

Standby Power Rating
 35 kW, 44 kVA, 60 Hz



*Assembled in the USA using domestic and foreign parts



Image used for illustration purposes only

Codes and Standards

Generac products are designed to the following standards:



UL2200, UL1236, UL489



CSA C22.2



BS5514 and DIN 6271



SAE J1349



NFPA 37, 70, 99, 110



NEC700, 701, 702, 708



NEMA ICS10, MG1, 250, ICS6, AB1



ANSI C62.41



IBC 2015, IBC 2018, ASCE 7-10, ASCE 7-16, ICC-ES, AC-156 (2018)

Powering a Smarter World

For over 65 years, Generac has been at the forefront of power generation, pioneering innovative solutions and unparalleled manufacturing excellence. At the heart of our reputation for superior quality lies our commitment to meticulously designing and manufacturing key components of our generators—ranging from alternators and enclosures to base tanks, control systems, and cutting-edge communications software.

Generac's gensets stand out for their unparalleled versatility and reliability. Engineered to offer a wide range of options and configurations, they are tailored to meet the unique demands of virtually any application, seamlessly adapting to its complexity. Our commitment to reliability drives us to globally source only the most dependable engines, selected through stringent criteria for optimal performance under the toughest industrial conditions.

Beyond the sale, Generac's dedication to our customers extends to comprehensive service support, for peace of mind and reliability long after your purchase. Our commitment is to not only provide state-of-the-art power solutions but also enduring success and satisfaction of our customers through ongoing support and service excellence.

STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Heavy Duty Air Cleaner
- Level 1 Fan and Belt Guards
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Critical Silencer
- Oil Temperature Sender with Alarm
- Air Filter Restriction Sensor

FUEL SYSTEM

- NPT Fuel Connection on Frame
- Primary and Secondary Fuel Shutoff
- Fuel Inlet Pressure Sensor

COOLING SYSTEM

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

ELECTRICAL SYSTEM

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

ALTERNATOR SYSTEM

- UL2200 GENprotect™
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Brushless Excitation
- Sealed Bearing
- Full Load Capacity Alternator

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping
- Standard Factory Testing
- E-Stop
- 2 Year Limited Warranty

ENCLOSURE (If Selected)

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuated Enclosures)
- Gasketed Doors
- Upward Facing Discharge Hoods (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat™ - Textured Polyester Powder Coat Paint

CONTROL SYSTEM

DSE G8601 CONTROLLER



KEY FEATURES

- Advanced PLC Functionality
- Multi-Purpose PIDs
- Virtual Inputs
- Temperature Rating -22 °F to +122 °F (-30 °C to +50 °C)
- On-Screen Mimic (SLDs)
- Multiple Application Support
- Multi-Level Pin Protected Front Panel Editor
- Integral LCD Display Heater
- Enhanced High-Resolution 240 x 128 Pixel Display
- Single Generator Control
- Latest ECU/ECM Support
- Touch Screen Panel PC Support
- Zero Sequence Voltage Protection
- Integral Gasket (IP65 protection)

GOVERNOR FUNCTIONALITY

- Speed Control through ECM Integration
- Soft Start Ramping (Multiple Steps)

STANDARD PROTECTIONS

- Low Coolant Level

- High/Low Coolant Temperature
- Oil Temperature
- Over/Under Speed
- Over/Under Voltage
- Over/Under Frequency
- Over/Under Current
- Over Load
- Battery Voltage
- Battery Charger Current
- Phase to Phase and Phase to Neutral Short Circuits (I²T Algorithm)
- Ground Fault

CONTROL PANEL

- Auto/Off/Manual
- Indication Through Display Screen
- Audible Alarm and Silence
- Not in Auto Indication

VOLTAGE REGULATION

- Digital Control
- Three-Phase Sensing
- Negative Power Limit
- Loss of Sensing Protection
- Fault Protection (I²T Function)
- High Voltage Limit
- Low Voltage Limit
- Maximum Power Limit
- ±0.5% Voltage Regulation

CONNECTIONS (ACTUAL I/O MAY VARY DUE TO CONFIGURATION)

- 4 Analog Inputs
- 12 Digital Inputs
- 9 Active Low Digital Outputs

CUSTOMER PORTS

- Ethernet
- 2 RS-485
- 2 USB
- CANBus

CODES AND STANDARDS

- CE
- NFPA 110 Capable

MORE FEATURES

- Built-in Governor
- Digital AVR Support
- Multiple Language Support
- Three-Phase Generator Sensing and Protection
- Three-Phase Bus Sensing
- Generator Current, Protection and Power Monitoring
- Configurable Timers
- Integrated SNMP
- Data Logging
- PC Configuration
- DSENet® (Expansion Support)
- Flexible I/O (Inputs/Outputs)
- Automatic and Front Panel Breaker Control
- Power-Save Mode

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CONFIGURABLE OPTIONS

ENGINE SYSTEM

- Fluid Containment Pan
- Engine Coolant Heater with Shutoff Valves
- Oil Heater
- Radiator Duct Adapter (Open Set Only)
- Crankcase Ventilation Heater (Recommend at Operating Temperatures of 0°F)

FUEL SYSTEM

- NPT Flexible Fuel Line
- 2-Stage Air Cleaner

ELECTRICAL SYSTEM

- 10A UL Battery Charger
- Battery Warmer

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical Coating

CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- 3rd Main Line Circuit Breaker
- Shunt Trip and Single Alarm
- Electronic Trip Breakers

GENERATOR SET

- Extended Factory Testing
- 8 Position Load Center
- Spring Vibration Isolators
- Pad Vibration Isolators

ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuated
- Level 2 Sound Attenuated
- Level 2 Sound Attenuated with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- Up to 186 MPH Wind Load Rating High Velocity Hurricane Zone (HVHZ) option (Contact Factory for Availability)
- Enclosure LED Lighting Kit
- Enclosure Heaters (with Motorized Dampers Only)
- Door Open Alarm Horn

REMOTE MONITORING AND CONTROL

- Generac Link Manager



- Generac Link Gateway
- Historical trending, alarming and alerts
- Cellular communications to software cloud
- 2 Serial Ports: CAN, RS 485
- 2 TCP Ports: Ethernet 1, Ethernet 2
- GPS
- Antenna Connectors: LTE, GPS
- SIM Card: Rugged 2FF
- Flexible subscription options for Generac Link Manager

CONTROL SYSTEM

- NFPA 110 Compliant 21-Light Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- 10A Engine Run Relay
- Ground Fault Annunciator
- 120 V GFCI Outlets
- 100 dB Alarm Horn
- Damper Alarm Contacts (with Motorized Dampers Only)
- Spare Inputs/Outputs

WARRANTY (STANDBY GENSETS ONLY)

- 2 Year Extended Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

ENGINEERED OPTIONS

CONTROL SYSTEM

- Battery Disconnect Switch

GENERATOR SET

- Special Testing
- Battery Box

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APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

| | |
|------------------------------------|--|
| Make | Generac |
| Cylinder # | 4 |
| Type | In-Line |
| Displacement - in ³ (L) | 270.4 (4.43) |
| Bore - in (mm) | 4.5 (114.3) |
| Stroke - in (mm) | 4.25 (107.95) |
| Compression Ratio | 9.94:1 |
| Intake Air Method | Naturally Aspirated |
| Number of Main Bearings | 5 |
| Connecting Rods | Forged Steel, Fractured Split, Bushingless |
| Cylinder Head | Cast Iron |
| Cylinder Liners | Cast Iron |
| Ignition | Coil Near Plug Solid State Inductive |
| Piston Type | Cast Aluminum Flat Top |
| Crankshaft Type | Forged Steel |
| Lifter Type | Hydraulic |
| Intake Valve Material | Stainless Steel |
| Exhaust Valve Material | Stainless Steel |
| Hardened Valve Seats | High Steel Iron Alloy |

Engine Governing

| | |
|-------------------------------------|------------|
| Governor | Electronic |
| Frequency Regulation (Steady State) | ± 0.25 |

Lubrication System

| | |
|-----------------------------|-----------------------------|
| Oil Pump | Gear Driven |
| Oil Filter Type | Full-Flow Spin-On Cartridge |
| Crankcase Capacity - qt (L) | 21 (20) |

Cooling System

| | |
|------------------------|--------------------|
| Cooling System Type | Pressurized Closed |
| Fan Type | Pusher |
| Fan Speed (rpm) | 2,100 |
| Fan Diameter - in (mm) | 20 (508) |

Fuel System

| | |
|--|-----------------------|
| Fuel Type | Natural Gas, LP Vapor |
| Fuel Control | Electronic |
| Fuel Shutoff | Dual |
| Operating Fuel Pressure (NG) - in H ₂ O (kPa) | 5 - 14 (1.2 - 3.5) |
| Operating Fuel Pressure (LP) - in H ₂ O (kPa) | 7 - 14 (1.7 - 3.5) |

*When designing the external fuel system, assume a 20% safety factor to the upper and lower limit of the specified fuel pressure range to account for site variation and measurement at the generator test port. Refer to Generac Document 10000046207, latest rev., for proper gas supply design guidelines, or contact factory for details.

Engine Electrical System

| | |
|----------------------------|------------------------------|
| System Voltage | 12 VDC |
| Battery Charger Alternator | Standard |
| Battery Size | See Battery Index 0161970SBY |
| Battery Voltage | 12 VDC |
| Ground Polarity | Negative (-) |

ALTERNATOR SPECIFICATIONS

| | |
|-------------------------------------|--------------------|
| Standard Model | K0035124Y21 |
| Poles | 4 |
| Field Type | Revolving |
| Insulation Class - Rotor | H |
| Insulation Class - Stator | H |
| Total Harmonic Distortion (THD) | <5% (3-Phase Only) |
| Telephone Interference Factor (TIF) | <50 |

| | |
|------------------------------------|--------------------------|
| Standard Excitation | Synchronous Brushless |
| Bearings | Sealed Ball |
| Coupling | Direct via Flexible Disc |
| Prototype Short Circuit Test | Yes |
| Voltage Regulator Type | Full Digital |
| Number of Sensed Phases | All |
| Regulation Accuracy (Steady State) | ±0.25% |

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OPERATING DATA

POWER RATINGS

| | | Standby |
|---------------------------------|--------------|-----------|
| Single-Phase 120/240 VAC @1.0pf | 35 kW/35 kVA | Amps: 146 |
| Three-Phase 120/208 VAC @0.8pf | 35 kW/44 kVA | Amps: 122 |
| Three-Phase 120/240 VAC @0.8pf | 35 kW/44 kVA | Amps: 105 |
| Three-Phase 277/480 VAC @0.8pf | 35 kW/44 kVA | Amps: 53 |
| Three-Phase 346/600 VAC @0.8pf | 35 kW/44 kVA | Amps: 42 |

STARTING CAPABILITIES (skVA)

| skVA vs. Voltage Dip | | | |
|----------------------|-----|-------------|-----|
| 277/480 VAC | 30% | 208/240 VAC | 30% |
| K0035124Y21 | 61 | K0035124Y21 | 46 |
| K0060124Y21 | 124 | K0060124Y21 | 95 |

FUEL CONSUMPTION RATES*

| Natural Gas – scfh (m ³ /hr) | | LP Vapor– scfh (m ³ /hr) | |
|---|------------|-------------------------------------|-------------|
| Percent Load | Standby | Percent Load | Standby |
| 25% | 167 (4.7) | 25% | 61.2 (1.7) |
| 50% | 257 (7.3) | 50% | 99.6 (2.8) |
| 75% | 349 (9.8) | 75% | 141.2 (4) |
| 100% | 445 (12.6) | 100% | 185.2 (5.2) |

*1.5X maximum site rated fuel consumption should be used for gas supply design practices. Refer to Generac 10000046207, latest rev., for more information or contact factory for details.

COOLING

| | | Standby |
|---|---------------------------|-----------------------------|
| Air Flow (Fan Air Flow Across Radiator) - Open Set | cfm (m ³ /min) | 3,511 (99.4) |
| Coolant Flow | gpm (Lpm) | 37.7 (142.7) |
| Coolant System Capacity | gal (L) | 3 (11.4) |
| Maximum Operating Ambient Temperature | °F (°C) | 122 (50) |
| Maximum Operating Ambient Temperature (Before Derate) | | See Bulletin No. 0199270SSD |
| Maximum Additional Radiator Backpressure | in H ₂ O (kPa) | 0.5 (0.12) |

COMBUSTION AIR REQUIREMENTS

| | Standby |
|---|----------|
| Flow at Rated Power - cfm (m ³ /min) | 72 (2.1) |

ENGINE

| | | Standby |
|--------------------------|----------------|-------------|
| Rated Engine Speed: RPM | rpm | 1,800 |
| Horsepower at Rated kW** | hp | 62.1 |
| Piston Speed | ft/min (m/min) | 1,275 (389) |
| BMEP | psi (kPa) | 88 (606) |

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

EXHAUST

| | | Standby |
|--|---------------------------|-------------|
| Exhaust Flow (Rated Output) | cfm (m ³ /min) | 214.2 (6.1) |
| Maximum Exhaust Backpressure (Post Silencer) | in Hg (Kpa) | 0.75 (2.54) |
| Exhaust Temperature (Rated Output) | °F (°C) | 1,342 (728) |

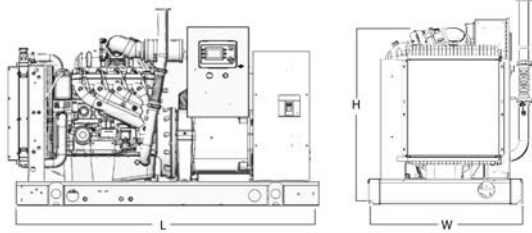
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

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

SG035 | 4.5 L | 35 kW
INDUSTRIAL SPARK-IGNITED GENERATOR SET

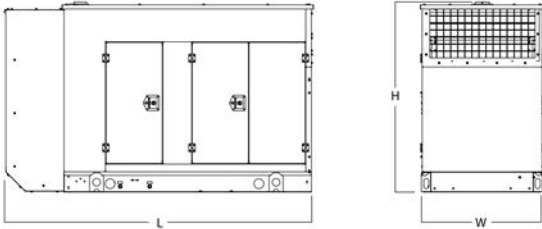
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DIMENSIONS AND WEIGHTS*



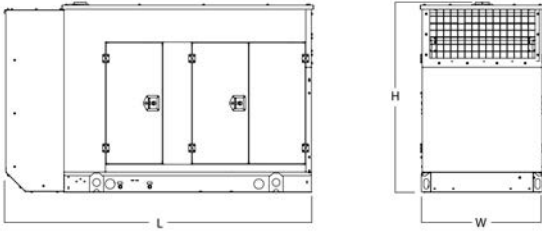
OPEN SET

| | |
|---------------------|--|
| L x W x H - in (mm) | 78.0 (1,982) x 37.3 (946) x 44.4 (1,128) |
| Weight lbs (kg) | 1,675 - 1,748 (760 - 793) |



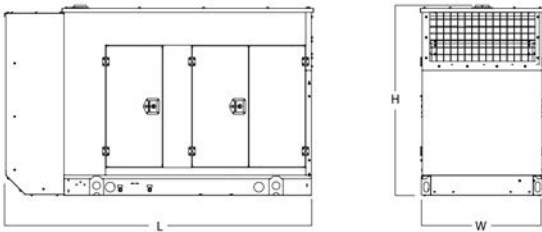
WEATHER PROTECTED ENCLOSURE

| | |
|---------------------|---|
| L x W x H - in (mm) | 94.8 (2,409) x 38.0 (965) x 57.5 (1,461) |
| Weight lbs (kg) | Steel: 2,160 - 2,233 (980 - 1,013) Aluminum: 1,894 - 1,965 (859 - 891) |



LEVEL 1 SOUND ATTENUATED ENCLOSURE

| | |
|---------------------|---|
| L x W x H - in (mm) | 94.8 (2,408) x 38.0 (965) x 57.5 (1,461) |
| Weight lbs (kg) | Steel: 2,258 - 2,329 (1,024 - 1,056) Aluminum: 1,987 - 2,061 (901 - 935) |



LEVEL 2 SOUND ATTENUATED ENCLOSURE

| | |
|---------------------|---|
| L x W x H - in (mm) | 94.8 (2,409) x 38.0 (965) x 57.5 (1,461) |
| Weight lbs (kg) | Steel: 2,341 - 2,414 (1,062 - 1,095) Aluminum: 2,071 - 2,144 (939 - 972) |

* All measurements are approximate and for estimation purposes only.

| |
|--|
| YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER |
| |

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings