

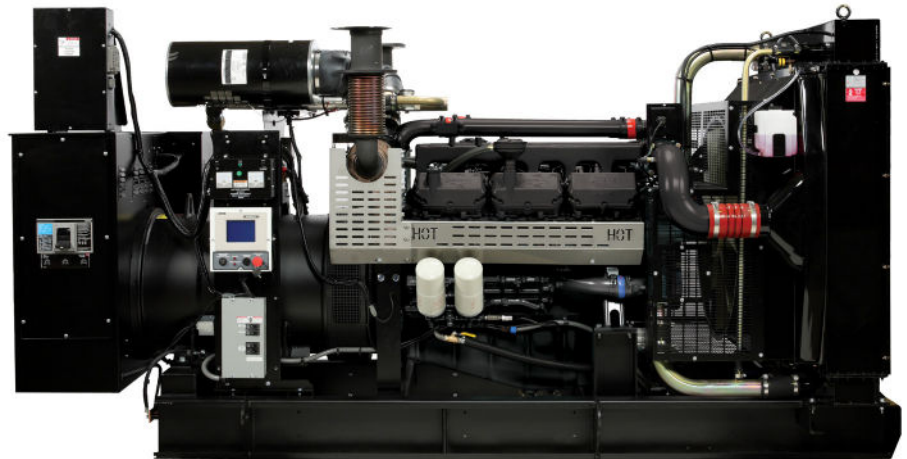
# SD600

## Industrial Diesel Generator Set

EPA Certified Stationary Emergency

Standby Power Rating  
**750kVA 600KW 60 Hz**

Prime Power Rating\*  
**684kVA 547KW 60 Hz**

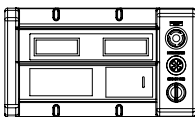
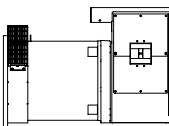
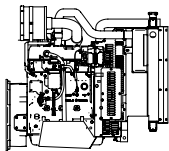
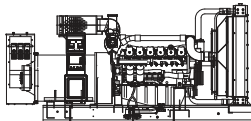


Generator image used for illustration purposes only

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

### features

### benefits



#### Generator Set

- PROTOTYPE & TORSIONALLY TESTED
- UL2200 TESTED
- RHINOCOAT PAINT SYSTEM
- WIDE RANGE OF ENCLOSURES AND TANKS
- ▶ PROVIDES A PROVEN UNIT
- ▶ ENSURES A QUALITY PRODUCT
- ▶ IMPROVES RESISTANCE TO ELEMENTS
- ▶ PROVIDES A SINGLE SOURCE SOLUTION

#### Engine

- EPA COMPLIANT
- INDUSTRIAL TESTED, GENERAC APPROVED
- POWER-MATCHED OUTPUT
- INDUSTRIAL GRADE
- ▶ ENVIRONMENTALLY FRIENDLY
- ▶ ENSURES INDUSTRIAL STANDARDS
- ▶ ENGINEERED FOR PERFORMANCE
- ▶ IMPROVES LONGEVITY AND RELIABILITY

#### Alternator

- TWO-THIRDS PITCH
- LAYER WOUND ROTOR & STATOR
- CLASS H MATERIALS
- DIGITAL 3-PHASE VOLTAGE CONTROL
- ▶ ELIMINATES HARMFUL 3RD HARMONIC
- ▶ IMPROVES COOLING
- ▶ HEAT TOLERANT DESIGN
- ▶ FAST AND ACCURATE RESPONSE

#### Controls

- ENCAPSULATED BOARD W/ SEALED HARNESS
- 4-20mA VOLTAGE-TO-CURRENT SENSORS
- SURFACE-MOUNT TECHNOLOGY
- ADVANCED DIAGNOSTICS & COMMUNICATIONS
- ▶ EASY, AFFORDABLE REPLACEMENT
- ▶ NOISE RESISTANT 24/7 MONITORING
- ▶ PROVIDES VIBRATION RESISTANCE
- ▶ HARDENED RELIABILITY

### primary codes and standards



# SD600

## application and engineering data

### ENGINE SPECIFICATIONS

#### General

Make	Doosan
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Reference	See Emissions Data Sheet
Cylinder #	12
Type	V-12
Displacement - L	22
Bore - mm (in.)	128 (5.04)
Stroke - mm (in.)	142 (5.6)
Compression Ratio	15.0:1
Intake Air Method	Turbocharged/Aftercooled
Cylinder Head Type	3 Cylinder Bank Heads
Piston Type	Open Chamber/Oil Cooled
Connecting Rod Type	I-Beam Section

#### 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 - L (qts)	40 (10.5)

#### Cooling System

Cooling System Type	Closed Recovery
Water Pump Flow	Centrifugal Type, Belt-Driven
Fan Type	Pusher
Fan Speed (rpm)	2063
Fan Diameter mm (in.)	915 (36)
Standard Coolant Heater Wattage	3000W
Standard Coolant Heater Voltage	240VAC

#### Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Specifications	ASTM
Fuel Filtering (microns)	10
Fuel Inject Pump Make	Bosch P Type x 1
Fuel Pump Type	Engine Driven Gear
Injector Type	Bosch Multi-Hole
Engine Type	Direct Injection
Fuel Supply Line - mm (in.)	12.7 (½")
Fuel Return Line - mm (in.)	(5/16" FNPT)

#### Engine Electrical System

System Voltage	24 VDC
Battery Charging Alternator	45 Amps at 24V
Battery Size (at 0°C)	1155
Battery Group	8D
Battery Voltage	(2) - 12 VDC
Ground Polarity	Negative

### ALTERNATOR SPECIFICATIONS

Standard Model	Generac WEG
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	< 3%
Telephone Interference Factor (TIF)	< 50
Standard Excitation	Self-Ventilated, Drip-Proof
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	BS5514
NFPA 110	SAE J1349
ISO 8528-5	DIN6271
ISO 1708A.5	IEEE C62.41 TESTING
ISO 3046	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.

# SD600

## operating data (60Hz)

### POWER RATINGS (kW)

	STANDBY		PRIME	
Three-Phase 120/208VAC @0.8pf	600 kW	Amps: 2081	450 kW	Amps: 1898
Three-Phase 120/240VAC @0.8pf	600 kW	Amps: 1804	450 kW	Amps: 1645
Three-Phase 277/480VAC @0.8pf	600 kW	Amps: 902	450 kW	Amps: 822
Three-Phase 346/600VAC @0.8pf	600 kW	Amps: 722	450 kW	Amps: 658

### STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip								sKVA vs. Voltage Dip							
		480VAC								208/240VAC					
Alternator	kW	10%	15%	20%	25%	30%	35%	Alternator	kW	10%	15%	20%	25%	30%	35%
Standard	600	743	1114	1486	1857	2229	2600	Standard	600	543	814	1086	1357	1629	1900
Upsize 1	832	757	1136	1514	1893	2271	2650	Upsize 1	723	571	857	1143	1429	1714	2000
Upsize 2	-	-	-	-	-	-	-	Upsize 2	-	-	-	-	-	-	-

### FUEL

Fuel Pump Lift - mm (in)	Fuel Consumption Rates*					
	STANDBY			PRIME		
	Percent Load	gph	lph	Percent Load	gph	lph
1000 (40)	25%	14.4	54.5	25%	14.4	53.4
	50%	23.4	88.7	50%	21.1	79.1
	75%	36.6	138.6	75%	32.3	122.4
	100%	46.2	175.1	100%	42.1	159.6

\* Refer to "Emissions Data Sheet" for maximum fuel flow for EPA and SCAQMD permitting purposes.

### COOLING

Coolant Capacities - Gal (L)		STANDBY		PRIME	
System	25.9 (98)	Coolant Flow per Minute	gpm (lpm)	134.2 (508)	134.2 (508)
Engine	6.1 (23)	Heat Rejection to Coolant	BTU/hr	1,703,302	1,552,143
Radiator	19.8 (75)	Inlet Air	cfm (m3/min)	23,500 (665)	23,500 (665)
		Max. Operating Radiator Air Temp	F° (C°)	122 (50)	122 (50)
		Max. Operating Ambient Temperature	F° (C°)	104 (40)	104 (40)
		Maximum Radiator Backpressure	in H <sub>2</sub> O	1.5	1.5

### COMBUSTION AIR REQUIREMENTS

	STANDBY	PRIME
Flow at Rated Power cfm (m3/min)	1959 (55.5)	1716 (48.6)

### ENGINE

	STANDBY	PRIME
Rated Engine Speed	rpm	1800
Horsepower at Rated kW**	hp	954
Piston Speed	ft/min	1677
BMEP	psi	313

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

### EXHAUST

	STANDBY	PRIME
Exhaust Flow (Rated Output)	cfm (m <sup>3</sup> /min)	6419 (182)
Max. Backpressure (Post Silencer)	inHg (Kpa)	1.5 (5.1)
Exhaust Temp (Rated Output)	°F (°C)	1300 (704)
Exhaust Outlet Size (Open Set)	2X8" ANSI or 1X10" Single (Open Set)	

# SD600

## standard features and options

### GENERATOR SET

<input checked="" type="radio"/> Genset Vibration Isolation	Std
<input type="radio"/> IBC Seismic Certified/Seismic Rated Vibration Isolators	Opt
<input type="radio"/> Extended Warranty	Opt
<input type="radio"/> Gen-Link Communications Software	Opt
<input type="radio"/> Steel Enclosure	Opt
<input type="radio"/> Aluminum Enclosure	Opt

### ENGINE SYSTEM

General	
<input checked="" type="radio"/> Oil Drain Extension	Std
<input type="radio"/> Oil Make-Up System	Opt
<input type="radio"/> Oil Heater	Opt
<input checked="" type="radio"/> Air Cleaner	Std
<input checked="" type="radio"/> Fan Guard	Std
<input checked="" type="radio"/> Radiator Duct Adapter	Std
<input type="radio"/> Industrial Exhaust Silencer	Opt
<input type="radio"/> Critical Exhaust Silencer	Opt
<input type="radio"/> Hospital Grade Silencer	Opt
<input checked="" type="radio"/> Stainless Steel Flexible Exhaust Connection	Std

#### Fuel System

<input checked="" type="radio"/> Fuel Lockoff Solenoid	Std
<input checked="" type="radio"/> Secondary Fuel Filter	Std
<input type="radio"/> Primary Fuel Filter	Opt
<input type="radio"/> Single Wall Tank (Export Only)	-
<input type="radio"/> UI 142 Fuel Tank	Opt

#### Cooling System

<input type="radio"/> 208Vac Coolant Heater	Opt
<input checked="" type="radio"/> 240Vac Coolant Heater	Std
<input type="radio"/> Other Coolant Heater _____	-
<input checked="" type="radio"/> Closed Coolant Recovery System	Std
<input checked="" type="radio"/> Uv/Ozone Resistant Hoses	Std
<input checked="" type="radio"/> Factory-Installed Radiator	Std
<input checked="" type="radio"/> Radiator Drain Extension	Std

#### Engine Electrical System

<input checked="" type="radio"/> Battery Charging Alternator	Std
<input checked="" type="radio"/> Battery Cables	Std
<input type="radio"/> Batteries and Tray	Opt
<input type="radio"/> Battery Box	Opt
<input type="radio"/> Battery Heater	Opt
<input checked="" type="radio"/> Solenoid Activated Starter Motor	Std
<input type="radio"/> 10A UI Float/Equalize Battery Charger	Opt
<input checked="" type="radio"/> Rubber-Booted Engine Electrical Connections	Std

