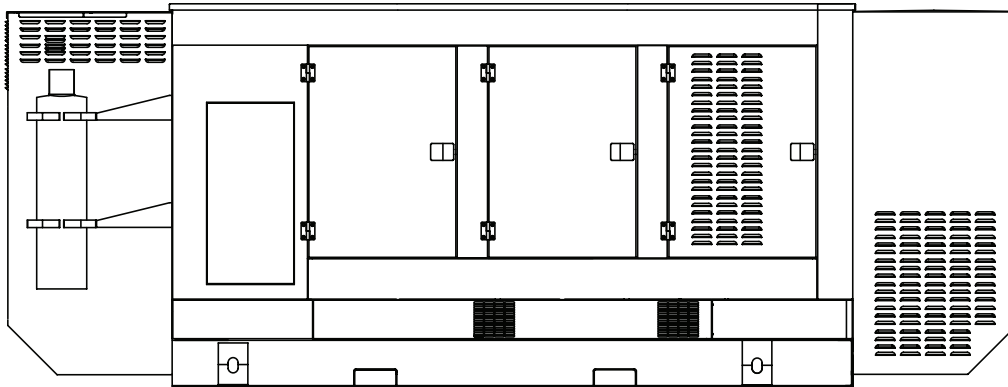


SG200

Liquid Cooled Gas Engine Generator Sets

Standby Power Rating
200 KW 60 Hz



Power Matched

GENERAC

13.3GTA ENGINE

Turbocharged/Aftercooled
Meets 2009 EPA Emission
Regulations

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 EVALUATION
 - ✓ MOTOR STARTING ABILITY
 - ✓ SHORT CIRCUIT TESTING
 - ✓ UL2200 COMPLIANCE AVAILABLE
- **SOLID-STATE, FREQUENCY COMPENSATED DIGITAL 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 a GENERAC POWER SYSTEM.
- **GENERAC TRANSFER SWITCHES, SWITCHGEAR 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, switchgear and controls for total system compatibility.

GENERAC®

APPLICATION & ENGINEERING DATA

SG200

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. 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.....	H100 Controller Digital ✓
	3 Phase Sensing, ± 0.25% regulation ✓

GENERATOR FEATURES

- Revolving field heavy duty generator
- Directly connected to the engine
- Operating temperature rise 120 °C above a 40 °C ambient
- Insulation is Class H rated at 150 °C rise
- All prototype models have passed three phase short circuit testing
- PMG

CONTROL PANEL FEATURES

- TWO FOUR LINE LCD DISPLAYS READ:
 - Voltage (all phases)
 - Power factor
 - kVAR
 - Engine speed
 - Run hours
 - Fault history
 - Coolant temperature
 - Low oil pressure shutdown
 - Overvoltage
 - Low coolant level
 - Not in auto position (flashing light)
 - ATS selection
 - Current (all phases)
 - kW
 - Transfer switch status
 - Low fuel pressure
 - Service reminders
 - Oil pressure
 - Time and date
 - High coolant temperature shutdown
 - Overspeed
 - Low coolant level
 - Exercise speed
- INTERNAL FUNCTIONS:
 - IFT function for alternator protection from line to neutral and line to line short circuits
 - Emergency stop
 - Programmable auto crank function
 - 2 wire start for any transfer switch
 - Communicates with the Generac HTS transfer switch
 - Built-in 7 day exerciser
 - Adjustable engine speed at exerciser
 - RS232 port for GenLink® control
 - RS485 port remote communication
 - Canbus addressable
 - Governor controller and voltage regulator are built into the master control board
 - Temperature range -40 °C to 70 °C

ENGINE SPECIFICATIONS

MAKE	GENERAC
MODEL.....	13.3GTA
CYLINDERS.....	6 in-line
DISPLACEMENT.....	13.3 Liter (811 cu. in.)
BORE	137 mm (5.39 in.)
STROKE.....	150 mm (5.91 in.)
COMPRESSION RATIO	10.5:1
INTAKE AIR	Turbocharged/Aftercooled
NUMBER OF MAIN BEARINGS	7
CONNECTING RODS	6-Carbon Steel
CYLINDER HEAD	Cast Iron with Overhead Valve
CYLINDER LINERS	Wet/Replaceable
IGNITION.....	Altronic CD1
PISTONS.....	Heat-Resistant Alloy with 4 Rings
CRANKSHAFT	Induction-Hardened, Die-Forged Carbon Steel

VALVE TRAIN

LIFTER TYPE	Solid
INTAKE VALVE MATERIAL.....	Special Heat Resistant Steel
EXHAUST VALVE MATERIAL	Inconel Alloy High Temp.
HARDENED VALVE SEATS	High Temp. Alloy Stellite Faced

ENGINE GOVERNOR

ELECTRONIC	Standard
STEADY STATE REGULATION.....	±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP	Gear Driven
OIL FILTER.....	Full flow, cartridge
CRANKCASE CAPACITY.....	27 Liters (7.13 gal.)

COOLING SYSTEM

TYPE OF SYSTEM	Pressurized, closed recovery
WATER PUMP.....	Pre-lubed, self-sealing
TYPE OF FAN	Pusher
NUMBER OF FAN BLADES.....	6
DIAMETER OF FAN	30 in.
COOLANT HEATER	(1) 240V, 2000 W

FUEL SYSTEM

FUEL	
<input type="checkbox"/> Natural Gas.....	Standard
CARBURETOR.....	Down draft
SECONDARY FUEL REGULATOR	Nat. Gas
AUTOMATIC FUEL LOCKOFF SOLENOID.....	Standard
OPERATING FUEL PRESSURE SYSTEMS.....	7" to 15" H ₂ O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR.....	20 Amps at 24 V
STARTER MOTOR	24 V
RECOMMENDED BATTERY.....	(2) - 12 V, 925 CCA, 31
GROUND POLARITY	Negative

SG200

OPERATING DATA	STANDBY	
GENERATOR OUTPUT VOLTAGE/KW-60Hz 120/240V, 1-phase, 1.0 pf 120/208V, 3-phase, 0.8 pf 120/240V, 3-phase, 0.8 pf 277/480V, 3-phase, 0.8 pf 600V, 3-phase, 0.8 pf NOTE: Consult your Generac dealer for additional voltages.	<u>N.G.</u> 200 200 200 200 200	<u>Rated AMP</u> 833 695 602 301 241
MOTOR STARTING Maximum at 35% instantaneous voltage dip with standard alternator—60 Hz with optional alternator—60 Hz	<u>240V</u> 490 KVA 900 KVA	<u>480V</u> 653 KVA 1356 KVA
FUEL Fuel consumption—60 Hz—100% Load* ft. ³ hr. m ³ hr.	<u>N.G.</u> 2550 72.2	
COOLING Coolant capacity System lit. (US gal.) Engine lit. (US gal.) Radiator lit. (US gal.) Coolant flow/min. 60 Hz lit. (US gal.) Heat rejection to coolant BTU/hr. Inlet air 60 Hz m ³ /min. (cfm) Max. operating air temp. onto radiator****°C (°F) Max. operating ambient temp.*** °C (°F) Max. external pressure drop on rad. in. H ₂ O	29 (7.7) 21 (5.6) 8 (2.1) 170 (45) 703,000 493 (17400) 60 (140) 50 (122) 0.5	
COMBUSTION AIR REQUIREMENTS Flow at rated power 60 Hz m ³ /min. (cfm)	20.4 (718.6)	
EXHAUST Exhaust flow at rated output 60 Hz m ³ /min. (cfm) Max. recommended back pressure Kpa (Hg) Exhaust temp. at rated output °F Exhaust outlet size (flange)	76.7 (2710) 5.0 (1.5") 1565 4" I.D.	
ENGINE Rated RPM 60Hz HP at rated KW** 60Hz Piston speed 60 Hz m/min. (ft./min.) BMEP 60Hz	1800 309 541 (1773) 168	
DERATION FACTORS Temperature 4.1% for every 10°C above - °C 2.4% for every 10°F above - °F Altitude 0.8% for every 100 m above - m 2.5% for every 1000 ft. above - ft.	43 110 1067 3500	

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

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

*** Values given are maximum temperatures to which power adjustments can be applied. Consult your Generac Power Systems representative if operating conditions exceed these maximums.

- 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
- Isochronous Governor

- Fuel Lockoff Solenoid
- Secondary Fuel Regulator
- 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

OPTIONS

■ OPTIONAL COOLING SYSTEM ACCESSORIES

- Radiator Duct Adapter

■ OPTIONAL FUEL ACCESSORIES

- Flexible Fuel Lines

■ OPTIONAL EXHAUST ACCESSORIES

- Critical Exhaust Silencer

■ OPTIONAL ELECTRICAL ACCESSORIES

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

■ OPTIONAL ALTERNATOR ACCESSORIES

- Alternator Upsizing
- Alternator Strip Heater
- Alternator Tropicalization
- Main Line Circuit Breaker

■ CONTROL CONSOLE OPTIONS

- Digital controller H100 Panel (See Bulletin 0172110SBY)

■ ADDITIONAL OPTIONAL EQUIPMENT

- Automatic Transfer Switch
- 21 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.

