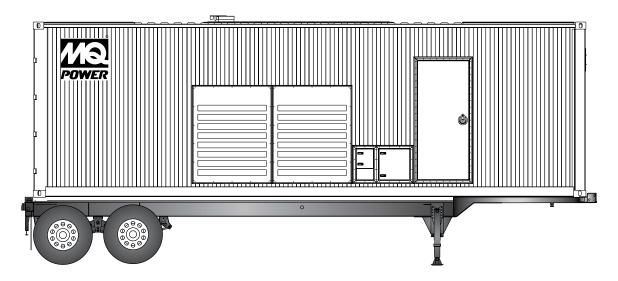
**MQ POWER Containerized Diesel Generator** 

Prime Rating — 900 kW (1125 kVA)
Standby Rating — 1000 kW (1250 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**

- 1000 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

## **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
- Safety shutdowns
- Externally mounted emergency stop switch
- Generator mainline circuit breaker, 100% rated, electronically operated, UL listed

## **Specially Designed Container**

- 30 ft. ISO container, sound-attenuated, acoustical fiberglass for extremely quiet operation
- Intregral 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



# CG1000C2

# **MQ POWER Containerized Diesel Generator**

## **SPECIFICATIONS**

Alternator Specifications	
Make	Stamford HCl634J1
Туре	4-Pole, Rotating Field
Number of Leads	12
Generator Type	Brushless w/ PMG
Voltage Regulator	Solid State
Insulation	NEMA MG1-1.66
Material	Class H
Temperature Rise	105° C / 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 / QST30-G5 NR2
Engine Type	4-cycle, Turbocharged, and Low Temperature After Cooled (Air-to -Air)
Cylinder Arrangement	V-12
Displacement	1860 in <sup>3</sup> (30.5 L)
Bore	5.51 in. (140 mm)
Stroke	6.5 in. (165 mm)
Compression Ratio	14.7 : 1
Piston Speed (60Hz)	1950 ft./min (9.91 m/sec)
Bearing Main: Number	7
Bearing Main: Type	Replaceable, Precision
Cylinder Head Material	Cast iron
Crankshaft Material	Forged steel
Brake Mean Effective Pressure (BMEP)	351 psi (2417 kPa)
Rated RPM (60 Hz)	1800 RPM
Max. Power At Rated RPM (without fan)	1490 hp (1112 kW)
Governor: Type	Electronic
Frequency Regulation: Steady State	Isochronous
Air Cleaner Type - All Models	Dry

Amperage				
Valtaria Dhasa	Power	Continuous Amperes		
voltage	Voltage Phase	Factor	Standby	Prime
480 Volt	3	0.8	1504	1353

Engine Electrical System	
Battery Charging Alternator Ground Type	Negative
Volts	24 VDC
Alternator Ampere Rating	35 A
Starter Motor Rated Voltage	24 VDC
Minimum Recommended Battery for 1425	

Derating		
Derating Factors (60 Hz)	Altitude	Ambient Temperature
The engine may be operated up to 2385 ft. (727 m) altitude without derating at 1800 rpm.	>2385 ft. = 3.5% per 1000 ft. (305 m)	+7% per 10°C (18°F)

Cooling System	
Exhaust Manifold Type	Dry
Radiator Design	Parallel cores
Coolant Capacity - Engine	53.2 gal. (201 L)
Water Pump Design/Type	Belt Driven, Centrifugal
Coolant Flow	114 gal/min (432 L/min)
Total Heat Rejection from Cooling System	41660 BTU/min (43.9 MJ/min)
Thermostat Range	200 °F (93.3 °C)

Fuel System		
Recommended Fuel	ASTM-D975-No.	1 & No.2-D*
Filter Micron Size	10	
Total Fuel Flow	150 gal./hr. (5	70 L/Hr.)
Fuel Tank Capacity	1000 gal (3,	785 L)
Fuel Consumption - gal/hr (L/hr)	Standby	Prime
At 1/4 load	19.1 (72.3)	17.3 (65.5)
At 1/2 load	35.8 (135.5)	32.1 (121.5)
At 3/4 load	54.1 (204.8)	47.5 (179.8)
At full load	72.2 (273.3)	63.9 (241.9)
· - Use ultra-low sulfur diesel fuel.		

Lubrication System	
Туре	Full Pressure System
Oil Filters	4 Spin-on, Full Flow
Oil Capacity with Filters	35 gal. (132 L)
Oil Pressure at Rated Speed (minimum)	45-56 psi (310-386 kPa)

Exhaust System	
Exhaust Temperature at Rated kW	890° F (477° C)
Exhaust Flow at Rated kW	7540 cfm (211 m³/min)
Silencer Type	Critical
Maximum Allowable Backpressure (standby)	27 in/wc (6.8 kPa)
Exhaust Outlet Size at hook-up	10 in. (254 mm)

## **MQ POWER Containerized Diesel Generator**

The CG1000C2 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.

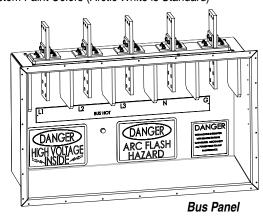
#### **OPTIONAL FEATURES AND ACCESSORIES**

#### **Generator Set**

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

#### Container

- ISO Trailer Chassis (30 ft.)
- 9-Step Fueling Ladder with Hand Rail
- Personnel Ladder (Aluminum Construction)
- Custom Paint Colors (Arctic White is Standard)



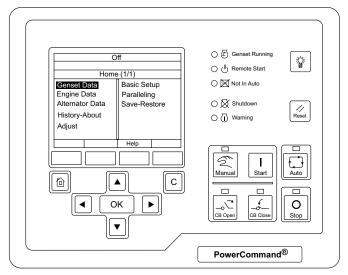
### **DIGITAL CONTROLLER FEATURES**

#### **Operator/Display Functions**

- Displays paralleling breaker status
- Provides direct control of the paralleling breaker
- 320 x 240 pixels graphic LED backlight LCD
- Auto, manual, start, stop, fault reset and lamp test/panel lamp switches
- Alphanumeric display with pushbuttons
- LED lamps indicating genset running, remote start, not in auto, common shutdown, common warning, manual run mode, auto mode and stop

#### **Alternator Data**

- Line-to-neutral and line-to-line AC volts
- 3-phase AC current
- Frequency
- kW, kvar, power factor kVA (three phase and total)



Power Command 3.3 Digital Genset Control

#### **Engine Data**

- DC voltage
- Engine speed
- Lube oil pressure
- Coolant temperature

#### **Backup Data**

- Start attempts, starts, running hours, kW hours
- Load profile (operating hours at % load in 5% increments)

#### **Digital Governing**

■ Integrated digital electronic isochronous governor

#### **Digital Voltage Regulation**

- Integrated digital electronic voltage regulator
- 3-phase, 4-wire line-to-line sensing

#### **AC Protection**

- Over current and short circuit shutdown
- Over current warning
- Over and under voltage/frequency shutdown

#### **Engine Protection**

- Battery voltage monitoring, protection and testing
- Overspeed shutdown
- Low oil pressure warning and shutdown
- High coolant temperature warning and shutdown
- Low coolant level warning or shutdown
- Low coolant temperature warning
- Low fuel level warning or shutdown

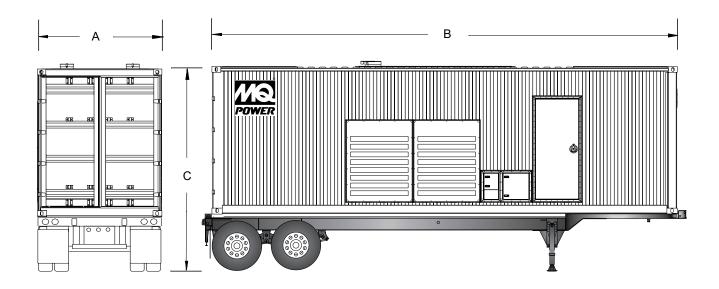
#### **Control Functions**

- Configurable inputs (27) and outputs (6)
- Remote emergency stop



## **MQ POWER Containerized Diesel Generator**

## **DIMENSIONS**



Weight and Dimensi		
Α	В	С
96 in.	360 in.	163 in.
(2,438 mm)	(9,144 mm)	(4,137 mm)
Weight (Wet)*		53,420 lbs (24,231 kg)
Weight (Wet with Trailer)*		59,420 lbs (26,952 kg)

<sup>\* -</sup> Weight is approximate. Wet weight does not include fuel.

