

# SD3000 & MD3000 | 87.5 L | 3000 kW

## INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

**GENERAC** INDUSTRIAL  
ENERGY

### Standby Power Rating

3000kW, 3750kVA, 60 Hz



\*Assembled in the USA using domestic and foreign parts

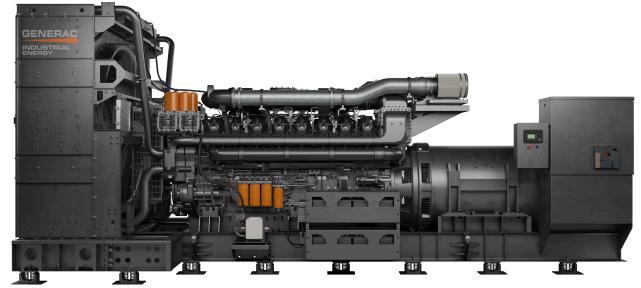


Image used for illustration purposes only

## 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 Ahead

For over 60 years, Generac has provided innovative design and superior manufacturing.

Generac provides 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 for the most reliable engines to 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 Filter Restriction Indicator
- Air Cleaner
- Fan and Belt Guards
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter
- Engine Coolant Heater
- Coolant Heater Ball Valves
- Fuel Cooler

## FUEL SYSTEM

- Flexible Fuel Lines
- Primary and Secondary Fuel Filter

## COOLING SYSTEM

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

## ELECTRICAL SYSTEM

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

## ALTERNATOR SYSTEM

- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearing
- Full Load Capacity Alternator
- Bearings/ Winding Temperature Monitoring

## GENERATOR SET

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

## CONTROL SYSTEM

- Oil Temperature Indication and Alarm

## 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 (I<sup>2</sup>T 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 (I<sup>2</sup>T 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<sup>®</sup> (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
- Duplex Fuel Water Separator

#### ELECTRICAL SYSTEM

- 20A UL Listed Battery Charger
- Battery Warmer
- Redundant Starting System

#### ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater

#### CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2<sup>nd</sup> Main Line Circuit Breaker
- 3<sup>rd</sup> Main Line Circuit Breaker
- 4<sup>th</sup> 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

#### 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
- Flush Mount Annunciator Kit
- Damper Alarm Contacts

#### WARRANTY (Standby Gensets Only)

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

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Baudouin
EPA Emissions Compliance	Tier 2
EPA Emissions Reference	See Emissions Data Sheet
Cylinder #	16
Type	V
Displacement - in <sup>3</sup> (L)	5339.6 (87.5)
Bore - in (mm)	7.08 (180)
Stroke - in (mm)	8.46 (215)
Compression Ratio	16.5:1
Intake Air Method	Turbocharged/Aftercooled
Cylinder Head	4-Valve

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	5%

Lubrication System

Oil Pump Type	Gear Driven
Oil Filter Type	Full Flow Spin-On Cartridge
Crankcase Capacity - qt (L)	528 (500)

Cooling System

Cooling System Type	Pressurized Closed
Fan Type	Pusher
Fan Diameter - in (mm)	84 (2,134)

Fuel System

Fuel Type	Ultra Low Sulfur Diesel #2
Fuel Specifications	ASTM
Fuel Filtering (Microns)	4
Fuel Inject Pump	High Pressure Common Rail
Injector Type	Electronic
Fuel Supply Line O.D. Minimum - in (mm)	0.748 (19)
Fuel Return Line O.D. Minimum - in (mm)	0.748 (19)

Engine Electrical System

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

ALTERNATOR SPECIFICATIONS

Standard Model	1020RDL1309
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
Coupling	Direct Drive
Bearings	Sealed Ball Dual
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital
Number of Sensed Phases	3
Regulation Accuracy (Steady State)	±0.25%

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### OPERATING DATA

#### POWER RATINGS

Standby		
Three-Phase 277/480 VAC @0.8pf	3,000 kW/ 3,750 kVA	Amps: 4,515.9
Three-Phase 346/600 VAC @0.8pf	3,000 kW/ 3,750 kVA	Amps: 3612.7

#### MOTOR STARTING CAPABILITIES (SKVA)

skVA vs. Voltage Dip			
277/480 VAC	30%	366/600 VAC	30%
1020RDL1309	7,200	1020RSS1309	7,200

#### FUEL CONSUMPTION RATES\*

Fuel Pump Lift- ft (m)	Diesel - gph (Lph)	
	Percent Load	Standby
13.6 (4.1)	25%	71.4 (270.2)
	50%	123.4 (467.1)
Total Fuel Pump Flow (Combustion + Return) - gph (Lph)	75%	169.7 (642.3)
898 (3,400)	100%	221.1 (836.8)

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

#### COOLING

Standby		
Air Flow (Fan Air Flow Across Radiator)	cfm (m³/min)	120,000 (3,398)
Coolant Flow	gpm (Lpm)	Contact Factory
Coolant System Capacity	gal (L)	189.9 (718.8)
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)	1.3 (0.32)

#### COMBUSTION AIR REQUIREMENTS

Standby	
Flow at Rated Power cfm — (m³/min)	8,818.0 (249.7)

#### ENGINE

Standby		
Rated Engine Speed	rpm	1,800
Horsepower at Rated kW**	hp	4,490.0
Piston Speed	ft/min (m/min)	2,538 (773.5)
BMEP	psi (kPa)	370.1 (2,552.0)

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

#### EXHAUST

Standby		
Exhaust Flow (Rated Output)	cfm (m³/min)	29198.0 (826.8)
Maximum Allowable Back Pressure (Post Turbo)	inHg (kPa)	4.43 (15)
Exhaust Temperature (Rated Output - Post Turbo)	°F (°C)	1,022 (550)

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

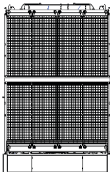
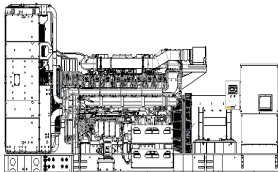
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DIMENSIONS AND WEIGHTS\*



OPEN SET			
Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Weight - lbs (kg) Unit Only
No Tank	—	309 (7,848.6) x 120 (3,048) x 132 (3,352.8)	60,150 (27,283.5)