Standby Power Rating
900 kW, 1,125 kVA, 60 Hz

Prime Power Rating*
810 kW, 1,013 kVA, 60 Hz

*EPA Certified Prime ratings are not available in the US or its Territories

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.
STANDARD FEATURES

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

Fuel System
- Flexible Fuel Lines
- 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
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus Protocol
- Predictive Maintenance Algorithm
- Password Parameter Adjustment Protection
- Single Point Ground
- Event based history with 500 events
- 0.2 msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

ALTERNATOR SYSTEM
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearing
- Full Load Capacity Alternator
- Main Line Circuit Breaker
- 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)
- IntelliMonitor Communications Software (English Only)
- Spring Isolator

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

CONTROL SYSTEM

IntelliGen NT® Display

Program Functions
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- RS-232/485 Communications
- All Phase Sensing Digital Voltage Regulator
- 2-Wire Start Capability
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Audible Alarms and Shutdowns
- Not in Auto (Flashig 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
- Password Parameter Adjustment Protection
- Single Point Ground
- Event based history with 500 events
- 0.2 msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

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
- Heavy Duty Air Cleaner
- Critical Grade Silencers (Open Set Only)
- Hospital Grade Silencer (Enclosed Units Only)
- Air Cleaner with CCV (Closed Crankcase Ventilation)
- Radiator Duct Flange
- Radiator Core Guard
- Air Filter Restriction Indicator

**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 Breaker

**ENGINEERED OPTIONS**

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

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

**CONTROL SYSTEM**
- 15-LED Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Remote E-Stop - Surface Mount
- Local E-Stop Panel
- Remote Communication - InternetBridge NT
- 10A Engine Run Relay
- Low Coolant Level
- 90% Alarm High Fuel Program
- Remote Display
- Speed Adjust Switch
- Shunt Trip Switch
- Louver Relay

**FUEL TANKS (Size on Last Page)**
- Mechanical Fuel Level
- 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

**GENERATOR SET**
- Spring Isolators (Standard/Seismic)
- Weather Protected Enclosure
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Steel Enclosure
- Aluminum Enclosure
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- Louvers with Gravity Dampers
- Enclosure Heaters
- AC Electrical Lighting Package
- Motorized Dampers

**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**
- Spare Inputs (x4) / Outputs (x4)
- Battery Disconnect Switch
- PM-SCI

**GENERATOR SET**
- Special Testing
- 12 VDC Enclosure Lighting Kit
- 24 VDC/120 VAC Enclosure Lighting Kit

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

### General

<table>
<thead>
<tr>
<th>Make</th>
<th>Mitsubishi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Model</td>
<td>S12H-Y2PTAW-1</td>
</tr>
<tr>
<td>EPA Emissions Compliance</td>
<td>Tier 2</td>
</tr>
<tr>
<td>EPA Emissions Reference</td>
<td>See Emission Data Sheet</td>
</tr>
<tr>
<td>Cylinder #</td>
<td>12</td>
</tr>
<tr>
<td>Type</td>
<td>4 Cycle - V12</td>
</tr>
<tr>
<td>Displacement - in³ (L)</td>
<td>2,265 (37.1)</td>
</tr>
<tr>
<td>Bore - in (mm)</td>
<td>5.91 (150)</td>
</tr>
<tr>
<td>Stroke - in (mm)</td>
<td>6.89 (175)</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>14.5:1</td>
</tr>
<tr>
<td>Intake Air Method</td>
<td>Turbocharged/Intercooled</td>
</tr>
<tr>
<td>Cylinder Head</td>
<td>4-Valve</td>
</tr>
<tr>
<td>Piston Type</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Crankshaft Type</td>
<td>Dropped Forged Steel</td>
</tr>
</tbody>
</table>

### Engine Governing

<table>
<thead>
<tr>
<th>Governor</th>
<th>Electronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Regulation (Steady State)</td>
<td>±0.25%</td>
</tr>
</tbody>
</table>

### Lubrication System

<table>
<thead>
<tr>
<th>Oil Pump Type</th>
<th>Gear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Filter Type</td>
<td>Cartridge</td>
</tr>
<tr>
<td>Crankcase Capacity - qt (L)</td>
<td>192 (180)</td>
</tr>
</tbody>
</table>

### Cooling System

<table>
<thead>
<tr>
<th>Cooling System Type</th>
<th>Unit Mounted Radiator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Pump Type</td>
<td>Centrifugal</td>
</tr>
<tr>
<td>Fan Type</td>
<td>Pusher</td>
</tr>
<tr>
<td>Fan Speed - RPM</td>
<td>1,001</td>
</tr>
<tr>
<td>Fan Diameter - in (mm)</td>
<td>64 (1,625)</td>
</tr>
</tbody>
</table>

### Fuel System

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Ultra Low Sulfur Diesel #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Specifications</td>
<td>ASTM</td>
</tr>
<tr>
<td>Fuel Filtering (Microns)</td>
<td>10 (Final Filters)</td>
</tr>
<tr>
<td>Fuel Inject Pump</td>
<td>Electronic</td>
</tr>
<tr>
<td>Fuel Pump Type</td>
<td>Engine Driven Gear</td>
</tr>
<tr>
<td>Injector Type</td>
<td>Electronic Injection x 12</td>
</tr>
<tr>
<td>Fuel Supply Line - in (mm)</td>
<td>1” NPT (25.0)</td>
</tr>
<tr>
<td>Fuel Return Line - in (mm)</td>
<td>1” NPT (25.0)</td>
</tr>
</tbody>
</table>

### Engine Electrical System

<table>
<thead>
<tr>
<th>System Voltage</th>
<th>24 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery Charger Alternator</td>
<td>Standard</td>
</tr>
<tr>
<td>Battery Size</td>
<td>See Battery Index 0161970SBY</td>
</tr>
<tr>
<td>Battery Voltage</td>
<td>(4) - 12 VDC</td>
</tr>
<tr>
<td>Ground Polarity</td>
<td>Negative</td>
</tr>
</tbody>
</table>

## ALTERNATOR SPECIFICATIONS

<table>
<thead>
<tr>
<th>Standard Model</th>
<th>K0900064N22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poles</td>
<td>4</td>
</tr>
<tr>
<td>Field Type</td>
<td>Rotating</td>
</tr>
<tr>
<td>Insulation Class - Rotor</td>
<td>H</td>
</tr>
<tr>
<td>Insulation Class - Stator</td>
<td>H</td>
</tr>
<tr>
<td>Total Harmonic Distortion</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Telephone Interference Factor (TIF)</td>
<td>&lt; 50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Excitation</th>
<th>Permanent Magnet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bearings</td>
<td>Single Sealed Cartridge</td>
</tr>
<tr>
<td>Coupling</td>
<td>Direct via Flexible Disc</td>
</tr>
<tr>
<td>Load Capacity- Standby</td>
<td>100%</td>
</tr>
<tr>
<td>Prototype Short Circuit Test</td>
<td>Yes</td>
</tr>
<tr>
<td>Voltage Regulator Type</td>
<td>Analog</td>
</tr>
<tr>
<td>Regulation Accuracy (Steady State)</td>
<td>±0.5%</td>
</tr>
</tbody>
</table>
MD900 | 37.1L | 900 kW
INDUSTRIAL DIESEL GENERATOR SET
EPA Certified Stationary Emergency

OPERATING DATA

POWER RATINGS

<table>
<thead>
<tr>
<th>Three-Phase 277/480 VAC @0.8pf</th>
<th>900 kW</th>
<th>Amps: 1,353</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-Phase 346/600 VAC @0.8pf</td>
<td>900 kW</td>
<td>Amps: 1,083</td>
</tr>
</tbody>
</table>

MOTOR STARTING CAPABILITIES (skVA)

skVA vs. Voltage Dip

<table>
<thead>
<tr>
<th>277/480 VAC</th>
<th>30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>K0912124Y22</td>
<td>3,250</td>
</tr>
</tbody>
</table>

FUEL CONSUMPTION RATES*

<table>
<thead>
<tr>
<th>Diesel - gph (Lph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Load</td>
</tr>
<tr>
<td>25%</td>
</tr>
<tr>
<td>50%</td>
</tr>
<tr>
<td>75%</td>
</tr>
<tr>
<td>100%</td>
</tr>
</tbody>
</table>

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

COOLING

<table>
<thead>
<tr>
<th>Cooling Rating - Jacket Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coolant Flow</td>
</tr>
<tr>
<td>Coolant System Capacity</td>
</tr>
<tr>
<td>Heat Rejection to Coolant</td>
</tr>
<tr>
<td>Inlet Air - 40 °C Cooling Package</td>
</tr>
<tr>
<td>Inlet Air - 50 °C Cooling Package</td>
</tr>
<tr>
<td>Maximum Operating Ambient Temperature</td>
</tr>
<tr>
<td>Maximum Operating Ambient Temperature (Before Derate)</td>
</tr>
<tr>
<td>Maximum Additional Radiator Backpressure</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cooling Rating - Aftercooler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coolant Flow</td>
</tr>
<tr>
<td>Coolant System Capacity</td>
</tr>
<tr>
<td>Heat Rejection to Coolant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cooling Rating - Fuel Pump</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Rejected to Fuel</td>
</tr>
</tbody>
</table>

COMBUSTION AIR REQUIREMENTS

| Flow at Rated Power - cfm (m³/min) | 3,284 (93) |

ENGINE

<table>
<thead>
<tr>
<th>Rated Engine Speed</th>
<th>RPM</th>
<th>1,800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horsepower at Rated kW***</td>
<td>hp</td>
<td>1,389</td>
</tr>
<tr>
<td>Piston Speed</td>
<td>ft/min (m/min)</td>
<td>2,067 (630)</td>
</tr>
<tr>
<td>BMEP</td>
<td>psi (kPa)</td>
<td>270 (1,862)</td>
</tr>
</tbody>
</table>

EXHAUST

<table>
<thead>
<tr>
<th>Exhaust Flow (Rated Output)</th>
<th>cfm (m³/min)</th>
<th>8,722 (247)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Allowable Backpressure (Post Turbo)</td>
<td>inHg (kPa)</td>
<td>1.7 (5.9)</td>
</tr>
<tr>
<td>Exhaust Temperature (Rated Output - Post Turbo)</td>
<td>°F (°C)</td>
<td>932 (500)</td>
</tr>
</tbody>
</table>

** Refer to “Emissions Data Sheet” for maximum bHP for EPA and SC AQMD 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
## MD900 | 37.1L | 900 kW
**INDUSTRIAL DIESEL GENERATOR SET**
EPA Certified Stationary Emergency

### DIMENSIONS AND WEIGHTS*

<table>
<thead>
<tr>
<th>OPEN SET</th>
<th>WEATHER PROTECTED ENCLOSURE</th>
<th>LEVEL 1 SOUND ATTENUATED ENCLOSURE</th>
<th>LEVEL 2 SOUND ATTENUATED ENCLOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run Time - Hours</td>
<td>Usable Capacity - Gal (L)</td>
<td>L x W x H - in (mm)</td>
<td>Weight - lbs (kg)</td>
</tr>
<tr>
<td>No Tank</td>
<td>-</td>
<td>180 (4,572) x 90 (2,286) x 98 (2,489)</td>
<td>23,338 (10,586)</td>
</tr>
<tr>
<td>12</td>
<td>950 (3,596)</td>
<td>201 (5,105) x 104 (2,642) x 122 (3,099)</td>
<td>25,666 (11,642)</td>
</tr>
<tr>
<td>24</td>
<td>1,900 (7,192)</td>
<td>201 (5,105) x 104 (2,642) x 137 (3,480)</td>
<td>27,216 (12,345)</td>
</tr>
</tbody>
</table>

* All measurements are approximate and for estimation purposes only.

---

[Image of OPEN SET]

[Image of WEATHER PROTECTED ENCLOSURE]

[Image of LEVEL 1 SOUND ATTENUATED ENCLOSURE]

[Image of LEVEL 2 SOUND ATTENUATED ENCLOSURE]

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