



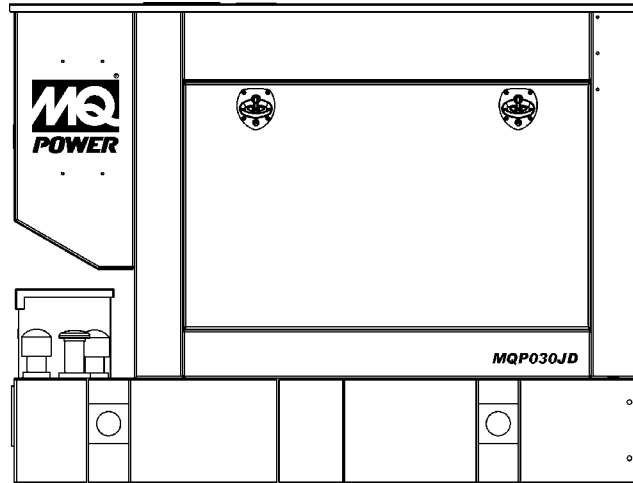
MQP30JD

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



MQP30JD

MQ POWER 30kW Diesel On-Site Power Industrial Generator

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.



MQP30JD

MQ POWER 30kW Diesel On-Site Power Industrial Generator

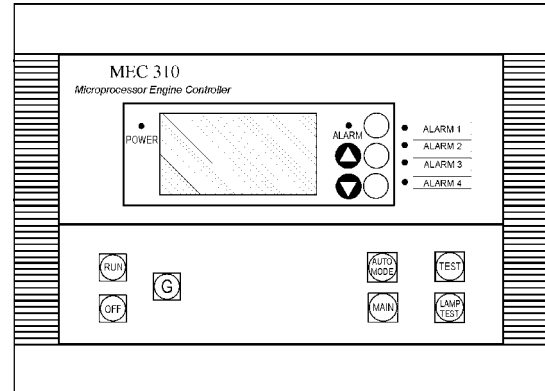
| Lubrication System | |
|------------------------------|------------------------------|
| Type | Gear Driven |
| System Capacity-With Filter | 2.11 gallons (8 liters) |
| Oil Filter | Full flow disposable spin-on |
| Oil Pressure At Rated Speed | 43 psi (296 kPa) |
| Oil Temperature Normal Range | 125-250°F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

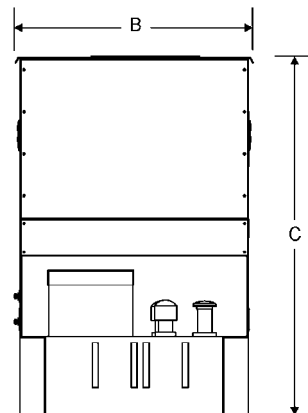
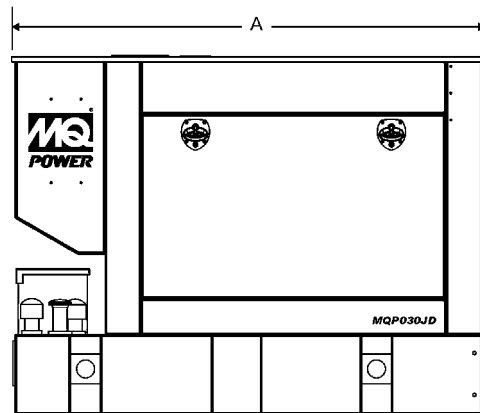
- Battery
- Environmental Plastic Battery Box
- Battery Tender® Charger, Float Type, 5 Amperes
- Battery Charger, Equalize/Float Type 3.5 Amperes
- Battery Charger w/Alarms, Equalize/Float Type, 10 Amperes

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* |
| Sound Attenuated | 78 in. (1,981 mm) | 38 in. (965 mm) | 24-hr./ 68 gal (257 liters) 60.8 in. (1,544 mm) |
| | | | 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:

