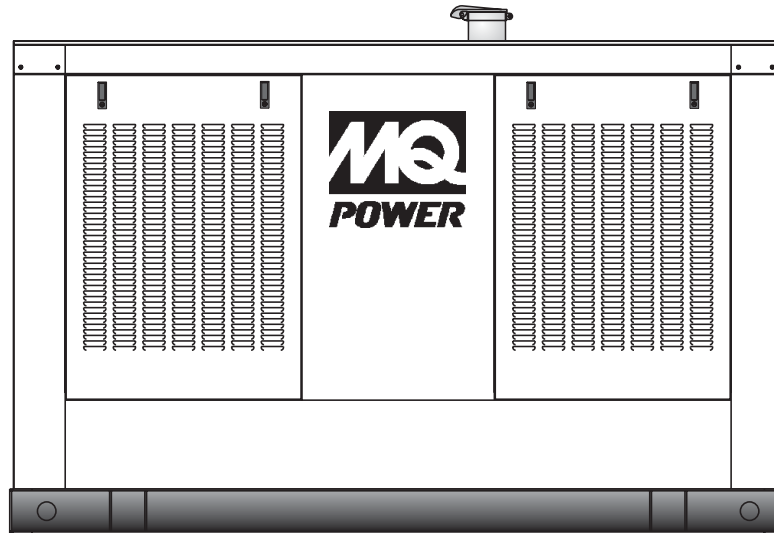




150kW Diesel On-Site Power Industrial Generator

| Model | Emissions | Standby Rating | Prime Rating |
|----------|---------------|------------------|------------------|
| MQP150IV | EPA Certified | 60 Hertz | |
| | | 150kW (187.5kVA) | 135kW (168.7kVA) |



Standard Features

Heavy Duty Engine

- Heavy duty Iveco, 4-cycle, diesel engine.
- Meets EPA Tier 3 emissions standards.

Alternator

- Brushless, 4-pole, synchronous, 12 lead design.
- Compliant with 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.
- Solid-state, voltage regulation of $\pm 1.0\%$ 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 50°C (122°F).

Generator Control Panel

- MEC 20™ microprocessor-based, digital control panel; vibration isolated and NFPA110 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 housing or sound-attenuated housing designs.

Warranty

- Engine-generator sets are covered by an express written 2-year limited warranty.
- Optional extended warranties available.



150kW Diesel On-Site Power Industrial Generator

| Alternator Specifications | Standard 3-Phase Generator | Optional Full-Output 1-Phase Generator |
|---|-------------------------------------|---|
| Manufacturer/Model | Marathon, 431CSL6202 | Marathon, 431PSL6224 |
| Type | 4-Pole, Rotating Field | 4-Pole Rotating Field |
| Exciter Type | Brushless, Shunt Excitation | Brushless, Shunt Excitation |
| Number of Leads | 12 Lead, Broad Range, Reconnectable | 4 leads |
| Voltage Regulator | SE350, Solid State, Volts-per-Hertz | SE350 |
| Insulation | NEMA MGI-1.66 | NEMA MG1-1.66 |
| Material | Class H | Class H |
| Temperature | 125°C, Standby Rating | 125°C, Standby Rating |
| Bearing, Type | Single, Sealed | Single, Sealed |
| Coupling | Flexible Disk Type | Flexible Disk type |
| Cooling Air Volume | 1280 cfm | 1100 cfm |
| 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 | Iveco Motors / NEF67 TE1X * |
| Type | 4-cycle, direct injection, turbocharged, aftercooled |
| Cylinder Arrangement | 6 In line |
| Displacement | 408 in ³ (6.7 L) |
| Bore | 4.09 in. (104 mm) |
| Stroke | 5.20 in. (132 mm) |
| Compression Ratio | 16.5 : 1 |
| Cylinder Block | Cast Iron |
| Cylinder Head | Cast iron, Overhead Valves |
| Brake Mean Effective Pressure (BMEP) | 247.4 psi (1706 kPa) |
| Rated RPM | 1800 RPM |
| Max. Power @ Rated RPM (with fan) | 218.5 hp (163 kW) |
| Governor Type | 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 | Dry |

* EPA engine model number F4HE9685B

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 supply single phase output up to 2/3 set rated 3-phase kW at 1.0 P.F. Refer to Amperage chart.

Amperage

| Voltage | Phase | Wire | Amperage |
|--------------|-------|------|----------|
| 120/208 Volt | 3 | 4 | 520 |
| 120/240 Volt | 3 | 4 | 451 |
| 277/480 Volt | 3 | 4 | 226 |
| 120/240 Volt | 1 | 3 | 333 |

Fuel System

| | |
|------------------------------------|---------------------------------|
| Fuel Injection Pump Make | Standadyne |
| Recommended Fuel | ASTM-D975/No.1-D & No.2-D |
| Fuel Filters | Spin-on, Filter/Water Separator |
| Maximum Fuel Flow | 37 gal/hr (140 L/hr) |
| Fuel Consumption | |
| Diesel Fuel At % of Load (Standby) | gal/hr (L/hr) |
| 100% | 11.1 (42.0) |
| 80% | 8.5 (32.3) |
| 50% | 5.9 (22.4) |
| 25% | 2.8 (10.5) |

Engine Electrical System

| | |
|------------------------------------|------------|
| Battery Charging Alternator - Make | Bosch |
| Ground Type | Negative |
| Volts (DC) | 12VDC |
| Ampere Rating | 90A |
| Starter Motor Make/Model | Bosch |
| Starter Motor Rated Voltage | 12VDC |
| Starter Battery Capacity | 1 x 100 Ah |



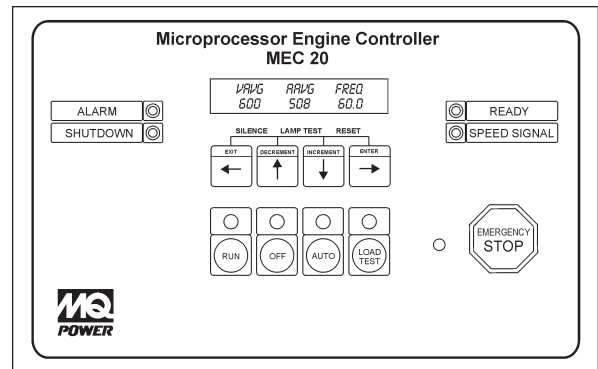
150kW Diesel On-Site Power Industrial Generator

| Lubrication System | |
|-------------------------------|----------------------|
| Type | Gear Driven |
| System Capacity - Less Filter | 3.1 gal (12 L) |
| System Capacity - With Filter | 4.5 gal (17.2 L) |
| Oil Filter | Full flow disposable |
| Oil Pressure At Rated Speed | 300-500 kPa |
| Maximum Oil Temperature | 248°F (120°C) |

| Cooling System | |
|-----------------------------------|--|
| Exhaust Manifold Type | Liquid |
| Radiator Design | Horizontal Discharge |
| Ambient Temperature Rating | 122°F (50°C) |
| Coolant Capacity - Engine Only | 2.8 gal (10.5 L) |
| Coolant Capacity - with Radiator | 7.9 gal (30 L) |
| Water Pump Design/Type | Belt Design, Centrifugal Vane |
| Coolant Flow | 44.6 gal/min (169 L/min) |
| Radiator Cooling Air | 257 ft ³ /sec (7.3 m ³ /sec) |
| Heat Rejection From Engine | 750 Btu/min (13.1 kW) |
| Heat Rejection To Coolant | 4437 Btu/min (78 kW) |
| Fan Diameter | 23.4 in. (600 mm) |
| Fan Horsepower | 8.0 hp (6.0 kWm) |
| High Water Temperature Indication | 217°F (103°C) |
| Pressure Cap Setting | 10.1 psi (70 kPa) |

| Exhaust System | |
|---------------------------------|-------------------------------------|
| Exhaust Flow at Rated kW | 1326 cfm (37.5 m ³ /min) |
| Exhaust Temperature at Rated kW | 1040°F (560°C) |
| Maximum Allowable Backpressure | 20 in/H ₂ O (5 kPa) |
| Heat Rejection To Exhaust | 7736 Btu/min (136 kW) |

| Derating Factors | Altitude | Ambient Temperature |
|---|----------------------------|----------------------------|
| The engine may be operated up to 1000m altitude and 40°C ambient temperature at the Standby rating, without derating. For operation at higher altitudes and ambient temperatures, the power should be derated according to the following factors: | >1000<3000m %/500m - 3% | > 40°C %/5°C - 2% |
| | >3000m %/500m - 6% | |



GENERATOR CONTROLLER

- MEC 20™ microprocessor-based digital generator controller.
- 12 or 24 Volt DC compatible.
- Meets all NFPA 110 requirements for emergency power systems Level I installations.
- Backlit LCD display screen with alphanumeric readout.
- Front panel keypad provides password protected programming.
- Self diagnostic features continuously verify processing, input/output and memory circuits.
- Metering accurate to ±1% within temperature range of 0°C to +50°C.
- EMI/RFI noise immunity and surge performance per IEEE C62.41.
- 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 Information Display:

- Engine Temperature / Oil Pressure (psi)
- Battery Voltage (DC) / Tachometer
- Hourmeter

Minor Fault Warning Display:

- Switch Not In Auto
- Low Fuel Level
- Low Oil Pressure Alarm
- Low Engine Temperature
- High Engine Temperature Alarm
- Low Battery Voltage
- High Battery Voltage
- Weak Battery Condition
- Battery Charger Input Fail
- Undervoltage
- Over / Underfrequency
- Overcurrent

Major Fault Shutdown Display:

- Overvoltage
- Emergency Stop
- Loss Of Speed
- Overcrank
- Overspeed
- Low Oil Pressure
- High Engine Temperature
- Low Coolant Level
- Spare Programmable Digital Faults

Switches And Operating Controls:

- Run / Off / Auto / Load Test Buttons
- Decrement / Increment / Previous (Exit) /Next (Enter) Program Buttons
- Emergency Stop Button
- Audible Alarm Horn – 80 dB(A) at 2 ft.
- Alarm Horn Silence Button
- Lamp Test Button
- Fault Reset Function
- RJ45 Remote Communications, External Expansion Module Ports

Timer Countdown Display:

- Engine Start Delay
- Oil Bypass
- Overcrank
- Cycle Crank
- Starter Re-engage Delay
- Bypass Delay

Control LED Indicators:

- Switch Position (Run,Off,Auto,Test)
- Common Alarm (Minor Fault)
- Common Shutdown (Major Fault)
- Generator Ready (When in Auto)
- Speed Signal
- Emergency Stop

Diagnostic LED Indicators:

- Run Output Energized
- Crank Output Energized
- Remote Start Signal Initiated
- Common Fail Output Energized
- Watchdog - CPU Running
- Programmable Output Contacts



150kW Diesel On-Site Power Industrial Generator

Generator Set Options

Alternator

- Generator Strip Heater
- Permanent Magnet Generator (PMG)

Control Panel

- Remote Monitoring and Generator Network Communications Link
- Voltage Adjusting Rheostat
- Frequency Adjust Potentiometer

Engine

- Engine Crankcase Ventilation Filter (STD)

Enclosed Unit

- Outdoor Weather-protective Housing
- Outdoor Sound-Attenuated Housing
- Critical Grade Exhaust Silencer
- Exhaust Mounting Package
- Rain Cap

Open Unit

- Critical Exhaust Silencer
- Exhaust Mounting Package

Electrical System

- Battery
- Environmental Plastic Battery Box with Lid
- Battery Charger, Equalize/Float Type 3.5 Amperes
- Battery Charger w/Alarms, Equalize/Float Type, 10 Amperes

Fuel System

- Sub-base Fuel Tank (12-hr / 135 gal), Double Wall, UL142
- Sub-base Fuel Tank (24-hr / 275 gal), Double Wall, UL142

Cooling System

- Coolant Heater
- Low Coolant Shutdown Safety
- Radiator Duct Flange

Miscellaneous

- Main Line Circuit Breaker
 - 120/208 Volt, 3 Phase, 3 Pole
 - 120/240 Volt, 3 Phase, Delta, 3 Pole
 - 139/240 Volt, 3 Phase, 3 Pole
 - 277/480 Volt, 3 Phase, 3 Pole
 - 120/240 Volt, 1 Phase, 2 Pole
- Main Line Circuit Breaker Options
 - Auxiliary Contacts
 - DC Shunt Trip
- Remote Annunciator Panel
- Remote Emergency Stop Kit
- Vibration Isolators, Spring Type
- 5-Year Extended Warranty

Automatic Transfer Switch

- Amperage _____
- No. Poles _____
- Type Enclosure _____
- Options _____

Weights and Dimensions

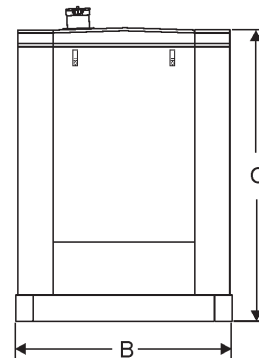
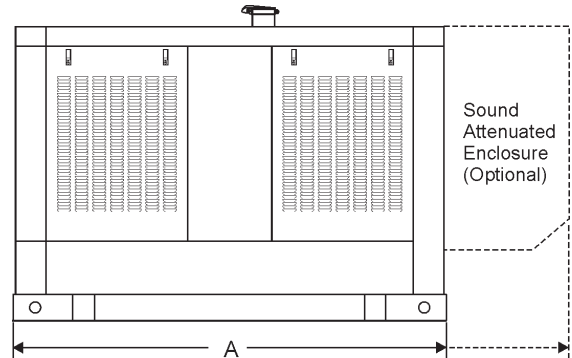
| | A | B | C | | |
|---------------------------------|-----------------------|----------------------|-------------------------|-------------------------|-------------------------|
| | | | Skid-mount | 12hr fuel tank* | 24hr fuel tank* |
| Open Genset | 105 in. (2,641 mm) | 49 in. (1,244 mm) | 68 in. (1,727 mm) | 78 in. (1,981 mm) | 89 in. (2,260 mm) |
| | Weight | | 3,406 lbs (1,419 kg) | 3,856 lbs (1,623 kg) | 4,231 lbs (1,793 kg) |
| Standard Housing | 105 in. (2,641 mm) | 49 in. (1,244 mm) | 76 in. (1,903 mm) | 84 in. (2,133 mm) | 95 in. (2,413 mm) |
| | Weight | | 4,892 lbs (2,116 kg) | 5,337 lbs (2,295 kg) | 5,712 lbs (2,465 kg) |
| Sound Attenuated Housing | 139 in. (3,530 mm) | 49 in. (1,244 mm) | 76 in. (1,903 mm) | 84 in. (2,133 mm) | 95 in. (2,413 mm) |
| | Weight | | 5,152 lbs (2,211 kg) | 5,602 lbs (2,415 kg) | 5,977 lbs (2,585 kg) |

* Optional

NOTE: The weights in this table are based on dry gensets with standard equipment. The total weight may vary according to fluid additions and/or optional equipment ordered with the unit.

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.

Your MQ Power dealer is:



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