

Standby Power Rating

1,000 kW, 1,250 kVA, 60 Hz



*Assembled in the USA using domestic and foreign parts

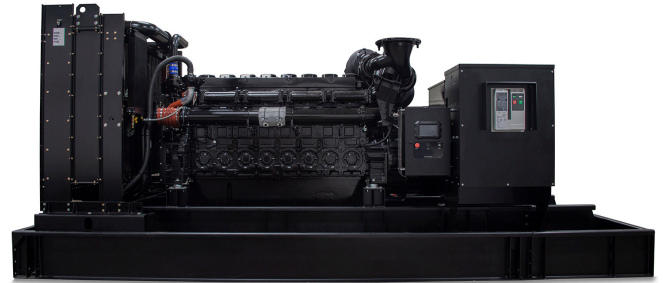


Image used for illustration purposes only

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



NEMA ICS10, MG1, 250, ICS6,
AB1



ANSI C62.41

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 to ensure they perform optimally under the toughest industrial conditions.

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

STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Air Filter Restriction Indicator
- 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)
- 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
- 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

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

GENERATOR SET

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



DSE G8601 Controller

The G8601 is a genset controller with integral heater designed for multiple application environments.

Key Features

- Advanced PLC Functionality
- Multi-Purpose PIDs
- Virtual Inputs
- On-Screen Mimic (SLDs)
- Multi-Level Pin Protected Front Panel Editor
- Integral LCD Display Heater
- Enhanced High-Resolution 240 x 128 Pixel Display
- Integral Gasket (IP65 protection)

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

More Features

- Uses Engine ECU
- Digital AVR Support
- Multiple Language Support
- Three Phase Generator Sensing & Protection
- Three Phase Bus Sensing
- Generator Current, Protection & 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

CONFIGURABLE OPTIONS

ENGINE SYSTEM

- Critical Grade Silencer
- Hospital Grade Silencer
- CCV (Closed Crankcase Ventilation)
- Oil Heater
- Radiator Duct Flange
- Radiator Stone Guard

ELECTRICAL SYSTEM

- 20A UL Listed Battery Charger
- Battery Warmer

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater

CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- 3rd Main Line Circuit Breaker
- 4th Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

GENERATOR SET

- Spring Isolators (Standard/Seismic)
- 24 Position Load Center
- Extended Factory Testing

ENCLOSURE

- Level 0 Sound Attenuated
- Level 1 Sound Attenuated
- Level 2 Sound Attenuated
- Level 1 Sound Attenuated with Motorized Dampers
- Level 2 Sound Attenuated with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- Enclosure Light Kit
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- Louvers with Gravity Dampers
- Enclosure Heaters (with Motorized Dampers Only)
- Door Open Alarm Horn
-

FUEL TANKS (Size On Last Page)

- Overfill Prevention Valve
- Fuel Fill Drop Tube
- 5 Gal Spill Return Hose
- Tank Risers
- 90% High Fuel Level Alarm
- Vent Extensions
- Fire Rated Fuel Hose

CONTROL SYSTEM

- NFPA 110 Level 1 Compliant 21-Light Remote Annunciator
- Remote Output Relays (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)
- 100 dB Alarm Horn
- Ground Fault Annunciator
- 10 Amp Engine Run Relay
- 120V GFCI and 240V Outlet
- Oil Temperature Indication and Alarm
- Flush Mount Annunciator Kit
- Damper Alarm Contacts (with Motorized Dampers Only)

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

ENGINEERED OPTIONS

ENGINE SYSTEM

- Coolant Heater Ball Valves
- Fuel Cooler
- High Lift Pumps

ALTERNATOR SYSTEM

- 2nd Breaker System
- 3rd Breaker System
- 4th Breaker System
- Unit Mounted Load Banks
- Medium Voltage Alternators

CONTROL SYSTEM

- Spare Inputs (x4) / Outputs (x4)
- Battery Disconnect Switch

GENERATOR SET

- Special Testing

ENCLOSURE

- Custom Enclosure

FUEL TANKS

- UL2085 Tank
- Special Fuel Tanks

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

| | |
|------------------------------------|--------------------------|
| Make | Perkins |
| EPA Emissions Compliance | Tier 2 |
| EPA Emissions Reference | See Emissions Data Sheet |
| Cylinder # | 8 |
| Type | In-Line |
| Displacement - in ³ (L) | 1,865 (30.6) |
| Bore - in (mm) | 6.3 (160) |
| Stroke - in (mm) | 7.48 (190) |
| Compression Ratio | 14.1 |
| Intake Air Method | Turbocharged/Intercooled |
| Cylinder Head | 4-Valve |

Engine Governing

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

Lubrication System

| | |
|-----------------------------|-----------------------------|
| Oil Pump Type | Gear Driven |
| Oil Filter Type | Full Flow Spin-On Cartridge |
| Crankcase Capacity - qt (L) | 162 (153) |

Cooling System

| | |
|------------------------|--------------------|
| Cooling System Type | Pressurized Closed |
| Fan Type | Pusher |
| Fan Diameter - in (mm) | 49.2 (1,250) |

Fuel System

| | |
|---|----------------------------|
| Fuel Type | Ultra Low Sulfur Diesel #2 |
| Fuel Specifications | ASTM |
| Fuel Filtering (Microns) | 4 |
| Fuel Inject Pump | MEUI |
| Injector Type | Electronic |
| Fuel Supply Line O.D. Minimum - in (mm) | 0.59 (15.0) |
| Fuel Return Line O.D. Minimum - in (mm) | 0.59 (15.0) |

Engine Electrical System

| | |
|----------------------------|------------------------------|
| System Voltage | 24 VDC |
| Battery Charger Alternator | Standard |
| Battery Size | See Battery Index 0161970SBY |
| Battery Voltage | 12 VDC |
| Ground Polarity | Negative |

ALTERNATOR SPECIFICATIONS

| | |
|-------------------------------------|-------------|
| Standard Model | K1248064N22 |
| 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 Drive |
| Prototype Short Circuit Test | Yes |
| Voltage Regulator Type | Digital |
| Number of Sensed Phases | All |
| Regulation Accuracy (Steady State) | ±0.25% |

OPERATING DATA

POWER RATINGS

| | Standby | |
|--------------------------------|--------------------|-------------|
| Three-Phase 277/480 VAC @0.8pf | 1,000 kW/1,250 kVA | Amps: 1,504 |
| Three-Phase 346/600 VAC @0.8pf | 1,000 kW/1,250 kVA | Amps: 1,203 |

MOTOR STARTING CAPABILITIES (SKVA)

| skVA vs. Voltage Dip | | | |
|----------------------|-------|-------------|-------|
| 277/480 VAC | 30% | | 30% |
| K1248064N22 | 3,300 | L1136064N22 | 3,600 |
| K1344064N22 | 4,000 | L1280064N22 | 4,250 |
| K1500064N22 | 4,500 | L1412064N22 | 5,100 |

FUEL CONSUMPTION RATES*

| Fuel Pump Lift- ft (m) | Diesel - gph (Lph) | |
|--|--------------------|--------------|
| | Percent Load | Standby |
| 8.2 (2.5) | 50% | 38.0 (144.0) |
| Total Fuel Pump Flow (Combustion + Return) - gph (Lph) | 75% | 54.7 (207.2) |
| | 100% | 70.9 (268.4) |
| 238 (900) | | |

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

COOLING

| | | Standby |
|---|-----------------------------|--------------|
| Air Flow (Fan Air Flow Across Radiator) | cfm (m ³ /min) | 34,538 (978) |
| Coolant Flow | gpm (Lpm) | 174 (660) |
| Coolant System Capacity | gal (L) | 37 (140) |
| Maximum Operating Ambient Temperature | °F (°C) | 122 (50) |
| Maximum Operating Ambient Temperature (Before Derate) | See Bulletin No. 0199280SSD | |
| Maximum Additional Radiator Backpressure | in H ₂ O (kPa) | 0.8 (0.2) |

COMBUSTION AIR REQUIREMENTS

| | Standby |
|---|------------|
| Flow at Rated Power cfm — (m ³ /min) | 2,935 (83) |

ENGINE

| | | Standby |
|--------------------------|----------------|-------------|
| Rated Engine Speed | rpm | 1,800 |
| Horsepower at Rated kW** | hp | 1,412 |
| Piston Speed | ft/min (m/min) | 2,244 (684) |
| BMEP | psi (kPa) | 350 (2,415) |

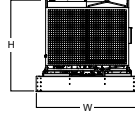
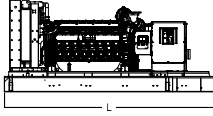
** See "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

EXHAUST

| | | Standby |
|---|---------------------------|-------------|
| Exhaust Flow (Rated Output) | cfm (m ³ /min) | 7,097 (201) |
| Maximum Allowable Back Pressure (Post Turbo) | inHg (kPa) | 4.1 (14.0) |
| Exhaust Temperature (Rated Output - Post Turbo) | °F (°C) | 937 (503) |

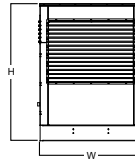
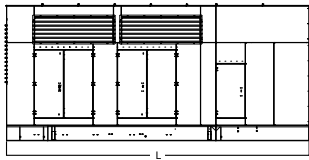
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with BS5514 and DIN6271 standards. Standby - See Bulletin Standby - See Bulletin 10000018933

DIMENSIONS AND WEIGHTS*



OPEN SET

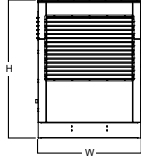
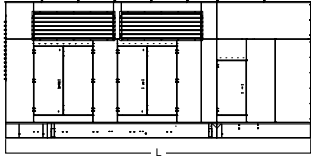
| Run Time - Hours | Usable Capacity - Gal (L) | L x W x H - in (mm) | | Weight - lbs (kg) Unit Only |
|------------------|---------------------------|---|--|------------------------------------|
| No Tank | — | 209.8 (5,328) x 102.0 (2,590) x 91.5 (2,325) | | |
| 12 | 840 (3,180) | 210.0 (5,334) x 102.0 (2,590) x 107.5 (2,731) | | 18,766 - 20,463 (8,512 - 9,282) |
| 24 | 1,680 (6,359) | 329.0 (8,357) x 102.0 (2,590) x 109.5 (2,781) | | |
| 24 | 1,680 (6,359) | 210.0 (5,334) x 102.0 (2,590) x 121.5 (3,086) | | |
| 36 | 2,520 (9,539) | 210.0 (5,334) x 102.0 (2,590) x 134.5 (3,416) | | |



LEVEL 0 SOUND ATTENUATED ENCLOSURE

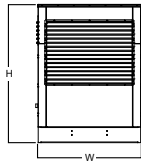
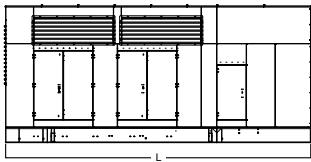
| Run Time - Hours | Usable Capacity - Gal (L) | L x W x H - in (mm) | | Weight - lbs (kg) Enclosure Only | |
|------------------|---------------------------|---|--|----------------------------------|--------------------|
| | | | | Steel | Aluminum |
| No Tank | — | 304.0 (7,721) x 105.7 (2,685) x 137.0 (3,481) | | | |
| 12 | 840 (3,180) | 304.0 (7,721) x 105.7 (2,685) x 148.0 (3,759) | | 3,761 (1,706) | Contact Factory |
| 12 | 840 (3,180) | 329.0 (8,357) x 105.7 (2,685) x 148.0 (3,759) | | | |
| 24 | 1,680 (6,359) | 329.0 (8,357) x 105.7 (2,685) x 155.0 (3,937) | | | |
| 24 | 1,680 (6,359) | 329.0 (8,357) x 105.7 (2,685) x 155.0 (3,937) | | | |
| 36 | 2,520 (9,539) | 304.0 (7,722) x 105.7 (2,685) x 166.0 (4,216) | | | |
| 36 | 2,520 (9,539) | 329.0 (8,357) x 105.7 (2,685) x 163.0 (4,140) | | | |
| 48 | 3,360 (12,719) | 304.0 (7,722) x 105.7 (2,685) x 175.0 (4,445) | | | |
| 48 | 3,360 (12,719) | 329.0 (8,357) x 105.7 (2,685) x 171.0 (4,343) | | | |
| 72 | 5,040 (19,078) | 329.0 (8,357) x 105.7 (2,685) x 187.0 (4,750) | | | |