### ALTERNATOR SYSTEM

<input checked="" type="radio"/> UI2200 Genprotect™	Std
<input type="radio"/> Main Line Circuit Breaker	Opt
<input type="radio"/> 2Nd Circuit Breaker	Opt
<input type="radio"/> 3Rd Circuit Breaker	-
<input type="radio"/> Alternator Upsizing	Opt
<input type="radio"/> Anti-Condensation Heater	Opt
<input type="radio"/> Tropical Coating	Opt
<input checked="" type="radio"/> Permanent Magnet Generator	Std

### CONTROL SYSTEM

#### Control Panel

<input checked="" type="radio"/> Digital H Control Panel - Dual 4X20 Display	Std
<input type="radio"/> Digital G-100 Control Panel - Touchscreen	Na
<input type="radio"/> Digital G-200 Paralleling Control Panel - Touchscreen	Na
<input checked="" type="radio"/> Programmable Crank Limiter	Std
<input type="radio"/> 21-Light Remote Annunciator	Opt
<input type="radio"/> Remote Relay Panel (8 or 16)	Opt
<input checked="" type="radio"/> 7-Day Programmable Exerciser	Std
<input checked="" type="radio"/> Special Applications Programmable Plc	Std
<input checked="" type="radio"/> RS-232	Std
<input checked="" type="radio"/> RS-485	Std
<input checked="" type="radio"/> All-Phase Sensing Dvr	Std
<input checked="" type="radio"/> Full System Status	Std
<input checked="" type="radio"/> Utility Monitoring (Req. H-Transfer Switch)	Std
<input checked="" type="radio"/> 2-Wire Start Compatible	Std
<input checked="" type="radio"/> Power Output (Kw)	Std
<input checked="" type="radio"/> Power Factor	Std
<input checked="" type="radio"/> Reactive Power	Std
<input checked="" type="radio"/> All Phase AC Voltage	Std
<input checked="" type="radio"/> All Phase Currents	Std
<input checked="" type="radio"/> Oil Pressure	Std
<input checked="" type="radio"/> Coolant Temperature	Std
<input checked="" type="radio"/> Low Coolant Level	Std
<input type="radio"/> Oil Temperature	Opt
<input checked="" type="radio"/> Engine Speed	Std
<input checked="" type="radio"/> Battery Voltage	Std
<input checked="" type="radio"/> Frequency	Std
<input checked="" type="radio"/> Date/Time Fault History (Alarm and Event Log)	Std
<input type="radio"/> Low-Speed Exercise	-
<input checked="" type="radio"/> Isochronous Governor Control	Std
<input checked="" type="radio"/> -40 Deg C - 70 Deg C Operation	Std
<input checked="" type="radio"/> Waterproof Plug-In Connectors	Std
<input checked="" type="radio"/> Audible Alarms and Shutdowns	Std
<input checked="" type="radio"/> Not In Auto (Flashing Light)	Std
<input checked="" type="radio"/> Auto/Off/Manual Switch	Std
<input checked="" type="radio"/> E-Stop (Red Mushroom-Type)	Std
<input type="radio"/> Remote E-Stop (Break Glass-Type, Surface Mount)	Opt
<input type="radio"/> Remote E-Stop (Red Mushroom-Type, Surface Mount)	Opt
<input type="radio"/> Remote E-Stop (Red Mushroom-Type, Flush Mount)	Opt
<input checked="" type="radio"/> NFPA 110 Level I and II (Programmable)	Std
<input checked="" type="radio"/> Remote Communication - RS232	Std
<input type="radio"/> Remote Communication - Modem	Opt
<input type="radio"/> Remote Communication - Ethernet	Opt
<input type="radio"/> 10A Run Relay	Opt

