



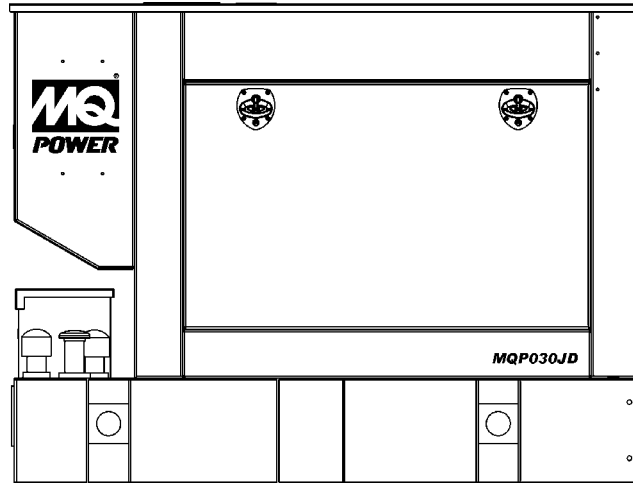
MQP30JD

MQ POWER 30kW Diesel On-Site Power Industrial Generator

Prime Rating — 27 kW (33.75 kVA)

Standby Rating — 30 kW (37.5 kVA)

Three-Phase, 60 Hertz, 0.8 PF



STANDARD FEATURES

Heavy Duty Engine

- Heavy duty, 4-cycle, diesel engine; turbocharged, direct injection, water cooled, overhead valves.
- Single side service engine
- Critical Grade Exhaust Silencer
- Meets EPA Tier 4 Interim emissions standards.

Alternator

- Brushless, 4-pole, synchronous, 4 and 12 lead design.
- 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.
- Exceptional waveshape and voltage balance; 2/3 pitch winding to minimize harmonic distortion.

Electronic Voltage Regulator

- Encapsulated electronic voltage regulator precisely regulates the current into the exciter field.
- Voltage regulation of 1% no load to full load.

Full Load Acceptance

- Accepts 100% of standby nameplate rating in one step, in compliance with NFPA, para 5-13.2.6.

Cooling System

- Closed circuit, pressurized system with ambient temperature rating of 104°F (40°C).

Generator Control Panel

- MEC 310™ microprocessor-based, digital control panel; vibration isolated and NFPA 110 compliant.
- Liquid crystal display screen with alphanumeric readout for display and programming.
- Self-diagnostic feature continuously verifies processing, memory circuits and input/output.

Skid and Housing

- Generator available as skid-mount or sub-base tank mount design.
- Integral vibration isolators.
- Outdoor weather-protective or sound-attenuated housings.
- Steel battery rack and battery cables.
- Aluminized steel exhaust muffler and stainless steel flex assembly.
- Flexible fuel lines.
- Oil and coolant drains.
- Engine serviced with lube oil and radiator coolant.

Warranty

- Engine-generator sets are covered by an express written 2-year/2000 hour (whichever occurs first) limited warranty.
- Optional extended warranties available.

Agency Approval

- UL 2200



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SPECIFICATIONS

Alternator Specifications	3-Phase (Standard)	Single-Phase (Optional)
Manufacturer/Model	Marathon Magnaplus 283PSL1707	Marathon Magnaplus 283CSL1517
Type	4-Pole, Rotating Field	4-Pole, Rotating Field
Exciter Type	Brushless, Shunt Excitation Design	Brushless, Shunt Excitation Design
Number of Leads	12 Lead, Broad Range, Reconnectable	4 Lead
Voltage Regulator	SE350, Solid State, Volts-per-Hertz	SE350, Solid State, Volts-per-Hertz
Insulation	NEMA MG1-1.66	NEMA MG1-1.66
Material	Class H	Class H
Temperature Rise	125°C, Standby Rating	125°C, Standby Rating
Bearing, Type	Single, Sealed	Single, Sealed
Coupling	Flexible Disk Type	Flexible Disk Type
Cooling Air Volume	250 cfm (7.1 m³/min.)	250 cfm (7.1 m³/min.)
Amortisseur Windings	Full	Full
Voltage Regulation (no load to full load)	±1%	±1%
Single Step Load Acceptance per NFPA 110	100% of Rating	100% of Rating

Engine Specifications

Manufacturer/Model	John Deere / 4024TF281
Emissions	Tier 4 Certified
Type	4-cycle, direct injection, turbocharged
Cylinder Arrangement	4 In-Line
Displacement	149 in³ (2.4 liter)
Bore	3.40 in. (86 mm)
Stroke	4.10 in. (105 mm)
Compression Ratio	20.5:1
Cylinder Block	Cast iron
Cylinder Head	Cast iron, overhead valves
Crankshaft	High carbon steel forged and tufrided
Brake Mean Effective Pressure (BMEP)	142 psi (981 kPa)
Rated RPM	1800 RPM
SAE Gross Horsepower	49.0 hp
Governor Type	Electronic
Frequency Regulation:	Isochronous under varying loads from no load to 100% rated load
Frequency Regulation: Steady State	±0.5% of mean value for constant loads from no load to full load.
Air Cleaner Type	Dry

Rating Guidelines

STANDBY POWER: Rating corresponds to ISO Standard Fuel Stop Power. It is applicable for supplying standby electrical power at variable load in areas with well-established electrical networks in the event of normal utility power failure. No overload capability is available for this rating.

PRIME POWER: Rating corresponds to ISO Standard Power for continuous operation. It is applicable for supplying electrical power at variable load for an unlimited number of hours instead of commercially purchased power. A 10% overload capability is available for this rating.

SINGLE PHASE OUTPUT: Broad range alternators reconnected for single phase output (zig-zag) provide approximately 2/3 rated output, 3-phase kW at 1.0 P.F. Refer to Amperage chart. Optionally a dedicated single phase, 4-lead alternator is available.

Exhaust System

Exhaust Flow at Rated kW	283 cfm (8.0 m³/min)
Exhaust Temperature at Rated kW	1026°F (552°C)
Maximum Allowable Backpressure	30.0 in/wc (7.5 kPa)
Heat Rejection To Exhaust	1650 Btu/min (29 kW)

Fuel System

Fuel Injection Pump Make	Stanadyne
Recommended Fuel	ASTM-D975 / No.2-D
Feed Pump Pressure	24.9 psi (172 kPa)
Feed Pump Maximum Suction Head	10 feet (3 meters)
Fuel Filter	Spin-on, paper element type filter
Max. Fuel Flow	26.05 gal/hr (98.65 L/h)

Fuel Consumption

Diesel Fuel At % of Load	gal/hr (L/hr)
100%	2.82 (10.67)
75%	2.06 (7.8)
50%	1.41 (5.33)
25%	.85 (3.2)

Amperage

Voltage	Phase	Wire	Amperage
120/208 Volt	3	4	104
120/240 Volt	3	4	90
277/480 Volt	3	4	45
120/240 Volt ¹	1	3	125
120/240 Volt ²	1	3	104

¹ Marathon Magnaplus 283CSL1517— ² Marathon Magnaplus 283PSL1707

NOTICE

Generator is not intended for use in enclosed areas or where free flow of air is restricted.

Backfeed to a utility system can cause electrocution, shock 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.



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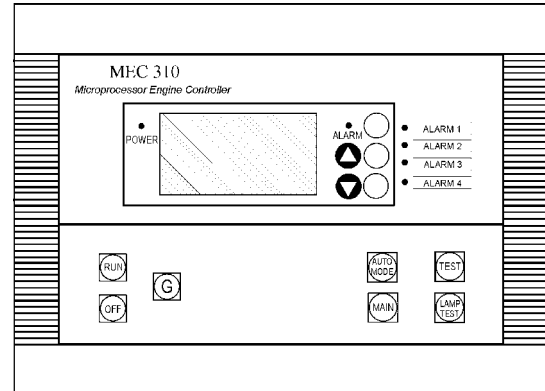
Lubrication System	
Type	Gear Driven
System Capacity-With Filter	2.11 gallons (8 liters)
Oil Filter	Full flow disposable spin-on
Oil Pressure At Rated Speed	43 psi (296 kPa)
Oil Temperature Normal Range	125-250°F (52-121°C)

Cooling System	
Exhaust Manifold Type	Dry
Radiator Design	Standard horizontal discharge
Ambient Temperature Rating	122°F (50°C)
Coolant Capacity (Engine Only)	2.7 gallons (2.6 liters)
Water Pump Design/Type	Belt driven, Centrifugal Vane
Coolant Flow	24 gal/min (91 L/min)
Radiator Cooling Air	2639 cfm (74.7 m³/min)
Heat Rejection From Engine	1412 Btu/min (25 kW)
Fan Diameter	18.0 in. (457 mm)
Fan Horsepower	1.2 hp (.89 kW)
High Water Temperature Indication	221°F (105°C)
Pressure Cap Setting	15 psi (103 kPa)

Engine Electrical System	
Battery Charging Alternator - Make	Bosch
Ground Type	Negative
Volts (DC)	12VDC
Ampere Rating	70A
Starter Motor Make/Model	Bosch
Starter Motor Rated Voltage	12 VDC
Cranking Current	600 A
Starter Rolling Current 290A@32°F (0°C)	
Starter Rolling Current 370A@-22°F (-30°C)	

Derating Factors	Altitude	Ambient Temperature
The engine may be operated up to 500 ft. and up to 104°F (40°C) without derating. For operation at higher altitudes and ambient temperatures, the power should be derated according to the following factors:	From 500~10,000 ft. 5% / 1,000 ft.	Above 77°F (25°C) 0.5% / 10°F (-12°C)
	Above 10,000 ft. 4% / 1,000 ft.	

Digital Generator Controller.



