

# Home Standby - 16kW

## Air-Cooled Gas Engine Generator Sets

Continuous Standby Power Rating — 16kW 60Hz

Models: ASPBS1CCA016 (Steel)

ASPBA1CCA016 (Aluminum)

### **Ultra Quiet Mode**

Low Speed Exercise  
59 dB(A) at 23 feet

#### **INCLUDES:**

- **Automatic Transfer Switch With Built-In 16-Circuit Emergency Load Center**
- **Electronic Governor**
- **Pre-wired External Connection Box**
- **Flexible Fuel Line**
- **Composite Mounting Pad**
- **Pre-wired conduits**
- **Natural Gas or LP Gas Operation**
- **UL 2200 Listed to U.S. and Canadian Standards**



## FEATURES

- INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of CARRIER'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 CARRIER with the confidence that these systems will provide superior performance.
- TEST CRITERIA:**
  - ✓ **PROTOTYPE TESTED**
  - ✓ **SYSTEM TORSIONAL TESTED**
  - ✓ **NEMA MG1-22 EVALUATION**
  - ✓ **MOTOR STARTING ABILITY**
- SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all 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 Carrier'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 CARRIER SYSTEM.
- CARRIER TRANSFER SWITCHES.** Long life and reliability are synonymous with CARRIER. One reason for this confidence is that the CARRIER product line includes its own transfer systems and controls for total system compatibility.



<b>ENGINE</b>	<ul style="list-style-type: none"> <li>•Durable OHVI Design</li> <li>•"Spiny-lok" cast iron cylinder walls</li> <li>•Electronic ignition, spark advance and compression release</li> <li>•Full pressure lubrication system</li> <li>•Low oil pressure shutdown system</li> <li>•High temperature shutdown</li> </ul>	<p>Maximizes engine "breathing" for increased fuel efficiency. Cylinder walls run cooler, reducing oil consumption. Because heat is the primary cause of engine wear, the OHVI has a significantly longer life than competitive engines.</p> <p>Rigid construction and added durability provide long engine life.</p> <p>These features combine to assure smooth, quick starting every time.</p> <p>Superior lubrication to all vital bearings means better performance, less maintenance and significantly longer engine life.</p> <p>Superior shutdown protection prevents catastrophic engine damage due to low oil.</p> <p>Prevents damage due to overheating.</p>
<b>GENERATOR</b>	<ul style="list-style-type: none"> <li>•Revolving field</li> <li>•Skewed stator</li> <li>•Displaced phase excitation</li> <li>•Automatic voltage regulation</li> <li>•UL 2200 Listed</li> </ul>	<p>Allows for smaller, light weight unit that operates 25% more efficiently than a revolving armature generator.</p> <p>Produces a smooth output waveform for compatibility with electronic equipment.</p> <p>Maximizes motor starting capability. Provides more surge capability than brushless generator designs.</p> <p>Regulates the output voltage to <math>\pm 2\%</math> prevents damaging voltage spikes.</p> <p>For your safety</p>
<b>TRANSFER SWITCH</b>	<ul style="list-style-type: none"> <li>•Fully Automatic</li> <li>•Remote Mounting</li> <li>•UL Listed</li> </ul>	<p>Transfers your vital electrical loads to the energized source of power.</p> <p>Mounts near your existing distribution panel for simple, low cost installation.</p> <p>For your safety</p>
<b>MICROPROCESSOR CONTROL</b>	<ul style="list-style-type: none"> <li>•Manual/Auto/Off switch</li> <li>•Utility voltage sensing</li> <li>•Utility interrupt delay</li> <li>•Engine warm-up</li> <li>•Engine cool-down</li> <li>•Seven day exerciser</li> <li>•Timed Trickle Battery charger</li> <li>•Main Line Circuit Breaker</li> </ul>	<p>Selects the operating mode.</p> <p>Constantly monitors utility voltage, setpoints 60% dropout, 70% pick-up, of standard voltage.</p> <p>Prevents nuisance start-ups of the engine, set point approximately 10 seconds.</p> <p>Ensures engine is ready to assume the load, setpoint approximately 10 seconds.</p> <p>Allows engine to cool prior to shutdown, setpoint approximately 1 minute.</p> <p>Operates engine to prevent oil seal drying and damage between power outages.</p> <p>Maintains battery amperage to insure starting.</p> <p>Protects generator from overload.</p>
<b>UNIT</b>	<ul style="list-style-type: none"> <li>•Weather protective enclosure</li> <li>•Enclosed critical grade muffler</li> <li>•Small, compact, attractive</li> </ul>	<p>Ensures protection against mother nature. Hinged key locking roof panel for security. Lift-out front for easy access to all routine maintenance items. Electrostatically applied textured epoxy paint for added durability. Aluminum enclosure available - (Model 05244)</p> <p>Quiet, critical grade muffler is mounted inside the unit to prevent injuries.</p> <p>Makes for an easy, eye appealing installation.</p>
<b>INSTALLATION SYSTEM</b>	<ul style="list-style-type: none"> <li>•Pre-wired External Connection Box</li> <li>•1' Flexible Fuel Line</li> <li>•Composite Mounting Pad</li> <li>•Pre-wired conduits</li> <li>•UL Listed wire nuts</li> </ul>	<p>Easy Installation - Virtually all hardware included, plus step-by-step photographed Installation Guide.</p>



GENERATOR		Model ASPBS1CCA016 - Steel, Model ASPBA1CCA016 - Aluminum
Rated Maximum Continuous Power Capacity (LP).....	16,000 Watts*	
Rated Maximum Continuous Power Capacity (NG).....	15,000 Watts*	
Rated Voltage.....	120/240	
Rated Maximum Continuous Load Current		
120 Volts .....	133.3 LP/125 NG	
240 Volts .....	66.6 LP/62.5 NG	
Main Line Circuit Breaker .....	65 Amp	
Phase .....	1	
Number of Rotor Poles .....	2	
Rated AC Frequency .....	60Hz	
Power Factor .....	1	
Battery Requirement (not included) .....	Group 26, 12 Volt Negative Ground and 525 Cold-cranking Amperes Minimum	
Unit Weight .....	445 lbs. (Steel), 414 lbs. (Alum)	
Dimensions (L" x W" x H").....	48 x 24 x 28-1/4	
Sound output in dB(A) at 23 ft. with generator operating at full load.....	71.5	
Sound output in dB(A) at 23 ft. with generator in <b>Ultra Quiet</b> exercise mode .....	59	
ENGINE		Model ASPBS1CCA016 - Steel, Model ASPBA1CCA016 - Aluminum
Type of Engine.....	OHVI V-TWIN	
Number of Cylinders.....	2	
Rated Horsepower.....	30 @ 3,600 rpm	
Displacement.....	992cc	
Cylinder Block.....	Aluminum w/Cast Iron Sleeve	
Valve Arrangement.....	Overhead Valve	
Ignition System.....	Solid-state w/Magneto	
Governor System.....	Electronic	
Compression Ratio.....	9.5:1	
Starter.....	12Vdc	
Oil Capacity Including Filter.....	Approx. 1.7 Qts.	
Standby Operating RPM.....	3,600	
Exercise RPM .....	2400	
Fuel Consumption		
Natural Gas   cu.ft./hr.		
.....1/2 Load	173	
.....Full Load	245	
Liquid Propane   ft <sup>3</sup> /hr (gal/hr)		
.....1/2 Load	59 (1.59)	
.....Full Load	92 (2.51)	
Required fuel pressure to generator fuel inlet at all load ranges - 5 to 7 inches of water column for natural gas, 10 to 12 inches of water column for LP gas		
CONTROLS		
Mode Switch		
-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.	
Engine Start Sequence	Cyclic cranking: 7 sec. on, 7 rest	
	(90 sec. maximum duration)	
Engine Warm-up .....	10 seconds	
Engine Cool-Down .....	1 minute	
Starter Lock-out .....	Starter cannot re-engage until	
	5 sec. after engine has stopped.	
2.5 Amp Timed Trickle Battery Charger .....	Standard	
Automatic Voltage Regulator w/Overvoltage Protection .....	Standard	
Automatic Low Oil Pressure Shutdown .....	Standard	
Overspeed Shutdown .....	Standard, 72Hz	
High Temperature Shutdown .....	Standard	
Overcrank Protection .....	Standard	
Safety Fuse .....	Standard	

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). \* Maximum wattage and current are subject to and limited by such factors as fuel Btu content, ambient temperature, altitude, engine power and condition, etc. Maximum power decreases about 3.5 percent for each 1,000 feet above sea level; and also will decrease about 1 percent for each 12° C (10° F) above 15.5° C (60°F).

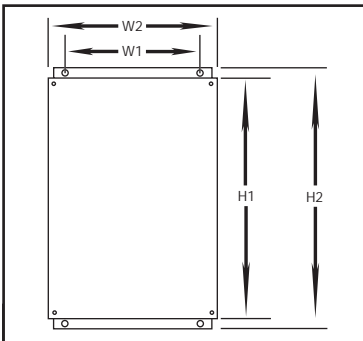
## TRANSFER SWITCH & EMERGENCY LOAD CENTER

Models: ASPBS1CC016 & ASPBA1CC016

No. of Poles .....	2
Current Rating (amps) .....	100
Voltage Rating (VAC) .....	250
Utility Voltage Monitor (fixed)	
-Pick-up .....	70%
-Dropout .....	60%
Return to Utility .....	approx. 13 sec.
Exerciser weekly for 12 minutes .....	Standard
UL Listed .....	Standard
Dimensions (H" x W" x D") .....	26.5 x 12.5 x 7
Total of Pre-wired Circuits .....	16
No. 15A 120V .....	5
No. 20A 120V .....	5
No. 20A 240V .....	1
No. 40A 240V .....	1
No. 50A 240V .....	1
Circuit Breaker Protected	
Available RMS Symmetrical	
Fault Current @ 250 Volts .....	10,000

