

SD180

SD200

Liquid Cooled Diesel Engine Generator Sets

Standby Power Rating

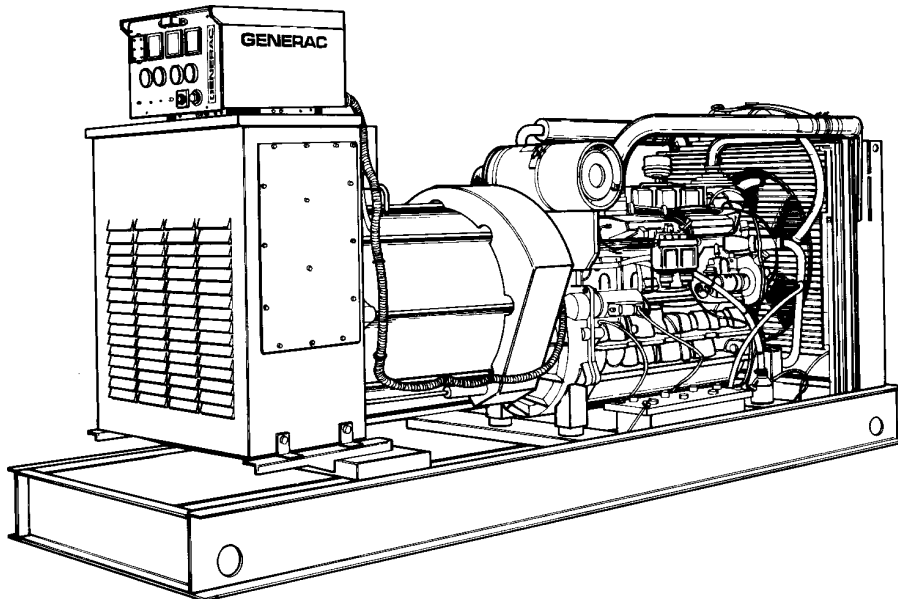
180KW 60Hz/180KVA 50 Hz

200KW 60 Hz/200KVA 50 Hz

Prime Power Rating

147KW 60 Hz/147KVA 50 Hz

163KW 60 Hz/163KVA 50 Hz



Power Matched

GENERAC 7.5DMTA ENGINE

Turbo-Charged, Aftercooled

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
 - **TEST CRITERIA:**
 - ✓ PROTOTYPE TESTED
 - ✓ SYSTEM TORSIONAL TESTED
 - ✓ ELECTRO-MAGNETIC INTERFERENCE
 - ✓ NEMA MG1-22 EVALUATION
 - ✓ MOTOR STARTING ABILITY
 - ✓ SHORT CIRCUIT TESTING
 - ✓ UL 2200 COMPLIANCE AVAILABLE
 - **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM
- MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.
 - **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own an GENERAC POWER SYSTEM.
 - **ECONOMICAL DIESEL POWER.** Low cost operation due to modern diesel engine technology. Better fuel utilization plus lower cost per gallon provide real savings.
 - **LONGER ENGINE LIFE.** Generac heavy-duty diesels provide long and reliable operating life.
 - **GENERAC TRANSFER SWITCHES AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, and controls for total system compatibility.

GENERAC®

POWER SYSTEMS, INC.

APPLICATION & ENGINEERING DATA

SD180/SD200

GENERATOR SPECIFICATIONS

TYPE	Four-pole, revolving field
ROTOR INSULATION	Class H
STATOR INSULATION	Class H
TOTAL HARMONIC DISTORTION	<3.0%
TELEPHONE INFLUENCE FACTOR (TIF)	<50
ALTERNATOR	Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED)	2
COUPLING	Flexible Disc
LOAD CAPACITY (STANDBY)	100%

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046 and DIN6271 standards.

EXCITATION SYSTEM

PERMANENT MAGNET PILOT EXCITER	Eighteen-pole exciter ✓
	Magnetically coupled DC current ✓
	Mounted outboard of main bearing ✓
REGULATION	Solid-state ✓
	±1% regulation ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "F" insulation as defined by NEMA MG1-22.40 and NEMA MG1-1.65.
- Rotor and stator and other insulation is impregnated with class "H" varnish.
- All models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit tested for motor-starting ability by measuring instantaneous voltage dip with an oscillograph.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, tooth and skewed stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-22.
- Alternator is self-ventilated and drip-proof constructed.
- Fully life-tested protective systems, including "field circuit and thermal overload protection" and optional main-line circuit breakers capable of handling full output capacity.
- System Torsional acceptability confirmed during Prototype Testing.

ENGINE SPECIFICATIONS

MAKE	GENERAC
MODEL	7.5DTA
CYLINDERS	6 in-line
DISPLACEMENT	7.5 Liters (457 cu. in.)
BORE	118 mm (4.64 in.)
STROKE	115 mm (4.52 in.)
COMPRESSION RATIO	16:1
INTAKE AIR	Turbocharged, Aftercooled
NUMBER OF MAIN BEARINGS	7
CONNECTING RODS	6-Carbon Steel
CYLINDER HEAD	Cast Iron with Overhead Valve
PISTONS	6-Heat Resistant Aluminum Alloy
CRANKSHAFT	Case Hardened, Die Forged, Carbon Steel

VALVE TRAIN

LIFTER TYPE	Solid
INTAKE VALVE MATERIAL	Special Heat Resistant Steel
EXHAUST VALVE MATERIAL	Special Heat Resistant Steel
HARDENED VALVE SEATS	Replaceable

