



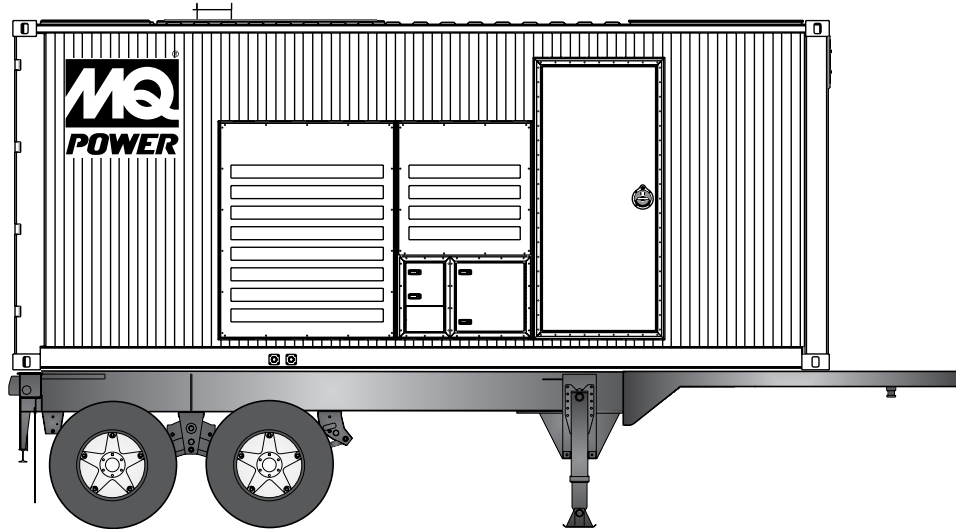
# CG500C2

## MQ POWER Containerized Diesel Generator

Prime Rating — 455 kW (569 kVA)

Standby Rating — 500 kW (625 kVA)

EPA Certified Tier 2, 60 Hertz



### STANDARD FEATURES

#### Cummins Heavy Duty Diesel Engine

- 4-cycle design, turbocharged, aftercooled, direct injection
- Battery charger
- Engine coolant heater
- Fire extinguisher (ABC type)
- Meets EPA Tier 2 emissions standards

#### Fuel System

- 800 gallon, double wall fuel tank
- Fuel priming system
- Manual fuel valves (for internal or external fuel supply)
- External fuel fill
- Fuel containment

#### Alternator

- Brushless, 4-pole, synchronous, WYE connection
- Class H insulation system conforms to NEMA MG1-1.65 and BS2757
- Drip-proof, self-venting, amortisseur windings
- Epoxy impregnated windings with tropical insulation for increased environmental protection and long life

#### Electronic Voltage Regulator

- Electronic automatic voltage regulator provides precise regulation
- Separate three-phase PMG for fast recovery from block loads and motor starting

#### Full Load Acceptance

- Accepts 100% of standby nameplate rating in one step, in compliance with NFPA, para 5-13.2.6

#### Generator Control Panel

- Vibration-isolated controller
- Manual or remote engine start/stop
- Modbus communication support
- Safety shutdowns
- Externally mounted emergency stop switch
- Generator mainline circuit breaker, 100% rated, electronically operated, UL listed

#### Specially Designed Container

- 20 ft. ISO container, sound-attenuated, acoustical fiberglass for extremely quiet operation
- 4" full containment
- Battery rack
- Integral vibration isolators
- Exterior polyurethane coating system provides long life in extreme operating conditions
- Interior DC lights and timer switches
- Critical grade silencer with insulation

#### Warranty

- Engine-generator sets are covered by an express written, one-year limited warranty



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### SPECIFICATIONS

#### Alternator Specifications

Make	Stamford HCI534E1
Type	4-Pole, Rotating Field
Number of Leads	10 or 12
Generator Type	Brushless w/ PMG
Voltage Regulator	Solid State
Insulation	NEMA MG1-1.66
Material	Class H
Temperature Rise	125° C
Bearing: Number, Type	Single, Sealed
Coupling	Flexible Disk
Amortisseur Windings	Full
Excitation	Separately-derived
Voltage Regulation (no load to full load)	0.25% Steady State
Generator Efficiency at Full Load	95%
Phase Sequence	ABC (L1, L2, L3)
L-L Harmonic Max Total	<5.0%
L-L Harmonic Max Single	<3.0%

#### Engine Specifications

Manufacturer/Model	Cummins / QSX15-G9
Engine Type	4-cycle, Turbocharged, Air-to-Air Charge Air Cooling
Cylinder Arrangement	6 In-line
Displacement	912 in <sup>3</sup> (15 L)
Bore	5.39 in. (137 mm)
Stroke	6.65 in. (169 mm)
Compression Ratio	17 : 1
Piston Speed (60Hz)	1995 ft./min (10.1 m/sec)
Bearing Main: Number	7
Bearing Main: Type	Replaceable, Precision
Cylinder Block	Cast iron with wet, replaceable cylinder liners
Cylinder Head Material	Cast iron
Crankshaft Material	Forged steel
Brake Mean Effective Pressure (BMEP)	360 psi (2482 kPa)
Rated RPM (60 Hz)	1800 RPM
Max. Power At Rated RPM (without fan)	755 hp (563 kW)
Governor: Type	Electronic
Frequency Regulation: Steady State	Isochronous
Air Cleaner Type - All Models	Dry