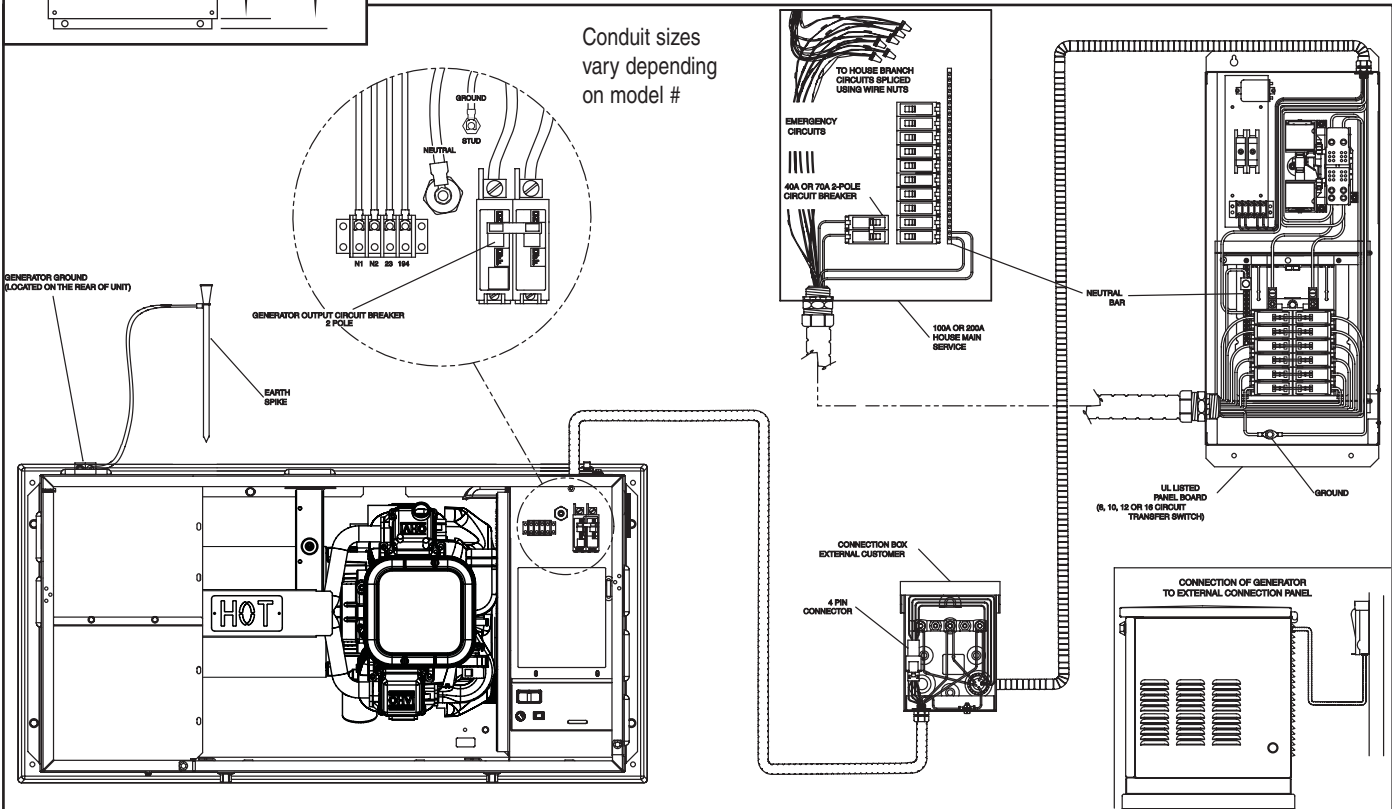
## Transfer Switch Features

- Electrically operated, mechanically-held contacts for fast, positive connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive.
- 2 pole, 250 VAC contactors.
- 160 millisecond transfer time.
- Dual coil design.
- Main contacts are silver plated or silver alloy to resist welding and sticking.
- Nema 1 enclosure is standard on the 100 amp switch.



Mechanical Dimensions (in inches)						
Current Rating	No. of Poles	Height		Width		Depth
		H1	H2	W1	W2	
100 UL Listed	2	26.5	29.25	8.14	12.5	7

Terminal Wire Ranges			
ATS Rated Amps	Switch Terminal	Neutral Lug/Stud	Ground Lug
100A 2-Pole UL	1 x 1/0-12	1 x 3/8-16 Stud	1 x 2/0-14



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