

# DG175 GC to DG450 GC GAS GENERATOR SETS

The Cat® Spark-Ignited Generator Product Line For Stationary Applications

175-450 ekW, 60 Hz G14.2L and G21.9L spark-ignited engines



OUR PROMISE. YOUR POSSIBILITY.







# Trusted to power the places that drive your economy.

Our gensets are available in a range of configurations with a variety of optional equipment ranging from 175-450 kW.

They are designed to deliver clean energy in the harshest environments. Every major component must pass inspections before the entire unit is tested at and above 100 percent of the rated load for safety and operation. We ensure the products you invest in are built for the demands of your investment. And our ready-to-run packages are always backed by our global Cat® dealer network. From a fast delivery to scheduled maintenance, we promise complete dealer support for the life of your genset.



# SPECIFICATIONS

- 60 Hz, North America (meets U.S. EPA emission standards, listed to UL2200 and/or CSA C22.2) a spark-ignited generator product line from 175-450 kW
- Stationary applications powered by the G14.2 L and G21.9 L spark-ignited engines.

These products operate on pipeline quality natural gas designed and constructed using industrial grade parts and components.

14.2 L	Model	Length in (mm)	Width in (mm)	Height in (mm)	Weight lbs (kg)	Sound Level (dBA)
OPEN SET (Exhaust flexible connection included)	DG175 GC	127.95 (3250)	52.93 (1344.5)	67.37 (1711.2)	5756 (2610.9)	82.5
	DG200 GC	127.95 (3250)	52.93 (1344.5)	67.37 (1711.2)	5756 (2610.9)	83.5
	DG230 GC	138.74 (3524.1)	57.6 (1463.1)	68.04 (1728.3)	6364 (2887)	84.1
	DG250 GC	138.74 (3524.1)	57.6 (1463.1)	68.04 (1728.3)	6364 (2887)	85.6
	DG275 GC	136 (3455)	57.6 (1463)	66.1 (1678)	6274 (2852)	86.7
	DG300 GC	136 (3455)	57.6 (1463)	66.1 (1678)	6274 (2852)	87.9

