

Loading information

As mentioned earlier, the BPTM is designed to work with maximum 240V, 30A (7200W). When trying to determine which circuits to turn on during an outage, you must consider which circuits are critical to you, and the total watts that each circuit is likely to consume.

Some guidelines for you to use to determine the maximum loading on your generator:

Many appliances in the house have not only **“running watts”** to consider, but an **“inrush”** or **“surge watts”** that can be much higher than the running watts, but only last a few seconds.

To determine the loads you can support with your generator and BPTM, you must consider both the **“running watts”** and the **“surge watts”** requirements of the loads you want to operate.

The following table lists the **running watts**, **surge watts**, and **surge factor**:

ESSENTIAL APPLIANCES	RUNNING WATTS	SURGE WATTS	SURGE FACTOR
Ceiling Fan	60 W	70 W	2
Central AC (10,000 BTU)	1,500 W	4,500 W	4
Central AC (24,000 BTU)	3,800 W	11,400 W	4
Common Light Bulb	75 W	0 W	1
Electric Water Heater	4,000 W	0 W	1
Furnace Fan Blower (1/2 HP)	800 W	2,350 W	4
Furnace Fan Blower (1/3 HP)	700 W	1,400 W	3
Garage Door Opener (1/2 HP)	875 W	2,350 W	3.7
Heat Pump	4,700 W	4,500 W	2
Humidifier (13 Gal.)	175 W	0 W	1
Space Heater	1,800 W	0 W	1
Sump Pump (1/2 HP)	1,050 W	2,150 W	3
Sump Pump (1/3 HP)	800 W	1,300 W	3
Well Water Pump (1/2 HP)	1,000 W	2,100 W	3
Window AC (10,000 BTU)	1,200 W	3,600 W	4
Window AC (12,000 BTU)	3,250 W	9,750 W	4

KITCHEN APPLIANCES	RUNNING WATTS	SURGE WATTS	SURGE FACTOR
Coffee Maker	1,000 W	0 W	1
Deep Freezer	500 W	1,500 W	4
Dishwasher	1,500 W	1,500 W	2
Electric Can Opener	170 W	0 W	1
Electric Kettle	1,200 W	3,000 W	3.5
Electric Stove (8" Element)	2,100 W	0 W	1
Food Dehydrator	800 W	0 W	1
Food Processor	400 W	0 W	1
Fryer	1,000 W	0 W	1
Microwave	1,000 W	0 W	1
Pressure Cooker	700 W	0 W	1
Refrigerator / Freezer	700 W	2,200 W	4
Rice Cooker	200 W	500 W	3.5
Toaster	850 W	0 W	1

ENTERTAINMENT APPLIANCES	RUNNING WATTS	SURGE WATTS	SURGE FACTOR
Clothes Dryer (Electric)	5,400 W	6,750 W	2.25
Clothes Dryer (Gas)	700 W	1,800 W	3.5
Curling Iron	1,500 W	0 W	1
Electric Shaver	15 W	20 W	2
Hair Dryer	1,250 W	0 W	1
Home Internet Router	5 W	15 W	4
Home Phone	3 W	5 W	2
Iron	1,200 W	0 W	1
Laptop	300 W	0 W	1
Monitor	200-250 W	0 W	1
Stereo	450 W	0 W	1
Television	500 W	0 W	1
VCR / DVD Player	100 W	0 W	1
Vacuum Cleaner	200 W	700 W	4.5
Video Game System	40 W	0 W	1
Washing Machine	1,150 W	2,250 W	3

OTHER APPLIANCES	RUNNING WATTS	SURGE WATTS	SURGE FACTOR
Cell Phone Battery Charger	25 W	0 W	1
Clock Radio	50 - 200 W	0 W	1
Copy Machine	1,600 W	0 W	1
Electric Mower	1,500 W	0 W	1
Electric Trimmer	300 W	500 W	2.7
Fax	60 - 80 W	0 W	1
Garage Door Opener (1/2 HP)	875 W	2,350 W	3.7
Outdoor Light String	250 W	0 W	1
Paper Shredder	200 W	220 W	2
Printer	400 - 600 W	0 W	1
Projector	220 W	270 W	2
Scanner	10 W	18 W	3
Security System	500 W	0 W	1
Treadmill	280 W	900 W	4

Notes on Loading Guidelines:

The wattages above are estimates. The estimated wattage required for your appliances can be easily calculated. (NOTE: 1 kW=1000 watts; 2 kW=2000 watts and so on). The formula for finding wattage is: Volts x Amps = Watts (running). Always use surge factor when calculating electrical load requirements for your generator. Select the appliances you want to operate and add the starting wattages together to determine if they can all be operated at the same time without exceeding the capacity of your generator. **NOTE: individual circuit breakers on your breaker panel may control more than one appliance Always determine which appliances/ loads are connected to specific breakers.**