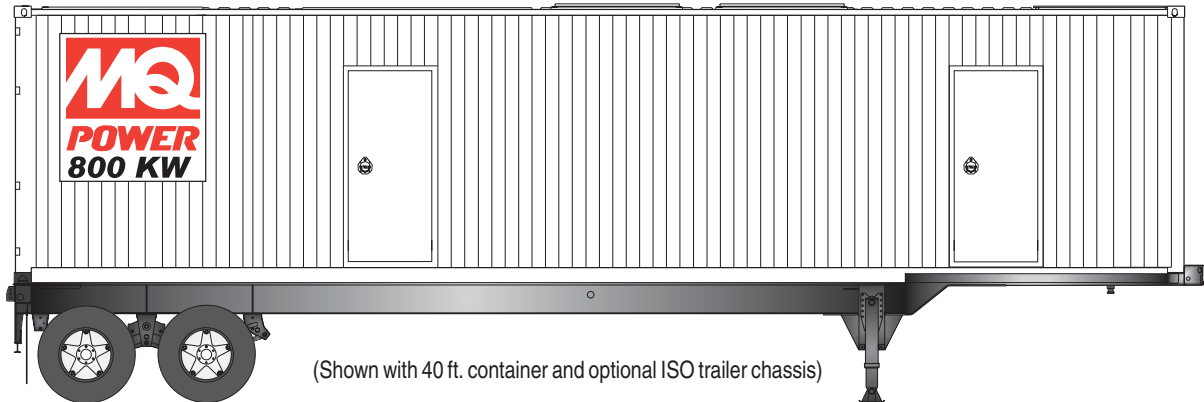




# 800kW Containerized Diesel Generator Set

Model	Emissions	Standby Rating	Prime Rating
EGC-800C	EPA Certified	60 Hertz	
		800kW (1000kVA)	725kW (913kVA)



## 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 run pump
- External fuel fill
- 30 micron Racor<sup>®</sup> fuel/water separator filter

### Alternator

- Brushless, 4-pole, synchronous, broad range 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

### 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

- 40 ft. ISO container, sound-attenuated, foam-lined for extremely quiet operation
- Isolated operator control room
- 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



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## APPLICATION DATA

### Alternator Specifications

Make	Marathon Magna Max
Type	4-Pole, 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
Excitation	Voltage Regulated, Brushless
Voltage Regulation (no load to full load)	0.25%
One Step Load Acceptance % of rating per NFPA-110	100
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%

The EGC800C Sound Attenuated Generator is configured for standard 60 Hz, 208V or 480V output. Special voltage outputs are available (special order).

### Alternator Features

- All ratings tested per MIL-STD-705 as applicable.
- Generator protection for overload and short circuit.
- Generator is 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.

### Engine Specifications

Manufacturer/Model	Cummins / QSK23-G7 NR2
Engine Type	4-cycle, Turbocharged, Air to Air Aftercooled
Cylinder Arrangement	6 In-line
Displacement	1413 in <sup>3</sup> (23.15 L)
Bore	6.69 in. (170 mm)
Stroke	6.69 in. (170 mm)
Compression Ratio	16 : 1
Piston Speed (60Hz)	2010 ft./min (10.3 m/sec)
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)	Standby: 380 psi (2620 kPa) Prime: 341 psi (2350 kPa)
Rated RPM (60 Hz)	1800 RPM
Gross Engine Power Output	Standby: 1220 hp (910 kW) Prime: 1085 hp (809 kW)
Governor: Type	Electronic
Frequency Regulation: Steady State	± 0.25%
Air Cleaner Type - All Models	Dry, Dual Element

### Amperage

Voltage	Phase	Power Factor	Continuous Amperes	
			Standby	Prime
120/208 Volt	3	0.8	2779	2535
277/480 Volt	3	0.8	1204	1099

### Engine Electrical System

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	1800 CCA

### Lubrication System

Type	Full Pressure System
Oil Filters	4 Spin-on, Full Flow
Oil Pressure at Rated Speed	21 psi (145 kPa)
Oil Capacity with Filters	27 gal. (103 L)



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## Cooling System

Exhaust Manifold Type	Dry
Radiator Design	Parallel Core, side by side
Coolant Capacity - Engine only	12.3 gal. (46.5 L)
Water Pump Design/Type	Belt Driven, Centrifugal
Coolant Flow	160 gal/min (605.5 L)
Heat Rejection to Coolant (Standby)	15845 Btu/min (280 kW)
Minimum Pressure Cap	10 psi (70 kPa)

## Fuel System

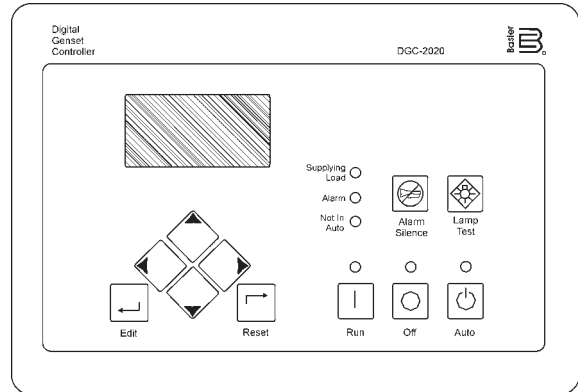
Recommended Fuel	ASTM-D975-No.1 or No. 2-D
Filter Micron Size - 98% Efficiency	2
Maximum Fuel Flow	181 gal/hr (684 L/hr)
Fuel Consumption (Prime Rating)	
Diesel Fuel @ % of Load	gal/hr (L/hr)
25%	15 (57)
50%	27 (102)
75%	38 (143)
100%	49 (185)

## Exhaust System

Exhaust Temperature at Rated kW	Standby: 925°F (500°C) Prime: 870°F (465°C)
Exhaust Flow at Rated kW	Standby: 5600 cfm (158.5 m³/min) Prime: 5220 cfm (147.9 m³/min)
Silencer Type	Critical
Maximum Allowable Backpressure	41 in/wc (10.2 kPa)
Exhaust Outlet Size at hook-up	2 x 8 in.

## Derating

The engine may be operated up to 5000 ft. altitude and 95°F ambient temperature at the Standby rating, without derating. For operation at higher altitudes and ambient temperatures, the power should be derated according to the following factors:	Altitude	Ambient Temperature
	> 5000 ft. = 4.5% per 1000 ft. (300m)	> 95°F = 20.9% per 10°F



## DGC-2020 Digital Genset Controller

### 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

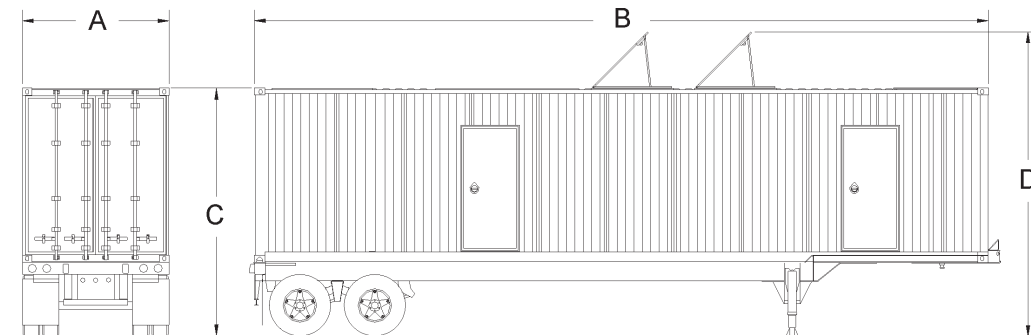
### Generator Set

- Genset-to-Genset Paralleling Control System
- Base Load-to-Utility and Peak Shaving 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

### Container

- ISO Trailer Chassis (40 ft.)
- Double-wall Fuel Tank (900-gallon capacity)
- Fluid Containment
- Manual Fuel Valves (For Internal or External Fuel Supply)
- Personnel Ladder (Aluminum Step Construction with Hand Rails)
- Fueling Ladder (Aluminum Step Construction with Hand Rail)
- Interior Lights (AC Work lights)
- Custom Paint Colors (Artic White is Standard)
- Utility Grade Protective Relay

### SPECIAL OPTIONS AVAILABLE UPON REQUEST



40 ft Container

<b>Weight and Dimensions</b>			
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
96 in. (2,438 mm)	480 in. (12,192 mm)	163 in. (4,137 mm)	199 in. (5,054 mm)
Weight (Wet)*		37,760 lbs (17,128 kg)	
Weight (Wet with trailer)*		44,500 lbs (20,185 kg)	

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

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. Specifications are subject to change without notice.

Your MQ Power dealer is:



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