14.2 L	Model	Length in (mm)	Width in (mm)	Height in (mm)	Weight Steel lbs (kg)	Weight Aluminum lbs (kg)	Sound Level (dBA)
STANDARD ENCLOSURE	DG175 GC	153.89 (3909)	52.73 (1339.3)	69.67 (1769.6)	6577 (2983)	6035 (2738)	79.9
	DG200 GC	153.89 (3909)	52.73 (1339.3)	69.67 (1769.6)	6577 (2983)	6303 (2738)	80.5
	DG230 GC	174.7 (4437.4)	52.98 (1345.7)	77.8 (1976.1)	7538 (3420)	6765 (3069)	81.3
	DG250 GC	174.7 (4437.4)	52.98 (1345.7)	77.8 (1976.1)	7538 (3420)	6765 (3069)	82.9
	DG275 GC	174.7 (4437)	57.5 (1460)	77.8 (1976.1)	7836 (3562)	7042 (3201)	83.2
	DG300 GC	174.7 (4437)	57.5 (1460)	77.8 (1976.1)	7836 (3562)	7042 (3201)	84.6
LEVEL 1 ACOUSTIC ENCLOSURE	DG175 GC	180.11 (4574.7)	52.73 (1339.3)	69.67 (1769.6)	6990 (3171)	6176 (2801)	75.7
	DG200 GC	180.11 (4574.7)	52.73 (1339.3)	69.67 (1769.6)	6990 (3171)	6176 (2801)	75.9
	DG230 GC	200.19 (5084.7)	57.49 (1460.4)	77.80 (1976.1)	8094 (3672)	6955 (3155)	76.4
	DG250 GC	200.19 (5084.7)	57.49 (1460.4)	77.80 (1976.1)	8094 (3672)	6955 (3155)	77.8
	DG275 GC	200.19 (5084.7)	57.49 (1460.4)	77.80 (1976.1)	8298 (3772)	7242 (3292)	77.7
	DG300 GC	200.19 (5084.7)	57.49 (1460.4)	77.80 (1976.1)	8298 (3772)	7242 (3292)	78.6
LEVEL 2 ACOUSTIC ENCLOSURE	DG175 GC	154.45 (3922.9)	53.96 (1370.6)	93.40 (2372.3)	7236 (3282)	6259 (2839)	70.8
	DG200 GC	154.45 (3922.9)	53.96 (1370.6)	93.40 (2372.3)	7236 (3282)	6259 (2839)	71.2
	DG230 GC	180.65 (4588.4)	57.49 (1460.4)	107.3 (2725.4)	8656 (3927)	7156 (3246)	71.6
	DG250 GC	180.65 (4588.4)	57.49 (1460.4)	107.3 (2725.4)	8656 (3927)	7156 (3246)	72.3
	DG275 GC	180.6 (4588)	57.5 (1460)	107.3 (2725)	8870 (4032)	7487 (3403)	74.4
	DG300 GC	180.6 (4588)	57.5 (1460)	107.3 (2725)	8870 (4032)	7487 (3403)	75.4
LEVEL 3 ACOUSTIC ENCLOSURE	DG175 GC	207.2 (5264)	63.7 (1618)	128.90 (3275)	10602 (4809)	9638 (4372)	70.1
	DG200 GC	207.2 (5264)	63.7 (1618)	128.90 (3275)	10602 (4809)	9638 (4372)	70.1
	DG230 GC	207.2 (5264)	63.7 (1618)	128.90 (3275)	10990 (4984)	9976 (4525)	70.3
	DG250 GC	207.2 (5264)	63.7 (1618)	128.90 (3275)	10990 (4984)	9976 (4525)	70.3
	DG275 GC	207.2 (5264)	63.7 (1618)	128.90 (3275)	11080 (5025)	10118 (4589)	70.4
	DG300 GC	207.2 (5264)	63.7 (1618)	128.90 (3275)	11080 (5025)	10118 (4589)	70.4

21.9 L	Model	Length in (mm)	Width in (mm)	Height in (mm)	Weight lbs (kg)	Sound Level (dBA)
OPEN SET (Exhaust flexible connection included)	DG350 GC	154.4 (3923)	71 (1803)	67.6 (1716)	8274 (3753)	91.5
	DG400 GC	154.4 (3923)	71 (1803)	67 (1702)	8429 (3823)	91.5
	DG450 GC	154.4 (3923)	71 (1803)	67 (1702)	8274 (3753)	93

21.9 L	Model	Length in (mm)	Width in (mm)	Height in (mm)	Weight Steel lbs (kg)	Weight Aluminum lbs (kg)	Sound Level (dBA)
STANDARD ENCLOSURE	DG350 GC	207.4 (5268)	70(1800)	80 (2032)	10463 (4746)	9376 (4253)	86.5
	DG400 GC	207.4 (5268)	71 (1803)	80 (2032)	10428 (4730)	9298 (4717)	86.5
	DG450 GC	207.4 (5268)	71 (1803)	80 (2032)	10463 (4746)	9376 (4253)	87
LEVEL 1 ACOUSTIC ENCLOSURE	DG350 GC	247.5 (6285)	70 (1800)	80 (2032)	11470 (5203)	9808 (4449)	82.1
	DG400 GC	247.5 (6285)	71 (1803)	80 (2032)	11211 (5085)	9720 (4409)	82.1
	DG450 GC	247.5 (6285)	71 (1803)	80 (2032)	11470 (5203)	9808 (4449)	82
LEVEL 2 ACOUSTIC ENCLOSURE	DG350 GC	207.4 (5268)	70 (1800)	144 (2899)	11808 (5356)	9954 (4515)	76.2
	DG400 GC	207.4 (5268)	71 (1803)	114 (2899)	11759 (5333)	9951 (4513)	76.2
	DG450 GC	207.4 (5268)	71 (1803)	114 (2899)	11808 (5356)	9954 (4515)	76
LEVEL 3 ACOUSTIC ENCLOSURE	DG350 GC	232 (5892)	76.9 (1954)	129.2 (3281)	16997 (7710)	14447 (6553)	71.2
	DG400 GC	232 (5892)	76.9 (1954)	129.2 (3281)	16997 (7710)	14447 (6553)	71.3
	DG450 GC	232 (5892)	76.9 (1954)	129.2 (3281)	16997 (7710)	14447 (6553)	71.3