#### Amperage

Voltage	Phase	Power Factor	Continuous Amperes	
			Standby	Prime
120/208 Volt	3	0.8	1737	1563
277/480 Volt	3	0.8	753	678

#### Engine Electrical System

Battery Charging Alternator Ground Type	Negative
Volts	24 VDC
Alternator Ampere Rating	70 A
Starter Motor Rated Voltage	24 VDC
Minimum Recommended Battery for 0°C/ Cold Cranking Performance	1425 Ah

#### Derating

Derating Factors (60 Hz)	Altitude	Ambient Temperature
The engine may be operated up to 3000 ft. (915 m) altitude without derating at 1800 rpm.	>3000 ft. = 1.8% per 1000 ft. (300 m)	+10% per 10°C (18°F)

#### Cooling System

Exhaust Manifold Type	Dry
Radiator Design	Standard horizontal discharge
Coolant Capacity - Engine	6.3 gal. (24 L)
Water Pump Design/Type	Belt Driven, Centrifugal
Coolant Flow	87 gal/min (329 L/min)
Heat Rejection to Coolant	7830 BTU/min (138 kW)
Minimum Pressure Cap	10 psi (70 kPa)
Thermostat Range	180-200 °F (82-93 °C)

#### Fuel System

Recommended Fuel	ASTM-D975-No.1 & No.2-D*	
Fuel Pump Maximum Lift	6.0 ft. (1.8 m)	
Filter Micron Size - 98% Efficiency	2	
Total Fuel Flow	112 gal./hr. (424 L/Hr.)	
Fuel Tank Capacity	800 gal (3028 L)	
Fuel Consumption - gal/hr (L/hr)	Standby	Prime
At 1/4 load	11.6 (43.9)	9.9 (37.4)
At 1/2 load	18.8 (71.1)	17.2 (65.3)
At 3/4 load	25.7 (97.2)	23.9 (90.5)
At full load	34.4 (130.2)	31.1 (117.8)

\* - Use ultra-low sulfur diesel fuel.

#### Lubrication System

Type	Full Pressure System
Oil Filters	Spin-on, Full Flow
Oil Pan Capacity	22 gal. (83.0 L)
Oil Capacity with Filters	24 gal. (91.0 L)
Oil Pressure at Rated Speed (minimum)	20 psi (138 kPa)

#### Exhaust System

Exhaust Temperature at Rated kW	875° F (468° C)
Exhaust Flow at Rated kW	2135 cfm (88.7 m <sup>3</sup> /min)
Silencer Type	Critical
Maximum Allowable Backpressure (standby)	41 in/wc (10 kPa)
Exhaust Outlet Size at hook-up	6.0 in. (152.4 mm)



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The CG500C2 Sound Attenuated Generator is configured for standard 60 Hz, 480V output. Special voltage outputs are available (special order).

### ALTERNATOR FEATURES

- Generator protection for overload and short circuit.
- Generator is designed and built within NEMA, IEEE and ANSI standards for temperature rise.
- PMG for superior regulation and response.
- Three-phase sensing on regulator.

