Standby Power Rating
800 kW, 1,000 kVA, 60 Hz

Prime Power Rating*
720 kW, 900 kVA, 60 Hz

Codes and Standards
Not all codes and standards apply to all configurations. Contact factory for details.

UL2200, UL6200, UL1236, UL489, UL142
CSA C22.2, ULC S601
BS5514 and DIN 6271
SAE J1349
NFPA 37, 70, 99, 110
NEC700, 701, 702, 708
ISO 3046, 7637, 8528, 9001
NEMA ICS10, MG1, 250, ICS6, AB1
ANSI C62.41

Powering Ahead
For over 60 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 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.

*EPA Certified Prime ratings are not available in the US or its Territories
**MD800** | **33.9L** | **800 kW**

**INDUSTRIAL DIESEL GENERATOR SET**

**EPA Certified Stationary Emergency**

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**STANDARD FEATURES**

**ENGINE SYSTEM**
- Oil Drain Extension
- Air Cleaner
- Level 1 Fan and Belt Guards (Open Set Only)
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)

**FUEL SYSTEM**
- Flexible Fuel Lines (When Tank is Selected)
- Primary and Secondary Fuel Filter

**COOLING SYSTEM**
- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- Radiator Drain Extension
- 50/50 Ethylene Glycol Antifreeze

**ELECTRICAL SYSTEM**
- Battery Charging Alternator
- Battery Cables
- Battery Tray
- Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor

**ALTERNATOR SYSTEM**
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearing
- Full Load Capacity Alternator
- Main Line Circuit Breaker

**GENERATOR SET**
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- 1 Year Limited Warranty (Prime Rated Units)

**ENCLOSURE (If Selected)**
- Structural Steel Sub-Base
- Sub-Base Lifting Eyes
- Enamel Finish
- Zinc Plated Fasteners
- Zinc Plated Cast Aluminum Keylock Door Handles
- Heavy Duty Stainless Steel Hinges with Removable Brass Pins
- Modular Construction

**FUEL TANKS (If Selected)**
- UL 142/ULC S601
- Double Wall
- Vents
- Factory Pressure Tested (2 psi)
- Rupture Basin Alarm
- Fuel Level
- Check Valve in Supply and Return Lines
- Stainless Steel Hardware
- Fuel Line Hose
- Fuel Line Hose and Separator
- Electronic Fuel Level
- Secondary Fuel Filter

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**CONTROL SYSTEM**

- Auto/Off/Manual Switch
- Customizable Alarms, Warnings, and Events
- Modbus® Protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 16 Channel Remote Trending
- 0.2 msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

**InteliGen® NT Display**

**Program Functions**
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable Logic Controller
- RS-232/485 Communications
- 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)

**Full System Status Display**
- Power Output (kW)
- Power Factor
- kW Hours, Total, and 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
- Engine Overspeed
- Battery Voltage
- Alarms and Warnings Time and Date Stamped
- Snap Shots of Key Operation Parameters During Alarms and Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)
**CONFIGURABLE OPTIONS**

**ENGINE SYSTEM**
- 50° Ambient Cooling System
- Hospital Grade Silencers
- CCV (Closed Crankcase Ventilation)

**ELECTRICAL SYSTEM**
- 10A UL Listed Battery Charger
- 20A UL Listed Battery Charger
- Battery Warmer

**ALTERNATOR SYSTEM**
- Alternator Upsizing
- Anti-Condensation Heater

**CIRCUIT BREAKER OPTIONS**
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

**ENGINEERED OPTIONS**

**ENGINE SYSTEM**
- Coolant Heater Ball Valves
- Oil Heater
- Fuel Cooler
- High Lift Pumps
- Heavy Duty Air Filters (Open Set Only)

**ALTERNATOR SYSTEM**
- 2nd Main Line Circuit Breaker
- Unit Mounted Load Banks
- Medium Voltage Alternators
- Digital Voltage Regulator

**GENERATOR SET**
- Spring Isolators (Standard/Seismic)

**ENCLOSURE**
- Weather Protected Enclosure
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Steel Enclosure
- Aluminum Enclosure
- AC Electrical Lighting Package (ELP)
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- Louvers with Gravity Dampers
- Enclosure Heaters

**WARRANTY (Standby Gensets Only)**
- 2 Year Extended Limited Warranty
- 5 Year Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

**CONTROL SYSTEM**
- NFPA 110 Level I and II (Programmable) 15-LED Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Shipped Loose Remote E-Stop - Surface Mount
- Generator Control Panel Mounted E-Stop
- Remote Communication - InternetBridge NT
- 10A Engine Run Relay
- Low Coolant Level Indication
- 90% High Fuel Alarm

**FUEL TANKS**
- 12 Hour Run Time
- 24 Hour Run Time

**FUEL TANKS**
- Overfill Protection Valve
- UL2085 Tank
- Special Fuel Tanks
- External Vent Extensions
- Transfer Pumps and Controllers
- Fuel Tank Heaters

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**ENGINE SYSTEM**
- Coolant Heater Ball Valves
- Oil Heater
- Fuel Cooler
- High Lift Pumps
- Heavy Duty Air Filters (Open Set Only)

**ALTERNATOR SYSTEM**
- 2nd Main Line Circuit Breaker
- Unit Mounted Load Banks
- Medium Voltage Alternators
- Digital Voltage Regulator

**GENERATOR SET**
- Special Testing

**ENCLOSURE**
- Door Open Alarm Horn
- Level 3 Enclosure
- Custom Enclosure
## ENGINE SPECIFICATIONS

### General

- **Make:** Mitsubishi
- **Model:** S12A2-Y2PTAW-2
- **EPA Emissions Compliance:** Tier 2
- **EPA Emissions Reference:** See Emission Data Sheet
- **Cylinder #:** 12
- **Type:** 4 Cycle
- **Displacement - in³ (L):** 2,071 (33.9)
- **Bore - in (mm):** 5.91 (150)
- **Stroke - in (mm):** 6.30 (160)
- **Compression Ratio:** 15.3:1
- **Intake Air Method:** Turbocharged/Intercooled
- **Cylinder Head:** 4-Valve
- **Piston Type:** Aluminum
- **Crankshaft Type:** Dropped Forged Steel
- **Governor:** Electronic
  - Frequency Regulation (Steady State): ±0.25%

### Cooling System

- **Cooling System Type:** Unit Mounted Radiator
- **Water Pump Type:** Centrifugal
- **Fan Type:** Pusher
- **Fan Speed - RPM:** 1,085
- **Fan Diameter - in (mm):** 64 (1,625)

### Fuel System

- **Fuel Type:** Ultra Low Sulfur Diesel Fuel #2
- **Fuel Specifications:** ASTM
- **Fuel Filtering (Microns):** 10 (Final Filters)
- **Fuel Inject Pump:** Mechanical
- **Fuel Pump Type:** Engine Driven Gear
- **Injector Type:** Bosch P-Type
- **Fuel Supply Line - in (mm):** 3/4" NPT (19.0)
- **Fuel Return Line - in (mm):** 3/4" NPT (19.0)

### Lubrication System

- **Oil Pump Type:** Gear
- **Oil Filter Type:** Cartridge
- **Crankcase Capacity - qt (L):** 106 (100)

### Engine Electrical System

- **System Voltage:** 24 VDC
- **Battery Charger Alternator:** Standard
- **Battery Size:** See Battery Index 0161970SBY
- **Battery Voltage:** (2) - 12 VDC
- **Ground Polarity:** Negative

