

Product Description

Standby Generator Systems



10 kW, 12 kW



7 kW

Product Description

A standby generator system is a package of equipment specifically designed to provide substitute electrical power to a residence in the event of a utility power outage or other emergency. These systems are comprised of a generator, transfer switch, and the connections necessary for installation. The co-branded Briggs & Stratton Power Products/Eaton's Cutler-Hammer systems are available in three ratings: 7000 W, 10,000 W and 12,000 W.

A stand-by generator system consists of a permanently installed 7,000, 10,000 or 12,000 watt generator, hardwired to either a 50 ampere, 10-circuit sub-panel, or a 100 or 200 ampere Cutler-Hammer whole house automatic transfer switch.

Standby Generator Systems are most often used in residential, agricultural and light commercial applications. Comfort and safety are key concerns of many homeowners who are dependent on an uninterrupted supply of electricity.

The increase in our dependence on power is due in part to the popularity of home offices and in-home health care. Many regions of the United States experience periodic power outages due to extreme weather conditions such as ice and snowstorms, heat waves, tornadoes or hurricanes.

Portable generator systems are primarily used for smaller homes or for construction sites where temporary power is required. Permanently installed systems are designed for larger homes, small businesses or secondary residences such as vacation

homes, cabins, etc., that require uninterrupted power for critical loads.

Eaton highly recommend, that any generator system be installed by a qualified electrician and/or generator installer.

Application Description

All systems allow the user to pre-select critical circuits that will need power during an outage as shown in **Table 4-17**.

When selecting the essential circuits that will be switched to "Backup Power," it is important that the sum of the combined circuit loads does not exceed the wattage/ amperage capacity of the generator. To help you with your selection of essential circuits, please add up the total wattage of all electrical devices to be connected at one time. This total should NOT be greater than the generator's wattage capacity.

Table 4-17. Circuit Selection

| Device | Running Watts | Device | Running Watts |
|------------------------------|---------------|--------------------------------------|---------------|
| Air Conditioner (12,000 Btu) | 1700 | Hand Drill | 250 – 1100 |
| Air Conditioner (24,000 Btu) | 3800 | Iron | 1200 |
| Air Conditioner (40,000 Btu) | 6000 | Jet Pump | 800 |
| Battery Charger (20 Amp) | 500 | Light Bulb | 100 |
| Circular Saw (6-1/2-inch) | 800 – 1000 | Microwave Oven | 700 – 1000 |
| Clothes Dryer (Electric) | 5750 | Milk Cooler | 1100 |
| Clothes Dryer (Gas) | 700 | Oil Burner on Furnace | 300 |
| Clothes Washer | 1150 | Oil Fired Space Heater (140,000 Btu) | 400 |
| Coffee Maker | 1750 | Oil Fired Space Heater (30,000 Btu) | 150 |
| Compressor (1 hp) | 2000 | Oil Fired Space Heater (85,000 Btu) | 225 |
| Compressor (1/2 hp) | 1400 | Radio | 50 – 200 |
| Compressor (3/4 hp) | 1800 | Refrigerator | 700 |
| Curling Iron | 700 | Slow Cooker | 200 |
| Dehumidifier | 650 | Submersible Pump (1 hp) | 2000 |
| Electric Blanket | 400 | Submersible Pump (1/2 hp) | 1500 |
| Electric Range (per element) | 1500 | Submersible Pump (1-1/2 hp) | 2800 |
| Electric Skillet | 1250 | Sump Pump | 800 – 1050 |
| Freezer | 700 | Table Saw (10-inch) | 1750 – 2000 |
| Furnace Fan (3/5 hp) | 875 | Television | 200 – 500 |
| Garage Door Opener | 500 – 750 | Toaster | 1000 – 1650 |
| Hair Dryer | 1200 | | |

Notes:

- The rated wattage of lights can be taken from light bulbs. The rated wattage of tools, appliances and motors can usually be found on a data plate or decal affixed to the device.
- If the appliance, tool or motor does not give wattage, multiply 120 volts times the ampere rating to determine watts (volts x amps = watts).
- Some electric motors (induction types) require about three times more watts of power for starting than for running. This surge lasts for only a few seconds. Be sure you allow for this high starting wattage when selecting electrical devices that will be energized by the backup power system:
 - Figure the watts required to start the largest motor.
 - Add that to the total running watts of all other connected loads.

Features, Benefits and Functions

Features, Benefits and Functions

Eaton's Cutler-Hammer generator systems offer a wide range of features. All systems feature:

- Powerful, reliable Briggs & Stratton, Ford® or Isuzu® engines.
- Reliable Cutler-Hammer transfer switches and control systems using switching duty rated circuit breakers.
- Transfer switches are mechanically interlocked to prevent paralleling of normal and emergency power sources.

- Automatic Transfer system features automatic start/stop and provision for using propane or natural gas.
- Vanguard™ OHV V-Twin engine.
- Diagnostic panel with remote system status.
- Weekly exercise function.
- Automatic battery charger.
- Run-time meter.
- Four sound absorbing, weather-protected panels.
- CSA, cUL® and UL 2200 listed and approved.
- Briggs & Stratton ELS™ OHV engine.

Standards and Certifications

- All transfer switches are UL 67 and UL 1008 listed as "Transfer Switches."
- All generators are UL 2200 listed.

Product Selection

Table 4-18. Home Standby Selection Chart

| Description | Catalog Number | | | |
|---|--|---|---|---|
| | CHGEN7000 | CHGEN10000 | CHGEN12000 | CHGEN15000 |
| | Price U.S. \$ | | | |
| Running Watts: Liquid Propane Natural Gas | 7,000 6,000 | 10,000 9,000 | 12,000 11,000 | 15,000 13,500 |
| Rated Amps: Liquid Propane Natural Gas | 58.3/29.2 50/25 | 83.4/41.6 75/37.5 | 100/50 83.4/41.6 | 125/62.5 112.5/56.3 |
| Starting Watts: Liquid Propane Natural Gas | 10,500 9,000 | 12,500 11,250 | 15,000 13,750 | |
| Operation | Fully Automatic | Fully Automatic | Fully Automatic | |
| Run Time | Continuous-base on Fuel Supply | Continuous-base on Fuel Supply | Continuous-base on Fuel Supply | |
| Engine Brand | Briggs & Stratton | Briggs & Stratton | Briggs & Stratton | Briggs & Stratton |
| Engine | 540cc ELS | 570cc Vanguard | 627cc Vanguard | |
| Engine Type | OHV | OHV V-Twin | OHV V-Twin | OHV V-Twin |
| Fuel Natural Gas ①: 1/2 Load Full Load | 80 137 | 84 162 | 102 195 | |
| Fuel LP Vapor ②: 1/2 Load Full Load | 33 56 | 34.19 65.81 | 41.03 78.63 | |
| RPM | 3600 | 3600 | 3600 | 3600 |
| Engine Cooling | Air | Air | Air | Air |
| Sound Rating | 77 dB | 70 dB | 69 dB | 65 dB |
| System Exerciser | Every 7 Days | Every 7 Days | Every 7 Days | |
| Remote Status | Yes | Yes | Yes | |
| Diagnostic Alerts | 4 Functions | 7 Functions | 7 Functions | |
| Dimensions in Inches (mm) | 31.00 x 22.00 x 33.00 (787.4 x 558.8 x 838.2) | 40.00 x 22.00 x 23.00 (1016.0 x 558.8 x 584.2) | 40.00 x 22.00 x 23.00 (1016.0 x 558.8 x 584.2) | 40.00 x 22.00 x 23.00 (1016.0 x 558.8 x 584.2) |
| Weight | 280 Lbs. | 379 Lbs. | 384 Lbs. | 400 |
| Warranty | 2 Years | 3 Years | 3 Years | 4 Years |

① Natural gas is in cubic feet per hour.

② Liquid propane vapor is in feet per hour.

Technical Data
Table 4-18. Home Standby Selection Chart (Continued)

| Description | Catalog Number | | | |
|---|--|--|--|--|
| | CHGEN100001 | CHGEN150001 | CHGEN175001 | CHGEN250001 |
| | Price U.S. \$ | | | |
| Running Watts: Liquid Propane Natural Gas | 10,000 10,000 | 15,000 15,000 | 17,500 17,500 | 25,000 25,000 |
| Rated Amps: Liquid Propane Natural Gas | 83.3/41.7 83.3/41.7 | 125/62.5 125/62.5 | 145.8/72.9 145.8/72.9 | 208.3/104.2 208.3/104.2 |
| Starting Watts: Liquid Propane Natural Gas | | | | |
| Operation | | | | |
| Run Time | | | | |
| Engine Brand | Isuzu | Isuzu | Isuzu | Isuzu |
| Engine | | | | |
| Engine Type | In-line 4 | In-line 4 | In-line 4 | In-line 4 |
| Fuel Natural Gas ^① : 1/2 Load Full Load | | | | |
| Fuel LP Vapor ^② : 1/2 Load Full Load | | | | |
| RPM | 1,800 | 1,800 | 3,600 | 3,600 |
| Engine Cooling | Liquid | Liquid | Liquid | Liquid |
| Sound Rating | 76 dB | 76 dB | 87 dB | 88 dB |
| System Exerciser | | | | |
| Remote Status | | | | |
| Diagnostic Alerts | | | | |
| Dimensions in Inches (mm) | 53.00 x 28.00 x 47.00 (1346.2 x 711.2 x 1194.0) | 53.00 x 28.00 x 47.00 (1346.2 x 711.2 x 1194.0) | 53.00 x 28.00 x 47.00 (1346.2 x 711.2 x 1194.0) | 53.00 x 28.00 x 47.00 (1346.2 x 711.2 x 1194.0) |
| Weight | 961 Lbs. | 994 Lbs. | 950 Lbs. | 994 Lbs. |
| Warranty | 1 Year | 1 Year | 1 Year | 1 Year |

^① Natural gas is in cubic feet per hour.