DIMENSIONS AND WEIGHTS*



LEVEL 1 SOUND ATTENUATED ENCLOSURE

| Run Time - Hours) | Usable Capacity - Gal (L) | L x W x H - in (mm) | Weight - lbs (kg) Enclosure Only | |
|----------------------|------------------------------|---|-------------------------------------|--------------------|
| | | | Steel | Aluminum |
| No Tank | — | 304.0 (7,721) x 105.7 (2,685) x 137.0 (3,481) | | |
| 12 | 840 (3,180) | 304.0 (7,721) x 105.7 (2,685) x 148.0 (3,759) | | |
| 12 | 840 (3,180) | 329.0 (8,357) x 105.7 (2,685) x 148.0 (3,759) | | |
| 24 | 1,680 (6,359) | 329.0 (8,357) x 105.7 (2,685) x 155.0 (3,937) | | |
| 24 | 1,680 (6,359) | 329.0 (8,357) x 105.7 (2,685) x 155.0 (3,937) | 5,005 (2,270) | Contact Factory |
| 36 | 2,520 (9,539) | 304.0 (7,722) x 105.7 (2,685) x 166.0 (4,216) | | |
| 36 | 2,520 (9,539) | 329.0 (8,357) x 105.7 (2,685) x 163.0 (4,140) | | |
| 48 | 3,360 (12,719) | 304.0 (7,722) x 105.7 (2,685) x 175.0 (4,445) | | |
| 48 | 3,360 (12,719) | 329.0 (8,357) x 105.7 (2,685) x 171.0 (4,343) | | |
| 72 | 5,040 (19,078) | 329.0 (8,357) x 105.7 (2,685) x 187.0 (4,750) | | |



LEVEL 2 SOUND ATTENUATED ENCLOSURE

| Run Time - Hours) | Usable Capacity - Gal (L) | L x W x H - in (mm) | Weight - lbs (kg) Enclosure Only | |
|----------------------|------------------------------|---|-------------------------------------|--------------------|
| | | | Steel | Aluminum |
| No Tank | — | 304.0 (7,721) x 105.7 (2,685) x 137.0 (3,481) | | |
| 12 | 840 (3,180) | 304.0 (7,721) x 105.7 (2,685) x 148.0 (3,759) | | |
| 12 | 840 (3,180) | 329.0 (8,357) x 105.7 (2,685) x 148.0 (3,759) | | |
| 24 | 1,680 (6,359) | 329.0 (8,357) x 105.7 (2,685) x 155.0 (3,937) | | |
| 24 | 1,680 (6,359) | 329.0 (8,357) x 105.7 (2,685) x 155.0 (3,937) | 6,901 (3,130) | Contact Factory |
| 36 | 2,520 (9,539) | 304.0 (7,722) x 105.7 (2,685) x 166.0 (4,216) | | |
| 36 | 2,520 (9,539) | 329.0 (8,357) x 105.7 (2,685) x 163.0 (4,140) | | |
| 48 | 3,360 (12,719) | 304.0 (7,722) x 105.7 (2,685) x 175.0 (4,445) | | |
| 48 | 3,360 (12,719) | 329.0 (8,357) x 105.7 (2,685) x 171.0 (4,343) | | |
| 72 | 5,040 (19,078) | 329.0 (8,357) x 105.7 (2,685) x 187.0 (4,750) | | |

*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.