

| Model                  | Emissions        | Standby Rating  | Prime Rating |
|------------------------|------------------|-----------------|--------------|
| EGC1000C EPA Certified | 60 Hertz         |                 |              |
|                        | 1000kW (1250kVA) | 900kW (1125kVA) |              |



## **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<sup>®</sup> fuel/water separator with drip pan assembly

#### 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
- Separate excitation for fast recovery from block loads and motor starting
- Drip-proof, self-venting, amortisseur windings
- Epoxy impregnated windings with tropical insulation for increased environmental protection and long life

#### Automatic Voltage Regulator

 Circuitry senses true RMS voltage, rather than average, for superior load regulation

#### **Full Load Acceptance**

Accepts 100% of standby nameplate rating in one step, in compliance with NFPA110 Standards

#### **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, 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
- Intregral 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



| Alternator Specifications                            |                                     |  |
|--|-------------------------------------|--|
| Model 741RSL4045                                     | Marathon Magna Max                  |  |
| Туре   | 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                                   | 0.25%                               |  |
| One Step Load Acceptance<br>% 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 with EMI protection
- Skewed rotor for smooth voltage wave form
- Vacuum impregnated epoxy varnish Fungus resistant per MIL-I-24092
- Sustain short circuit current at 300% of rated current up to 10 seconds
- Listed to UL1446 and UL1004B Standards

| Engine Specifications                         |   |  |
|---|---|--|
| EPA Engine Family Name CEXL030.AAD            | Cummins QST30-G5  |  |
| 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:<br>No load to full load | ±0.25%  |  |
| Frequency Regulation:<br>Steady State         | Isochronous under varying loads from no load to 100% rated load |  |
| Air Cleaner Type - All Models                 | Dry   |  |

| Amperage |               |        |               |       |
|----------|---------------|--------|---------------|-------|
| Voltage  | i Phase i i i | Power  | Power Amperes |       |
| voltage  |               | Factor | Standby       | Prime |
| 120/208  | 3             | 0.8    | 3200          | 3200  |
| 277/480  | 3             | 0.8    | 1504          | 1353  |

| 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<br>0 °C / Cold Cranking Performance | 1280 CCA |  |  |

| Exhaust System                                |                                    |
|---|------------------------------------|
| Exhaust Temperature at Rated kW (Dry Exhaust) | 975°F (524°C)                      |
| Exhaust Flow at Rated kW (Standby)            | 7775 cfm (220 m <sup>3</sup> /min) |
| Silencer Type                                 | Critical grade                     |
| Maximum Allowable Backpressure                | 27 in/H <sub>2</sub> O (6.7 kPa)   |
| Exhaust Outlet Diameter                       | 10 in.                             |



| Cooling System                      |                          |
|-------------------------------------|--------------------------|
| Exhaust Manifold Type               | Dry                      |
| Radiator Design                     | Standard Horizontal      |
| Coolant Capacity - Engine Only      | 37 gal. (140 L)          |
| Water Pump Design/Type              | Belt Driven, Centrifugal |
| Coolant Flow                        | 100 gal/min (378 L/min)  |
| Heat Rejection to Coolant (Standby) | 40600 Btu/min (715 kW)   |
| Thermostat Range                    | 180-200°F (82-93°C)      |



### DGC2020 Digital Genset Controller

| Fuel System         |                          |     |  |  |
|---------------------|--------------------------|-----|--|--|
| 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 |  |  |

| Lubrication System          |                         |  |  |
|-----------------------------|-------------------------|--|--|
| Туре                        | 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)          |  |  |

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



## **Optional Features and Accessories**

**Generator Set** 

- 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
- Utility Grade Protective Relay

### Container

- ISO Trailer Chassis (40 ft.)
- Double-wall Fuel Tank (900-gallon capacity)
- Fluid Containment
- Manual Fuel Valves (For Internal or External Fuel Supply)
- Entrance Ladder (6-Step, Aluminum Construction)
- 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

| Weight and Dimensions      |                        |                       |                      |  |
|----------------------------|------------------------|-----------------------|----------------------|--|
| Α                          | В                      | С                     | D                    |  |
| 96 in.<br>(2,438 mm)       | 480 in.<br>(12,192 mm) | 163 in.<br>(4,137 mm) | 199 in<br>(5,054 mm) |  |
| Weight (Dry)*              |                        | 38,460 lbs            | (17,445 kg)          |  |
| Weight (Wet with trailer)* |                        | 45,200 lbs            | (20,500 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. Features and specifications are subject to change without notice.

Your MQ Power dealer is:



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