

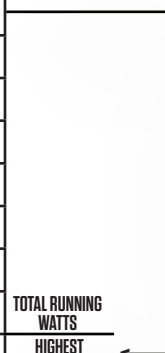
WATTAGE WORKSHEET



The size of the generator you'll need depends upon your unique power needs that have to be determined before ever purchasing an portable generator. This worksheet is designed to help you determine the right size generator for your situation.

1. Select the items you wish to power at the same time. Using the table on page two of this, document fill in the running watts and additional starting watt requirements on the "Your Power Needs" worksheet.
2. Add the running watts of the items you wish to power. Enter this number in the total running watts column.
3. Select the one individual item with the highest number of starting watts. Take this one number, add it to your total running watts, and enter the total in the Total starting watts box.

EXAMPLE		
APPLIANCE	RUNNING WATTS	ADDITIONAL STARTING WATTS
1. Refrigerator/Freezer	700	2200
2. 1/2 HP Furnace Fan	800	2350
3. Television	500	0
4. Window AC	1200	1800
5. Sump Pump – 1/2 HP	1050	2200
6.		
7.		
With this example you need a generator that produces at least 4250 total running watts and 6600 total starting watts.	4250	
	+	2350
	=	6600



YOUR POWER NEEDS		
APPLIANCE	RUNNING WATTS	ADDITIONAL STARTING WATTS
1.		
2.		
3.		
4.		
5.		
6.		
7.		
I need a generator that produces at least _____ total running watts and _____ total starting watts.		

FREQUENTLY ASKED QUESTIONS

How many watts does it take to power basic items in an average size house?
In an average American home, essential household items will average somewhere around 5000 – 7500 watts of power to run.

What is the difference between running watts and starting watts?
When selecting an emergency generator system, you need to calculate both your running and your starting wattage requirements. Running, or rated watts are the continuous amount of watts needed to continually run your appliances. Starting wattage is the additional amount of electricity required to start commonly found motor-driven products like a refrigerators or other household appliances. When selecting a generator you should factor in the appliances with the highest additional starting watts.

Why is only one additional starting watt item used to calculate your total starting watt requirement?
Unlike running watts, starting watts are only needed during the first couple seconds of operation. In most cases, only one item will start or cycle at the same time, therefore this is the most accurate estimate.

What if I can't determine the running or the starting watt requirement for a tool or appliance?
If the running watts are not on the tool or appliance, you may estimate using the following equation: $WATTS = VOLTS \times AMPS$.

Only motor-driven items will require additional starting watts. The additional starting watts required may be estimated at 1 - 2x the running/rated watts.



THE RIGHT WATTAGE FOR THE RIGHT AMOUNT OF POWER

HOME

APPLICATION	Approximate wattage required for running	Approximate wattage required for starting
Coffee Maker	1,750	1,750
Dishwasher	1,450	1,800
Electric Fry Pan	1,300	1,300
Electric Range		
6 in. element	1,500	1,500
8 in. element	2,100	2,100
Microwave Oven, 625 watts	625	800
Toaster		
2-slice	1,050	1,050
4-slice	1,650	1,650
Electric Blanket (queen size)	800	800
Refrigerator or Freezer	700	2,200
20" Box Fan or Table Fan	120	180
Lights (as indicated on bulbs.)	(-)	(-)
Clothes Washer	1,150	2,300
Clothes Dryer		
Gas	700	1,800
Electric	5,750	1,800
Dehumidifier	650	800
Furnace Fan, gas or fuel oil		
0.125 hp	500	1,000
0.16 hp	750	1,500
0.25 hp	900	1,800
0.3 hp	1,000	1,800
0.5 hp	1,200	2,500
Sump Pump		
0.3 hp	750	1,500
0.5 hp	1,000	2,100
Hair Dryer	300 to 1,500	300 to 1,500
Clothes Iron	1,200	1,200
Room Air Conditioner - 10,000 BTU	1,500	2,200
Central Air Conditioner		
10,000 BTU	1,500	2,200
20,000 BTU	2,500	3,300
24,000 BTU	3,800	4,950
40,000 BTU	6,000	7,800
Radio	50 to 200	50 to 200
Television (colour)		
20 in. (LCD)	65	65
26 in. (LCD)	110	110
36 to 42 in. (Plasma)	250	250
50 to 60 in. (Plasma)	340	340
VCR/ DVD	35 to 50	35 to 50
Game Console	100	100
Laptop	50 to 75	50 to 75
Computer	150	150
Modem	25	25
Monitor		
Tube Type	200 to 250	200 to 250
LCD	30	30
Printer	100	100
RV Air Conditioner - 13,500 BTU	1,800	2,800
Vacuum Cleaner		
Upright	800	1,100
Canister	1,100	1,500
Garage Door Opener		
0.25 hp	550	1,100
0.3 hp	725	1,400

Note: Check your equipment or appliance for actual wattage requirement.

WORK

APPLICATION	Approximate wattage required for running	Approximate wattage required for starting
Air Compressor		
0.5 hp	1,000	2,000
1 hp	1,500	4,500
1.5 hp	2,200	6,000
2 hp	2,800	7,700
Bench Grinder		
6 in.	720	1,000
8 in.	1,400	2,500
10 in.	1,600	3,600
Electric Cultivator - 0.3 hp	700	1,400
Electric Hedge Trimmer - 18 in.	400	550
Electric Grass Trimmer	500	650
Drum Mixer - 0.25 hp	700	1,400
Flood Lights - Mercury Hallogen	1,000	1,000
Floor Polisher		
16 in. - 0.75 hp	1,400	3,100
20 in. - 1 hp	1,600	4,500
Power Hand Drill		
0.25 in.	350	350
0.375 in.	400	400
0.5 in.	600	600
Submersible		
Water Pump 400 gpm	200	400
Centrifugal. Type	500	650
Wet/ Dry Vacuum		
1.7 hp	900	900
2.5 hp	1,300	1,300
Saws		
Worm Drive (chop saw)	1,800	2,600
Band Saw	1,100	1,400
Circular Saw		
6.5 in.	800	1,200
7.25 in.	1,400	2,300
8.25 in.	1,800	3,000
Electric Chain Saw		
12 in. - 1.5 hp	900	1,100
14 in. - 2 hp	1,100	1,400
Table Saw		
1.7 hp	1,500	3,000
2.5 hp	1,800	4,500
Electric Welders		
70-amp	2,800	2,800
100-amp	3,600	3,600
200-amp	9,000	9,000
Kango Hammer	900	1,200
Farm Equipment		
Electric Fence (40 km/25 miles)	250	250
Stock Tank De-Icer	1,000	1,000
Grain Cleaner	650	1,000
Portable Conveyor - 0.5 hp	1,000	2,400
Grain Elevator - 0.75 hp	1,400	3,000
Milk Cooler	1,100	2,300
Mixer - 3.25 cubic feet, 0.75 hp	2,800	7,700
Milking Machine - 2 hp	1,000	2,300

Watts ÷ AMPS = Volts | Watts ÷ Volts = AMPS | Volts x AMPS = Watts

This chart is only a general guide for items powered at one time. The listed wattages are approximate and will vary by manufacturer. Always check your appliance or device for actual ratings.