

Standby Generators

25kW - Liquid Cooled Gas Engine

Standby Power Rating

25 kW 60Hz

Includes:

- Naturally aspirated gaseous fueled 1.6L engine
- Two line LCD tri-lingual digital Nexus controller
- Isochronous electronic governor
- Closed coolant recovery system
- Smart battery charger
- UV/Ozone resistant hoses
- $\pm 1\%$ voltage regulation
- Natural gas or LP operation
- UL 2200 Listed
- Meets EPA emission regulations

Catalog numbers:

- SGN025RBS – 120/240V, 1-phase
- SGN025CBS – 120/208V, 3-phase
- SGN025JBS – 120/240V, 3-phase



Features

- **Innovative design and prototype testing**
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 Siemens with the confidence that these systems will provide superior performance.
- **True Power® electrical technology**
Superior harmonics and sine wave form produce less than 5% total harmonic distortion for utility quality power. This allows confident operation of sensitive electronic equipment and micro-chip based appliances, such as variable speed HVAC.
- **Test criteria:**
 - Prototype tested
 - System torsional tested
 - NEMA MG1-22 evaluation
 - Motor starting ability tested
- **Solid-state, frequency compensated voltage regulation**
This state-of-the-art power maximizing regulation system is standard on all Siemens 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. An unequalled $\pm 1\%$ voltage regulation.
- **Siemens transfer switches**
Long life and reliability are synonymous with Siemens. One reason for this confidence is that the Siemens product line includes its own transfer systems and controls for total system compatibility.

Data Sheet

www.usa.siemens.com/generators

SIEMENS

Application & Engineering Data

Generator specifications	
Type	Synchronous
Rotor insulation	Class F
Stator insulation	Class F
Telephone interference factor (TIF)	<50
Alternator output leads 3 phase	4 wire
Bearings	Sealed Ball
Coupling	Flexible Disc
Load capacity (standby rating)	25 kW
Excitation system	Direct

Voltage regulation	
Type	Electronic
Sensing	Single Phase
Regulation	± 1%

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 F rated at 130 °C rise	
All models are fully prototyped tested	

Enclosure features	
Galvanized steel weather protective enclosure	Ensures protection against mother nature. Electrostatically applied textured epoxy paint for added durability.
Enclosed critical grade muffler	Quiet, critical grade muffler is mounted inside the unit to prevent injuries.
Small, compact, attractive	Makes for an easy, eye appealing installation.

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, ISO8528, SAE J1349 and DIN6271).

Engine specifications	
Make	Generac
Model	In line
Cylinders	4
Displacement	1.6 Liter
Bore	3.15
Stroke	3.13
Compression ratio	9.75:1
Intake air system	Naturally Aspirated
Valve seats	Replaceable
Lifter type	Hydraulic

Governor specifications	
Type	Electronic
Frequency regulation	Isochronous
Steady state regulation	± 0.25%

Engine lubrication system	
Oil pump	Gear
Oil filter	Full flow spin-on cartridge
Crankcase capacity	4 Quarts

Engine cooling system	
Type	Closed
Water pump	Belt driven
Fan speed	2550
Fan diameter	15 inches
Fan mode	Pusher

Fuel system	
Fuel type	Natural gas, propane vapor
Carburetor	Down Draft
Secondary fuel regulator	Standard
Fuel shut off solenoid	Standard
Operating fuel pressure	5" - 14" H ₂ O

Electrical system	
Battery charge alternator	12V 30 Amp
Static battery charger	2 Amp
Recommended battery	Group 26, 525CCA
System voltage	12 Volts

Operating data	
KW rating (LP/NG)	25/25
Engine size	1.6 Liter 4 cyl. inline

Catalog number	Generator output voltage/kW - 60Hz	KW	AMP	CB Size
SGN025RBS	120/240V, 1-phase, 1.0 pf	25	104	125
SGN025CBS	120/208V, 3-phase, 0.8 pf	25	87	100
SGN025JBS	120/240V, 3-phase, 0.8 pf	25	75	90

Engine fuel consumption (Natural Gas) (Propane)	Natural Gas (ft ³ /hr.)	Propane (gal/hr.)	cu ft/hr
Exercise cycle	60	0.7	24
25% of rated load	120	1.3	48
50% of rated load	220	2.4	87
75% of rated load	310	3.4	123
100% of rated load*	390	4.3	155

Engine cooling	
Air flow (inlet air including alternator and combustion air)ft ³ /min.	1,528
System coolant capacity US gal.	2.0
Heat rejection to coolant BTU/hr.	110,000
Max. operating air temp. on radiator °C (°F)	60 (150)
Max. ambient temperature °C (°F)	50 (140)

Combustion air requirements	
Flow at rated power 60 Hz cfm	90

Sound emissions in DBA	
Exercising at 7 meters	62
Normal operation at 7 meters	72

Exhaust	
Exhaust flow at rated output 60 Hz cfm	249
Exhaust temp. at muffler outlet °F	1015

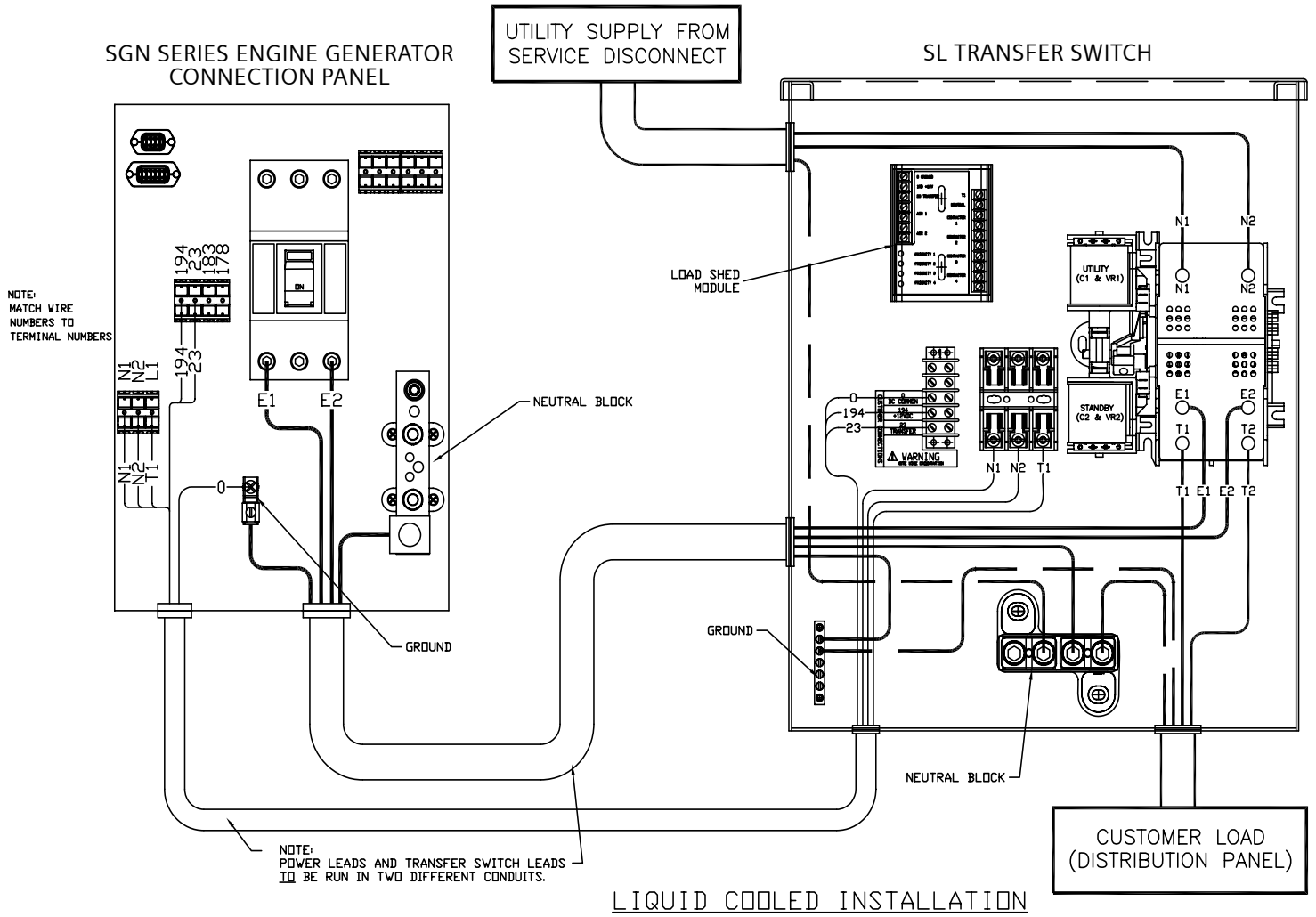
Engine parameters	
Rated synchronous RPM 60 Hz	3600

Power adjustments for ambient conditions	
Temperature Deration	
3% for every 10 °C above - °C	25
1.65% for every 10 °F above - °F	77
Altitude Deration	
1% for every 100 m above - m	183
3% for every 1000 ft. above - ft.	600

* Refer to EPA # GNX-NRSI for maximum fuel flow for EPA and SCAQMD permitting purposes.

RATING: All three phases units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice. KW rating is based on LPG Fuel and may derate with natural gas.

Interconnections



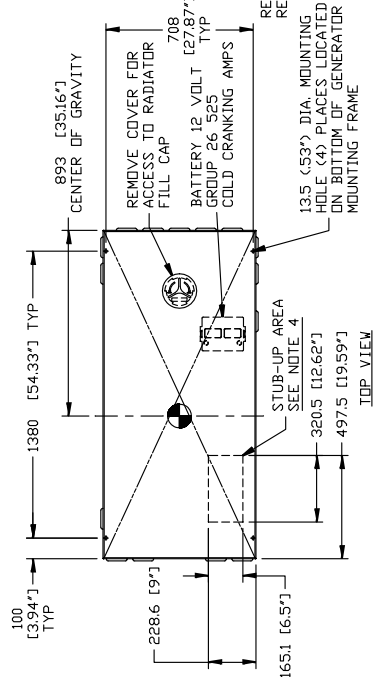
Nexus control features	
2-Line Plain Text LCD Display	Simple user interface for ease of operation
Mode Switch	Automatic Start on Utility failure. 7 day exerciser
-Auto	Automatic Start on Utility failure. 7 day exerciser
-Off	Stops unit. Power is removed. Control and charger still operate.
-Manual/Test (start)	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Programmable start delay between 10-30 seconds	Standard
Engine Start Sequence	Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration)
Engine Warm-up	5 seconds
Engine Cool-Down	1 minute
Starter Lock-out	Starter cannot re-engage until 5 sec. after engine has stopped.
Smart Battery Charger	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Automatic Low Oil Pressure Shutdown	Standard
Overspeed Shutdown	Standard, 72Hz
High Temperature Shutdown	Standard
Overcrank Protection	Standard
Safety Fused	Standard
Failure to Transfer Protection	Standard
Low Battery Protection	Standard
50 Event Run Log	Standard
Future Set Capable Exerciser	Standard
Incorrect Wiring Protection	Standard
Internal Fault Protection	Standard
Common External Fault Capability	Standard
Governor Failure Protection	Standard

*Single and three phase connections may vary , refer to the owner's manual for specific connection information.

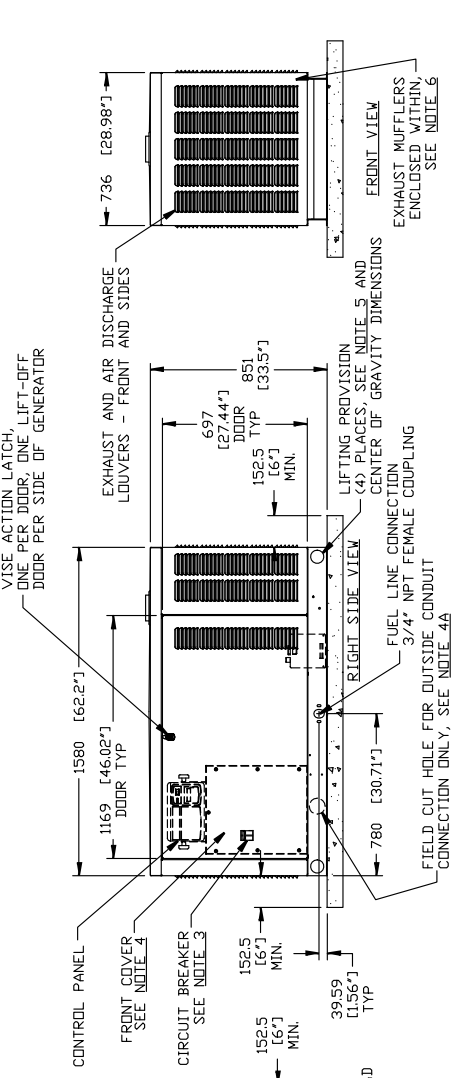
Installation layout - Liquid Cooled Standby Generator 25kW

SERVICE ITEM ACCESSIBILITY CHART

SERVICE ITEM	ACCESS
OIL FILL CAP	ETHER DOOR
OIL DIP STICK	THRU RIGHT DOOR
OIL FILTER	THRU RIGHT DOOR
OIL DRAIN HOSE	THRU RIGHT DOOR
RADIATOR DRAIN HOSE	THRU RIGHT DOOR
AIR CLEANER ELEMENT	THRU RIGHT DOOR
SPARK PLUGS	THRU RIGHT DOOR
MUFFLERS	SEE NOTE 6
FAN BELT	THRU RIGHT DOOR
BATTERY	THRU RIGHT DOOR



- NOTES:
- 1) MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1041 (41.0') WIDE X 1892 (74.5') LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
 - 2) ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE AND LOCAL CODES FOR MINIMUM DISTANCES FROM OTHER STRUCTURES.
 - 3) CIRCUIT BREAKER INFORMATION: SEE SPECIFICATION SHEET WITHIN OWNERS MANUAL
 - 4) INSIDE STUB-UP AREA FOR AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (.5 AMP MAX.) CONNECTION, ACCESS TO TRANSFER SWITCH CONTROL WIRES, AND TRANSFER SWITCH CONNECTION (IF SO EQUIPPED). REMOVE FRONT COVER FOR ACCESS.
 - 4A) FIELD CUT HOLE IS ONLY REQUIRED FOR MOUNTING OF GENERATOR ON AN EXISTING PAD.
 - 5) REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
 - 6) REMOVE LIFT-OFF ENCLOSURE TO ACCESS EXHAUST MUFFLER.



WEIGHT DATA

ENGINE/KW	ENCLOSURE MATERIAL	WEIGHT (GENSET ONLY) (KG (LBS))	WEIGHT (WOODEN SHIPPING PAD) (KG (LBS))	SHIPPING WEIGHT (GENSET AND PAD) (KG (LBS))
1. 6L/18KW	STEEL	424 (935)	127 (280)	551 (1215)
1. 6L/20KW	ALUMINUM	382 (845)	127 (280)	510 (1125)
1. 6L/20KW	STEEL	397 (875)	127 (280)	524 (1155)
1. 6L/20KW	ALUMINUM	356 (785)	127 (280)	483 (1065)
1. 6L/20KW	STEEL	397 (875)	127 (280)	524 (1155)
1. 6L/20KW	ALUMINUM	356 (785)	127 (280)	483 (1065)
1. 6L/20KW	STEEL	424 (935)	127 (280)	551 (1215)
1. 6L/20KW	ALUMINUM	382 (845)	127 (280)	510 (1125)

**Warning: Installation drawing for reference only.
Liquid cooled units should be installed by an
Authorized Siemens Standby Generator Contractor.**

Siemens Industry Inc.
Building Technologies Division
Standby Power Systems
Catalog Numbers:
SGN025RBS, SGN025CBS, SGN025JBS

Notes:

Siemens Industry, Inc.
Building Technologies Division
5400 Triangle Parkway
Norcross, GA 30092

1-800-241-4453
info.us@siemens.com

www.usa.siemens.com/generators

Subject to change without prior notice
Order No.: RPFL-ASG08-0810
Printed in USA
© 2010 Siemens Industry, Inc.

The information provided in this flyer contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.