

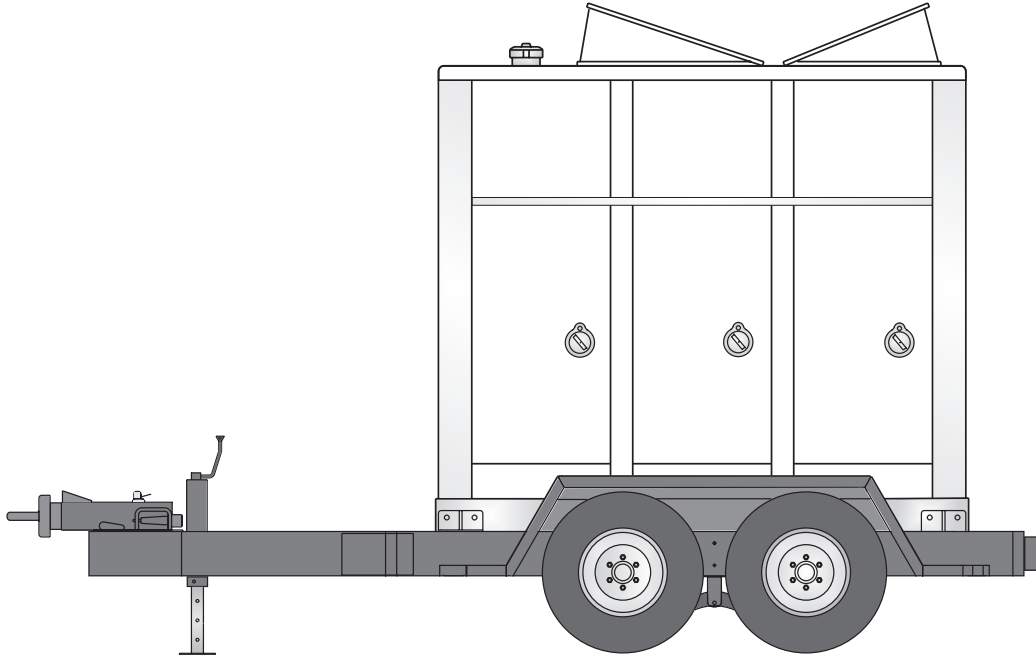


# SG1600C4F

## MQ POWER Diesel Studio Generator

Amperage — 1600 @ 120/208V 3-Phase

60 Hz, EPA Certified, Tier 4 Final



### STANDARD FEATURES

- Cummins Diesel Engine - EPA Tier 4 Final Emissions Certified
- Marathon Alternator
- Sound-attenuated Aluminum Housing with rounded corners
- Custom Radiator with multi-wing fan
- ComAp Digital Controller and Color Display
- Instrument Panel — with LED gauges for Voltage, Amperage, and Hertz
- Outlet Panel
  - 6 sets - Camlock receptacles mounted on Waterfall Panel
  - 2 sets - 100 amp BATES connectors
  - 2 sets - 15 amp Edison receptacles
- Rotary Voltage Selector Switch
- Variable Speed Hydraulic Fan Drive
- 120/208V Three Phase — 192 kW
- Main Line Circuit Breaker — 600 Amp
- Crystal Sync Internal Electronic Engine Governor
- Internal LED Lighting with Timer
- Stainless Steel Water Lines, Exhaust Piping, Hinges and Outer Hardware
- Automatic Overhead Doors
- Inlet Rain Door with Automatic Intake Door Closure
- Critical Grade Exhaust Silencer with Rain Cap



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### SPECIFICATIONS

#### Alternator Specifications

Manufacturer/Model	Marathon Magnamax 431RSL4007
Type	4-Pole, Rotating Field
Exciter Type	Brushless, Voltage Regulated
Number of Leads	12 Lead
Insulation	NEMA MG1-1.66
Material	Class H
Amortisseur Windings	Full
Generator RPM	1800
Power Factor	0.8
Coupling	Single bearing, flexible
Cooling Air Volume	1200 CFM
Voltage Regulation (no load to full load)	±1%
Single Step Load Acceptance per NFPA 110	100% of Rating

#### Engine Specifications

Manufacturer/Model	Cummins / QSB7-G9
Type	4-cycle, charged air cooled, turbocharged, EGR, DOC, SCR
Cylinder Arrangement	6 In-Line
Displacement	409 in <sup>3</sup> (6.7 liters)
Bore	4.21 in. (107 mm)
Stroke	4.88 in. (124 mm)
Compression Ratio	17.3:1
Cylinder Block	Cast iron
Cylinder Head	Cast iron
Crankshaft	Nodular iron
Brake Mean Effective Pressure (BMEP)	304 psi (2096 kPa)
Rated RPM	1800 RPM
Prime Power at Rated RPM	282 hp (210 kWm)
Governor Type	Crystal Sync Electronic
Frequency Regulation: no load to full load	Isochronous under varying loads from no load to 100% rated load
Frequency Regulation: Steady State	±0.25% of mean value for constant loads from no load to full load.
Air Cleaner Type	Replaceable, Paper insert

#### Exhaust System

Exhaust Flow at Rated kW	1038 cfm
Exhaust Temperature at Rated kW	795 °F (424 °C)
Maximum Allowable Back Pressure Before DOC	108.7 in/wc (27 kPa)
Heat Rejection to Exhaust	7178 Btu/min (126 kW)

#### Amperage

Voltage	Phase	Amperage
120/240 V	Single - zig zag	1066 A total
120/208 V	Three - 4 wire	1600 A total

- Compliant with NEMA MG1-22, BS5000, CSA-C22-2, IEC-34-1 standards for temperature rise.
- Sustained short-circuit current up to 300% of rated current for up to 10 seconds.
- Drip-proof, self-venting, amortisseur windings.
- Epoxy impregnated windings with tropical insulation for increased environmental protection and long life.
- Exceptional waveshape and voltage balance; 2/3 pitch winding to minimize harmonic distortion.
- Solid-state, volts-per-hertz voltage regulator with ±1% no-load to full-load voltage regulation.
- AVR with PMG Excitation.

#### Fuel System

Fuel Injection Pump Make	Bosch HPCR	
Recommended Fuel	ASTM-D975 / No.2-D Ultra Low Sulphur	
Fuel Filter	Spin-on type	
Max. Fuel Flow	50 gal/hr (189 L/h)	
Trailer Fuel Tank Capacity	145 gal (548 l)	
Fuel Consumption:	gph	lph
At full load	13.5	51.1
At 3/4 load	10.3	38.9
At 1/2 load	7.2	27.3
At 1/4 load	4.1	15.5
DEF Tank Capacity	10 gal (37.8 l)	

#### Lubrication System

Type	Full pressure system
System Capacity - With Filter	5 gallons (18.9 liters)
Oil Filter	Full flow, spin-on
Oil Pressure At Rated Speed	25-60 psi (172-414 kPa)

#### Cooling System

Radiator Design	Horizontal Discharge
Ambient Temperature Rating	104°F (40°C)
Coolant Capacity (with radiator)	12 gallons (45 liters)
Coolant Flow	38 gal/min (144 l/min)
Heat Rejection to Charge Air Cooler	2213 Btu/min (39 kW)

#### Engine Electrical System

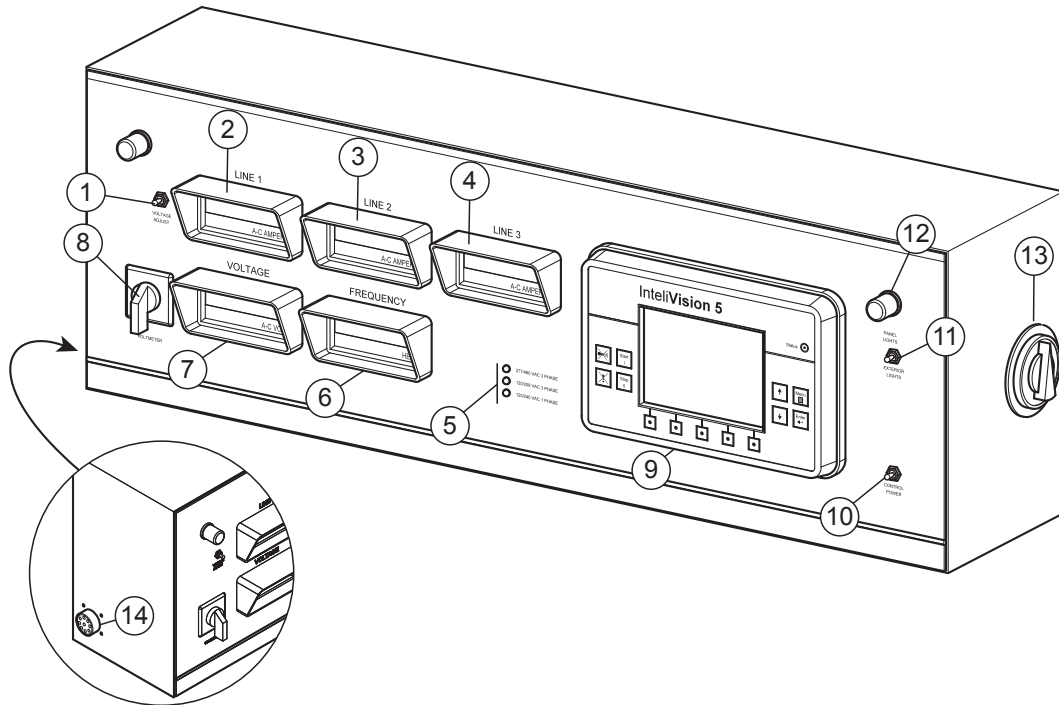
Battery Charging Alternator - Make	Cummins
Ground Type	Negative
Volts (DC)	24 V
Ampere Rating	70 A
Starter Motor Make/Model	Cummins
Starter Motor Rated Voltage	24 VDC
Starter Motor Battery Capacity	2 x 750 cca



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## MQ POWER Diesel Studio Generator

### GENERATOR CONTROLLER



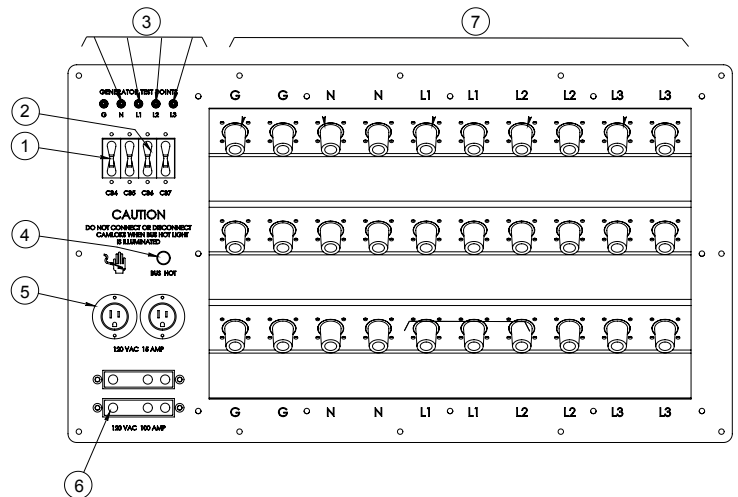
#### CONTROL PANEL FEATURES

- |                              |                             |
|------------------------------|-----------------------------|
| 1. Voltage Adjust Switch     | 9. Digital Controller       |
| 2. Line 1 AC Amps Display    | 10. Controller Power Switch |
| 3. Line 2 AC Amps Display    | 11. Light Switch            |
| 4. Line 3 AC Amps Display    | 12. Panel Lights            |
| 5. Voltage Status LEDs       | 13. Light Timer Control     |
| 6. Frequency Display         | 14. Engine Com Connector    |
| 7. AC Voltmeter Display      |                             |
| 8. Voltmeter Selector Switch |                             |

#### CONTROLLER FEATURES

- 5.7" Color Display
- Generator Measurement: U, I, Hz, kW, kVA, PF, kWh, kVAhr
- RS232/RS485 Interface with Modbus support; Analog/GSM/ISDN/CDMA modem support; SMS messages; ECU Modbus Interface
- Event-based history (up to 500 records) with customer-selectable list of stored values; RTC; statistic values
- 3-phase integrated generator protection
- IDMT Overcurrent + Shortcurrent Protection
- Overload Protection

#### CAMLOK/VOLTAGE OUTPUT PANEL



1. Circuit Breakers for 120 VAC Output Receptacles
2. Circuit Breakers for Bates Receptacles
3. Generator Voltage Test Points
4. BUS Hot Indicator Lamp
5. 120 VAC Output Receptacles
6. Bates 120 VAC Output Receptacles
7. Camlok Receptacles (6 sets)



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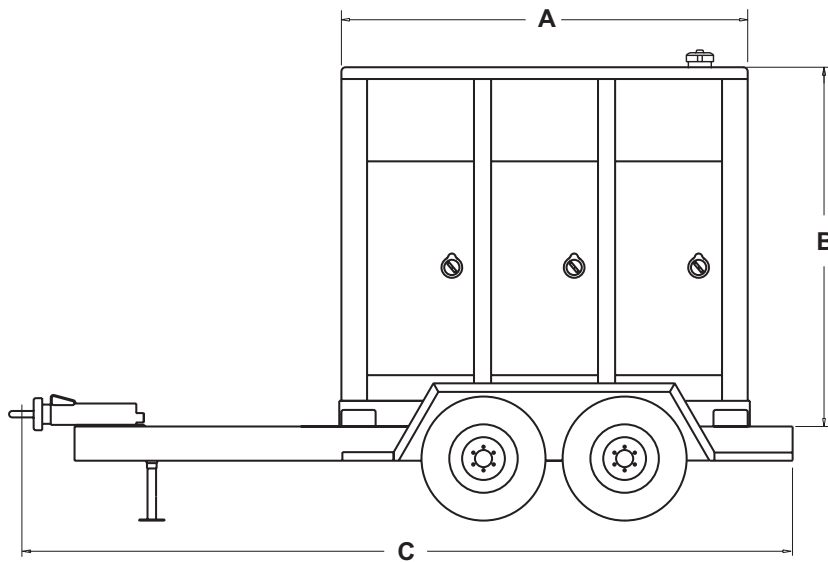
### Generator Set Optional Features

- 277/480 Volt Three Phase with Three Position Selector Switch (derate to 1400 Amps)
- Paralleling
- Custom Paint Color
- Hubble Connector (50 amp / 120/240V)
- 3 kVA Transformer (allows Edison receptacles to be "hot" in 480 V)

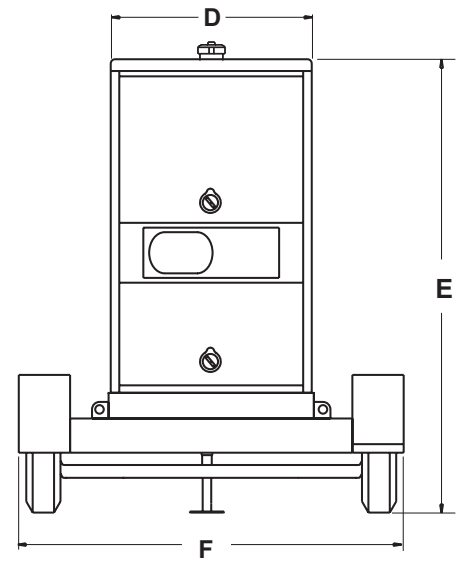
- Exterior LED Lighting Package
- Custom Outlet Panel
- Fire Extinguisher Flush Mounted in Housing
- Block Heater
- Battery Charger
- Battery Disconnect Switch
- Forklift Pocket Skid Base

### Trailer Standard Features

- Tandem Axle Trailer with 145 gallon fuel tank
- 8-Lug Chrome Wheels (5) with chrome center caps and lug nuts
- Goodyear Wrangler tires with mounted spare
- Tool Box
- Diamond Plate Decking
- Electric or Hydraulic Brakes



Shown with optional trailer.



### WARRANTY\*

#### Cummins Engine

12 months from date of purchase with unlimited hours.

#### Generator

24 months from date of purchase or 2000 hours (whichever occurs first).

#### Trailer

12 months excluding normal wear items.

\*Refer to the express written, one-year limited warranty sheet for additional information.

Weights and Dimensions							
Dimensions in. (mm)	A	B	C		D	E	F
		100 (2,540)	88.5 (2,248)	with electric brakes 173 (4,394)	with hydraulic brakes 180 (4,572)	48 (1,219)	112 (2,845)
Approx. Net Weight - Generator					5,490 lbs. (2,490 kg)		
Approx. Net Weight - Trailer					2,485 lbs. (1,127 kg)		
Trailer GVWR					10,000 lbs. (4,536 kg)		

Your Multiquip dealer is:

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.

