

MG Series
Paralleling Unit

GENERAC®

**INDUSTRIAL
POWER**

250 kVA

14.2L

Industrial Spark-Ignited Generator Set

Generac International Products

50 HZ



*Built in the USA using domestic
and foreign parts

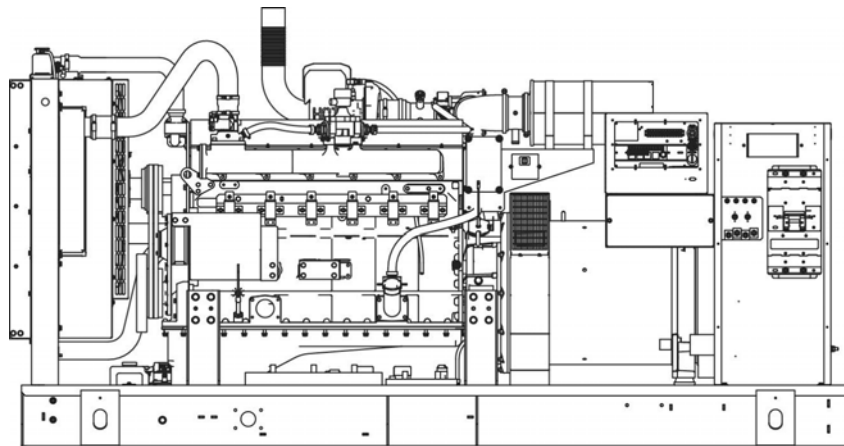


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Power Ratings		
Standby	MG200	250 kVA / 200 kW
Prime	MG180	225 kVA / 180 kW

Prime and standby ratings based on 3-Phase voltages. Model number based on kW rating.

Powering Ahead

For over 50 years, Generac has provided innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial applications under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

250 kVA/225 kVA

Standard Features

ENGINE SYSTEM

General

- Oil Drain Extension
- Heavy Duty Air Cleaner
- Fan Guard
- Stainless Steel flexible exhaust connection
- Critical Exhaust Silencer (Enclosed Only)
- Factory Filled Oil and Coolant

Fuel System

- Primary and Secondary Fuel Shutoff
- Fuel Line - NPT Connection

Cooling System

- Closed Coolant Recovery System
- UV/Ozone Resistant hoses
- Factory-installed Radiator
- 50/50 Ethylene glycol antifreeze

Electrical System

- Battery charging alternator
- Battery Cables
- Battery Tray
- Solenoid activated starter motor
- Rubber-booted engine electrical connections

ALTERNATOR SYSTEM

- Class H insulation material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearing
- Amortisseur winding
- Full load capacity alternator

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of circuits - high/low voltage
- Separation of circuits - multiple breakers

- Wrapped Exhaust Piping (Enclosed Only)
- Standard Factory Testing
- 2 Year Limited Warranty (Standby rated units)
- 1 Year Warranty (Prime rated units)
- Silencer mounted in the discharge hood (Enclosed Only)

ENCLOSURE

- Rust-proof fasteners with nylon washers to protect finish
- High performance sound-absorbing material
- Gasketed doors
- Stamped air-intake louvers
- Air discharge hoods for radiator-upward pointing
- Stainless steel lift off door hinges
- Stainless steel lockable handles
- Rhino Coat™ - Textured polyester powder coat paint

CONTROL SYSTEM

Digital G 200 Paralleling Control Panel-Touchscreen

Program Functions

- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable Logic Controller
- RS-232/485 Communications
- All-Phase Sensing Digital Voltage Regulator
- 2-Wire Start Capability
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/Sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus® protocol

- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 15 Channel Data Logging
- 0.2 msec High Speed Data Logging
- Alarm Information Automatically Comes Up On the Display

Full System Status Display

- Power Output (kW)
- Power Factor
- kW Hours, Total & Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage

- Frequency

Alarms and Warnings

- Oil Pressure
- Coolant Temperature
- Coolant Level
- Low Fuel Pressure Alarm
- Engine Overspeed
- Battery Voltage
- Alarms & Warnings Time and Date Stamped
- Snap Shots of Key Operation Parameters During
- Alarms & Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

PARALLELING CONTROLS

- Auto-synchronization process
- Isochronous load sharing
- Reverse power protection
- Maximum power protection
- Electrically operated, mechanically held paralleling switch
- Sync check system
- Independent on-board paralleling

250 kVA/225 kVA

Configurable Options

ENGINE SYSTEM

- General
- Engine Coolant Heater
- Air filter Restriction Indicator
- Stone Guard (Open Set Only)
- Critical Exhaust Silencer (Open Set Only)

Electrical System

- 10A battery charger

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical coating

GENERATOR SET

- GenLink® Communications Software (English Only)
- Extended Factory Testing
- Pad Vibration Isolators
- Up to 200 MPH Wind Load Rating*

CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

ENCLOSURE

- Weather Protected
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Steel Enclosure
- Aluminum Enclosure
- AC/DC Enclosure Lighting Kits
- Door Open Alarm Switch

CONTROL SYSTEM

- 21-Light Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Oil Temperature Indicator with Alarm
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- Remote Communication - Modem
- 10A Run Relay
- Ground fault indication and protection functions
- Programmable logic full auto back-up control (PLS) for PM-SC

Engineered Options

ENGINE SYSTEM

- Coolant heater ball valves
- Fluid containment pan

ALTERNATOR SYSTEM

- 3rd Breaker Systems

GENERATOR SET

- Special Testing
- Battery Box

ENCLOSURE

- Motorized Dampers

CONTROL SYSTEM

- Battery Disconnect Switch

Rating Definitions

Standby – See Bulletin 0187500SSB

Prime – See Bulletin 0187510SSB

*Consult factory for availability

250 kVA/225 kVA

application and engineering data

ENGINE SPECIFICATIONS

General

Make	Generac
Cylinder #	6
Type	Inline
Displacement - L (Cu In)	14.17 (864.71)
Bore - mm (in)	135 (5.31)
Stroke - mm (in)	165 (6.50)
Compression Ratio	9.5:1
Intake Air Method	Turbocharged/Aftercooled
Number of Main Bearings	7
Connecting Rods	Carbon Steel
Cylinder Head	Cast Iron GT250, OHV
Cylinder Liners	Ductile Iron
Ignition	Altronic CD1
Pistons	Aluminum
Crankshaft	Ductile Iron
Lifter Type	Solid
Intake Valve Material	Special Heat-Resistant Steel
Exhaust Valve Material	Alloy Steel, High Temp
Hardened Valve Seats	Alloy Steel, High Temp

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	+/- 0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full-flow spin-on cartridge
Crankcase Capacity - L (qts)	34.3 (36.2)

Cooling System

Cooling System Type	Pressurized Closed Recovery
Water Pump Flow - gpm (lpm)	92 (348)
Fan Type	Pusher
Fan Speed (rpm)	1581
Fan Diameter - mm (in)	762 (30)

Fuel System

Fuel Type	Natural Gas
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure (Standard)	7" - 11" H ₂ O

Engine Electrical System

System Voltage	24 VDC
Battery Charger Alternator	Standard
Min. Recommended Battery Size	1155 CCA
Battery Voltage	(2) 12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	520mm
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50
Standard Excitation	Permanent Magnet
Bearings	Sealed Ball
Coupling	Direct, Flexible Disc
Prototype Short Circuit Test	Yes

Voltage Regulator Type	Full Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	+/- 0.25%

250 kVA/225 kVA

operating data

50 HZ

POWER RATINGS – NATURAL GAS

Three-Phase 231/400 VAC @0.8pf	Standby		Prime	
	250 kVA / 200 kW	361 Amps	225kVA / 180kW	325 Amps

STARTING CAPABILITIES (sKVA)

		sKVA vs. Voltage Dip					
		231/400 VAC					
Alternator	kVA	10%	15%	20%	25%	30%	35%
Standard	250	218	328	437	546	656	765
Upsize 1	300	251	377	502	628	754	879

FUEL CONSUMPTION RATES*

Natural Gas – ft ³ /hr (m ³ /hr)		
Percent Load	Standby	Prime
25%	940 (26.6)	846 (23.9)
50%	1611 (45.6)	1450 (41.0)
75%	2175 (61.6)	1958 (55.4)
100%	2685 (76.0)	2417 (68.4)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby	Prime
Air Flow (inlet air combustion and radiator)	ft ³ /min (m ³ /min)	8062 (228.3)	8062 (228.3)
System Coolant Capacity	Gal (Liters)	14.5 (54.9)	14.5 (54.9)
Heat Rejection to Coolant	BTU/hr	709,383	638,445
Maximum Additional Radiator Backpressure	in H ₂ O	0.5	0.5

COMBUSTION AIR REQUIREMENTS

		Standby	Prime
Flow at Rated Power	cfm (m ³ /min)	354 (10.0)	318.6 (9.0)

ENGINE

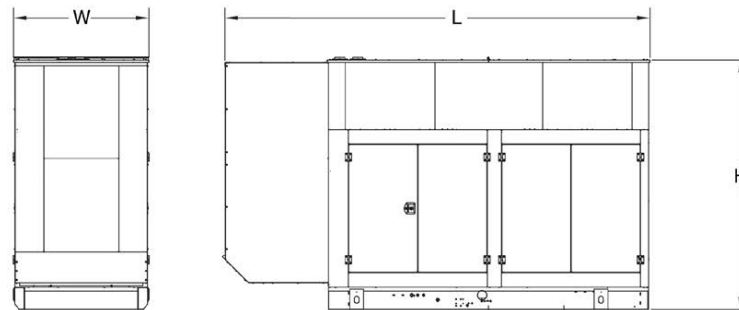
		Standby	Prime
Rated Engine Speed	rpm	1500	1500
Horsepower at Rated kW	hp	362	326
Piston Speed	ft/min (m/min)	1477 (450)	1477 (450)
BMEP	psi	221	199

EXHAUST

		Standby	Prime
Exhaust Flow (Rated Output)	cfm (m ³ /min)	1250 (35.4)	1125 (31.86)
Maximum Recommended Back Pressure (Post Silencer)	inHg	0.75	0.75
Exhaust Temp (Rated Output)	°F (°C)	1334 (723)	1201 (651)
Exhaust Outlet Size (Open Set)	in	3.5" I.D. Flex (No Muffler)	

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards. All power ratings are +/- 5%.

dimensions and weights



L x W x H (in (mm))	180.65 (4588) x 57.5 (1460) x 107.3 (2725)
Weight lbs (kg)	Steel: 8632 (3915) Aluminum: 7247 (3287)

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