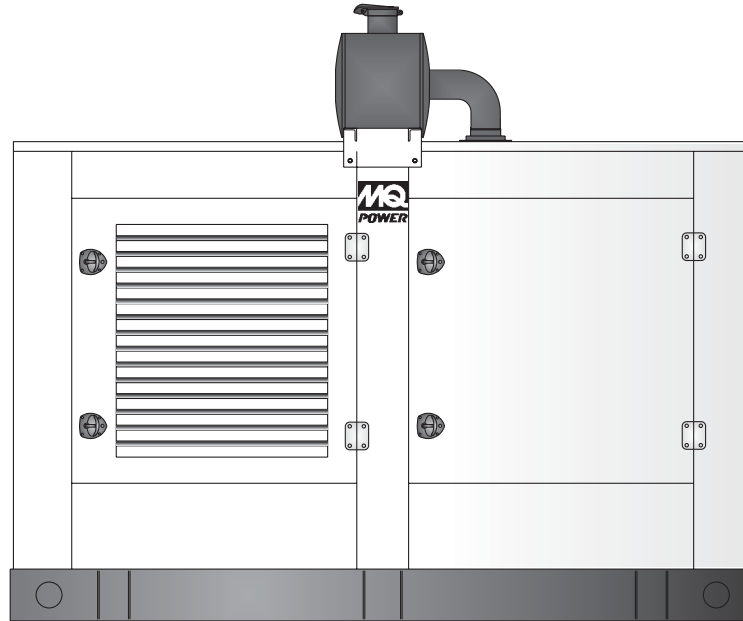




200kW Diesel On-Site Power Industrial Generator

Model	Emissions	Standby Rating	Prime Rating
MQP200IV	EPA Certified	60 Hertz	
		200kW (250kVA)	180kW (225kVA)



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 0.25% 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

- 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

- UL 2200 certification.
- CSA standard C22.2 No. 100-04



200kW Diesel On-Site Power Industrial Generator

Alternator Specifications	Standard 3-Phase Generator	Optional Full-Output 1-Phase Generator	Optional 600 VAC 3-Phase Generator
Manufacturer/Model	Marathon Magnaplus 432RSL4009	Marathon Magnaplus 432PSL6228	Marathon Magnamax 432RSS4256
Type	4-Pole, Rotating Field	4-Pole Rotating Field	4-Pole Rotating Field
Exciter Type	Brushless, PMG	Brushless, Shunt Excitation	Brushless, Shunt Excitation
Number of Leads	12 Lead, Reconnectable	4 leads	4 leads
Voltage Regulator	PM300	SE350	SE350
Insulation	NEMA MG1-1.66	NEMA MG1-1.66	NEMA MG1-1.66
Material	Class H	Class H	Class H
Temperature	125°C, Standby Rating	125°C, Standby Rating	125°C, Standby Rating
Bearing, Type	Single, Sealed	Single, Sealed	Single, Sealed
Coupling	Flexible Disk Type	Flexible Disk type	Flexible Disk type
Cooling Air Volume	1200 cfm	1100 cfm	1130 cfm
Amortisseur Windings	Full	Full	Full
Voltage Regulation (no load to full load)	0.25%	1%	0.25%
Single Step Load Acceptance per NFPA 110	100% of Rating	100% of Rating	100% of Rating

Engine Specifications	
Manufacturer/Model	Iveco Motors / Cursor87 TE1X *
Type	4-cycle, direct injection, turbocharged, charge air cooled, ECM
Cylinder Arrangement	6 In-line
Displacement	531 in ³ (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
SAE Gross Horsepower	389 hp
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 F2CE9685

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.

MQP200IV Rev 3

Amperage			
Voltage	Phase	Wire	Amperage
120/208 Volt	3	4	694
120/240 Volt	3	4	601
277/480 Volt	3	4	301
600 VAC	3	4	240
120/240 Volt	1	3	481

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)

Exhaust System	
Exhaust Flow at Rated kW	2182 cfm (61.7 m ³ /min)
Exhaust Temperature at Rated kW	932°F (500°C)
Maximum Allowable Backpressure	20 in/H ₂ O (4.9 kPa)
Heat Rejection To Exhaust	12812 Btu/min (225 kW)



200kW Diesel On-Site Power Industrial Generator

Lubrication System

Type	Full Pressure System
System Capacity - Less Filter	6.0 gallons (23 liters)
System Capacity - With Filter	7.4 gallons (28 liters)
Oil Filter	Full flow disposable spin-on
Oil Pressure At Rated Speed	43-72psi (300-500kPa)
Maximum Oil Temperature	248°F (120°C)

Cooling System

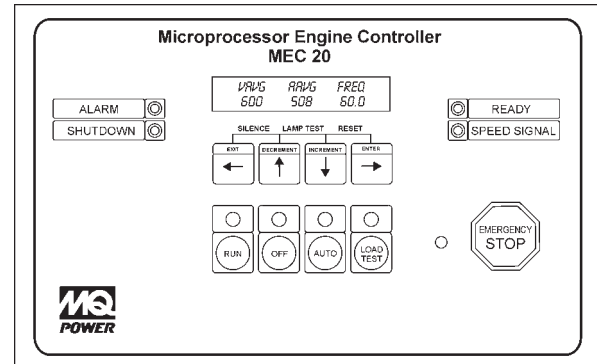
Exhaust Manifold Type	Dry
Radiator Design	Horizontal Discharge
Ambient Temperature Rating	104°F (40°C)
Coolant Capacity - Engine Only	3.9 gallons (15 liters)
Coolant Capacity - with Radiator	12.6 gallons (48 liters)
Water Pump Design/Type	Belt Driven, Centrifugal
Coolant Flow	75.8 gal/min (287 L/min)
Radiator Cooling Air	15362 cfm (435 m³/min)
Heat Rejection From Engine	1055 Btu/min (18.5 kW)
Heat Rejection To Coolant	6809 Btu/min (119 kW)
Fan Diameter	27.5 in. (700 mm)
Fan Horsepower	13.4 hp (10 kW)
High Water Temperature Indication	217°F (103°C)
Pressure Cap Setting	10.1 psi (70 kPa)

Engine Electrical System

Battery Charging Alternator Make	Denso
Ground Type	Negative
Volts (DC)	24VDC
Ampere Rating	90A
Starter Motor Make	Denso
Starter Motor Rated Voltage	24VDC
Starter Motor Battery Capacity	2 x185 Ah

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:	>3% / 1640 ft.	>1.5% / 5°C



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

Major Fault Shutdown Display:

- Undervoltage
- Over / Underfrequency
- Overcurrent
- 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)
- Engine Block Heater

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 Tender® Charger, Float Type, 5 Amperes @ 12VDC / (2.5A@24 VAC)
- 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 / 250 gal), Double Wall, UL142
- Sub-base Fuel Tank (24-hr / 500 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

Housing Options	A	B	C		
			Skid-mount	12hr fuel tank*	24hr fuel tank*
Open Genset	131 in. (3,327 mm)	57 in. (1,448 mm)	70.5 in. (1,791 mm)	80.5 in. (2,045 mm)	86.5 in. (2,197 mm)
	**161 in. (4,089 mm)				
	Weight ¹		5,190 lbs (2,354 kg)	6,166 lbs (2,797 kg)	6,615 lbs (3,000 kg)
Standard Housing	131 in. (3,327 mm)	57 in. (1,448 mm)	104 in. (2,642 mm)	114 in. (2,895 mm)	120 in. (3,048 mm)
	**161 in. (4,089 mm)				
	Weight ¹		5,790 lbs (2,626 kg)	6,766 lbs (3,069 kg)	7,215 lbs (2,489 kg)
Sound Attenuated Housing	166 in. (4,216 mm)	57 in. (1,448 mm)	104 in. (2,642 mm)	114 in. (2,895 mm)	120 in. (3,048 mm)
	Weight ¹		6,040 lbs (2,740 kg)	7,016 lbs (3,182 kg)	7,465 lbs (3,386 kg)

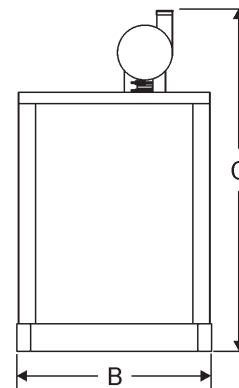
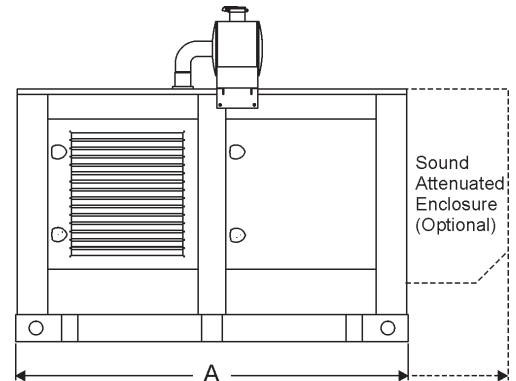
* Optional

** Dimension A with 24 hour sub base fuel tank.

1. Weights are approximate and are based on 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 subject to change without notice.

Your MQ Power dealer is:



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