ENGINE GOVERNOR

<input type="checkbox"/> ELECTRONIC	Standard
FREQUENCY REGULATION, NO-LOAD TO FULL LOAD ...	0.5%
STEADY STATE REGULATION	±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP	Forced Feed Lubrication w/ Oil Pump
OIL FILTER	Full Flow, Cartridge
CRANKCASE CAPACITY	22.7 Liters (6.0 U.S. gallons)

COOLING SYSTEM

TYPE OF SYSTEM	Pressurized, closed recovery
WATER PUMP	Pre-lubed, Self-Sealing
TYPE OF FAN	Pusher
NUMBER OF FAN BLADES	7
DIAMETER OF FAN	650 mm (26.0 in.)
COOLANT HEATER	120V, 1800 W

FUEL SYSTEM

FUEL	#2D Fuel (Min Cetane #40) (Fuel should conform to ASTM Spec.)
FUEL FILTER	10 Micron
FUEL INJECTION PUMP	ZEXEL
FUEL PUMP	Mechanical
INJECTORS	Multi-hole, nozzle type
ENGINE TYPE	Direct injection
FUEL LINE (Supply)	9.53 mm (0.375 in.)
FUEL RETURN LINE	9.53 mm (0.375 in.)

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	35 Amps at 24 V
STARTER MOTOR	24 V
RECOMMENDED BATTERY	2-12V, 135 AH, 4D
GROUND POLARITY	Negative

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

STANDARD ENGINE & SAFETY FEATURES

SD180/SD200

- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Shutdown (Solid-state)
- Crank Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain Extension
- Factory-Installed Cool Flow Radiator
- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Secondary Fuel Filter
- Fuel Lockoff Solenoid
- Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Battery Tray
- Vibration Isolation of Unit to Mounting Base
- 24 Volt, Solenoid-activated Starter Motor
- Air Cleaner
- Fan Guard
- Control Console
- Coolant Heater
- Isochronous Governor

OPTIONS

■ OPTIONAL COOLING SYSTEM ACCESSORIES

- Radiator Duct Adapter
- Coolant Heater 208/240VAC

■ OPTIONAL FUEL ACCESSORIES

- Flexible Fuel Lines
- UL Listed Fuel Tanks
- Base Tank Fuel Alarms
- Primary Fuel Filter
- Primary Fuel Filter with Heater

■ OPTIONAL EXHAUST ACCESSORIES

- Critical Exhaust Silencer

■ OPTIONAL ELECTRICAL ACCESSORIES

- Battery, 12 Volt, 135 A.H., 4D (2 req'd)
- Battery, 12 Volt, 225 A.H., 8D (2 req'd)
- 2A Battery Charger
- 10A Dual Rate Battery Charger
- Battery Heater

■ OPTIONAL ALTERNATOR ACCESSORIES

- Alternator Upsizing
- Alternator Strip Heater
- Alternator Tropicalization
- Voltage Changeover Switch
- Main Line Circuit Breaker

■ CONTROL CONSOLE OPTIONS

- Analog Control "C" Panel (Bulletin 0151160SBY)
- Analog/Digital Control "E" Panel (Bulletin 0161310SBY)

■ ADDITIONAL OPTIONAL EQUIPMENT

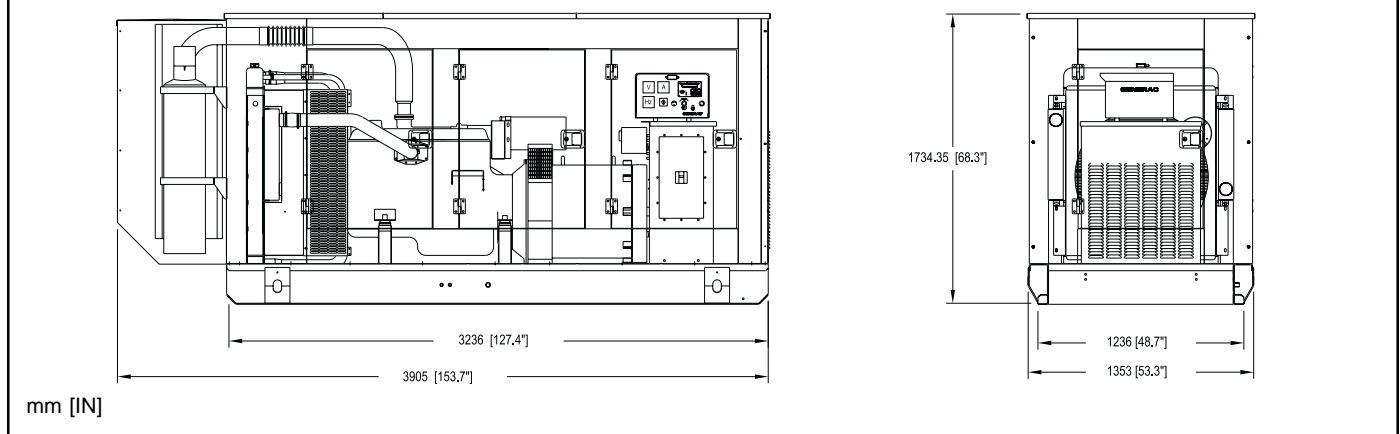
- Automatic Transfer Switch
- 3 Light Remote Annunciator
- 5 Light Remote Annunciator
- 20 Light Remote Annunciator
- Remote Relay Panels
- Unit Vibration Isolators
- Oil Make-Up System
- Oil Heater
- 5 Year Warranties
- Export Boxing
- GenLink® Communications Software

■ OPTIONAL ENCLOSURES

- Weather Protective
- Sound Attenuated
- Aluminum and Stainless Steel
- Enclosed Muffler

Distributed by:

Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.



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