

# SD015NA | 2.2 L | 20 kW

## INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

### Standby Power Rating

15 kW, 19 kVA, 60 Hz



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,  
UL 142



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 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
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant

**FUEL SYSTEM**

- Fuel Lockoff Solenoid
- Primary 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
- Solenoid Activated Starter Motor

**ALTERNATOR SYSTEM**

- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Direct Excitation
- Sealed Bearing
- Amortisseur Winding (3-Phase Only)
- Full Load Capacity Alternator

**GENERATOR SET**

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Wrapped Exhaust Piping
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- Enclosed Silencer

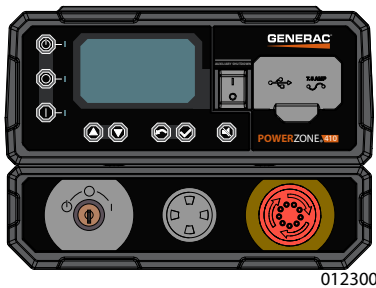
**ENCLOSURE (If Selected)**

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- Gasketed Doors
- Twist-Lock Handle
- RhinoCoat™ - Textured Polyester Powder Coat Paint
- Up to 200 MPH Wind Load Rating (Contact Factory for Details)

**FUEL TANKS (If Selected)**

- UL 142/ULC S601
- Double Wall
- Normal and Emergency Vents
- Factory Pressure Tested
- Rupture Basin Alarm
- Fuel Level
- Check Valve In Supply and Return Lines
- RhinoCoat™ - Textured Polyester Powder Coat Paint
- Non-Corroding Hardware

**CONTROL SYSTEM**



**Power Zone® 410 Controller**

**Features**

- Programmable Auto Crank
- Selectable Low Speed Exercise
- RS-232 x2
- RS-485 x2
- All-Phase Sensing Digital Voltage Regulator
- On/Off/Manual Switch
- Not in Auto (Flashing Light)

- Emergency Stop
- Modbus® RTU
- CANbus
- Full Range Standby Operation
- Power Factor
- Ruptured Tank Detection
- Auxiliary Shutdown Switch
- Remote Communications
- NFPA110 Module Included (Key Switch, Alarm, E-Stop)
- I<sup>2</sup>T Function for Full Generator Protection (Contact Factory)

**Full System Status Display**

- Multilingual 128x64 Graphical Display with Heater
- Easy Status View LED Screen
- 3-Phase AC Volts
- 3-Phase Amps
- kW
- Line Power/Gen Power

- Time
- Date
- Run Hours
- Service Reminders
- Fault History (Alarm Log)
- Oil Pressure
- Oil Temperature Indication and Alarm
- Output for Fuel Level High/Low Warning
- Water Temperature
- Water Level
- Fuel Pressure/Level
- Engine Speed
- Battery Voltage
- Alternator Frequency

**Alarms and Warnings**

- Common Alarm Output
- Audible Alarm and Silence

## CONFIGURABLE OPTIONS

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### ENGINE SYSTEM

- Oil Heater
- Fluid Containment Pan
- Engine Coolant Heater
- Coolant Heater Isolation Ball Valves

### FUEL SYSTEM

- NPT Flexible Fuel Line

### ELECTRICAL SYSTEM

- 10A UL Listed Battery Charger
- Battery Warmer

### ALTERNATOR SYSTEM

- Anti-Condensation Heater
- Tropical Coating

### GENERATOR SET

- Extended Factory Testing
- Pad Vibration Isolators

### ENCLOSURE

- Level 0 Sound Attenuated Enclosure
- Level 1 Sound Attenuated Enclosure
- Level 2 Sound Attenuated Enclosure
- Steel Enclosure
- Aluminum Enclosure
- AC/DC Enclosure Lighting Kit
- Door Open Alarm Horn

### 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

### CONTROL SYSTEM

- NFPA 110 Compliant 21-Light Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Oil Temperature Indication and Alarm
- Spare Inputs (x4) / Outputs (x4)
- Battery Disconnect Switch
- 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 Annunciation
- 120V GFCI Dual Outlets
- 10A Engine Run Relay

### FUEL TANKS (Size On Last Page)

- Overfill Protection Valve
- Spill Box Return Hose
- 2.5 Gallon Spill Box
- Tank Risers
- 90% Fuel Level Switch and Alarm
- 12' Vent System
- Fire Rated Stainless Steel Fuel Hose

## ENGINEERED OPTIONS

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### GENERATOR SET

- Special Testing

### FUEL TANKS

- UL2085 Tank
- Stainless Steel Tanks
- Special Fuel Tanks

**APPLICATION AND ENGINEERING DATA**

**ENGINE SPECIFICATIONS**

**General**

|                                    |                          |
|------------------------------------|--------------------------|
| Make                               | Perkins                  |
| EPA Emissions Compliance           | Stationary Emergency     |
| EPA Emissions Reference            | See Emissions Data Sheet |
| Cylinder #                         | 4                        |
| Type                               | In-Line                  |
| Displacement - in <sup>3</sup> (L) | 135 (2.22)               |
| Bore - in (mm)                     | 3.3 (84)                 |
| Stroke - in (mm)                   | 3.9 (100)                |
| Compression Ratio                  | 23:3:1                   |
| Intake Air Method                  | Naturally Aspirated      |
| Cylinder Head                      | Cast Iron                |
| Piston Type                        | Aluminum                 |
| Crankshaft Type                    | Forged Steel             |

**Engine Governing**

|                                     |                        |
|-------------------------------------|------------------------|
| Governor                            | Electronic Isochronous |
| Frequency Regulation (Steady State) | ±0.5%                  |

**Lubrication System**

|                             |                     |
|-----------------------------|---------------------|
| Oil Pump Type               | Gear                |
| Oil Filter Type             | Full-Flow Cartridge |
| Crankcase Capacity - qt (L) | 11.2 (10.6)         |

**Cooling System**

|                        |                         |
|------------------------|-------------------------|
| Cooling System Type    | Pressurized Closed      |
| Water Pump Type        | Pre-Lubed, Self Sealing |
| Fan Type               | Pusher                  |
| Fan Speed - RPM        | 2,250                   |
| Fan Diameter - in (mm) | 15.5 (390)              |

**Fuel System**

|                            |                              |
|----------------------------|------------------------------|
| Fuel Type                  | Ultra Low Sulfur Diesel Fuel |
| Fuel Specifications        | ASTM                         |
| Fuel Filtering (Microns)   | 5                            |
| Fuel Inject Pump           | Distribution Injection Pump  |
| Fuel Pump Type             | Cassette                     |
| Injector Type              | Indirect, Pintle Nozzle      |
| Fuel Supply Line - in (mm) | 0.31 (7.94) ID               |
| Fuel Return Line - in (mm) | 0.31 (7.94) ID               |

**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                      | A0015044N21            |
| Poles                               | 4                      |
| Field type                          | Revolving              |
| Insulation Class - Rotor            | F                      |
| Insulation Class - Stator           | H                      |
| Total Harmonic Distortion           | <5% (Three-Phase Only) |
| Telephone Interference Factor (TIF) | <50                    |

|                                    |                          |
|------------------------------------|--------------------------|
| Standard Excitation                | Direct Excitation        |
| Bearings                           | Single Sealed            |
| Coupling                           | Direct via Flexible Disc |
| Load Capacity-Standby              | 100%                     |
| 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  |
|---------------------------------|--------------|----------|
| Single-Phase 120/240 VAC @1.0pf | 15 kW/15 kVA | Amps: 62 |
| Three-Phase 120/208 VAC @0.8pf  | 15 kW/19 kVA | Amps: 52 |
| Three-Phase 120/240 VAC @0.8pf  | 15 kW/19 kVA | Amps: 45 |

**MOTOR STARTING CAPABILITIES (SKVA)**

| skVA vs. Voltage Dip |     |                |     |                |     |
|----------------------|-----|----------------|-----|----------------|-----|
| 120/240 VAC 1Ø       | 30% | 120/208 VAC 3Ø | 30% | 120/240 VAC 3Ø | 30% |
| A0015044N21          | 21  | G0020064N21    | 27  | J0020064N21    | 27  |

**FUEL CONSUMPTION RATES\***

| Fuel Pump Lift- ft (m)                                 | Diesel - gph (Lph) |           |
|--|--------------------|-----------|
|  | Percent Load       | Standby   |
| 3 (1)  | 25%                | 0.6 (2.4) |
| Total Fuel Pump Flow (Combustion + Return) - gph (Lph) | 50%                | 0.9 (3.5) |
|  | 75%                | 1.2 (4.5) |
|  | 100%               | 1.5 (5.5) |
| 16.6 (63)  |                    |           |

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

**COOLING**

|   |                             | Standby       |
|---|-----------------------------|---------------|
| Air Flow (Fan Air Flow Across Radiator)               | cfm (m³/min)                | 1,734 (49.1)  |
| Coolant Flow  | gpm (Lpm)                   | 15.3 (57.8)   |
| Coolant System Capacity                               | gal (L)                     | 2.0 (7.6)     |
| Heat Rejection to Coolant                             | BTU/hr (kW)                 | 76,090 (22.3) |
| Maximum Operating Ambient Temperature                 | °F (°C)                     | 122 (50)      |
| Maximum Operating Ambient Temperature (Before Derate) | See Bulletin No. 0199280SSD |               |
| Maximum Additional Radiator Backpressure              | in H <sub>2</sub> O (kPa)   | 60.3 (15.0)   |

**COMBUSTION AIR REQUIREMENTS**

|                                    | Standby/Demand Response |
|------------------------------------|-------------------------|
| Flow at Rated Power cfm — (m³/min) | 64.4 (1.8)              |

**ENGINE**

|                          |                | Standby     |
|--------------------------|----------------|-------------|
| Rated Engine Speed       | rpm            | 1,800       |
| Horsepower at Rated kW** | hp             | 24.2        |
| Piston Speed             | ft/min (m/min) | 1,182 (360) |
| BMEP                     | psi (kPa)      | 79 (543)    |

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

**EXHAUST**

|  |              | Standby     |
|--|--------------|-------------|
| Exhaust Flow (Rated Output)                    | cfm (m³/min) | 140.6 (4.0) |
| Max. Allowable Back Pressure - (Post Silencer) | inHg (kPa)   | 1.48 (5.0)  |
| Exhaust Temp (Rated Output)                    | °F (°C)      | 719 (382)   |

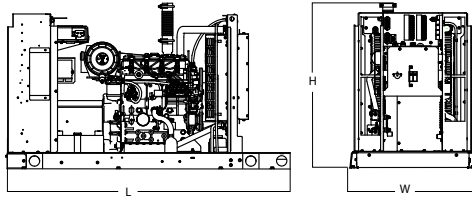
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

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

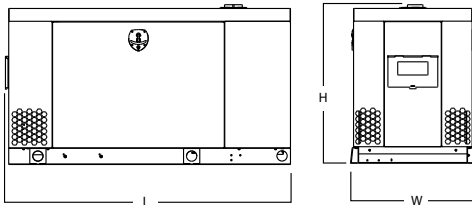
Prime - See Bulletin 0187510SSB

**DIMENSIONS AND WEIGHTS\***



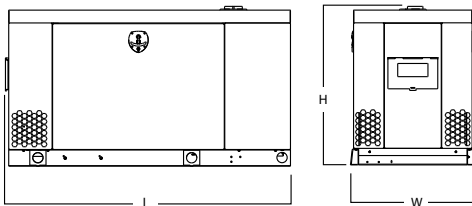
**OPEN SET**

| Run Time Hours** | Usable Capacity Gal (L) | L x W x H - in (mm)                    |  | Weight - lbs (kg) |
|------------------|-------------------------|--|--|-------------------|
| No Tank          | —                       | 68.5 (1,740) x 30.6 (777) x 37.6 (955) |  | 963 (437)         |
| 39               | 55 (208)                | 84.0 (2,134) x 30.6 (777) x 37.6 (955) |  | 1,405 (637)       |
| 78               | 110 (416)               | 84.0 (2,134) x 30.6 (777) x 37.6 (955) |  | 1,606 (728)       |



**LEVEL 0 SOUND ATTENUATED ENCLOSURE**

| Run Time Hours** | Usable Capacity Gal (L) | L x W x H - in (mm)                      |  | Weight - lbs (kg) |
|------------------|-------------------------|--|--|-------------------|
| No Tank          | —                       | 69.0 (1,740) x 30.5 (776) x 38.0 (963)   |  | 1,150 (522)       |
| 39               | 55 (208)                | 84.0 (2,134) x 30.5 (776) x 56.0 (1,422) |  | 1,592 (722)       |
| 78               | 110 (416)               | 84.0 (2,134) x 30.5 (776) x 74.0 (1,880) |  | 1,793 (813)       |



**LEVEL 1 SOUND ATTENUATED ENCLOSURE**

| Run Time Hours** | Usable Capacity Gal (L) | L x W x H - in (mm)                      |  | Weight - lbs (kg) |
|------------------|-------------------------|--|--|-------------------|
| No Tank          | —                       | 69.0 (1,740) x 30.5 (776) x 38.0 (963)   |  | 1,150 (522)       |
| 39               | 55 (208)                | 84.0 (2,134) x 30.5 (776) x 56.0 (1,422) |  | 1,592 (722)       |
| 78               | 110 (416)               | 84.0 (2,134) x 30.5 (776) x 74.0 (1,880) |  | 1,793 (813)       |

**LEVEL 2 SOUND ATTENUATED ENCLOSURE**

| Run Time Hours** | Usable Capacity Gal (L) | L x W x H - in (mm)                      |  | Weight - lbs (kg) |
|------------------|-------------------------|--|--|-------------------|
| No Tank          | —                       | 69.0 (1,740) x 30.5 (776) x 38.0 (963)   |  | 1,150 (522)       |
| 39               | 55 (208)                | 84.0 (2,134) x 30.5 (776) x 56.0 (1,422) |  | 1,592 (722)       |
| 78               | 110 (416)               | 84.0 (2,134) x 30.5 (776) x 74.0 (1,880) |  | 1,793 (813)       |

\*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.