# FEATURES

## ENGINE SYSTEM

### General

- Dry, disposable air filter
- Radiator outlet duct adapter (open set only)
- Cat oil filters
- Flexible exhaust connection
- Factory filled oil and coolant

### Fuel System

- Flexible fuel line (NPT connection)
- Primary and secondary fuel shut-off

### Cooling System

- Closed coolant recovery system
- Factory-installed radiator
- 50/50 Ethylene glycol antifreeze

### Engine Electrical System

- Battery charging alternator
- Battery cables
- Battery tray
- Solenoid activated starter motor

## ALTERNATOR SYSTEM

- Class H insulation material
- 2/3 pitch
- Skewed stator
- Permanent magnet excitation
- Sealed bearings
- Amortisseur winding
- Full load capacity alternator

## GENERATOR SET

- Internal genset vibration isolation
- Separation of circuits
- Standard factory testing
- Wrapped exhaust piping

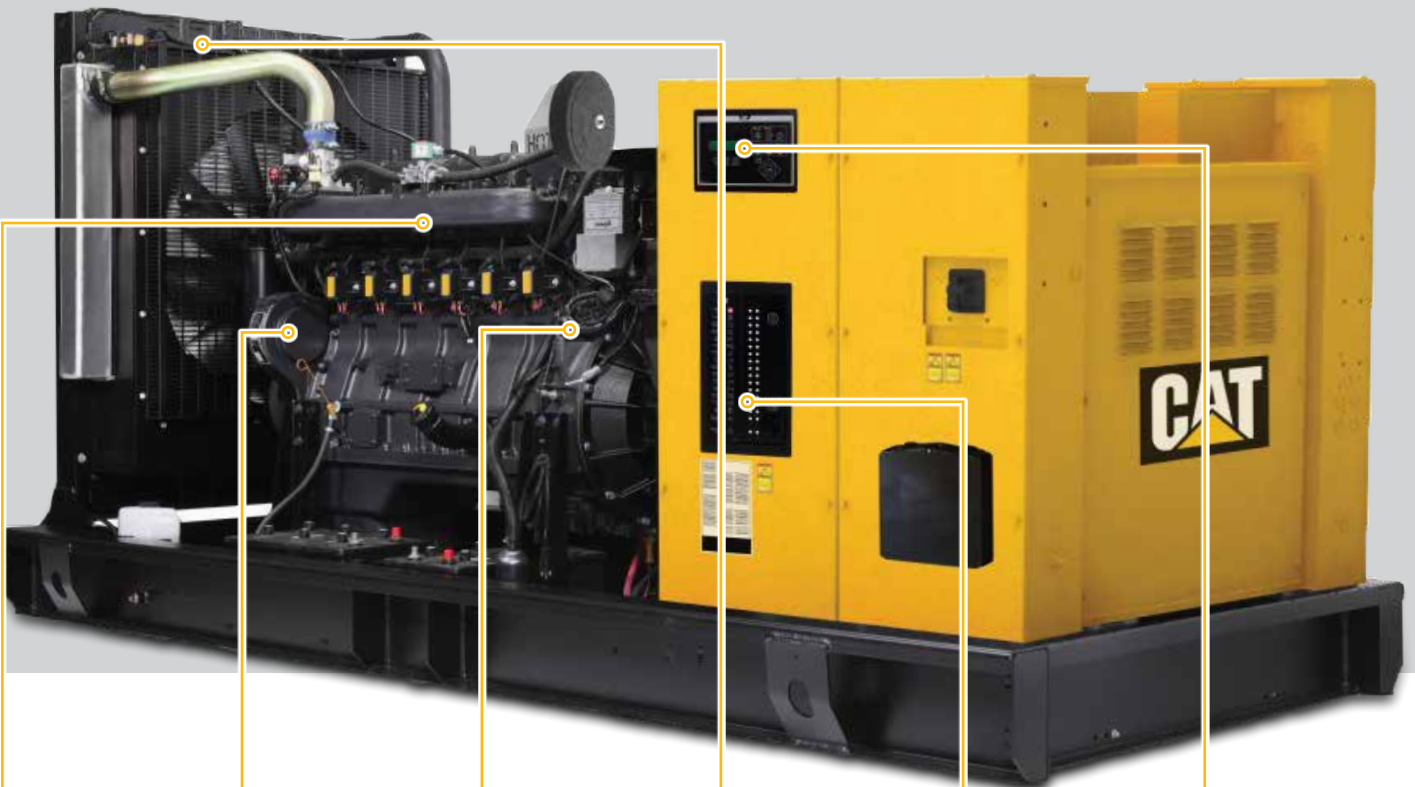
## ENCLOSURE (if selected)

