200kW Diesel On-Site Power Industrial Generator

## Model Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Emissions</th>
<th>Standby Rating</th>
<th>Prime Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>MQP200IV</td>
<td>EPA Certified</td>
<td>200kW (250kVA)</td>
<td>180kW (225kVA)</td>
</tr>
</tbody>
</table>

### Standard Features

**Heavy Duty Engine**
- Heavy duty, 4-cycle, diesel engine; direct injection.
- Electronic speed control governor.
- Meets EPA Tier 3 emissions standards.

**Alternator**
- Brushless, 4-pole, synchronous, 12 lead design.
- Temperature rise standards meets Class H insulation system.

**Electronic Voltage Regulator**
- Encapsulated electronic voltage regulator precisely regulates the current into the exciter field.
- Voltage regulation of ±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 or sound-attenuated housings.
- Steel battery rack and battery cables.

**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**
- UL2200 certification.
### Alternator Specifications

<table>
<thead>
<tr>
<th></th>
<th>Standard 3-Phase Generator</th>
<th>Optional Full-Output 1-Phase Generator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer/Model</td>
<td>Marathon, 431CSL6206</td>
<td>Marathon, 432PSL6228</td>
</tr>
<tr>
<td>Type</td>
<td>4-Pole, Rotating Field</td>
<td>4-Pole Rotating Field</td>
</tr>
<tr>
<td>Exciter Type</td>
<td>Brushless, PMG</td>
<td>Brushless, Shunt Excitation</td>
</tr>
<tr>
<td>Number of Leads</td>
<td>12 Lead, Reconnectable</td>
<td>4 leads</td>
</tr>
<tr>
<td>Voltage Regulator</td>
<td>SE350</td>
<td>SE350</td>
</tr>
<tr>
<td>Insulation</td>
<td>NEMA MG1-1.66</td>
<td>NEMA MG1-1.66</td>
</tr>
<tr>
<td>Material</td>
<td>Class H</td>
<td>Class H</td>
</tr>
<tr>
<td>Temperature</td>
<td>125°C, Standby Rating</td>
<td>125°C, Standby Rating</td>
</tr>
<tr>
<td>Bearing, Type</td>
<td>Single, Sealed</td>
<td>Single, Sealed</td>
</tr>
<tr>
<td>Coupling</td>
<td>Flexible Disk Type</td>
<td>Flexible Disk type</td>
</tr>
<tr>
<td>Cooling Air Volume</td>
<td>1200 cfm</td>
<td>1100 cfm</td>
</tr>
<tr>
<td>Amortisseur Windings</td>
<td>Full</td>
<td>Full</td>
</tr>
<tr>
<td>Voltage Regulation</td>
<td>±1%</td>
<td>± 1%</td>
</tr>
<tr>
<td>Single Step Load Acceptance per NFPA 110</td>
<td>100% of Rating</td>
<td>100% of Rating</td>
</tr>
</tbody>
</table>

### Engine Specifications

- **Manufacturer/Model**: Iveco Motors / Cursor87 TE1X *
- **Type**: 4-cycle, turbocharged, air to air aftercooled
- **Cylinder Arrangement**: 6 In-line
- **Displacement**: 531 in³ (8.7 liter)
- **Bore**: 4.6 in. (117 mm)
- **Stroke**: 5.3 in. (135 mm)
- **Compression Ratio**: 16.5 : 1
- **Cylinder Block**: Cast iron with wet replaceable cylinder liners
- **Crankshaft**: Forged steel; 5-main bearings
- **Brake Mean Effective Pressure (BMEP)**: 322 psi (2220 kPa)
- **Rated RPM**: 1800 RPM
- **Max. Power At Rated RPM (with fan)**: 375 hp (280 kw)
- **Governor Type**: Electronic
- **Frequency Regulation**: Isochronous under varying loads from no load to 100% rated load
- **Air Cleaner Type**: Dry

* EPA engine model number F2CE9685A

### Amperage

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Phase</th>
<th>Wire</th>
<th>Amperage</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/208 Volt</td>
<td>3</td>
<td>4</td>
<td>694</td>
</tr>
<tr>
<td>120/240 Volt</td>
<td>3</td>
<td>4</td>
<td>601</td>
</tr>
<tr>
<td>277/480 Volt</td>
<td>3</td>
<td>4</td>
<td>301</td>
</tr>
<tr>
<td>120/240 Volt</td>
<td>1</td>
<td>3</td>
<td>481</td>
</tr>
</tbody>
</table>

### 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**: 66 gal/hr (250 L/hr)
- **Fuel Consumption**
  - Diesel Fuel At % of Load (Standby) gal/hr (L/hr)
    - 100%: 18.7 (70.8)
    - 75%: 14.0 (52.5)
    - 50%: 9.3 (35.3)
    - 25%: 4.6 (17.6)

### Engine Electrical System

- **Battery Charging Alternator Make**: Denso
- **Ground Type**: Negative
- **Volts (DC)**: 28VDC
- **Ampere Rating**: 90A
- **Starter Motor Make**: Denso
- **Starter Motor Rated Voltage**: 24VDC
- **Starter Motor Battery Capacity**: 2 x 185 Ah
# 200kW Diesel On-Site Power Industrial Generator

## Lubrication System

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Full Pressure System</td>
</tr>
<tr>
<td><strong>System Capacity - Less Filter</strong></td>
<td>6.0 gallons (23 liters)</td>
</tr>
<tr>
<td><strong>System Capacity - With Filter</strong></td>
<td>7.4 gallons (28 liters)</td>
</tr>
<tr>
<td><strong>Oil Filter</strong></td>
<td>Full flow disposable spin-on</td>
</tr>
<tr>
<td><strong>Oil Pressure At Rated Speed</strong></td>
<td>43-72psi (300-500kPa)</td>
</tr>
<tr>
<td><strong>Maximum Oil Temperature</strong></td>
<td>248°F (120°C)</td>
</tr>
</tbody>
</table>

## Cooling System

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exhaust Manifold Type</strong></td>
<td>Dry</td>
</tr>
<tr>
<td><strong>Radiator Design</strong></td>
<td>Horizontal Discharge</td>
</tr>
<tr>
<td><strong>Ambient Temperature Rating</strong></td>
<td>122°F (50°C)</td>
</tr>
<tr>
<td><strong>Coolant Capacity - Engine Only</strong></td>
<td>3.9 gallons (15 liters)</td>
</tr>
<tr>
<td><strong>Coolant Capacity - with Radiator</strong></td>
<td>12.6 gallons (48 liters)</td>
</tr>
<tr>
<td><strong>Water Pump Design/Type</strong></td>
<td>Belt Driven, Centrifugal</td>
</tr>
<tr>
<td><strong>Coolant Flow</strong></td>
<td>75.8 gal/min (287 L/min)</td>
</tr>
<tr>
<td><strong>Radiator Cooling Air</strong></td>
<td>256 ft³/sec (7.25 m³/sec)</td>
</tr>
<tr>
<td><strong>Heat Rejection From Engine</strong></td>
<td>1055 Btu/min (18.5 kW)</td>
</tr>
<tr>
<td><strong>Heat Rejection To Coolant</strong></td>
<td>6808 Btu/min (119 kW)</td>
</tr>
<tr>
<td><strong>Fan Diameter</strong></td>
<td>27.5 in. (700 mm)</td>
</tr>
<tr>
<td><strong>Fan Horsepower</strong></td>
<td>13.4 hp (10 kW)</td>
</tr>
<tr>
<td><strong>High Water Temperature Indication</strong></td>
<td>217°F (103°C)</td>
</tr>
<tr>
<td><strong>Pressure Cap Setting</strong></td>
<td>10.1 psi (70 kPa)</td>
</tr>
</tbody>
</table>

## Exhaust System

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exhaust Flow at Rated kW</strong></td>
<td>1,940 cfm (55 m³/min)</td>
</tr>
<tr>
<td><strong>Exhaust Temperature at Rated kW</strong></td>
<td>932°F (500°C)</td>
</tr>
<tr>
<td><strong>Maximum Allowable Backpressure</strong></td>
<td>20 in/H 2O (5 kPa)</td>
</tr>
<tr>
<td><strong>Heat Rejection To Exhaust</strong></td>
<td>12,812 Btu/min (225 kW)</td>
</tr>
</tbody>
</table>

## Derating Factors

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Altitude</strong></td>
<td>3% / 1640 ft</td>
</tr>
<tr>
<td><strong>Ambient Temperature</strong></td>
<td>&gt;1.5% / 5°C</td>
</tr>
</tbody>
</table>

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:

## 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/Ampere/ 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
200kW 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 Ampere
- Battery Charger w/Alarms, Equalize/Float Type, 10 Ampere

Fuel System
- Sub-base Fuel Tank (12-hr / 225 gal), Double Wall, UL142
- Sub-base Fuel Tank (24-hr / 450 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

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>Skid-mount</th>
<th>12hr fuel tank*</th>
<th>24hr fuel tank*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Genset</td>
<td>115.00 in.</td>
<td>57.00 in.</td>
<td>66 in.</td>
<td>75.8 in.</td>
<td>88 in.</td>
</tr>
<tr>
<td></td>
<td>(2,921.0 mm)</td>
<td>(1,447.8 mm)</td>
<td>(1,696.5 mm)</td>
<td>(1,925.3 mm)</td>
<td>(2,235.2 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>3,459 lbs</td>
<td>4,385 lbs</td>
<td>4,884 lbs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1,570 kg)</td>
<td>(1,990 kg)</td>
<td>(2,217 kg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Housing</td>
<td>115.00 in.</td>
<td>57.00 in.</td>
<td>100.25 in.</td>
<td>109.25 in.</td>
<td>122 in.</td>
</tr>
<tr>
<td></td>
<td>(2,921.0 mm)</td>
<td>(1,447.8 mm)</td>
<td>(2,546.4 mm)</td>
<td>(2,775.0 mm)</td>
<td>(3,096.8 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>4,059 lbs</td>
<td>5,035 lbs</td>
<td>5,484 lbs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1,842 kg)</td>
<td>(2,285 kg)</td>
<td>(2,499 kg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound Insulated Housing</td>
<td>150.00 in.</td>
<td>57.00 in.</td>
<td>100.25 in.</td>
<td>109.25 in.</td>
<td>122 in.</td>
</tr>
<tr>
<td></td>
<td>(3,810.0 mm)</td>
<td>(1,447.8 mm)</td>
<td>(2,546.4 mm)</td>
<td>(2,775.0 mm)</td>
<td>(3,096.8 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>4,324 lbs</td>
<td>5,300 lbs</td>
<td>5,749 lbs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1,963 kg)</td>
<td>(2,406 kg)</td>
<td>(2,610 kg)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Optional

NOTE: The weights are approximate and are based on dry gensets with standard equipment. The total weight may vary according to liquid 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.

Your MQ Power dealer is:

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