



Greengear Generator Sizing

When selecting a generator there are several important features to consider:
Wattage / Engine / Run Time / Starting / Mobility

The size of the generator you need depends on your power requirements. Generally a higher wattage generator lets you power more items at once. This generator sizing sheet will help you to determine your running and starting watts so you can choose the correct generator for your needs.

Step 1	Step 2	Step 3
Select the items you wish to power at the same time using the chart on Page 2. Fill in Your Power Needs section with running and starting watts.	Add up all the running watts of the items then enter this into Total running watts	Select the ONE individual item with the highest number of Additional Starting Watts . Take this number and add it to your Total Running Watts and enter into Total Starting Watts Box .

EXAMPLE

Tools or appliance	Running (Rated) Watts	Additional Starting Watts
1. Refrigerator/Freezer	550	1350
2. 1/2 HP furnace fan	800	2350
3. Deep freezer	500	500
4. Television	75	-
5. Lights (6x 75watts)	450	-
6.		-
7.		-
TOTAL RUNNING WATTS =		
	2375	2350

With this example you will need a generator that produces at least 2375 total running Watts and 4725 total starting Watts.

$$\begin{array}{r}
 + \quad 2375 \quad \text{Total running Watts} \\
 = \quad 4725 \quad \text{Total starting Watts}
 \end{array}$$

YOUR POWER NEEDS

Tools or appliance	Running (Rated) Watts	Additional Starting Watts
1.		
2.		
3.		
4.		
5.		
6.		
7.		
TOTAL RUNNING WATTS =		

I will need a generator that produces at least _____ total running Watts and _____ total starting Watts.

$$\begin{array}{r}
 + \quad \text{_____} \quad \text{Highest Additional Starting Watts} \\
 = \quad \text{_____} \quad \text{Total running Watts} \\
 \text{_____} \quad \text{Total starting Watts}
 \end{array}$$

Tool/Appliance	Running (Rated) Watts	Additional Starting Watts	Tool/Appliance	Running (Rated) Watts	Additional Starting Watts
Home					
General:			Heating/Cooling:		
Light bulb – 60 Watts	60	0	Space Heater	1800	0
Light bulb – 70 Watts	70	0	Humidifier – 13 Gal	175	0
Sump Pump – 1/3 HP	1140	2850	Furnace Fan Blower – 1/2HP	800	2350
Water well pump – 1/3HP	575	1440	Furnace Fan Blower – 1/3HP	700	1400
Kitchen:			Window AC – 10,000 BTU	1200	3600
Refrigerator/Freezer	700	220	Window AC – 12,000 BTU	3250	9750
Microwave Oven – 625 Watts	625	0	Central AC – 10,000 BTU	1500	4500
Microwave Oven – 1000 Watts	1000	0	Central AC – 24,000 BTU	3800	11400
Coffee Maker	1000	0	Heat Pump	4700	4500
Electric Stove – 8in. element	2100	0	Family:		
Dishwasher – Hot Dry	1500	1500	VCR	100	0
Food Processor	400	0	Stereo	450	0
Toaster Oven	1200	0	Colour TV – 27 inch	500	0
Toaster	850	0	Video Game System	40	0
Laundry:			Security System	500	0
Iron	1200	0	Hair Dryer – 1250 Watts	1250	0
Washing Machine	1150	2250	Curling Iron	1500	0
Clothes Dryer – Electric	5400	6750	Electric Grill	1650	0
Clothes Dryer – Gas	700	1800	AM/FM Radio	100	0
Work					
DIY/Jobsite:					
Quartz Halogen Work Light – 300Watts	300	0	Belt Sander	1200	2400
Quartz Halogen Work Light – 1000Watts	1000	0	Air Compressor – 1/4HP	975	1600
Airless Sprayer – 1/3HP	600	1200	Air Compressor – 1 HP	1600	4500
Reciprocating Saw	960	0	Hammer Drill	1600	1400
Electric Drill – 3/8in. 4 Amps	440	600	Circular Saw – 7-1/4”	2100	5250
Electric Drill – 1/2in. 5.4 Amps	600	900	Planer/Jointer – 6”	1800	4500
Office Equipment:					
Computer with 17inch monitor	800	0	Fax Machine	65	0
Laser Printer	950	0	Copy Machine	1600	0
Play					
Electric Grill	1650	0	AM/FM Radio	100	0
Mobile Phone Charger	10	0	CD/DVD Player	100	0

FAQ

How can I determine the running or the starting Watts needed for a tool or appliance if it's not clearly labelled?	If the running Watts are not on the data plate or in the instructions of the tool or appliance, you can make an estimate using the following equation: $VOLTS (V) \times AMPS (A) = WATTS (W \text{ or } kW)$
How many Watts does an average sized house require to run basic items?	In a typical 2 bed house, running only essentials items (a few lights, refrigerator, heating system) it can require between 5000 – 7000 Watts.
What is the difference between running Watts and starting Watts?	Running (Rated) Watts – continuous Watts needed to keep the appliance running. Starting Watts – extra Watts needed for a few seconds to start the appliance.
Why is only one additional starting Watt appliance used to calculate the total starting Watts required?	Running Watts are the amount of power required for the tool or appliance to run normally. However the starting Watts are what is needed only during the first few second or the initial start-up of the operation. In most cases, only one item will start or cycle at the same time. Therefore this is the most accurate estimate.