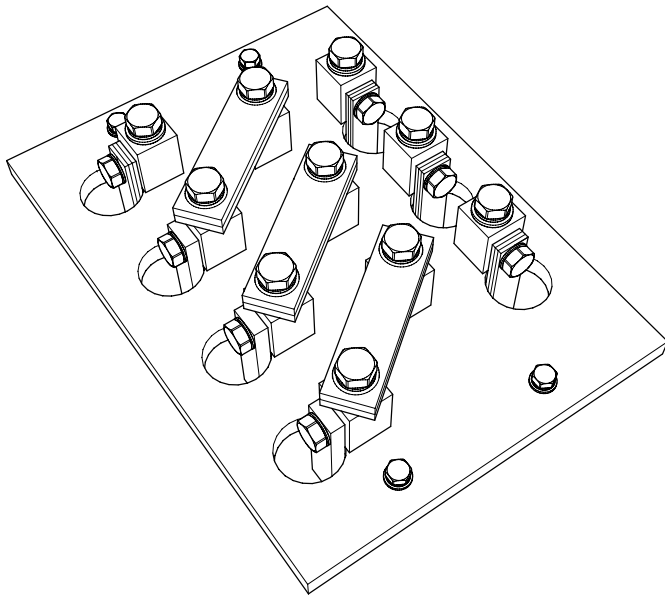
### OPTIONAL FEATURES AND ACCESSORIES

#### Generator Set

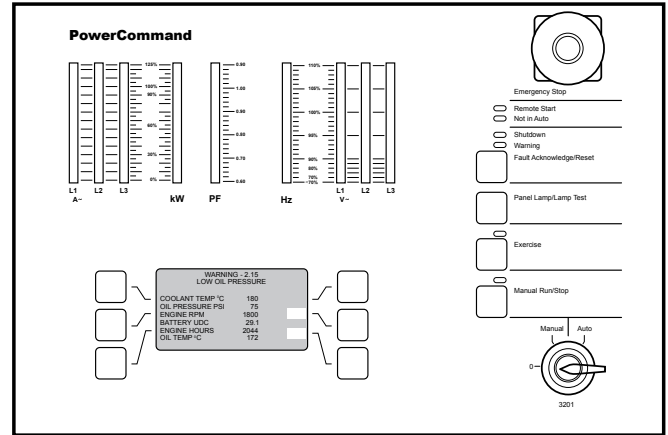
- Genset-to-Genset Paralleling Control System
- Remote Controller
- Custom Outlet Panels
- Oil Pan Heater
- Alternator Strip Heater

#### Container

- ISO Trailer Chassis (20 ft.)
- Fueling Platform (Aluminum Step Construction with Hand Rail)
- Personnel Ladder (Aluminum Construction)
- Custom Paint Colors (Arctic White is Standard)



**Reconnect Board (Optional)**



**Power Command Digital Genset Control**

### DIGITAL CONTROLLER FEATURES

- Local and Remote Generator Control
- Automatic and Manual Starting and Stopping
- Engine and Generator Protection
- Digital Voltage Regulation
- ECU Communications via SAE J1939
- 4 Programmable Contact Inputs
- AC Output Metering
- Integrated RS485
- Auto Synchronizing
- Digital Alarm and Status Display

#### Monitoring

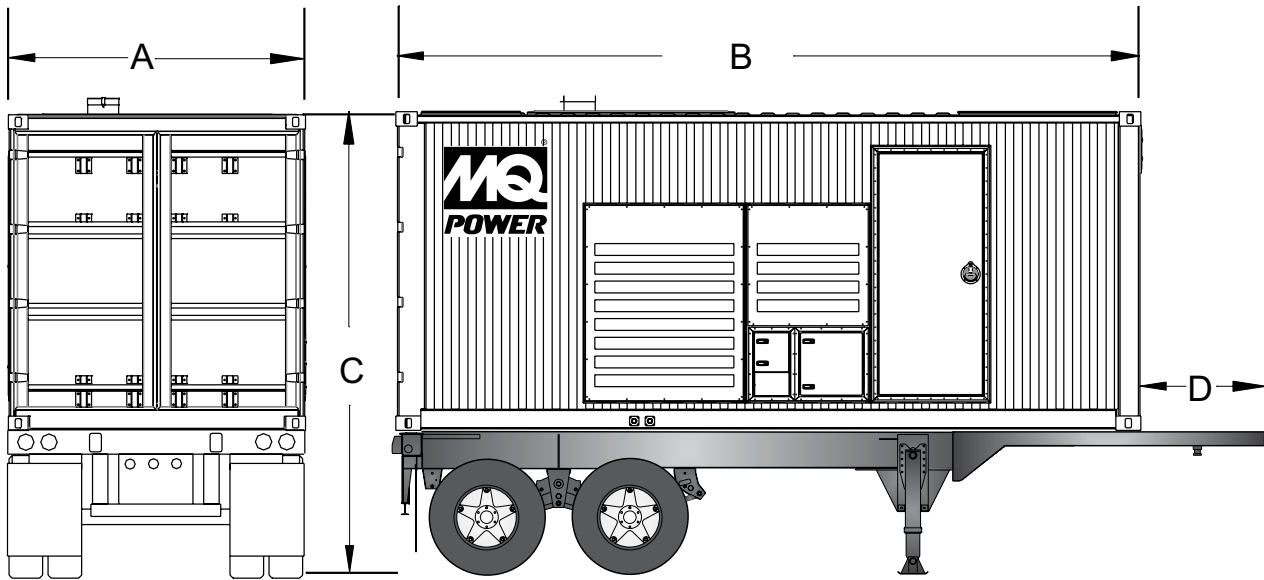
- Engine RPM
- Engine Run Time
- Generator Voltage
- Generator Current
- Generator Frequency
- Oil Pressure
- Battery Voltage
- Low Fuel Alarm
- Running Hour Meter
- Coolant Temperature
- Generator Under/Over Voltage Alarm/Shutdown
- Generator Under/Over Frequency Alarm/Shutdown
- Over Current Alarm/Shutdown



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### DIMENSIONS



<b>Weight and Dimensions</b>			
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
96 in. (2,438 mm)	238 in. (6,045 mm)	150 in. (3,810 mm)	44 in. (1,117 mm)
Weight (Wet)*		20,440 lbs (9,271 kg)	
Weight (Wet with Trailer)*		26,920 lbs (12,211 kg)	

\* - Weight is approximate. Wet weight does not include fuel.

Your Multiquip dealer is:

