**SD300**

**Industrial Diesel Generator Set**

**EPA Certified Stationary Emergency**

**Standby Power Rating**

375kVA 300kW 60Hz

**Prime Power Rating**

338kVA 270kW 60Hz

*EPA Certified Prime ratings are not available in the U.S. or its Territories for engine model year 2011 and beyond

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**features**

**Generator Set**
- Prototype & Torsionally Tested
- UL2200 Tested
- Rhinocote Paint System
- Wide Range of Enclosures and Tanks

**Engine**
- EPA Compliant
- Industrial Tested, Generac Approved
- Power-Matched Output
- Industrial Grade

**Alternator**
- Two-Thirds Pitch
- Layer Wound Rotor & Stator
- Class H Materials
- Digital 3-Phase Voltage Control

**Controls**
- Encapsulated Board w/ Sealed Harness
- 4-20mA Voltage-to-Current Sensors
- Surface-Mount Technology
- Advanced Diagnostics & Communications

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**benefits**

- Provides a Proven Unit
- Ensures a Quality Product
- Improves Resistance to Elements
- Provides a Single Source Solution
- Environmentally Friendly
- Ensures Industrial Standards
- Engineered for Performance
- Improves Longevity and Reliability
- Eliminates Harmful 3rd Harmonic
- Improves Cooling
- Heat Tolerant Design
- Fast and Accurate Response
- Easy, Affordable Replacement
- Noise Resistant 24/7 Monitoring
- Provides Vibration Resistance
- Hardened Reliability

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**primary codes and standards**

[Images of certification logos]
## ENGINE SPECIFICATIONS

### General
- **Make**: Iveco/FPT
- **EPA Emissions Compliance**: Stationary Emergency
- **EPA Emissions Reference**: See Emissions Data Sheet
- **Cylinder #**: 6
- **Type**: In-Line
- **Displacement - L**: 10.3
- **Bore - mm (in.)**: 125 (4.92)
- **Stroke - mm (in.)**: 140 (5.51)
- **Compression Ratio**: 16.5:1
- **Intake Air Method**: Turbocharged/Aftercooled
- **Cylinder Head Type**: 4-Valve
- **Piston Type**: Aluminum
- **Crankshaft Type**: Dropped Forged Steel
- **Governor**: Electronic Isochronous
- **Frequency Regulation (Steady State)**: ± 0.25%

### Cooling System
- **System Type**: Closed Recovery
- **Water Pump Flow**: Pre-Lubed, Self Sealing
- **Fan Type**: Pusher
- **Fan Speed (rpm)**: 2250 rpm
- **Fan Diameter mm (in.)**: 762 (30.0)
- **Coolant Heater Standard Wattage**: 2000
- **Coolant Heater Standard Voltage**: 240VAC

### Fuel System
- **Fuel Type**: Ultra Low Sulfur Diesel Fuel
- **Fuel Specifications**: ASTM
- **Fuel Filtering (microns)**: 5
- **Fuel Inject Pump Make**: Electronic
- **Fuel Pump Type**: Engine Driven Gear
- **Injector Type**: Common Rail
- **Engine Type**: Direct Injection
- **Fuel Supply Line - mm (in.)**: 12.7 (½”)
- **Fuel Return Line - mm (in.)**: 12.7 (½”)

### Lubrication System
- **Oil Pump Type**: Gear
- **Oil Filter Type**: Full-Flow
- **Crankcase Capacity - L (qts)**: 30 (31.68)

### Engine Electrical System
- **System Voltage**: 24VDC
- **Battery Charging Alternator**: Std
- **Battery Size (at 0°C)**: 1155 CCA
- **Battery Group**: 8D
- **Battery Voltage**: (2) - 12VDC
- **Ground Polarity**: Negative

## ALTERNATOR SPECIFICATIONS

- **Standard Model**: 520 mm Generac
- **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 Magnent
- **Bearings**: Single Sealed Cartridge
- **Coupling**: Direct, 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%

## CODES AND STANDARDS COMPLIANCE (WHERE APPLICABLE)

- NFPA 99
- NFPA 110
- ISO 8528-5
- ISO 1708A.5
- ISO 3046
- SS514
- SAE J1349
- DIN6271
- IEEE C62.41 TESTING
- NEMA ICS 1

Rating Definitions:
- **Standby** – Applicable for a varying emergency load for the duration of a utility power outage with no overload capability. (Max. load factor = 70%)
- **Prime** – Applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. (Max. load factor = 80%) A 10% overload capacity is available for 1 out of every 12 hours.
### POWER RATINGS (kW)

<table>
<thead>
<tr>
<th>Configuration</th>
<th>STANDBY</th>
<th>PRIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Phase 120/240VAC @1.0pf</td>
<td>300 kW</td>
<td>270 kW</td>
</tr>
<tr>
<td>Three-Phase 120/208VAC @0.8pf</td>
<td>300 kW</td>
<td>270 kW</td>
</tr>
<tr>
<td>Three-Phase 120/240VAC @0.8pf</td>
<td>300 kW</td>
<td>270 kW</td>
</tr>
<tr>
<td>Three-Phase 277/480VAC @0.8pf</td>
<td>300 kW</td>
<td>270 kW</td>
</tr>
<tr>
<td>Three-Phase 346/600VAC @0.8pf</td>
<td>300 kW</td>
<td>270 kW</td>
</tr>
</tbody>
</table>

### STARTING CAPABILITIES (sKVA)

| Alternator | kVA @ 480VAC | 10% | 15% | 20% | 25% | 30% | 35% | 10% | 15% | 20% | 25% | 30% | 35% |
|------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Standard   | 300           | 303 | 454 | 605 | 757 | 909 | 1059| 227 | 341 | 454 | 568 | 681 | 794 |
| Upsize 1   | 400           | 387 | 581 | 775 | 968 | 1162| 1356| 345 | 570 | 835 | 1100| 1450| 1710|
| Upsize 2   | 500           | 457 | 686 | 914 | 1143| 1371| 1600| -   | -   | -   | -   | -   | -   |

### FUEL

<table>
<thead>
<tr>
<th></th>
<th>STANDBY</th>
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<tbody>
<tr>
<td>Fuel Pump Lift (in mm)</td>
<td>36 (900)</td>
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<tr>
<td>Total Fuel Pump Flow</td>
<td>31 gph</td>
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### COOLING

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<thead>
<tr>
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<th>STANDBY</th>
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<tr>
<td>Coolant Flow Per Minute</td>
<td>850 (24.07)</td>
<td>765 (21.67)</td>
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<tr>
<td>Heat Rejection to Coolant</td>
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<tr>
<td>Inlet Air</td>
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<tr>
<td>Max. Operating Radiator Air Temp</td>
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<tr>
<td>Max. Operating Ambient Temperature</td>
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<tr>
<td>Coolant System Capacity</td>
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<tr>
<td>Maximum Radiator Backpressure</td>
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### COMBUSTION AIR REQUIREMENTS

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<tbody>
<tr>
<td>Flow at Rated Power</td>
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<tr>
<td>Rated Engine Speed</td>
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<td>Horsepower at Rated kW**</td>
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<td>Piston Speed</td>
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### EXHAUST

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<tr>
<td>Exhaust Flow (Rated Output)</td>
<td>2240 (63.4)</td>
<td>2016 (57.1)</td>
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<tr>
<td>Max. Backpressure (Post Silencer)</td>
<td>1.5 (5.1)</td>
<td>1.5 (5.1)</td>
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<tr>
<td>Exhaust Temp (Rated Output)</td>
<td>1020 (549)</td>
<td>918 (492)</td>
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<tr>
<td>Exhaust Outlet Size (Open Set)</td>
<td>NPT (male)</td>
<td>101.6 (4)</td>
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**Refer to “Emissions Data Sheet” for maximum fuel flow for EPA and SCAQMD permitting purposes.**
### GENERATOR SET
- Genset Vibration Isolation
- IBC Seismic Certified/Seismic Rated Vibration Isolators
- Extended warranty
- Gen-Link Communications Software
- Steel Enclosure
- Aluminum Enclosure

### ENGINE SYSTEM
#### General
- Oil Drain Extension
- Oil Make-Up System
- Oil Heater
- Air cleaner
- Fan guard
- Radiator duct adapter

#### Fuel System
- Fuel lockoff solenoid
- Secondary fuel filter
- Stainless steel flexible exhaust connection
- Industrial Exhaust Silencer
- Critical Exhaust Silencer
- Flexible fuel lines
- Primary fuel filter
- Single Wall Tank (Export Only)
- UL 142 Fuel Tank

#### Cooling System
- 120VAC Coolant Heater
- 208VAC Coolant Heater
- 240VAC Coolant Heater
- Other Coolant Heater
- Closed Coolant Recovery System
- UV/Ozone resistant hoses
- Factory-Installed Radiator
- Radiator Drain Extension

#### Engine Electrical System
- Battery charging alternator
- Battery cables
- Battery tray
- Battery box
- Battery heater
- Solenoid activated starter motor
- 10A UL float/equalize battery charger
- Rubber-booted engine electrical connections

### ALTERNATOR SYSTEM
- UL2200 GENprotect™
- Main Line Circuit Breaker
- 2nd Circuit Breaker
- 3rd Circuit Breaker
- Alternator Upsizing
- Anti-Condensation Heater
- Tropical coating
- Permanent Magnet Generator

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### CONTROL SYSTEM
#### Control Panel
- Digital H Control Panel - Dual 4x20 Display
- Digital G-100 Control Panel - Touchscreen
- Digital G-200 Paralleling Control Panel - Touchscreen
- Programmable Crank Limiter
- 21-Light Remote Annunciator
- Remote Relay Panel (8 or 16)
- 7-Day Programmable Exerciser
- Special Applications Programmable PLC
- RS-232
- RS-485
- All-Phase Sensing DVR
- Full System Status
- Utility Monitoring (Req. H-Transfer Switch)
- 2-Wire Start Compatible
- Power Output (kW)
- Power Factor
- Reactive Power
- All phase AC Voltage
- All phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Oil Temperature
- Fuel Pressure
- Engine Speed
- Battery Voltage
- Frequency
- Date/Time Fault History (Event Log)
- Low-Speed Exercise
- Isochronous Governor Control
- -40deg C - 70deg C Operation
- Waterproof Plug-In Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Oil/Manual Switch
- E-Stop (Red Mushroom-Type)
- E-Stop (Red Mushroom-Type, Surface Mount)
- E-Stop (Red Mushroom-Type, Flush Mount)
- NFPA 110 Level I and II (Programmable)
- Remote Communication - RS232
- Remote Communication - Modem
- Remote Communication - Ethernet
- 10A Run Relay

### ALARMS
- Low Fuel
- Oil Pressure (Pre-programmed Low Pressure Shutdown)
- Coolant Temperature (Pre-programmed High Temp Shutdown)
- Coolant Level (Pre-programmed Low Level Shutdown)
- Oil Temperature
- Engine Speed (Pre-programmed Overspeed Shutdown)
- Voltage (Pre-programmed Overvoltage Shutdown)
- Battery Voltage

### OTHER OPTIONS
- 4 of 5
### OPEN SET

<table>
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<tr>
<th>RUN TIME HOURS</th>
<th>USABLE CAPACITY (GAL)</th>
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### WEATHERPROOF ENCLOSURE

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### LEVEL 1 SOUND ENCLOSURE

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### LEVEL 2 SOUND ENCLOSURE

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</table>

*All measurements are approximate and for estimation purposes only. Weights are without fuel in tank. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.

Tank Options
- MDEQ
- Florida DERM/DEP
- Chicago Fire Code
- IFC Certification
- ULC

Other Custom Options Available from your Generac Industrial Power Dealer

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