### Alternator Specifications

- **Standard Model:** K0912124Y22
- **Poles:** 4
- **Field Type:** Rotating
- **Insulation Class - Rotor:** H
- **Insulation Class - Stator:** H
- **Total Harmonic Distortion:** <4%
- **Telephone Interference Factor (TIF):** <50
- **Standard Excitation:** Permanent Magnet
- **Bearings:** Single Sealed Cartridge
- **Coupling:** Direct via Flexible Disc
- **Load Capacity - Standby:** 100%
- **Prototype Short Circuit Test:** Yes
- **Voltage Regulator Type:** Analog
- **Regulation Accuracy (Steady State):** ±0.5%
## OPERATING DATA

### POWER RATINGS

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Standby</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-Phase 277/480 VAC @0.8pf</td>
<td>800 kW</td>
<td>Amps: 1,203</td>
<td></td>
</tr>
<tr>
<td>Three-Phase 346/600 VAC @0.8pf</td>
<td>800 kW</td>
<td>Amps: 962</td>
<td></td>
</tr>
</tbody>
</table>

### MOTOR STARTING CAPABILITIES (skVA)

<table>
<thead>
<tr>
<th>skVA vs. Voltage Dip</th>
<th>Percent Load</th>
<th>Standby</th>
</tr>
</thead>
<tbody>
<tr>
<td>277/480 VAC 30%</td>
<td>25%</td>
<td>19.5 (73)</td>
</tr>
<tr>
<td></td>
<td>50%</td>
<td>34.6 (131)</td>
</tr>
<tr>
<td></td>
<td>75%</td>
<td>50.9 (193)</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>74.4 (282)</td>
</tr>
</tbody>
</table>

### FUEL CONSUMPTION RATES*

#### Diesel - gph (Lph)

<table>
<thead>
<tr>
<th>Percent Load</th>
<th>Standby</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>19.5 (73)</td>
</tr>
<tr>
<td>50%</td>
<td>34.6 (131)</td>
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<td>75%</td>
<td>50.9 (193)</td>
</tr>
<tr>
<td>100%</td>
<td>74.4 (282)</td>
</tr>
</tbody>
</table>

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

### COOLING

<table>
<thead>
<tr>
<th>Component</th>
<th>Standby</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coolant Flow</td>
<td>gpm (Lpm) 291 (1,100)</td>
</tr>
<tr>
<td>Coolant System Capacity</td>
<td>gal (L) 65 (246)</td>
</tr>
<tr>
<td>Heat Rejection to Coolant</td>
<td>BTU/hr (kW) 1,225,080 (359)</td>
</tr>
<tr>
<td>Inlet Air - 40°C Cooling Package</td>
<td>cfm (m³/min) 35,900 (1,017)</td>
</tr>
<tr>
<td>Inlet Air - 50°C Cooling Package</td>
<td>cfm (m³/min) 40,100 (1,136)</td>
</tr>
<tr>
<td>Maximum Additional Radiator Backpressure</td>
<td>in H₂O (kPa) 0.5 (0.12)</td>
</tr>
</tbody>
</table>

### COMBUSTION AIR REQUIREMENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Standby</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow at Rated Power - cfm (m³/min)</td>
<td>3,107 (88)</td>
</tr>
</tbody>
</table>

### ENGINE

<table>
<thead>
<tr>
<th>Component</th>
<th>Standby</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Engine Speed</td>
<td>RPM 1,800</td>
</tr>
<tr>
<td>Horsepower at Rated kW**</td>
<td>hp 1,207</td>
</tr>
<tr>
<td>Piston Speed</td>
<td>ft/min (m/min) 1,890 (576.1)</td>
</tr>
</tbody>
</table>

### EXHAUST

<table>
<thead>
<tr>
<th>Component</th>
<th>Standby</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaust Flow (Rated Output)</td>
<td>cfm (m³/min) 8,192 (232)</td>
</tr>
<tr>
<td>Maximum Allowable Backpressure</td>
<td>inHg (kPa) 1.7 (5.9)</td>
</tr>
<tr>
<td>Exhaust Temperature (Rated Output - Post Silencer)</td>
<td>°F (°C) 932 (500)</td>
</tr>
</tbody>
</table>

** Refer to “Emissions Data Sheet” for maximum bHP for EPA and SCAQMD permitting purposes.

** Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards.

Standby - See Bulletin 0187500SSB
Prime - See Bulletin 0187510SSB
### OPEN SET

<table>
<thead>
<tr>
<th>Run Time - Hours</th>
<th>Usable Capacity - Gal (L)</th>
<th>L x W x H - in (mm)</th>
<th>Weight - lbs (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Tank</td>
<td>-</td>
<td>177.7 (4,515) x 82.6 (2,099) x 94.0 (2,389)</td>
<td>22,496 (10,204)</td>
</tr>
<tr>
<td>12</td>
<td>800 (3,029)</td>
<td>201.0 (5,105) x 96.0 (2,438) x 118.2 (3,002)</td>
<td>26,446 (11,996)</td>
</tr>
<tr>
<td>24</td>
<td>1,600 (6,058)</td>
<td>201.0 (5,105) x 96.0 (2,438) x 131.2 (3,332)</td>
<td>27,822 (12,620)</td>
</tr>
</tbody>
</table>

### WEATHER PROTECTED ENCLOSURE

<table>
<thead>
<tr>
<th>Run Time - Hours</th>
<th>Usable Capacity - Gal (L)</th>
<th>L x W x H - in (mm)</th>
<th>Weight - lbs (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Tank</td>
<td>-</td>
<td>235.0 (5,969) x 98.0 (2,489) x 170.3 (4,326)</td>
<td>5,553 (2,519)</td>
</tr>
<tr>
<td>12</td>
<td>800 (3,029)</td>
<td>235.0 (5,969) x 98.0 (2,489) x 187.3 (4,758)</td>
<td>4,394 (1,994)</td>
</tr>
<tr>
<td>24</td>
<td>1,600 (6,058)</td>
<td>235.0 (5,969) x 98.0 (2,489) x 200.3 (5,088)</td>
<td></td>
</tr>
</tbody>
</table>

### LEVEL 1 SOUND ATTENUATED ENCLOSURE

<table>
<thead>
<tr>
<th>Run Time - Hours</th>
<th>Usable Capacity - Gal (L)</th>
<th>L x W x H - in (mm)</th>
<th>Weight - lbs (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Tank</td>
<td>-</td>
<td>Contact Factory</td>
<td>8,958 (4,064)</td>
</tr>
<tr>
<td>12</td>
<td>800 (3,029)</td>
<td>Contact Factory</td>
<td>7,799 (3,538)</td>
</tr>
<tr>
<td>24</td>
<td>1,600 (6,058)</td>
<td>Contact Factory</td>
<td></td>
</tr>
</tbody>
</table>

### LEVEL 2 SOUND ATTENUATED ENCLOSURE

<table>
<thead>
<tr>
<th>Run Time - Hours</th>
<th>Usable Capacity - Gal (L)</th>
<th>L x W x H - in (mm)</th>
<th>Weight - lbs (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Tank</td>
<td>-</td>
<td>339.9 (8,633) x 150.0 (3,810) x 169.3 (4,299)</td>
<td>10,137 (4,599)</td>
</tr>
<tr>
<td>12</td>
<td>800 (3,029)</td>
<td>340.0 (8,636) x 150.0 (3,810) x 169.2 (4,298)</td>
<td>6,853 (3,109)</td>
</tr>
<tr>
<td>24</td>
<td>1,600 (6,058)</td>
<td>340.0 (8,636) x 150.0 (3,810) x 178.2 (4,526)</td>
<td></td>
</tr>
</tbody>
</table>

* All measurements and weights are approximate and for estimation purposes only.

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**YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER**

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Specification characteristics may change without notice. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.