- High performance sound-absorbing material (L1 & L2)
- Gasketed doors
- Stamped air-intake louvers



## Configurable Options

- Extended factory testing
- 8-position (14.2 L); 12-position (21.9 L) electrical load center
- Engine coolant heater
- Air filter restriction indicator
- Radiator stone guard (open set only)
- 10 amp battery charger
- Oil heater
- Anti-condensation heater
- Shunt trip and auxiliary contact breaker
- Main line circuit breaker
- 2nd main line circuit breaker
- 3rd breaker system
- Enclosure types
  - Standard weather protected
  - Level-1 sound attenuation
  - Level-2 sound attenuation
  - Level-3 sound attenuation
  - All enclosure types will be offered in either steel or aluminum
- Tropical coating
- Electronic trip breakers
- Oil temperature sender with alarm
- Remote annunciator box
- Remote E-stop (break glass-type, surface mount)
- Remote E-stop (red mushroom-type, surface mount)
- Remote E-stop (red mushroom-type, flush mount)



### **ENGINE SYSTEM**

Features include Cat air filter (dry, disposable), radiator outlet duct adapter, oil filters, flexible exhaust connection (open gensets), and are factory-filled with Caterpillar approved oil and extended life coolant.

### **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.

### **FUEL SYSTEM**

Operating on pipeline quality natural gas, 7" to 11" H<sub>2</sub>O fuel pressure, stainless steel flexible fuel line (NPT thread), primary and secondary fuel shut-off solenoids, fuel pressure test port and a low fuel pressure switch (shuts the unit down in the event that fuel supply pressure is too low for proper operation).

### **COOLING SYSTEM**

Features include a closed coolant recovery system; a factory-installed radiator, shipped with 50/50 ethylene glycol antifreeze.

### **CIRCUIT BREAKER & ELECTRICAL LOAD CONNECTION**

Features include a molded case thermal magnetic trip breaker (sized for full unit output rating), a neutral connection (sized for full product rating), ground connection (in the customer power wiring section).

### **CONTROL SYSTEM**

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



# EMCP 4.2B CONTROL PANEL



## FEATURES AND BENEFITS

- 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 genset to monitor and control other equipment within the operation.
- Includes inputs to collect supplementary data for the PLC to process when operating the genset 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.

# COMPLIANCE

- **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





## **Anytime, anywhere support.**

The reliable power that Cat gensets produce is matched only by the power that backs them. More than 1,800 Cat dealer outlets in 200 countries are equipped with everything you need, from installing and configuring your Cat genset to maintaining peak performance for the life of the product. System selection assistance, equipment training, parts, service expertise, and maintenance programs are available wherever and whenever you need them.

We're built to provide integrated solutions for all your electric power needs. Your Cat dealer is equipped with a full range of products, services, and invaluable expertise to keep the genset you trust today the one you trust 20 years from now.

**To find your nearest dealer, go to [www.catelectricpowerinfo.com](http://www.catelectricpowerinfo.com)**

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