#### Alarms (Programmable Tolerances, Pre-Alarms And Shutdowns)

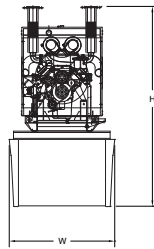
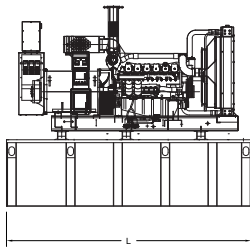
<input type="radio"/> Low Fuel	Opt
<input checked="" type="radio"/> Oil Pressure (Pre-Programmed Low Pressure Shutdown)	Std
<input checked="" type="radio"/> Coolant Temperature (Pre-Programmed High Temp Shutdown)	Std
<input checked="" type="radio"/> Coolant Level (Pre-Programmed Low Level Shutdown)	Std
<input type="radio"/> Oil Temperature	Opt
<input checked="" type="radio"/> Engine Speed (Pre-Programmed Overspeed Shutdown)	Std
<input checked="" type="radio"/> Voltage (Pre-Programmed Overvoltage Shutdown)	Std
<input checked="" type="radio"/> Battery Voltage	Std

#### Other Options

<input type="radio"/>	_____
<input type="radio"/>	_____
<input type="radio"/>	_____

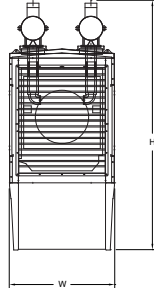
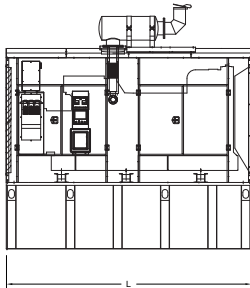
**SD600**

**dimensions, weights and sound levels**



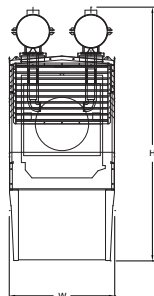
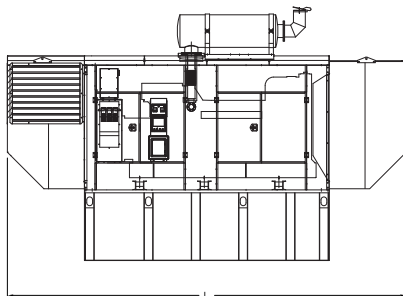
**OPEN SET**

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	141	57	84	9902	95
7	313	152	63	98	11564	
10	469	152	63	104	11694	
15	685	152	63	110	12452	
20	936	185	63	113	12572	
29	1347	185	63	120	13672	



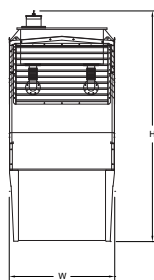
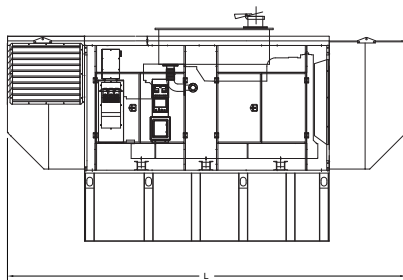
**WEATHERPROOF ENCLOSURE**

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	152	63	118	12190	92
7	313	152	63	135	14010	
10	469	152	63	141	14048	
15	685	152	63	147	14392	
20	936	185	63	150	14990	
29	1347	185	63	157	15268	



**LEVEL 1 ACOUSTIC ENCLOSURE**

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	229	63	118	11993	79
7	313	229	63	135	13655	
10	469	229	63	141	13785	
15	685	229	63	147	14543	
20	936	229	63	150	14663	
29	1347	229	63	157	15763	



**LEVEL 1 ACOUSTIC ENCLOSURE WITH NESTED SILENCER**

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	270	71	104	15263	76
7	313	270	71	120	16925	
10	469	270	71	125	17055	
15	685	270	71	133	17813	
20	936	270	71	133	17933	
29	1347	270	71	143	19033	

\*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

<input type="radio"/> MDEQ	OPT
<input type="radio"/> Florida DERM/DEP	OPT
<input type="radio"/> Chicago Fire Code	OPT
<input type="radio"/> IFC Certification	CALL
<input type="radio"/> ULC	CALL

Other Custom Options Available from your Generac Industrial Power Dealer

**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.