

Wattage Worksheet

When selecting a Home Generator System, you need to calculate both your rated and surge wattage requirements. Rated, or running wattage, is the amount of electricity necessary to run your appliances continually. Surge, or starting wattage, is the additional amount of electricity needed for 2-3 seconds to start electric motors commonly found in household appliance (such as a furnace fan or refrigerator). Since appliances rarely start-up at the same time, you will only need to factor in the appliance with the highest additional surge watts.

Follow these simple steps to estimate your particular wattage requirement.

- Select the items you wish to power at the same time. Using the chart on the opposite side, fill in the rate watts and additional surge watt requirements on the "Your Power Needs" worksheet.
- Add the RATED WATTS (the items you wish to power). Enter the total in the TOTAL RATED WATTS boxes.
- Select the ONE INDIVIDUAL ITEM with the highest number of additional surge watts. Take this ONE NUMBER, add it to your TOTAL RATED WATTS, and enter the total in the TOTAL SURGE WATTS box.

EXAMPLE

TOOL OR APPLIANCE	RATED (RUNNING) WATTS	ADDITIONAL SURGE (STARTING) WATTS
1) Refrigerator / Freezer	800	1600
2) 1/2 HP Furnace Fan	800	1300
3) Deep Freezer	500	500
4) Television	500	-
5) Lights (6 x 75 watts)	450	-
6)		
7)		
8)		
9)		
10)		

TOTAL RATED WATTS = 3050

HIGHEST ADDITIONAL SURGE WATTS = 1600

3050 + 1600 = 4650

TOTAL RATED WATTS = 3050
TOTAL SURGE WATTS = 4650

With this example you need a generator that produces at least 3050 rated watts and 4650 surge watts.

YOUR POWER NEEDS

TOOL OR APPLIANCE	RATED (RUNNING) WATTS	ADDITIONAL SURGE (STARTING) WATTS
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		

TOTAL RATED WATTS =

HIGHEST ADDITIONAL SURGE WATTS =

+

=

TOTAL RATED WATTS

TOTAL SURGE WATTS

I need a generator that produces at least total rated watts and total surge watts.

Wattage Reference Guide

Heating / Cooling

Space Heater	1500	0
Furnace Fan Blower- (1/3 HP)	700	1400
Ceiling Fan	800	1200
Window A/C (10,000 BTU's)	1000	2100
Window A/C (12,000 BTU's)	3250	3950
Table Fan - 14"	200	400
Heat Pump	4700	4500
Central A/C (10,000 BTU's)	1500	3000
Central A/C (24,000 BTU's)	3800	4950
Central A/C (40,000 BTU's)	3800	4950
Humidifier - 13 gal.	175	0

Home

Light Bulb - 60 Watt *	60	0
Light Bulb - 75 Watt *	75	0
Sump Pump (1/2 HP)	1200	3000
Sump Pump (1/3 HP)	1140	2850
Water Well Pump (1/4 HP)	575	1440
Water Heater (Electric)	3800	0
1/2 HP Garage Door Opener	550	1375
Security System	500	0

Home Office

AM/FM Clock Radio	10	0
CD/DVD Player	100	0
Cell Phone Battery Charger	25	0
Copy Machine	1300	0
Desktop Comp. w/ 18" LCD Monitor	300	0
Fax Machine	150	0
Inkjet Printer	10	0
Laser Printer	400	0

Kitchen

Microwave- 1000 Watts	1000	0
Microwave- 625 Watts	625	0
Refrigerator/Freezer	500	1350
Toaster	850	0
Toaster Oven	1500	0
Coffee Maker	1300	0
Crock Pot	240	0
Dishwasher - Hot Dry	1200	3000
Electric Can Opener	70	0
Electric Griddle	1500	0
Electric Stove - 8" Element	2100	0
Food Processor	500	0

Family Room

LCD TV -32"	75	0
Color TV - 13"	50	0
X-Box, Game Cube, Playstation	40	0
Stereo Receiver	450	0
DVD Player	20	0

Laundry Room

Washing Machine	950	2400
Clothes Dryer (Electric)	3600	9000
Clothes Dryer (Gas)	1800	4500
Iron	1200	0

Bathroom

Hair Dryer- 1250 Watt	1250	0
Curling Iron	1500	0

* Multiply the watts times the number of bulbs in your whole house.

Frequently Asked Questions

What if I can't determine the rated or the surge watt requirement for a tool or appliance?

If the rated/running watts are not on the tool or appliance, you may estimate using the following equation: WATTS = VOLTS x AMPS. Only motor-driven items will have an additional surge requirement. The additional surge watts required may be estimated at 1 - 2x the rated/running watts.

Why is only one additional surge watt item used to calculate your total surge watt requirement?

Unlike rated watts, surge watts are only needed during the first few seconds of operation. In most cases, only one item will start or cycle at the same time, therefore this is the most accurate estimate. The guide below lists rated and surge watt totals separately to help you determine which tool or appliance represents your total wattage requirement.

The above are estimates only. Check your tool or appliance for exact wattage requirements. The wattage listed in this reference guide are based on estimated wattage requirements. For exact wattages, check the data plate or owner's manual on the item you wish to power.