^② Liquid propane vapor is in feet per hour.

4

Technical Data

Table 4-18. Home Standby Selection Chart (Continued)

| Description | Catalog Number | | | |
|---|--|--|--|--|
| | CHGEN20000 | CHGEN25000 | CHGEN30000 | CHGEN35000 |
| | Price U.S. \$ | | | |
| | | | | |
| Running Watts: Liquid Propane Natural Gas | 20,000 20,000 | 25,000 22,500 | 30,000 30,000 | 35,000 35,000 |
| Rated Amps: Liquid Propane Natural Gas | 166.7/83.3 166.7/83.3 | 208.3/104.2 188/94 | 250/125 250/1256 | 291.7/145.8 291.7/145.8 |
| Starting Watts: Liquid Propane Natural Gas | | | | |
| Operation | | | | |
| Run Time | | | | |
| Engine Brand | Ford | Ford | Ford | Ford |
| Engine | | | | |
| Engine Type | In-line 4 | In-line 4 | V-6 | V-6 |
| Fuel Natural Gas ①: 1/2 Load Full Load | | | | |
| Fuel LP Vapor ②: 1/2 Load Full Load | | | | |
| RPM | 1,800 | 1,800 | 1,800 | 1,800 |
| Engine Cooling | Liquid | Liquid | Liquid | Liquid |
| Sound Rating | 79 dB | 81 dB | 79 dB | 79 dB |
| System Exerciser | | | | |
| Remote Status | | | | |
| Diagnostic Alerts | | | | |
| Dimensions in Inches (mm) | 61.00 x 28.00 x 48.00 (1,549.4 x 711.2 x 1,219.2) | 61.00 x 28.00 x 48.00 (1,549.4 x 711.2 x 1,219.2) | 85.00 x 35.00 x 61.00 (2,159.0 x 889.0 x 1,549.4) | 85.00 x 35.00 x 61.00 (2,159.0 x 889.0 x 1,549.4) |
| Weight | 1,190 Lbs. | 1,219 Lbs. | 2,042 Lbs. | 2,042 Lbs. |
| Warranty | 1 Year | 1 Year | 1 Year | 1 Year |

① Natural gas is in cubic feet per hour.

② Liquid propane vapor is in feet per hour.

Discount Symbol 22CD

Technical Data
Table 4-18. Home Standby Selection Chart (Continued)

| Description | Catalog Number | | |
|---|--|--|--|
| | CHGEN45000 | CHGEN55000 | CHGEN7500 |
| | Price U.S. \$ | | |
| Running Watts: Liquid Propane Natural Gas | 45,000 42,000 | 55,000 55,000 | 75,000 70,000 |
| Rated Amps: Liquid Propane Natural Gas | 375/187.5 354/177 | 458.3/229.2 458.3/229.2 | 625/312.5 583/292 |
| Starting Watts: Liquid Propane Natural Gas | | | |
| Operation | | | |
| Run Time | | | |
| Engine Brand | Ford | Ford | Ford |
| Engine | | | |
| Engine Type | V-6 | V-10 | V-10 |
| Fuel Natural Gas ^① : 1/2 Load Full Load | | | |
| Fuel LP Vapor ^② : 1/2 Load Full Load | | | |
| RPM | 1,800 | 1,800 | 1,800 |
| Engine Cooling | Liquid | Liquid | Liquid |
| Sound Rating | 80 dB | 85 dB | 85 dB |
| System Exerciser | | | |
| Remote Status | | | |
| Diagnostic Alerts | | | |
| Dimensions in Inches (mm) | 85.00 x 35.00 x 61.00 (2,159.0 x 889.0 x 1,549.4) | 95.00 x 36.00 x 61.00 (2,413.0 x 914.4 x 1,549.4) | 95.00 x 36.00 x 61.00 (2,413.0 x 914.4 x 1,549.4) |
| Weight | 2,152 Lbs. | 2,586 Lbs. | 2,696 Lbs. |
| Warranty | 1 Year | 1 Year | 1 Year |

^① Natural gas is in cubic feet per hour.

^② Liquid propane vapor is in feet per hour.

4