

Standby Power Rating
 150 kW, 188 kVA, 60 Hz



Image used for illustration purposes only



*Assembled in the USA using domestic and foreign parts

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



IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012)

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
- Heavy Duty 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
- Critical Silencer

FUEL SYSTEM

- Fuel Lockoff Solenoid
- Primary 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

- UL2200 GENprotect™
- 12 Leads (3-Phase, Non 600V)
- Class H Insulation Material
- Vented Rotor
- 2/3 Pitch
- Skewed Stator
- Auxiliary Voltage Regulator Power Winding
- Permanent Magnet Excitation
- Sealed Bearing
- Automated Manufacturing (Winding, Insertion, Lacing, Varnishing)
- Rotor Dynamically Spin Balanced
- Amortisseur Winding
- Full Load Capacity Alternator
- Protective Thermal Switch

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Units Only)

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

FUEL TANKS (If Selected)

- UL 142/ULC S601
- Double Wall
- Vents
- Sloped Top
- Sloped Bottom
- Factory Pressure Tested - 2 psi
- Rupture Basin Alarm
- Fuel Level
- Check Valve In Supply and Return Lines
- RhinoCoat™ - Textured Polyester Powder Coat Paint
- Stainless Steel Hardware

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

- Used 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

SD150 | 6.7L | 150 kW INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

GENERAC | INDUSTRIAL
POWER

CONFIGURABLE OPTIONS

ENGINE SYSTEM

- Oil Heater
- Level 1 Fan and Belt Guards (Enclosed Units Only)
- Air Filter Restriction Indicator
- Radiator Stone Guard (Open Set Only)
- Critical Silencer (Open Set Only)

ELECTRICAL SYSTEM

- 10A UL Listed 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
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

GENERATOR SET

- IBC Seismic Certification
- 8 Position Load Center
- Vibration Isolators (Pad or Spring)

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 200 MPH Wind Load Rating (Contact Factory for Availability)
- AC/DC Enclosure Lighting Kit
- Enclosure Heater (with Motorized Dampers Only)
- Door Open Alarm Horn

FUEL TANKS (Size On Last Page)

- 8 in (203.2 mm) Fill Extension
- 13 in (330.2 mm) Fill Extension
- Overfill Protection Valve
- Return Hose
- Tank Risers
- 90% Fuel Level Switch
- 12' Above Grade Vent Extension
- Stainless Steel Fire Rated Fuel Hose

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)
- 100 dB Alarm Horn
- Ground Fault Annunciator
- 120V GFCI and 240V Outlets
- Damper Alarm Contacts (with Motorized Dampers Only)
- Remote Communication - Modem
- 10A Engine Run Relay
- Oil Temperature Indication and Alarm

WARRANTY

- 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
- Fluid Containment Pan

CONTROL SYSTEM

- Spare Inputs/Outputs
- Battery Disconnect Switch

ALTERNATOR SYSTEM

- 3rd Breaker System

GENERATOR SET

- Special Testing

FUEL TANKS

- UL2085 Tank
- Stainless Steel Tank

SD150 | 6.7L | 150 kW INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

| | |
|------------------------------------|--------------------------|
| Make | Iveco/FPT |
| EPA Emissions Compliance | Stationary Emergency |
| EPA Emissions Reference | See Emission Data Sheet |
| Cylinder # | 6 |
| Type | In-Line |
| Displacement - in ³ (L) | 408.86 (6.7) |
| Bore - in (mm) | 4.09 (104) |
| Stroke - in (mm) | 5.2 (128) |
| Compression Ratio | 16.5:1 |
| Intake Air Method | Turbocharged/Aftercooled |
| Cylinder Head Type | 4-Valve |
| Piston Type | Aluminum Alloy |
| Crankshaft Type | Forged Steel |

Engine Governing

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

Lubrication System

| | |
|-----------------------------|---------------------|
| Oil Pump Type | Gear |
| Oil Filter Type | Full-Flow Cartridge |
| Crankcase Capacity - qt (L) | 20.7 (19.6) |

Cooling System

| | |
|------------------------|-------------------------|
| Cooling System Type | Closed |
| Water Pump Type | Belt Driven Centrifugal |
| Fan Type | Pusher |
| Fan Speed - RPM | 2,538 |
| Fan Diameter - in (mm) | 26 (660) |

Fuel System

| | |
|----------------------------|---------------------------------|
| Fuel Type | Ultra Low Sulfur Diesel Fuel #2 |
| Fuel Specifications | ASTM |
| Fuel Filtering (Microns) | 5 |
| Fuel Pump Type | Engine Driven Gear |
| Injector Type | Electronic |
| Fuel Supply Line - in (mm) | 0.5 (12.7) NPT |
| Fuel Return Line - in (mm) | 0.5 (12.7) NPT |

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 | K0150124Y21 |
| 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 | Single Sealed Cartridge |
| Coupling | Direct via Flexible Disc |
| Prototype Short Circuit Test | Yes |
| Voltage Regulator Type | Digital |
| Number of Sensed Phases | All |
| Regulation Accuracy (Steady State) | ±0.25% |

SD150 | 6.7L | 150 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

OPERATING DATA

POWER RATINGS - DIESEL

| | | Standby |
|---------------------------------|--------|-----------|
| Single-Phase 120/240 VAC @1.0pf | 150 kW | Amps: 625 |
| Three-Phase 120/208 VAC @0.8pf | 150 kW | Amps: 520 |
| Three-Phase 120/240 VAC @0.8pf | 150 kW | Amps: 451 |
| Three-Phase 277/480 VAC @0.8pf | 150 kW | Amps: 226 |
| Three-Phase 346/600 VAC @0.8pf | 150 kW | Amps: 180 |

MOTOR STARTING CAPABILITIES (skVA)

| skVA vs. Voltage Dip | | | | | |
|----------------------|-----|----------------|-----|----------------|-----|
| 120/240 VAC 1Ø | 30% | 277/480 VAC 3Ø | 30% | 208/240 VAC 3Ø | 30% |
| A0150044N21 | 260 | K0150124Y21 | 326 | K0150124Y21 | 244 |
| A0200044N21 | 459 | K0200124Y21 | 478 | K0200124Y21 | 361 |
| | | K0250124Y21 | 630 | K0250124Y21 | 506 |

FUEL CONSUMPTION RATES*

| Fuel Pump Lift - ft (m) | Diesel - gph (Lph) | |
|--|--------------------|-------------|
| | Percent Load | Standby |
| 3 (1) | 25% | 3.3 (12.5) |
| | 50% | 6.2 (23.5) |
| Total Fuel Pump Flow (Combustion + Return) - gph (Lph) | 75% | 8.8 (33.5) |
| 29 (110.2) | 100% | 11.2 (42.2) |

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

COOLING

| | | Standby |
|---|---------------------------|-----------------------------|
| Coolant Flow | gpm (Lpm) | 44.6 (168.8) |
| Coolant System Capacity | gal (L) | 7.5 (28.4) |
| Heat Rejection to Coolant | BTU/hr (kW) | 412,900 (121) |
| Inlet Air | scfm (m ³ /hr) | 7,946 (13,502) |
| Maximum Operating Radiator Air Temperature | °F (°C) | 122 (50) |
| Maximum Operating Ambient Temperature (Before Derate) | | See Bulletin No. 0199280SSD |
| Maximum Additional Radiator Backpressure | in H ₂ O (kPa) | 0.5 (0.12) |

COMBUSTION AIR REQUIREMENTS

| | Standby |
|---|------------|
| Flow at Rated Power - cfm (m ³ /min) | 440 (12.5) |

ENGINE

| | | Standby |
|--------------------------|----------------|-------------|
| Rated Engine Speed | RPM | 1,800 |
| Horsepower at Rated kW** | hp | 240 |
| Piston Speed | ft/min (m/min) | 1,559 (475) |
| BMEP | psi (kPa) | 257 (1,772) |

EXHAUST

| | | Standby |
|------------------------------------|---------------------------|--------------|
| Exhaust Flow (Rated Output) | cfm (m ³ /min) | 1,050 (29.7) |
| Maximum Allowable Backpressure | inHg (kPa) | 1.5 (5.1) |
| Exhaust Temperature (Rated Output) | °F (°C) | 895 (479) |

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

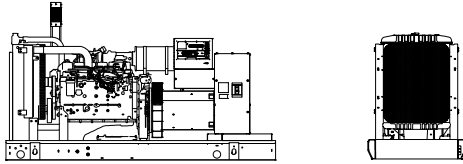
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

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

DIMENSIONS AND WEIGHTS*



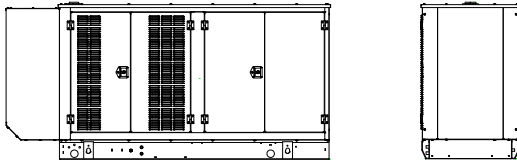
OPEN SET

| Run Time - Hours | Tank Capacity Gal (L) | L x W x H - in (mm) | | Weight - lbs (kg) |
|------------------|-----------------------|---------------------|-----------------------------|-------------------------------|
| No Tank | Gal (L) | 117.9 (2,996) | 49.7 (1,262) x 57.2 (1,453) | 3,333 - 3,920 (1,512 - 1,778) |
| 11 | 134 (507) | 117.9 (2,996) | 49.7 (1,262) x 70.2 (1,783) | 4,117 - 4,704 (1,868 - 2,134) |
| 28 | 322 (1,219) | 117.9 (2,996) | 49.7 (1,262) x 82.2 (2,088) | 4,405 - 4,992 (1,998 - 2,264) |
| 45 | 510 (1,931) | 117.9 (2,996) | 49.7 (1,262) x 94.2 (2,393) | 4,698 - 5,285 (2,133 - 2,399) |
| 39 | 440 (1,666) | 156.7 (3,980) | 49.7 (1,262) x 81.2 (2,063) | 4,776 - 5,363 (2,051 - 2,317) |
| 61 | 693 (2,623) | 136.0 (3,455) | 53.0 (1,346) x 97.7 (2,482) | 4,928 - 5,515 (2,237 - 2,503) |
| 62 | 705 (2,669) | 156.7 (3,980) | 49.7 (1,262) x 93.2 (2,367) | 5,199 - 5,786 (2,208 - 2,474) |
| 84 | 946 (3,581) | 208.3 (5,291) | 53.0 (1,346) x 98.2 (2,493) | 6,358 - 6,945 (2,884 - 3,150) |
| 118 | 1,325 (5,016) | 277.8 (7,055) | 53.0 (1,346) x 96.6 (2,453) | 7,373 - 7,960 (3,345 - 3,611) |

WEATHER PROTECTED ENCLOSURE

| Run Time - Hours | Tank Capacity Gal (L) | L x W x H - in (mm) | | Weight - lbs (kg) Enclosure Only |
|------------------|-----------------------|---------------------|------------------------------|-------------------------------------|
| No Tank | Gal (L) | 143.0 (3,634) | 50.4 (1,280) x 68.2 (1,732) | |
| 11 | 134 (507) | 143.0 (3,634) | 50.4 (1,280) x 81.2 (2,062) | |
| 28 | 322 (1,219) | 143.0 (3,634) | 50.4 (1,280) x 93.2 (2,367) | |
| 45 | 510 (1,931) | 143.0 (3,634) | 50.4 (1,280) x 105.2 (2,672) | |
| 39 | 440 (1,666) | 156.7 (3,980) | 50.4 (1,280) x 92.2 (2,342) | |
| 61 | 693 (2,623) | 143.0 (3,634) | 53.0 (1,346) x 108.7 (2,761) | |
| 62 | 705 (2,669) | 156.7 (3,980) | 50.4 (1,280) x 104.2 (2,646) | |
| 84 | 946 (3,581) | 208.3 (5,291) | 53.0 (1,346) x 109.2 (2,772) | |
| 118 | 1,325 (5,016) | 277.8 (7,055) | 53.0 (1,346) x 107.6 (2,732) | |

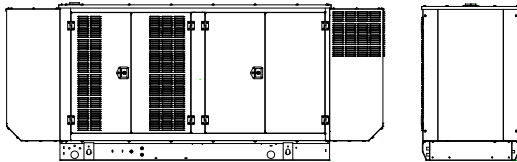
Steel: 898 (407)
 Aluminum: 439 (199)



LEVEL 1 SOUND ATTENUATED ENCLOSURE

| Run Time - Hours | Tank Capacity Gal (L) | L x W x H - in (mm) | | Weight - lbs (kg) Enclosure Only |
|------------------|-----------------------|---------------------|------------------------------|-------------------------------------|
| No Tank | Gal (L) | 168.5 (4,279) | 50.4 (1,280) x 68.2 (1,732) | |
| 11 | 134 (507) | 168.5 (4,279) | 50.4 (1,280) x 81.2 (2,062) | |
| 28 | 322 (1,219) | 168.5 (4,279) | 50.4 (1,280) x 93.2 (2,367) | |
| 45 | 510 (1,931) | 168.5 (4,279) | 50.4 (1,280) x 105.2 (2,672) | |
| 39 | 440 (1,666) | 168.5 (4,279) | 50.4 (1,280) x 92.2 (2,342) | |
| 61 | 693 (2,623) | 168.5 (4,279) | 53.0 (1,346) x 108.7 (2,761) | |
| 62 | 705 (2,669) | 168.5 (4,279) | 50.4 (1,280) x 104.2 (2,646) | |
| 84 | 946 (3,581) | 208.3 (5,291) | 53.0 (1,346) x 109.2 (2,772) | |
| 118 | 1,325 (5,016) | 277.8 (7,055) | 53.0 (1,346) x 107.6 (2,732) | |

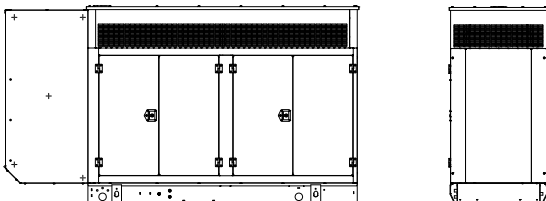
Steel: 1,186 (537)
 Aluminum: 563 (255)



LEVEL 2 SOUND ATTENUATED ENCLOSURE

| Run Time - Hours | Tank Capacity Gal (L) | L x W x H - in (mm) | | Weight - lbs (kg) Enclosure Only |
|------------------|-----------------------|---------------------|------------------------------|-------------------------------------|
| No Tank | Gal (L) | 143.0 (3,633) | 50.4 (1,280) x 91.7 (2,330) | |
| 11 | 134 (507) | 143.0 (3,633) | 50.4 (1,280) x 104.7 (2,660) | |
| 28 | 322 (1,219) | 143.0 (3,633) | 50.4 (1,280) x 116.7 (2,965) | |
| 45 | 510 (1,931) | 143.0 (3,633) | 50.4 (1,280) x 128.7 (3,270) | |
| 39 | 440 (1,666) | 156.7 (3,980) | 50.4 (1,280) x 115.7 (2,940) | |
| 61 | 693 (2,623) | 143.0 (3,633) | 53.0 (1,346) x 132.2 (3,359) | |
| 62 | 705 (2,669) | 156.7 (3,980) | 50.4 (1,280) x 127.7 (3,244) | |
| 84 | 946 (3,581) | 208.3 (5,291) | 53.0 (1,346) x 132.7 (3,370) | |
| 118 | 1,325 (5,016) | 277.8 (7,055) | 53.0 (1,346) x 131.1 (3,330) | |

Steel: 1,377 (624)
 Aluminum: 645 (292)



* All measurements are approximate and for estimation purposes only. Specification characteristics may change without notice. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.