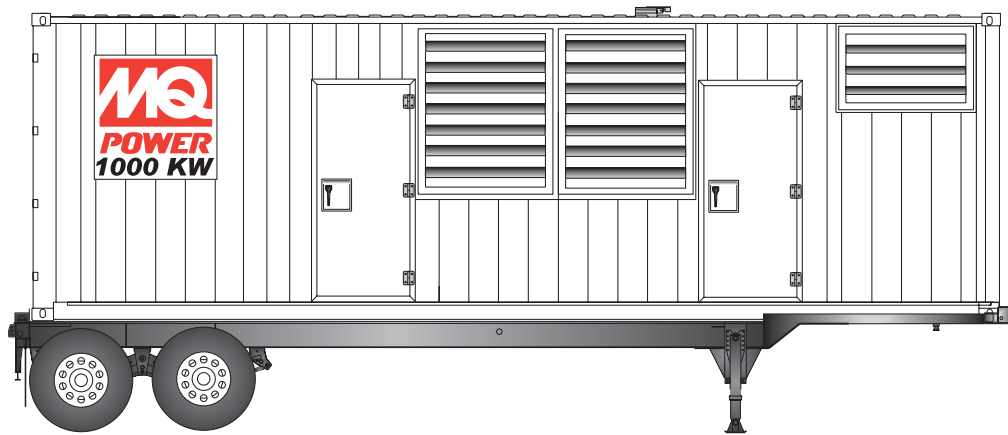




# 1000 kW Containerized Diesel Generator Set

Model	Emissions	Standby Rating	Prime Rating
EGC-1000C	EPA Certified	60 Hertz	
		1000kW (1250kVA)	900kW (1125kVA)



(Shown with 30 ft. container and optional ISO trailer chassis)

## Standard Features

### Cummins Heavy Duty Diesel Engine

- 4-cycle design, turbocharged, aftercooled, direct injection
- Polymide blade cooling fan
- Engine coolant heater
- Meets Tier 2 EPA emissions standards

### Fuel System

- 1000 gallon, single wall fuel tank
- Fuel priming system
- Fuel/water separators and drip pan
- Electric fuel pump
- External fuel fill
- 30 micron Racor® fuel filter system

### Alternator

- Brushless, 4-pole, synchronous, WYE connection
- Class H insulation system conforms to NEMA MG1-22, BS5000, CSA-C22-2, IEC-34-1 standards for temperature rise
- 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 excitation 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

- Basler vibration-isolated controller
- Manual or remote engine start/stop
- RS485/Modbus communication support
- 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, foam-lined for extremely quiet operation
- Solidly mounted battery rack and cooling system
- Integral vibration isolators
- Exterior polyurethane coating system provides long life in extreme operating conditions
- Interior DC lights and timer switch
- Crankcase filtration system
- Critical grade silencer with heat blankets

### Warranty

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



# 1000 kW Containerized Diesel Generator Set

## APPLICATION DATA

<b>Alternator Specifications</b>	
Make	Marathon Magna Max
Type	Rotating Field
Number of Leads	10 or 12
Generator Type	Rotating Field; PMG
Voltage Regulator	Solid State, Digital, Model DVR2000
Insulation	NEMA MG1-1.66
Material	Class H
Temperature Rise	105° / 125° C
Bearing: Number, Type	Single Sealed
Coupling	Flexible Disk
Amortisseur Windings	Full
Voltage Regulation (no load to full load)	2% Maximum
One Step Load Acceptance % of rating per NFPA-110	100
Peak Motor Starting HP	500
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%
Voltage Dip Upon Full Load Application (1 Step)	20% for 1.6 sec.
Voltage Rise Upon Full Load Rejection (1 Step)	10% for 0.6 sec.

The 1000kW Sound Attenuated Generator includes a reconnectable 4, 10 or 12 lead generator that may be configured for any standard 60 Hz out voltage.

### Alternator Features

- All ratings tested per MIL-STD-705 as applicable
- Protection for overload and short circuit
- Designed and built within NEMA, IEEE and ANSI standards for temperature rise
- PMG exciter for superior regulation and response
- Three-phase sensing on regulator.
- Skewed rotor for smooth voltage wave form
- Optional - Vacuum impregnated epoxy varnish, fungus resistant per MIL-I-24092

<b>Engine Specifications</b>	
Manufacturer/Model	Cummins QST30-G5 NR2
Engine Type	4-cycle, Turbocharged, Aftercooled
Cylinder Arrangement	V-12
Displacement	1860 cu in (30.5 L)
Bore	5.51 in. (140 mm)
Stroke	6.50 in. (165 mm)
Compression Ratio	14.0:1
Piston Speed (60Hz)	32.4 ft/sec. @ 60 Hz
Bearing Main: Number	7
Bearing Main: Type	Replaceable, precision
Cylinder Head Material	Cast iron
Crankshaft Material	Forged steel
Brake Mean Effective Pressure (BMEP)	352 psi (2,427 kPa)
Rated RPM (60Hz)	1800 RPM
Max. Power At Rated RPM (with fan)	1490 hp (1112 kW)
Governor: Type; Make/Model	Electronic
Frequency Regulation: No load to full load	+0.5%
Frequency Regulation: Steady State	Isochronous under varying loads from no load to 100% rated load
Air Cleaner Type - All Models	Dry

<b>Amperage</b>				
Voltage	Phase	Power Factor	Continuous Amperes	
			Standby	Prime
120/208	3	0.8	3200	3200
277/480	3	0.8	1504	1353

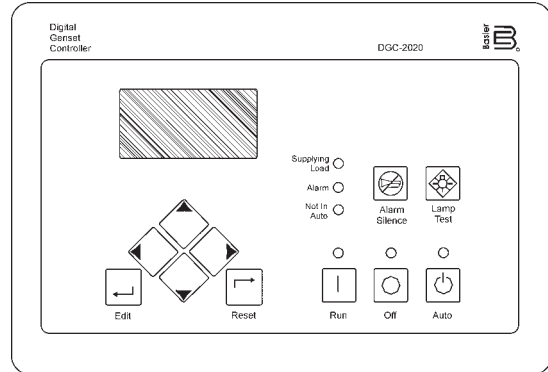
<b>Engine Electrical System</b>	
Battery Charging Alternator Ground Type	Negative
Volts	24 VDC
Ampere Rating	35A
Starter Motor Rated Voltage	24 VDC
Minimum Recommended Battery for 0 °C / Cold Cranking Performance	1280 CCA

<b>Exhaust System</b>	
Exhaust Temperature at Rated kW (Dry Exhaust)	975°F (524°C)
Exhaust Flow at Rated kW (Standby)	7775 cfm (220 m³/min)
Silencer Type	Critical grade
Maximum Allowable Backpressure	27 in/H <sub>2</sub> O (6.7 kPa)
Exhaust Outlet Diameter	10 in.



# 1000 kW Containerized Diesel Generator Set

<b>Cooling System</b>	
Exhaust Manifold Type	Dry
Radiator Design	Parallel cores, side by side
Coolant Capacity - Engine Only	21 gal. (79 L)
Coolant Capacity - Engine and Radiator	53 gal. (200 L)
Water Pump Design/Type	Belt Driven, Centrifugal
Coolant Flow	114 gal/min (432 L/min)
Total Heat Rejection from Cooling System	36300 BTU/min (38.5 kW)
Fan Horsepower	57.0 hp (42 kW)
Thermostat	180°F



**DCG2020 Digital Genset Controller**

<b>Fuel System</b>		
Recommended Fuel	ASTM-D975/No.1 & No.2-D	
Filter Micron Size	2	
Total Fuel Flow	150 gal./hr. (568 L/Hr.)	
Fuel Consumption		
Diesel at % of Load	gal/hr	L/hr
25%	19.3	7.3
50%	36.0	136
75%	52.6	199
100%	69.3	262

<b>Lubrication System</b>	
Type	Full Pressure
Oil Filters	4 Spin-on Full Flow
Oil Pressure at Rated Speed	45-56 psi (310-386 kPa)
Oil Capacity with Filters	35 gal (132 L)

<b>Derating (60Hz)</b>		
	Altitude	Ambient Temperature
The engine power available up to 4958 ft. at temperatures up to 104°F and up to 4433 ft. at 122°F at standby rating, without derating. For operation at higher altitudes and ambient temperatures, the power should be derated according to the following factors:	Above 4958 ft. derate at 3.4% per 1000 ft. up to 9843 ft. Derate an additional 9% per 1000 ft. above 9843 ft.	Above 122°F, derate an additional 15% per 18°F

## Digital Controller Features

- Local and Remote Generator Control
- Automatic and manual starting and stopping
- Engine and Generator Protection
- Programmable Analog Engine Senders
- ECU Communications via SAE J1939
- 16 Programmable Contact Inputs
- Programmable Logic
- Automatic Transfer Switch Control (Mains Failure)
- Integrated RS485
- Auto Synchronizing
- Event recording

## Monitoring

- Engine RPM
- Engine run time
- Generator voltage
- Generator current
- Generator frequency
- Oil pressure
- Battery voltage
- Fuel level measurements
- Running Hour Meter
- Coolant temperature
- Generator under/over voltage alarm/shutdown
- Generator under/over frequency alarm/shutdown
- Over Current alarm/shutdown
- Warm up and cooling functions
- Maintenance timer



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## Optional Features and Accessories

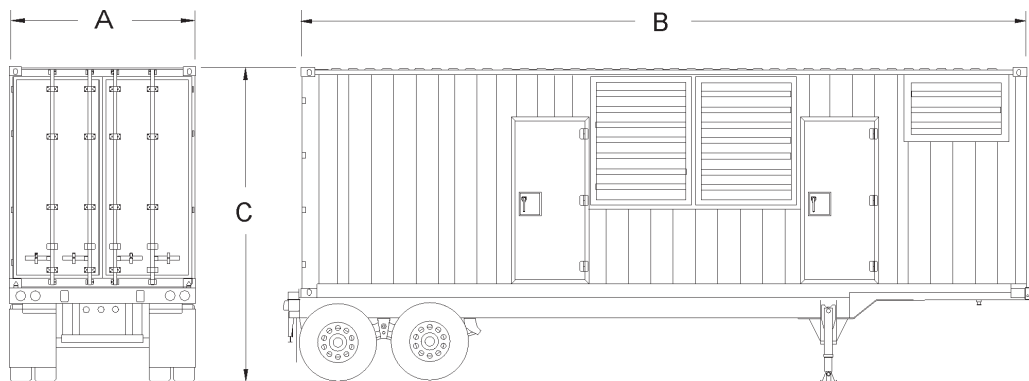
### Generator Set

- Optional Controllers
- Genset-to-Genset Paralleling Control System
- Base Load-to-Utility Paralleling Control System
- Custom Outlet Panels
- Rotary Voltage Selector Switch (High Wye/Low Wye Voltages)
- Auxiliary Oil Reservoir with Level Control (15-gallon)
- Centrifugal Oil Filter System
- Oil Pan Heater with Thermostat
- Alternator Strip Heater
- AC Battery Charger with Shore Power Receptacle
- 120VAC Convenience Receptacle

### Container

- ISO Trailer Chassis (30 ft.)
- Double-wall Fuel Tank (900-gallon capacity)
- Fluid Containment
- Manual Fuel Valves (For Internal or External Fuel Supply)
- Entrance Ladder (Aluminum Construction with Hand Rail)
- Fueling Ladder (Aluminum Step Construction with Hand Rail)
- Interior Lights (AC Work lights)
- Custom Paint Colors (Artic White is Standard)

*SPECIAL OPTIONS AVAILABLE UPON REQUEST*



<b>Weight and Dimensions</b>		
<b>A</b>	<b>B</b>	<b>C</b>
96 in. (2,438 mm)	360 in. (9,144 mm)	163 in. (4,137 mm)
* Weight no fuel	37,010 lbs (16,787 kg)	
* Weight with fuel	43,400 lbs (19,686 kg)	

\* Weight is shown without 30 ft chassis. Approximate weight of chassis: 6,300 lbs

**30 ft. Container**

Backfeed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device. Features and specifications are subject to change without notice.

Your MQ Power dealer is:



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