- MEC 310™ microprocessor-based digital generator controller.
- Meets all NFPA 110 requirements for emergency power systems Level I installations.
- High visibility graphical display screen with alpha-numeric readout.
- Self diagnostic features continuously verify processing, input/output and memory circuits.
- Digital 3-phase Power Metering including kW, kVAR, kVA, power factor, for generator supply.
- RS485 Remote communication port available with Modbus™.
- Certified to UL508 and CSA 22.2 #14 Industrial Control Equipment Standards.

Standard Controller Features

AC Metering Display:

- Voltage/Amperage/Frequency
- Generator Phase Voltage/Current
- Generator Frequency

Engine Control and Monitoring:

- LCD Operator Interface Display
- Auto Start Control

Engine Parameter Display:

- Switch Not In Auto
- Low Fuel Level
- Oil Pressure
- Engine Temperature
- Battery Voltage/Condition
- RPM
- Fuel Level

Digital Fault Alarm/Shutdown Display:

- Overvoltage
- Emergency Stop
- Loss Of Speed
- Overcrank
- Overspeed Alarm
- Low Oil Pressure Alarm
- High Engine Temperature
- Low Coolant Level

Dedicated Output Contacts:

- 5 Programmable Outputs

Configurable Set Points/Time Delays:

- Engine Start
- Crank
- Rest
- Cool down
- Oil bypass

Standard 30 Event Log:

- Time/Date Stamp Capability
- Real Time Clock
- Battery Backup

Protective Relaying:

- IEEE/ANSI (27/59) under/over voltage
- (81 o/u) under/over frequency
- (32) Reverse Power
- (51) Time-overcurrent Protection

Communication Interface Ports:

- RJ11 port for PC interface

Optional Features:

- J1939 CANbus engine communications port
- MODBUS™ - RS485 Communication port
- Automatic Mains Failure control
- Expansion Alarm Remote Annunciator
- Service Setup Port (SSP 300)



MQP30JD

MQ POWER 60kW Diesel On-Site Power Industrial Generator

Generator Set Standard Options

Alternator

- Full Output Single-Phase Alternator
- Permanent Magnet Generator (PMG)
- Generator Strip Heater

Control Panel

- Remote Monitoring and Generator Network Communications Link

Cooling System

- Coolant Heater

Engine

- Engine Crankcase Ventilation Filter

Enclosed Unit

- Standard Weather-protected Housing
- Acoustic Sound-Attenuated Housing
- Stainless steel exhaust piping
- Rain Cap

Open Unit

- Radiator Duct Flange
- Critical Exhaust Silencer
- Exhaust Mounting Package

Electrical System

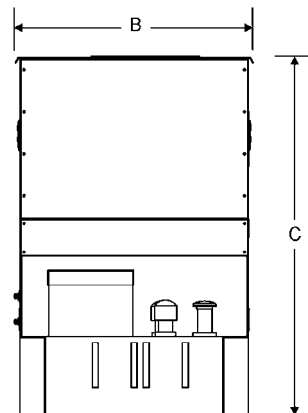
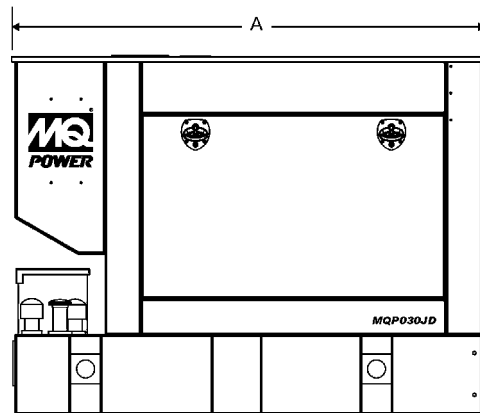
- Battery
- Environmental Plastic Battery Box
- Battery Tender® Charger, Float Type, 5 Amperes
- Battery Charger, Equalize/Float Type 3.5 Amperes
- Battery Charger w/Alarms, Equalize/Float Type, 10 Amperes

Fuel System

- Sub-base Fuel Tanks, Double Wall, UL142 (24-hr / 68 gal), (36-hr / 102 gal), (48-hr / 136 gal), (72-hr / 203 gal)

Miscellaneous

- Main Line Circuit Breaker
 - 120/208 Volt, Three Phase
 - 120/240 Volt, Three Phase, Delta
 - 277/480 Volt, Three Phase
 - 120/240 Volt, Single Phase
- Main Line Circuit Breaker Options
 - Auxiliary Contacts
 - DC Shunt Trip
- Remote Annunciator Panel
- Remote Emergency Stop Kit
- Vibration Isolators, Spring Type



Weights and Dimensions			
Housing Options	A	B	C
			Height vs. Tank Capacity*
36-hr./ 102 gal (386 liters) 65.0 in. (1,651 mm)			
48-hr./ 136 gal (515 liters) 69.8 in. (1,773 mm)			
72-hr./ 203 gal (768 liters) 79.6 in. (2,022 mm)			
	Weight		2,550 lbs. (1,356 kg) (approximate)

*Optional

1. Weight represents unit configuration including 72-hr/203 gal fuel tank.

Your MultiQuip dealer is:

