

# Air conditioners

## Use this fact sheet to quickly reference BC Hydro rebates, facts and figures on air conditioners.

From June 2 to August 25, 2023, BC Hydro will be providing discounts on select high efficiency window and portable air conditioning units at participating retailers. The products that qualify for BC Hydro rebates are the most energy efficient models on the market and will help customers save energy and money. Visit [www.bchydro.com/deals](http://www.bchydro.com/deals) on June 2 for a complete list of eligible products.

**Discount Offer:** Save **\$50** on select high efficiency window and portable air conditioners.

Eligible air conditioner criteria:

- Window A/C must be listed on the ENERGY STAR® product finder.
- Window A/C must have a **variable speed** with **CEER >=14**
- Portable A/C must have **dual duct or single duct** with **variable speed/invertor**
- **Limit of 2 per SKU** per customer transaction.
- Rebate is per unit and provided by BC Hydro.

### FACTS AND FIGURES

#### Window and portable air conditioner overview

An ENERGY STAR® window air conditioner with variable speed can be between 15-45% more efficient than a model without variable speed. Using an average sized window unit with 6,000 BTUs, the savings would be about \$32 kWh/year. In the B.C. Interior, the savings are higher due to the hotter summers, the savings would be 350 kWh/year which equates to approximately \$40/year. Although window air conditioners are significantly more efficient than portable units, portable air conditioners are the most popular air conditioner type installed in B.C.

#### Window and portable air conditioner maintenance

Air conditioners may have filters, air intakes, or grills that need regular replacement and/or cleaning. If a filter or air intake/outflow is dirty and overloaded, it may reduce the performance and efficiency of the unit and/or cause the unit to be loud during operation. Some portable air conditioners have an internal condensate (water) collection container that needs to be emptied regularly (often daily) depending on the indoor humidity and amount of use.

When operating the unit, continue to practice passive cooling measures whenever possible to help lower the indoor air temperature (e.g. closing blinds, opening windows at night when the outside air is cooler than indoor air). These practices will increase the effectiveness of the unit, reduce the time required to bring the indoor air to the desired temperature, and reduce operating costs.

#### Window and portable air conditioner sizing

Determine the size of the room or area you are trying to cool and compare this to the maximum recommended room size on the product packaging. To calculate your room size in square feet, multiply the length and width of the area (in ft). Larger models use more energy, so choose a model that is sized to fit your room. If you have an open floor plan, consider the entire space that the unit will serve.

If the unit is not sized properly, the unit may either fail to cool the room to desired temperature or it may overcool the room causing discomfort for occupants.

### ENERGY STAR

#### Products

All ENERGY STAR certified products are tested and certified by an independent third party to meet strict efficiency specification and perform the same or better than standard products without compromising performance.

[www.energystar.gov/](http://www.energystar.gov/)

### Find the correct cooling capacity for your room size

Areas to be cooled (sq ft)	Capacity needed (BTUs per hr)	Areas to be cooled (sq ft)	Capacity needed (BTUs per hr)
100 up to 150 sq ft	5,000	400 up to 450 sq ft	10,000
150 up to 250 sq ft	6,000	450 up to 550 sq ft	12,000
250 up to 300 sq ft	7,000	550 up to 700 sq ft	14,000
300 up to 350 sq ft	8,000	700 up to 1000 sq ft	18,000
350 up to 400 sq ft	9,000	1,000 up to 1,200 sq ft	21,000

### Comparing window and portable air conditioners

Comparison	Window air conditioners	Portable air conditioners
<b>ENERGY STAR</b>	Many	None
<b>Average efficiency (CEER)</b>	11.1 (Range: 9 to 15)	7.5 (Range: 5.6 to 8.4)
<b>Ease of installation</b>	More difficult (requires tools)	Easy (no tools required)
<b>Flexibility</b>	Low (not easy to move)	High (movable)
<b>Time required to lower temperature</b>	Faster	Slower (2x longer)
<b>Average cost per BTU</b>	Lower	Higher

## FAQS

**Q:** What does Combined Energy Efficiency Ratio (CEER) mean?

**A:** Combined Energy Efficiency Ratio (CEER) is the ratio of measured cooling output (in BTU per hour) to measured average electrical energy input (in Watts). It considers the energy used while the air conditioner is running as well as the standby power used while the unit is not running but is powered on. The higher the CEER, the more efficient the unit.

**Q:** What should I look for when choosing an air conditioner?

**A:** When looking for an air conditioner, you should first check the CEER rating and compressor type. Variable speed or inverter technology saves energy and provides quiet, efficient performance. When looking for the right air conditioner for your home, select a unit that is sized correctly for the room and works with the room's type of window.

**Q:** Where should I place my window air conditioner?

**A:** Consider placing the unit in the rooms that would offer the most relief and comfort. This may include bedrooms to allow the body to reach a lower temperature to enable restful sleep. Make sure the airflow is not obstructed.

## FOR MORE INFORMATION

For more information and details on BC Hydro rebates, see [www.bchydro.com/deals](http://www.bchydro.com/deals)

For more about selecting an efficient air conditioner, see ENERGY STAR's [Room Air Conditioner Buying Guidance](http://Room Air Conditioner Buying Guidance) or [energystar.gov/products/room\\_air\\_conditioners](http://energystar.gov/products/room_air_conditioners).