



# Air-Cooled PACKAGED STANDBY SYSTEM

<b>PSS8B</b>	<b>PSS12H</b>	<b>PSS20B</b>
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Conforms to  
UL STD 2200

Performance Data						
	LP			NG		
	kW	kVa	Amps	kW	kVa	Amps
PSS8B	8.4	8.4	35	7.6	7.6	32
PSS12H	12	12	50	10	10	41
PSS20B	17	17	71	15	15	62

Notes: (1) Derate 3.5% per 1,000 feet elevation above sea level.

## Features and Benefits

### Manufacturer

- Winco has over 85 years of generator experience.
- Winco exclusively manufactures generators. We focus our resources on developing the highest quality products available at the best long term value.
- Manufactured in the USA.

### Engines

- Commercial grade V-twin engines are standard in all models for smooth clean power.
- Pressurized lubrication system with spin-on oil filter.
- Generator exercises at operating speed to run complete diagnostics on the system.
- Converting between natural gas and LP gas is simple and easily done in the field.

### Installation

- Generator design allows side wall or sub-base underground connections.
- Easy to use AC and DC terminal blocks make connections quick and simple.

### Weather Enclosure

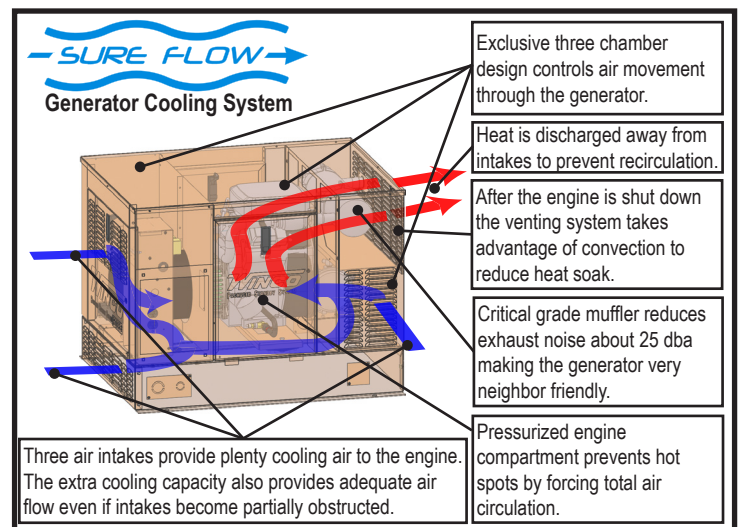
- Quiet neighbor-friendly operation.
- Fire-retardant sound absorbing foam.
- Galvaneal steel weatherproof housings are strong and durable at all temperatures.
- All panels are lockable and identically keyed.
- Side panels allow access to the generator for maintenance without having to remove or open the roof exposing the internal components to the elements.
- Unique three chamber housing design (see drawing to right) increases air flow while reducing noise and heat.
- Small compact designs are attractive and easily blend in with landscaping.

### Additional Features

- Smart battery charger prevents sulfation increasing the reliability and service life of the battery.
- Fast automatic response to power outages with optional transfer switch restores power in less than 30 seconds.

### Safety Features

- Safety shutdowns including high oil temp, low oil pressure, low frequency and low voltage protect the generator and load.
- Overcurrent protection by high quality thermal-magnetic Square D circuit breaker.
- Double disc fuel solenoids ensure positive fuel shut-off.
- Steel fuel inlet is more durable than aluminum preventing dangerous cracks.
- Full commercial warranty for 1 year or 1000 hours. Engine warranty administered by engine manufacturer.
- CSA approved and ETL listed to UL Standard 2200.
- All models are EPA/CARB compliant.





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## Specifications

Engine Specifications			
	PSS8B	PSS12H	PSS20B
Make	B&S	Honda	B&S
Model	Vanguard	GX690	Vanguard
Displacement	570 cc/OHV	688 cc/OHV	993 cc/OHV
Cylinders/Sleeves	V-Twin/Cast Iron		
Lubrication	Forced with Spin-On Filter		
Ignition	Electronic		
Engine Speed	3600		
Governor	Mechanical		
Regulation	+/-1.8 hz Steady State		
Fuel	LP/NG Field Selectable		
Exhaust	Critical Grade, Glass-pack		
Low Oil Pressure	Shutdown		
High Oil Temp	Shutdown		
Warranty	2 yr	3 yr	2 yr
EPA/CARB	Yes	Yes	Yes

Electrical Specifications	
Output	120/240V Single Phase
Design	Rotating Field
Poles	2
Voltage Regulation	+/-5%
Insulation	Class H
Temperature Rise	125°/40° C
Windings	100% Copper
Bearings	Weatherproof Maintenance Free
Harmonic Distortion	<5%
Rotor	2/3 Pitch
Load Acceptance	100% Rating/Single Step
DC System Voltage	12V
DC Alternator	Engine Mounted
Battery Rack/Cable	Included
Battery Charger	Included (3 Stage)
Start Battery	Group 26, 500 CCA (Not included)

