# Cat® DG350 GC SPARK-IGNITED GENERATOR SETS





#### Image shown may not reflect actual configuration.

# Standby/Demand Response 350 ekW

438 kVA - 60 Hz

**UL2200:** Evaluated by ETL to UL Standard for Safety UL2200 **CSA:** Designed in accordance to CSA22.2 standards

NFPA: Facilitates compliance with NFPA110

Type 10: Product was tested to NFPA110 Type 10

## **BENEFITS & FEATURES**

#### **CAT® GENERATOR SET PACKAGE**

Cat natural gas fuel generator sets deliver dependable, clean, economical power even in the most demanding conditions. Cat generator sets are available in a wide range of configurations with optional equipment. Cat generator sets are designed, engineered, and manufactured for optimal performance. All major components are tested individually. Once assembled, the entire unit is tested at and above 100% of rated load for safety and operation. The generator set facilitates compliance with NFPA 110 and meets ISO 8528-5 requirements for transient response.

These complete, ready-to-run packages have another distinct advantage. They all come with the comprehensive service and support of Cat dealers — beginning with prompt delivery and ongoing support throughout the life of the generator set.

#### **ENGINES**

The spark-ignited engines features include Cat air filter (dry, disposable), radiator outlet duct adapter, oil filters, flexible exhaust connection (open generator sets), and are factory filled with Caterpillar approved oil and extended life coolant.

## **COOLING SYSTEM**

The cooling system is designed to operate in 50°C/122°F ambient temperatures. It 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.

## **ALTERNATOR**

Full load capacity, three-phase, 12 lead, and reconnectable alternator built for extended, dependable life. Features include permanent magnet excitation, amortisseur winding, skewed stator, voltage adjustment through the EMCP controller, Class H winding insulation, and 2/3 pitch incorporated.

## **EMCP CONTROL PANELS**

The Cat EMCP 4.2B control panel is fully equipped with all necessary engine gauges, AC meters, and warnings, providing expanded generator set protection and monitoring. Additional monitoring and expansion modules provide control and protection for critical installations and applications.

## **SPECIFICATIONS**

#### **ENGINE SPECIFICATIONS**

Engine Model	21.9 L, V12, 4-cycle
Bore x Stroke	128 mm x 142 mm (5.03 in x 5.6 in)
Displacement	21.9 L (1336.42 in³)
Compression Ratio	10:1
Aspiration	Turbocharged-Aftercooled
Fuel System	Carburetor, Down Draft
Governor	Electronic
Fuel Type	Natural Gas
Emission Certifications	U.S. EPA Certified for Non-Emergency
Rated Engine Speed	1800 rpm

#### **GENERATOR SET SPECIFICATIONS**

Alternator Design	Sealed Bearings, Brushless, IP21
Stator	2/3 Pitch
Poles	4
Available Voltages	120/208, 120/240, 277/480, 347/600 VAC (3-phase)
Frequency	60 Hz
Alternator Insulation	Class H
Voltage Regulator Type	Full Digital
Available Excitation Types	Permanent Magnet Excitation
Steady State Regulation Accuracy	± 0.25%
Harmonic Distortion	<5%

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## **STANDARD EQUIPMENT**

STANDARD E	COIFINENT
Engine System	General: Oil drain extension Air cleaner Fan guard Stainless steel flexible exhaust connection Factory-filled oil Radiator duct adapter (open set only) Critical exhaust silencer Fuel System: Flexible fuel line — NPT connection Flexible fuel line — NPT connection Cooling System: Closed coolant recovery system UV/ozone resistant hoses Factory-installed radiator Radiator drain extension Sol/50 ethylene glycol antifreeze Engine Electrical System: Battery charging alternator Battery tray Solenoid activated starter motor Rubber-booted engine electrical connections
Alternator System	UL2200 Genprotect <sup>TM</sup> Class H insulation material 2/3 pitch Skewed stator Permanent magnet excitation Sealed bearings Amortisseur winding Full-load capacity alternator
Generator Set	Internal generator set vibration isolation Separation of circuits — high/low voltage Separation of circuits — multiple breakers Wrapped exhaust piping Standard factory testing 2-year limited warranty (Standby/Demand Response rated units) Silencer mounted in the discharge hood (enclosed only)
Enclosure (if selected)	Rust-proof fasteners with nylon washers to protect finish  High performance sound-absorbing material (L1 & L2)  Gasketed doors  Stamped air-intake louvers  Air discharge hoods for radiator-upward pointing  Stainless steel lift-off door hinges  Stainless steel lockable handles  Rhino Coat™ — Textured polyester powder coat

## **CONFIGURABLE OPTIONS**

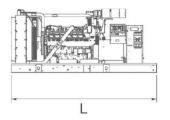
	General:
Engine	Engine block heater with ball valves
	Flexible fuel line — NPT connection
	Oil heater
	Air filter restriction indicator
System	Stone guard (open set only)
	Engine Electrical System:
	20A UL battery charger
	Battery warmer
	Alternator upsizing
Alternator	Anti-condensation heater
System	Tropical coating (480/600 V non-upsized only)
	Gen-Link Communications Software (English only)
	Extended factory testing (3-phase only)
Generator Set	8-position load center
	2-year extended warranty
	5-year warranty
	5-year extended warranty
	Main line circuit breaker
Circuit	2nd main line circuit breaker
Breaker Options	Shunt trip and auxiliary contact
Options	Electronic trip breakers
	Standard enclosure
	Level 1 sound attenuation
	Level 2 sound attenuation
	Level 3 sound attenuation
	Steel enclosure
Enclosure	Aluminum enclosure
	150 mph wind kit
	12 VDC enclosure lighting kit
	120 VAC enclosure lighting kit
	AC/DC enclosure lighting kit
	16-light remote annunciator
	Oil temperature sender with indication alarm
	Remote E-stop (break glass-type, surface mount
	Remote E-stop (red mushroom-type, surface
Control System	mount)
	Remote E-stop (red mushroom-type, flush mount
	Remote communication – bridge
	Remote communication – ethernet
	10A run relay, 12 outputs
	Ground fault indication and protection functions

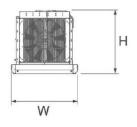
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## DG350 GC SPARK-IGNITED GENERATOR SETS



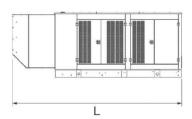
## **WEIGHTS & DIMENSIONS\***

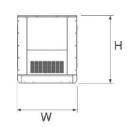




## **OPEN SET (Includes Exhaust Flex)**

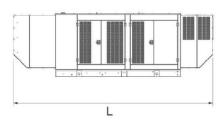
L x W x H in (mm)	154.4 (3923) x 71 (1803) x 67.6 (1716)
Weight lbs (kg)	8274 (3753)
Sound Level (dBA*)	91.5

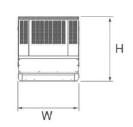




## **STANDARD ENCLOSURE**

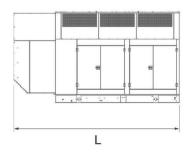
L x W x H in (mm)	207.4 (5268) x 70 (1800) x 80 (2032)
Weight lbs (kg)	Steel: 10463 (4746) Aluminum: 9376 (4253)
Sound Level (dBA*)	86.5

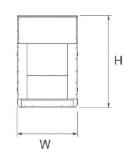




## **LEVEL 1 ACOUSTIC ENCLOSURE**

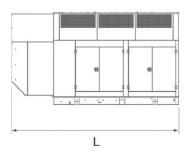
L x W x H in (mm)	247.5 (6285) x 70 (1800) x 80 (2032)
Weight lbs (kg)	Steel: 11470 (5203) Aluminum: 9808 (4449)
Sound Level (dBA*)	82.1

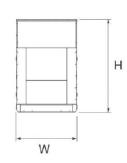




## **LEVEL 2 ACOUSTIC ENCLOSURE**

LxWxHin(mm)	207.4 (5268) x 70 (1800) x 114 (2896)
Weight lbs (kg)	Steel: 11808 (5356) Aluminum: 9954 (4515)
Sound Level (dBA*)	76.2





## **LEVEL 3 ACOUSTIC ENCLOSURE**

L x W x H in (mm)	232 (5892) x 76.9 (1954) x 129.2 (3281)
Weight lbs (kg)	Steel: 16997 (7710) Aluminum: 14447 (6553)
Sound Level (dBA*)	71.2

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## DG350 GC SPARK-IGNITED GENERATOR SETS



#### **EMCP 4.2B CONTROL PANEL FEATURES:**



- Control-panel-provided power metering and protective relaying along with engine and generator control and monitoring.
- Embedded with programmable logic controller (PLC) functionality, which enables the generator set to monitor and control other equipment within the operation.
- Includes inputs to collect supplementary data for the PLC to
  process when operating the generator set and activating external
  equipment. On a remote location without the ability to supply
  power to the battery charger, the PLC would likewise monitor the
  battery voltage to start and stop the machine to preserve battery,
  ensuring the unit is ready to run when needed.

## **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 Cat  $S \bullet O \bullet S^{SM}$  program effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products.

## **DEFINITIONS AND CONDITIONS**

**Applicable Codes and Standards:** CSA C22.2 No 100-04, UL 489, UL 869, UL 2200, NFPA 37, NFPA 70, NFPA 99, NFPA 110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG 1-22, NEMA MG 1-33.

**Standby/Demand Response:** Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby/demand response power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

**Deration:** For power deration rates reference, please consult Cat LEHE1699-00.

**Ratings** are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

**Fuel Rates** are based on heat value for natural gas of 1015 BTU/SCF @77°F (25°C) and 328 ft (100 m) above sea level. Additional ratings may be available for specific customer requirements, contact your Cat representative for details.

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LET'S DO THE WORK."

www.cat.com/electricpower