Do Air Purifiers Use a Lot of Electricity?



One of the most common questions that first-time air purifier buyers have is “Do air purifiers use a lot of electricity?” Given that an air purifier has to run 24/7 to be as useful as possible, it’s a completely understandable question. So, for this installment on our blog, we’ve decided to tackle this question and give you some idea of how much power an average residential air purifier will consume.

  Measuring How Much Electricity Air Purifiers Use

The first step in answering this question is to understand the consumption of electrical power. The power charge on your utility bill is typically a [measure of kilowatt-hours](https://www.pacificpower.net/bus/ayu/uyec.html) consumed by all of the electrical devices in your home. For reference, a kilowatt-hour is another way of saying 1,000 watts of power used for one hour.  A 1,000-watt (or 1-kilowatt) device running for one hour, therefore, would add 1 kilowatt-hour to your bill.

Since this is how you are billed for electricity, it seems to us to be the best way of measuring air purifier power consumption and giving you an objective idea of how much electricity an air purifier uses. Before we go into the consumption of air purifiers, though, let’s consider the power consumption of some other [common home appliances](https://www.daftlogic.com/information-appliance-power-consumption.htm) for reference. Keep in mind that the following are rough averages and that your home appliances may vary:

  49-inch LED TV: 85W

  Laptop computer: 50-100W

  Desktop computer: 100-450w

  Refrigerator: 100-200W

  Dishwasher: 1,200-1,500W (1.2-1.5kW)

  Air conditioner: 1,000-4,000W (1-4kW)

  So, Do Air Purifiers Use a Lot of Electricity?

With a good way to measure energy consumption and a few other appliance ratings for reference out of the way, let’s take a look at what you can expect an air purifier to use. Below, we’ve listed the power consumption of some of our top models:

[Amaircare 3000 VOC](https://www.usairpurifiers.com/amaircare-3000-voc-air-purifier.html#specifications): 84W

[Field Controls TRIO](https://www.usairpurifiers.com/field-controls-trio-1000p-portable-air-purifier.html#specifications): 100W

[Blueair Pro L](https://www.usairpurifiers.com/blueair-pro-l-air-purifier.html#specifications) (maximum on high setting): 170W

[IQAir HealthPro Plus](https://www.usairpurifiers.com/iqair-healthpro-plus-air-purifier.html#specifications): up to 215W

[Austin Air Healthmate](https://www.usairpurifiers.com/austin-air-healthmate-hm-450-air-purifier.html#specifications): 135W

As you can see, residential air purifiers can vary quite a bit in their power ratings, but mostly stay in a range roughly equivalent to that of a home refrigerator or desktop computer. Taking the Austin Air Healthmate as an example, keeping the 135W unit on continuously would require an output of .135kW per hour, totaling 3.24 kilowatt-hours per day or 97.2 per month.

Taking this one step further, let’s try to estimate what this means for your electric bill. Electricity costs vary by state, but the best average we’ve been able to find is [13.11 cents per kilowatt-hour](https://www.electricchoice.com/electricity-prices-by-state/). By multiplying the 97.2 kilowatt-hours per month we got above by this cost, we find that this air purifier would add about $12.74 to the average power bill in a 30-day month. Keep in mind that these are rough estimates, but they should give you some idea of what to expect. If you want to check what other units could be expected to cost, follow this link to a [handy electricity bill calculator](https://www.rapidtables.com/calc/electric/electricity-calculator.html) that will help you estimate costs quickly.

  Are There Air Purifiers That Don’t Use as Much Electricity?

So far, we’ve established that most air purifiers use up relatively little power per hour. On a monthly basis, you can expect to spend roughly the same amount on your air purifier as on an average refrigerator.

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