	mm	in
Integral	FTDW002	1283	339	1262	333	1015	2237	635	25.0	3814	150.1	2426	95.5	2619	103.0
Sub-Base	FTDW005	3941	1041	3876	1024	1659	3657	635	25.0	5550	218.5	2763	108.8	2955	116.3
Sub-Base	FTDW006	6980	1844	6818	1801	2228	4483	889	35.0	6184	243.5	3017	118.8	3209	126.3
Sub-Base	FTDW008	2476	654	2435	643	1468	3236	635	25.0	3810	150.0	2763	108.8	2955	116.3
Sub-Base	FTDW034	10887	2876	9899	2615	2847	6277	914	36	7747	305	NA	NA	3233	127.3

B SOUND ATTENUATED ENCLOSURE

C15 Tank Design	Feature Code	Total Capacity		Usable Capacity		Tank Only						Overall Package height with Tank			
		L	gal	L	gal	Dry Weight		Height 'H'		Length 'L'		Open		Enclosure	
						kg	lb	mm	in	mm	in	mm	in	mm	in
Integral	FTDW001	1283	339	1262	333	1015	2237	639	25.0	4746	186.9	NA	NA	2619	103.0
Sub-Base	FTDW005	3941	1041	3876	1024	1659	3657	635	25.0	5550	218.5	NA	NA	2955	116.3
Sub-Base	FTDW006	6980	1844	6818	1801	2228	4483	889	35.0	6184	243.5	3017	118.8	3209	126.3
Sub-Base	FTDW011	2476	654	2435	643	1468	3236	635	25.0	3810	150.0	NA	NA	2955	116.3
Sub-Base	FTDW034	10887	2876	9899	2615	2847	6277	914	36	7747	305	NA	NA	3233	127.3

C OPEN SET & WEATHER PROTECTIVE ENCLOSURE

C15 Tank Design	Feature Code	Standby Ratings (ekW)				Prime Ratings (ekW)			
		500	450	400	350	455	410	365	320
Integral	FTDW001 / FTDW002	9	9	11	11	10	10	11	12
Sub-Base	FTDW005 / FTDW016	28	29	32	36	30	31	35	38
Sub-Base	FTDW006	50	52	57	63	54	56	62	67
Sub-Base	FTDW008 / FTDW011	17	18	20	22	19	20	22	24
Sub-Base	FTDW034	72	75	82	91	78	81	90	97



Cat[®] C15

INTEGRAL FUEL TANK BASE



Tanks with full electrical stub-up area include removable end channel. Tanks with RH stub-up include stubup area directly below the circuit breaker or power terminal strips. Dimensions include weather-protective enclosure exhaust system.

Dual wall sub-base 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 S601, Standard for Shop Fabricated Steel Aboveground Horizontal Tanks for Flammable and Combustible Liquids.

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

The following sub-base fuel tanks meet Chicago code for containment and labelling:

FTDW005

FTDW008

FTDW011



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SOUND ATTENUATED ENCLOSURES

60 Hz

FEATURES

Robust/Highly Corrosion Resistant Construction

- Factory installed on skid base
- Environmentally friendly, polyester powder baked paint
- 14 gauge steel
- Interior zinc plated fasteners
- Exterior stainless steel fasteners
- Internally mounted exhaust silencing system
- Designed and tested to comply with UL 2200 Listed generator set package
- Compression door latches providing solid door seal

Excellent Access

- Large cable entry area for installation ease
- Accommodates side mounted single or multiple breakers
- Three doors on both sides
- Vertically hinged allow 180° opening rotation and retention with door stays
- Lube oil and coolant drains piped to the exterior of the enclosure base
- 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
- Stub-up area is rodent proof

Transportability

- These enclosures are of extremely rugged construction to withstand outdoor exposure and rough handling common on many construction sites

Options (Sound Attenuated)

- Enclosure constructed with 14 gauge steel
- Enclosure constructed with 12 gauge aluminum (5052 grade)
- Caterpillar yellow or white paint
- Control panel viewing window
- UL Listed integral fuel tank with 670, 400, and 300 gallon capacities
- UL Listed sub base fuel tank with 660, 1000, 1900, and 2200 gallon capacities
- Seismic certification per applicable building codes: IBC 2000, IBC 2003, IBC 2006, IBC 2009, IBC 2012, CBC 2007, CBC 2010
- IBC Certification for 150 mph wind loading
- AC/DC lighting package
- 5 kW Canopy space heater to facilitate compliance with NFPA 110
- Motorized louvers and gravity discharge damper
- 125A Load Center
- GFCI outlets

ENCLOSURE PACKAGE OPERATING CHARACTERISTICS

Enclosure Type	Standby ekW	Cooling Air Flow Rate		Ambient Capability*		Sound Pressure Levels (dBA) at 7m (23 ft) 100% Load
		m³/s	cfm	°C	°F	
Level 1 Sound Attenuated Enclosure (Steel)	350	10.4	22072	59	138	73
	400	10.4	22072	51	124	73
	450	10.4	22072	46	115	74
	500	12.5	26415	48	118	75
Level 2 Sound Attenuated Enclosure (Steel)	350	10.4	22071	50	122	72
	400	10.4	22071	50	122	72
	450	10.4	22071	50	122	72
	500	12.5	26415	50	122	72
Sound Attenuated Enclosure (Aluminum)	350	10.4	22072	59	138	72
	400	10.4	22072	51	124	73
	450	10.4	22072	46	115	74
	500	12.5	26415	48	118	75

*Cooling system performance at sea level. Consult your Cat® dealer for site specific ambient and altitude capabilities.

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

ENCLOSURE PACKAGE OPERATING CHARACTERISTICS

Standby ekW	Narrow Skid Base		Wide Skid Base		Sound Attenuated Enclosure (Steel)		Sound Attenuated Enclosure (Aluminum)	
	kg	lb	kg	lb	kg	lb	kg	lb
350	273	602	465	1025	1245	2745	765	1687
400								
450								
500								

DIMENSIONS

Enclosure Type	Standby Ratings ekW	Length		Width		Height	
		mm	in	mm	in	mm	in
Sound Attenuated Enclosure on Skid Base	350	4948	194.8	2014	79.3	2320	91.3
	400						
	450						
	500						
Sound Attenuated Enclosure on a UL Listed Integral Fuel Tank Base	350	4948	194.8	2014	79.3	2619	103.0
	400						
	450						
	500						
Sound Attenuated Enclosure on a UL Listed 660 Gallon Sub-Base Fuel Tank Base	350	4948	194.8	2056	80.9	2955	116.3
	400						
	450						
	500						
Sound Attenuated Enclosure on a UL Listed 1000 Gallon Sub-Base Fuel Tank Base	350	5751	226.4	2056	80.9	2955	116.3
	400						
	450						
	500						
Sound Attenuated Enclosure on a UL Listed 1900 Gallon Sub-Base Fuel Tank Base	350	6382	251.2	2056	80.9	3209	126.3
	400						
	450						
	500						

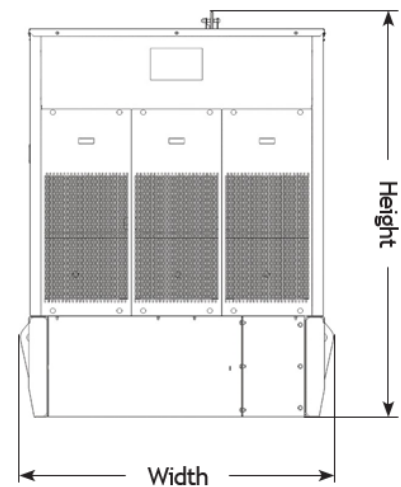
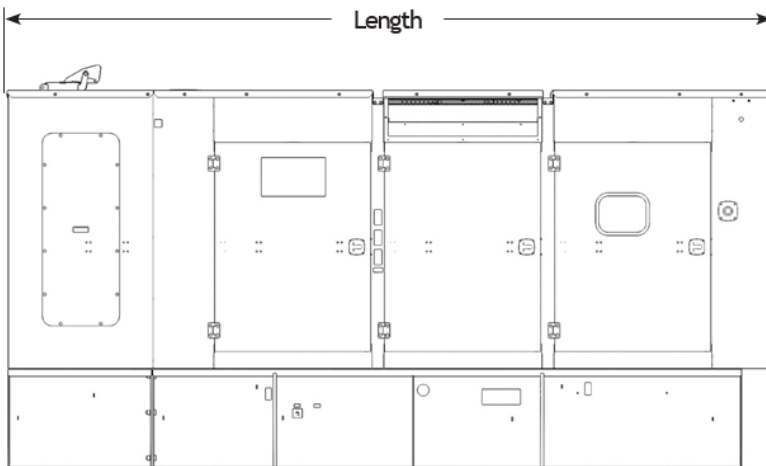




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GCCP 1.3 – Control Panel

GCCP 1.3 Control Module is suitable for a wide variety of generator set applications. It controls operation of the generator, monitors an extensive number of engine parameters, and displays warnings, shutdown, and engine status information on the back-lit LCD screen, illuminated LEDs and remote PC, if desired

KEY FEATURES

- 4-line back-lit LCD text display
- Multiple display languages
- Five-key menu navigation
- LCD alarm indication
- Customisable power-up text and images
- Data logging facility
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB & RS485 communication
- Front panel configuration with PIN protection
- Power save mode
- 3-phase generator sensing and protection
- 3-phase mains (utility) sensing and protection (Optional)
- Automatic load transfer control (optional)
- Auto Mains (Utility) Failure capable (optional)
- Mains (utility) current and power monitoring (kW, kvar, kVA, pf) (Optional)
- Generator current and power monitoring (kW, kvar, kVA, pf)
- kW and kvar overload and reverse power alarms
- Over current protection
- Unbalanced load protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital inputs (3 available for Customer use)
- 8 configurable digital outputs (5 available for Customer use)
- 4 configurable analogue outputs (3 available for Customer Use)
- CAN, MPU and alternator frequency speed sensing in one variant
- Real time clock
- Engine pre-heat and post-heat functions
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel usage monitor and low fuel level alarms
- 3 configurable maintenance alarms

BENEFITS

- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored & displayed simultaneously for full visibility
- The module can be configured to suit a wide range of applications for user flexibility
- PLC editor allows user configurable functions to meet user specific application requirements.
- RS485 Communication port can be used for the Remote Monitoring Communication (Compatible with Cat PLG)

SPECIFICATION

DC SUPPLY

CONTINUOUS VOLTAGE RATING

8V to 35V Continuous
5V for upto 1 minute

CRANKING CROPOUTS

Able to survive 0V for 100mS, providing supply was at least 10V before dropout and supply recovers to 5V. This is achieved without the need for internal batteries.

LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT

260 mA at 12V, 150 mA at 24V

MAXIMUM STANDBY CURRENT

145 mA at 12V, 85 mA at 24V

CHARGE FAIL/EXCITATION RANGE

0V to 35V

GENERATOR & MAINS (UTILITY) VOLTAGE RANGE

15V to 415V AC (Ph to N)
26V to 719V AC (Ph to Ph)

FREQUENCY RANGE

3.5 Hz to 75 Hz

MAGNETIC PICKUP VOLTAGE RANGE

+/-0.5V TO 70V

FREQUENCY RANGE

10,000 Hz (max)

INPUTS

DIGITAL INPUTS A TO H

Negative switching

ANALOGUE INPUTS A & D

Configurable as:

Negative switching digital input 0V to 10V sensor
4 mA 20 mA sensor resistive sensor

ANALOGUE INPUTS B & C

Configurable as:

Negative switching digital input resistive sensor

OUTPUTS

OUTPUT A 7B (FUEL & START)

15A DC at supply voltage

AUXILIARY OUTPUTS C, D, E, F, G & H

2A DC at supply voltage

DIMENSIONS OVERALL

216 mm x 158 mm x 43 mm
8.5" x 6.2" x 1.5"

PANEL CUT-OUT

184 mm x 137 mm
7.2" x 5.3"

MAXIMUM PANEL THICKNESS

8 mm
0.3"

STORAGE TEMPERATURE RANGE

-40°C TO +85°C
-40°F TO 185°F

OPERATING TEMPERATURE RANGE

-30°C to +70°C
-22°F to +158°F

LET'S DO THE WORK.™

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