



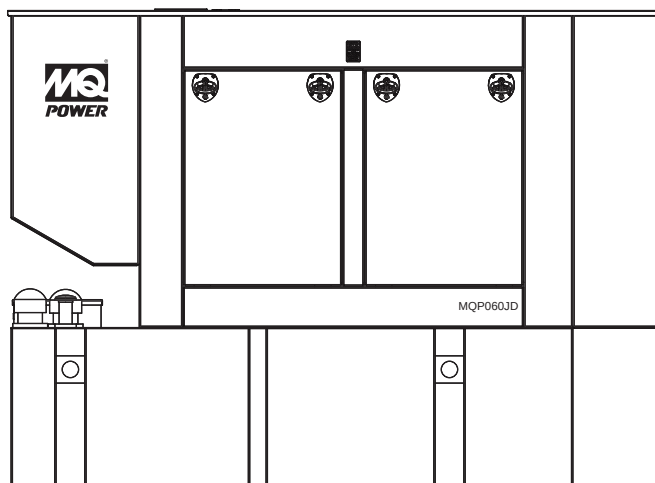
# MQP60JD

## MQ POWER 60kW Diesel On-Site Power Industrial Generator

**Prime Rating** — 60 kW (75 kVA)

**Standby Rating** — 54 kW (67.5 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
- Meets EPA Tier 3 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.
- Sustained short-circuit capability allowing downstream coordination breakers to trip without collapsing the generator field.
- 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 40°C (104°F).

#### Generator Control Panel

- Basler 2020™ microprocessor-based, digital controller; vibration isolated and NFPA 110 compliant.
- Backlit 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

**MQP60JD****MQ POWER 60kW Diesel On-Site Power Industrial Generator****SPECIFICATIONS**

| <i>Alternator Specifications</i>          | <i>3-Phase (Standard)</i>           | <i>Single-Phase (Optional)</i>      |
|-------------------------------------------|-------------------------------------|-------------------------------------|
| Manufacturer/Model                        | Marathon Magnaplus 361CSL1602       | Marathon Magnaplus 361CSL1613       |
| 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 / 4045TF285                                            |
| Emissions                            | Tier 3 Certified                                                  |
| Type                                 | 4-cycle, direct injection, turbocharged                           |
| Cylinder Arrangement                 | 4 In-Line                                                         |
| Displacement                         | 275 in³ (4.5 liter)                                               |
| Bore                                 | 4.19 in. (106 mm)                                                 |
| Stroke                               | 5.00 in. (127 mm)                                                 |
| Compression Ratio                    | 19.0:1                                                            |
| Cylinder Block                       | Cast iron                                                         |
| Cylinder Head                        | Cast iron, overhead valves                                        |
| Crankshaft                           | Ductile iron, heat treated micro finished journals                |
| Brake Mean Effective Pressure (BMEP) | 159 psi (1096 kPa)                                                |
| Rated RPM                            | 1800 RPM                                                          |
| SAE Gross Horsepower                 | 99 hp                                                             |
| Governor Type                        | Electronic                                                        |
| Frequency Regulation:                | 0% 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        | 500 cfm (14.2 m³/min) |
| Exhaust Temperature at Rated kW | 1155°F (552°C)        |
| Maximum Allowable Backpressure  | 30.0 in/wc (7.5 kPa)  |
| Heat Rejection To Exhaust       | 3814 Btu/min (67 kW)  |

**Fuel System**

|                                |                                    |
|--------------------------------|------------------------------------|
| Fuel Injection Pump Make       | Denso HPCR                         |
| Recommended Fuel               | ASTM-D975 / No.2-D                 |
| Feed Pump Pressure             | 5.8 psi (40 kPa)                   |
| Feed Pump Maximum Suction Head | 11.6 feet (0.9 meters)             |
| Fuel Filter                    | Spin-on, paper element type filter |
| Max. Fuel Flow                 | 12.67 gal/hr (47.96 L/h)           |
| Fuel Consumption               |                                    |
| Diesel Fuel At % of Load       | gal/hr (L/hr)                      |
| 100%                           | 5.28 (19.99)                       |
| 75%                            | 4.15 (15.73)                       |
| 50%                            | 2.86 (10.82)                       |
| 25%                            | 1.65 (6.24)                        |

**Amperage**

| Voltage      | Phase | Wire | Amperage |
|--------------|-------|------|----------|
| 120/208 Volt | 3     | 4    | 208      |
| 120/240 Volt | 3     | 4    | 180      |
| 277/480 Volt | 3     | 4    | 90       |
| 120/240 Volt | 1     | 3    | 250      |

**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.

**MQP60JD****MQ POWER 60kW Diesel On-Site Power Industrial Generator****Lubrication System**

|                              |                              |
|------------------------------|------------------------------|
| Type                         | Gear Driven                  |
| System Capacity-With Filter  | 3.88 gallons (14.7 liters)   |
| Oil Filter                   | Full flow disposable spin-on |
| Oil Pressure At Rated Speed  | 46 psi (320 kPa)             |
| Oil Temperature Normal Range | 225-246°F (107-119°C)        |

**Cooling System**

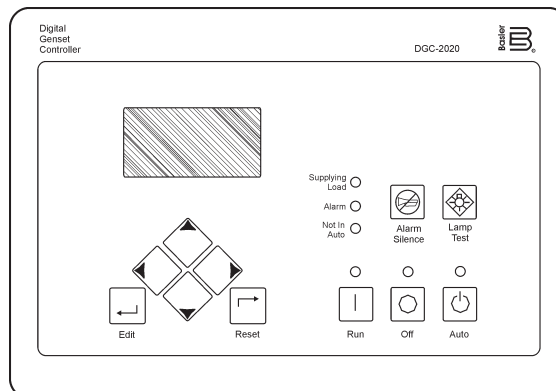
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|-----------------------------------|-------------------------------|
| Exhaust Manifold Type             | Dry                           |
| Radiator Design                   | Standard horizontal discharge |
| Ambient Temperature Rating        | 122°F (50°C)                  |
| Coolant Capacity (Engine Only)    | 2.25 gallons (8.5 liters)     |
| Water Pump Design/Type            | Belt driven, Centrifugal Vane |
| Coolant Flow                      | 48 gal/min (180 L/min)        |
| Radiator Cooling Air              | 6360 cfm (180 m³/min)         |
| Heat Rejection From Engine        | 2749 Btu/min (49 kW)          |
| Fan Diameter                      | 22.0 in. (558.8 mm)           |
| Fan Horsepower                    | 1.84 hp (1.37 kW)             |
| High Water Temperature Indication | 230°F (110°C)                 |
| Pressure Cap Setting              | 15 psi (103 kPa)              |

**Engine Electrical System**

|                                               |          |
|-----------------------------------------------|----------|
| Battery Charging Alternator - Make            | Iskra    |
| Ground Type                                   | Negative |
| Volts (DC)                                    | 12VDC    |
| Ampere Rating                                 | 75A      |
| Starter Motor Make/Model                      | Denso    |
| Starter Motor Rated Voltage                   | 12 VDC   |
| Cranking Current                              | 800 A    |
| Starter Rolling Current 920A @ 32°F (0°C)     |          |
| Starter Rolling Current 1300A @ -22°F (-30°C) |          |

**Derating Factors****Altitude****Ambient Temperature**

|                                                                                                                                                                               |                                       |                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------|
| The engine is rated at sea level and 77°F (25°C). For operation at higher altitudes and ambient temperatures, the power should be derated according to the following factors: | From 0 to 10,000 ft.<br>5% / 1000 ft. | Above 77°F (25°C)<br>0.5% / 10°F (-12°C) |
|                                                                                                                                                                               | Above 10,000 ft.<br>4% / 1000 ft.     |                                          |
|                                                                                                                                                                               |                                       |                                          |

**Digital Generator Controller.**

- Basler DGC-2020™ microprocessor-based digital generator controller.
- Local and Remote Generator Control
- Engine and Generator Protection
- Programmable Analog Engine Senders
- ECU Communications via SAE J1939
- Programmable Logic
- Automatic Transfer Switch Control
- Integrated RS485

**Standard Controller Features****Generator Protection and Metering:**

- Voltage
- Current
- Frequency
- Real Power (Watts)
- Apparent Power (VA)
- Power Factor

**Event Recording:**

- Up to 30 event types
- Time/Date Stamp Capability
- Real-time Clock

**Communication:**

- USB port and SAE J1939 interface
- CAN Bus Interface
- Low Coolant Level

**Engine Protection and Metering:**

- Oil Pressure
- Coolant Temperature
- Engine Temperature
- Battery Voltage
- Speed
- Fuel Level
- Engine Load
- ECU Specific parameters
- Run-time statistics



# MQP60JD

## MQ POWER 60kW Diesel On-Site Power Industrial Generator

### Generator Set Standard Options

#### Alternator

- Full Output 3-Phase Alternator
- Permanent Magnet Generator (PMG)

#### Control Panel

- Remote Monitoring and Generator Network Communications Link

#### Cooling System

- Coolant Heater

#### Enclosed Unit

- Acoustic Sound-Attenuated Housing
- Critical Grade Exhaust Silencer

#### Electrical System

- Optima "RED TOP" battery
- Battery Thermal Wrap
- Battery Tender® Charger, Float Type, 5 Amperes @ 12VDC

#### Fuel System

- Sub-base Fuel Tanks, Double Wall, UL142  
24-hr/125 gal (473 liters), 36-hr/198 gal (750 liters),  
48-hr/250 gal (946 liters), 72-hr/375 gal (1,420 liters)

#### Miscellaneous

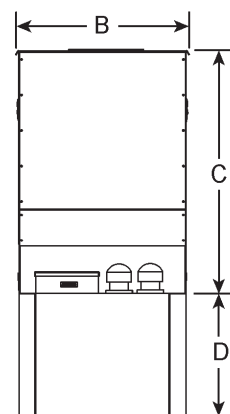
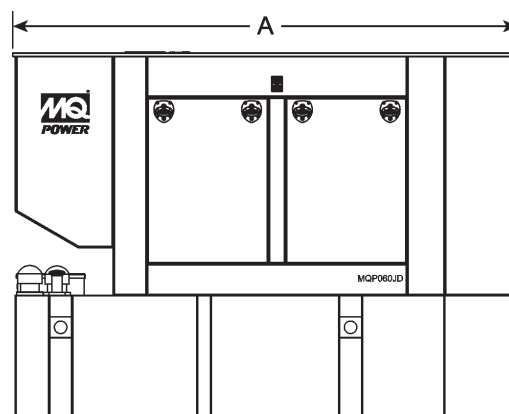
##### Main Line Circuit Breaker

- 120/208 Volt, Three Phase
- 120/240 Volt, Single Phase

| Weights and Dimensions |                       |                      |                         |                                                      |
|------------------------|-----------------------|----------------------|-------------------------|------------------------------------------------------|
| Housing Options        | A                     | B                    | C                       | D                                                    |
|                        |                       |                      |                         | Fuel Tank Height vs. Capacity*                       |
| Sound Attenuated       | 120 in.<br>(3,048 mm) | 40 in.<br>(1,016 mm) | 58.13 in.<br>(1,476 mm) | 24-hr./125 gal (473 liters)<br>17.0 in. (432 mm)     |
|                        |                       |                      |                         | 36-hr./198 gal (750 liters)<br>23.0 in. (584 mm)     |
|                        |                       |                      |                         | 48-hr./250 gal (946 liters)<br>29.5 in. (737 mm)     |
|                        |                       |                      |                         | 72-hr./375 gal (1,420 liters)<br>41.0 in. (1,041 mm) |
|                        | Weight                |                      |                         | 2,550 lbs. (1,356 kg)<br>(approximate)               |

\*Optional

1. Weight represents unit configuration including 72-hr/375 gal (1,420 liters) fuel tank.



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