

Minimum Power usage for typical Inverters of different Power ratings  
(6 May 07)

Three power inverters were tested to measure the DC power usage when no AC Power was being used. In other words this is wasted power while on but not in use. All of the inverters were purchased from <http://www.harborfreight.com/>. Search on the Item number to find them.



[91813-2VGA](#)

Chicago Electric  
Power Tools

[60 WATT CONTINUOUS/100 WATT SURGE  
PLUG-IN POWER INVERTER](#)

\$13.99

\$9.99

Sale

Measured 1.46 watts usage at no load or at 60 watts about 2.45 percent wasted power.



[92708-4VGA](#)

Chicago Electric Power  
Systems

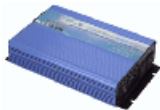
[400W/800W MODIFIED SINEWAVE  
POWER INVERTER](#)

\$39.99

\$19.99

Sale

Measured 5.2 watts usage at no load or at 400 watts about 1.3 percent wasted power.



[91848-7VGA](#)

Chicago Electric  
Power Systems

[700 WATT CONTINUOUS/1800 WATT  
SURGE POWER INVERTER](#)

\$89.99

Measured 11.8 watts usage at no load or at 700 watts about 1.7 percent wasted power.

Bottom line summary: As a rule of thumb one can expect about 2.5% wasted power for low power inverters and about 1.5% wasted power for higher wattages units. To minimize power usage when using inverters do the following.

- 1) Turn the inverter on only when you need to use AC power.
- 2) Use the smallest continuous rated wattage inverter that will do the job at hand.  
This minimizes wasting of power.

As an example: One should not use a 700 watt inverter if all one needs is 40 watts. Use the 60 watt inverter and save the difference or  $11.8 - 1.5 = 10.3$  watts