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Power of a Microwave Oven

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Bibliographic Entry	Result (w/surrounding text)	Standardized Result										
Microwave Oven , Wikipedia, 2007.	"A typical consumer microwave oven consumes 1,100 W AC and produces 700 W of microwave power, an efficiency of 64%. The other 400 W are dissipated as heat, mostly in the magnetron tube."	1100 W (consumed) 700 W (effective)										
Typical Wattages of Various Appliances, EERE Consumer's Guide: Estimating Appliance and Home Electronic Use . US Department of Energy, 12 September 2005.	"Microwave oven = 750-1100"	750-1100 W										
Microwaves Buying Guide . Dzomet. scribd.com.	"The power of a microwave oven is measured in watts and usually ranges from around 400w to 1200w [sic] for the top end products."	400-1200 W										
High Power Panasonic Microwave Oven, 28 May 2007.	"1100W High Power"	1100 W										
Typical Appliance Energy Use and Cost . Clallam County Public Utility District, Clallum County, Washington, 2003.	<p>Typical Appliance Energy Use and Cost</p> <table border="1"> <thead> <tr> <th>Appliance</th> <th>Watts</th> <th>Average Hours Used Per Month</th> <th>kWh Used Per Month</th> <th>Average Cost Per Month</th> </tr> </thead> <tbody> <tr> <td>Microwave Oven</td> <td>1000</td> <td>15</td> <td>15</td> <td>\$0.82</td> </tr> </tbody> </table>	Appliance	Watts	Average Hours Used Per Month	kWh Used Per Month	Average Cost Per Month	Microwave Oven	1000	15	15	\$0.82	1000 W
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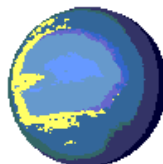
Ask any American about what appliances are most readily used in their kitchen and you won't be surprised to hear the words microwave oven come out of every person's mouth. Since the 1970's the microwave oven has become a staple in every American's kitchen serving the purpose of easy, fast and efficient heating for whoever you might be. It's hard to believe that an appliance that was once considered a gimmick that would forever destroy the fine art of cooking is now used by over 90 percent of American households.

Dr. Percy LeBaron Spencer, the inventor of the microwave oven would have never imagined what would come with his invention. Indeed, the microwave has dramatically changed from being a box with two simple control knobs, one for cooking times up to five minutes and the other for twenty-five minutes to the newly improved stainless steel popcorn popper and defroster machine. Still some things remain unchanged. Like in the 1970's, the microwave oven still consists of a high voltage transformer, a cavity magnetron, a magnetron control circuit, a wave guide and a cooking chamber. It works by passing microwaves through the foods that is in need of heated. The food in question absorbs the microwave radiation through a process called dielectric heating. The microwaves create an induced field and the molecules in the food rotate and try to align themselves with the new electric field around them. The constant rotation creates heat as molecules constantly bump into each other, consequently making your food hot.

Nowadays, Americans have many options when it comes to purchasing a microwave oven. Each microwave oven varies with accordance to size, style, and features. Additionally, people have the option of purchasing a microwave with a specific power delivery that suits their specific family. The various microwave powers range from 400 W to 1200 W.

Tatyana Nektalova -- 2007

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