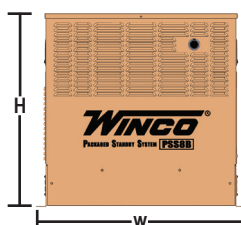
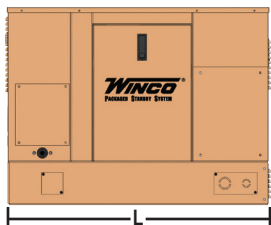
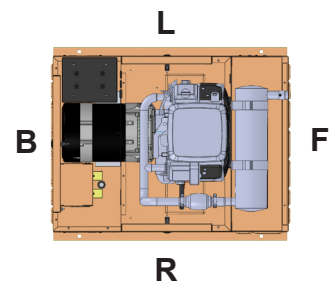
Fuel Requirements				
	Load	PSS8B	PSS12H	PSS20B
Natural Gas	100%	132	195	328
	50%	95	140	239
LP Gas	100%	1.6	2.2	3.61
	50%	1.0	1.4	2.60
Flow Rate NG (BTU/HR)		132,000	190,000	328,000
Flow Rate LP (BTU/HR)		158,760	194,000	329,000

**Notes:** (1) Natural gas measured in ft<sup>3</sup>/hr. (2) LP gas measured in gal/hr. (3) Requires 7-11" water column (4-6 oz) fuel pressure. (4) Flow rates are at full load. (5) 3/4" Fuel Inlet.

Fuel Tank/Line Sizing			
	PSS8B	PSS12H	PSS20B
60° F (16° C)	150 Gal	150 Gal	150 Gal
32° F (0° C)	150 Gal	250 Gal	250 Gal
0° F (-18° C)	250 Gal	500 Gal	500 Gal
-20° F (-29° C)	500 Gal	1000 Gal	1000 Gal
Feet	Pipe Size (Add 3' for each elbow. Do not use 'street ells.)		
Up to 25'	3/4" Pipe		
25'-100'	1" Pipe		
Over 100'	Use a 2 regulator system.		

Sound Data	No Load				Full Load			
	L	R	F	B	L	R	F	B
	PSS8B	63.2	64.4	66.4	63.8	64.9	65.3	68.5
PSS12H	64.5	62.1	68.2	66.1	67.5	64.3	69.5	66.1
PSS20B	63.8	68.3	65.8	62.3	75.8	77.3	77.9	74.1

**Notes:** (1) All measurements are in db(a). (2) Tested at 7 meters (23 ft.).



Dimensional Data	L	W	H	Weight	
	PSS8B	36 1/2"	29 3/4"	27 3/8"	400 lbs
	PSS12H	40 11/16"	31 3/4"	30 7/8"	512 lbs
	PSS20B	54 7/8"	36 1/2"	37.75"	995 lbs

### Control Options

Winco Air-Cooled Packaged Standby Systems are available with both 4-wire and 2-wire control modules. The choice of controllers give you the flexibility to effectively meet any application's requirements without compromise.

#### 4-Wire Start Module

The Winco 4-wire control module is designed to work with the ASCO 165 4-wire transfer switches. All starting controls including start contacts, fuel solenoid contacts and time delays are built into the transfer switch. If a fault occurs, the transfer switch will shut down the system and display diagnostic code. This system is ideal for most residential standby installations.

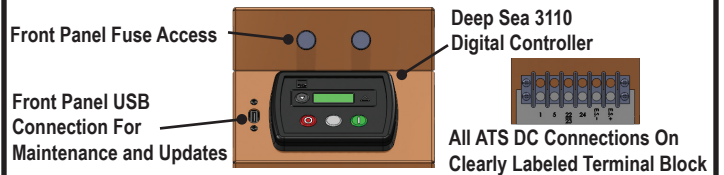
#### ASCO 165 Automatic Transfer Switches

- Perfect for residential/light commercial applications.
- 3-second time delay prevents starting the generator for momentary power outages.
- 15-second delay before transferring to emergency power allows the generator to stabilize after starting.
- Electrical power is restored in less than 30 seconds.
- 5-minute time delay on retransfer allows the utility source to stabilize prior to transferring the load back to utility.
- 1-minute unloaded running time delay allows the engine and generator to cool down before shutdown.
- Available in 4-wire or 2-wire configurations.
- True double-throw contacts with inherent mechanical interlocking.
- Diagnostic indicators aid in troubleshooting.
- Listed to UL 1008

\*\*\*Asco 185 and 300 Series standard and service entrance rated switches also available. (2-Wire Start Only)

#### 2-Wire Start Module

The Winco 2-wire control module starts the generator when a dry contact closes making it compatible with most transfer switches and other starting devices. All generator start and shutdown functions are controlled by the 2-wire control module. The module provides detailed operating and diagnostic information through its digital display. This module is recommended for applications with compatible transfer switches, solar, pump and independent operation.



#### Controller Features

	4-Wire	2-Wire
Fail To Start	X	X
Fail To Stop	-	X
Low Oil Pressure	X(1)	X
High Engine Oil Temp.	X(1)	X
Under Frequency/Speed	X	X
Over Frequency/Speed	X	X
Low Voltage	X	X
High Voltage	X	X
Battery Over/Under Voltage	-	X
Digital Display (RPM, V, HZ, Bat. V)	-	X

Notes: (1) Control displays a generic fault code.

### Accessories

#### Start System

- 4-Wire (Standard)
- 2-Wire

#### Automatic Transfer Switch (Select One Option/Column)

- ASCO 165
  - 100A  NEMA 1  4-Wire Start
  - 200A  NEMA 3R
- ASCO 185 (2-Wire Start Only)
  - 100A  NEMA 1  Service Entrance Rated
  - 200A  NEMA 3R
  - 400A
- ASCO 300 \_\_\_\_\_ Amps \_\_\_\_\_ Enclosure

#### Cold Weather

- Engine Heater w/Thermostat
- Battery Heater

#### Other

- 3/4" Vapor Fuel Stainer

Presented By: