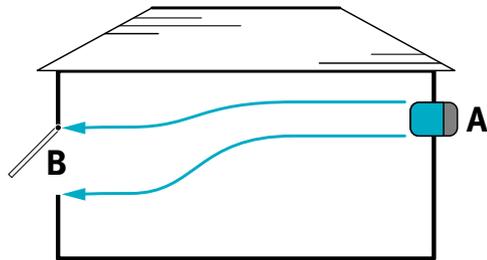


- ◆ If possible, install the evaporative air conditioning unit out of direct sunlight and ensure that the air flow around it isn't obstructed.
- ◆ Consult an authorised air conditioning installer or manufacturer before you buy.

Points to consider when in use

- ◆ If your unit has a thermostat, set it for between 24°C and 28°C. The lower you set your thermostat, the less energy and water-efficient it will be.
- ◆ Unlike refrigerated systems, evaporative air conditioners work best when the doors or windows at the far end of the area to be cooled are opened. This allows the cool air produced by the unit to flush out the hot air from inside your home. Doors or windows should only be opened to twice the size of the air supply vent of the unit, as larger openings can allow hot air from outside to enter your home.



Window or door space at B should be opened to twice the size of air conditioner intake at A.

- ◆ Shade your windows during hot summer days to keep the heat out. Outdoor shading of windows is most effective.
- ◆ Only use your evaporative air conditioner when necessary.

- ◆ Clean the unit regularly to prevent odours or problems caused by the accumulation of dirt and growth of slimes and moulds.

Maintenance

- ◆ Evaporative air conditioning systems require ongoing maintenance to remain efficient. In particular, you need to ensure that the evaporative pads are in good condition.
- ◆ The system should be cleaned before operation if it has not been used for two weeks or longer. This involves disconnecting the power supply, washing the evaporative pads and disinfecting the water distribution system.
- ◆ Where air conditioners will be switched off for extended periods, all water should be drained from the unit and the reservoir and filter pads cleaned and dried.
- ◆ In areas with hard water (containing high levels of minerals), it may be necessary to change the evaporative pads frequently to prevent mineral build-up.
- ◆ It is recommended that systems be inspected by qualified service staff annually, and evaporation rates tested if appropriate. Manufacturer's directions should be followed for specific evaporative air conditioners.

More information

To find out more about efficient air conditioning systems, contact your local supplier.

Residential evaporative air conditioners



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Water usage

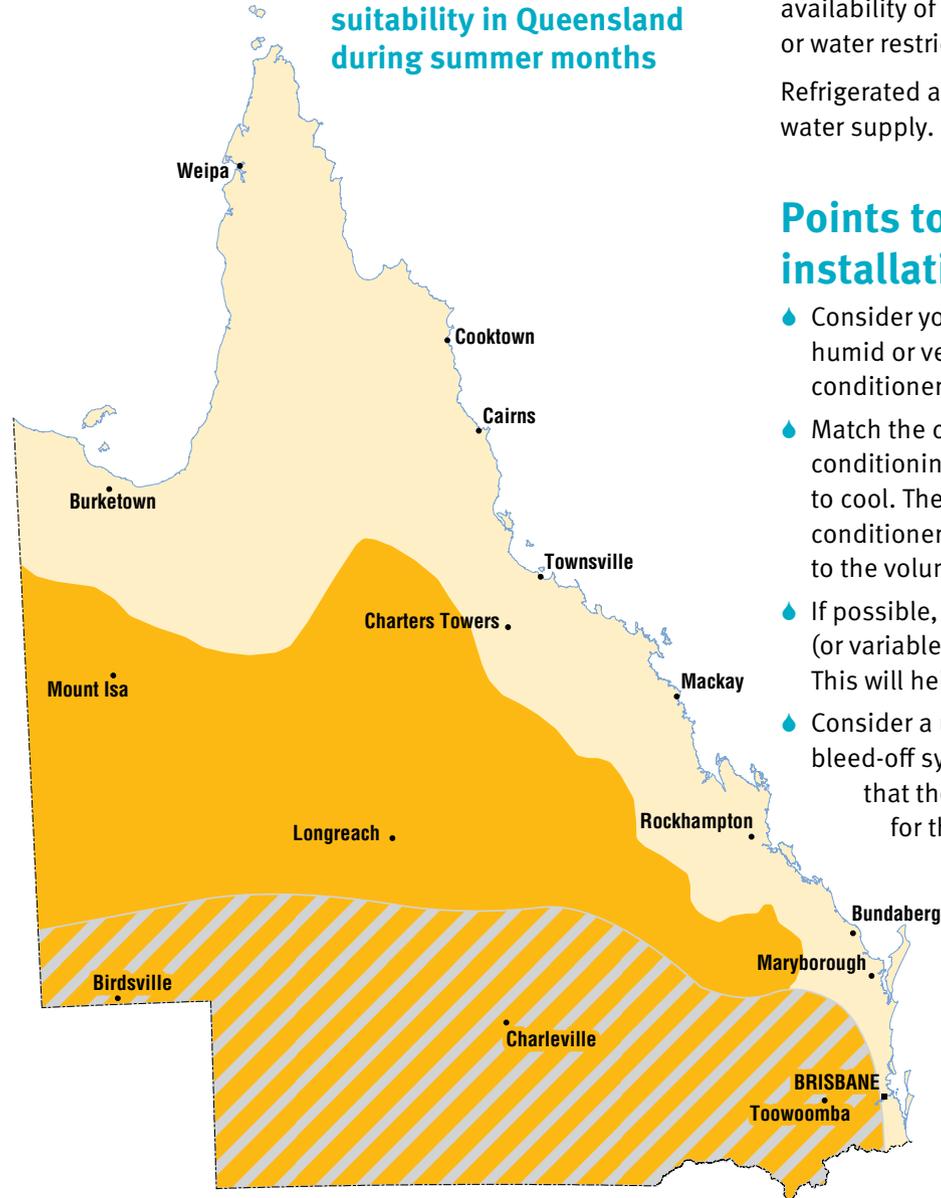
There are two types of air conditioners: refrigerative and evaporative. While refrigerative air conditioners don't use water, evaporative air conditioners are high users of water. A single evaporative unit can use 75 litres or more per hour (L/hr) in summer. In Queensland, typical water use by evaporative air conditioners is in the range of 10 L/hr to 30 L/hr per room. However, there are ways you can minimise the amount of water used by your evaporative air conditioner.

Appropriate climate

The effectiveness of evaporative air conditioners varies enormously and depends on both humidity and temperature. It is important to consider your local conditions when installing and using evaporative air conditioners:

- ◆ Evaporative air conditioners work best in low-humidity climates (around 30 per cent humidity or less).
- ◆ They are still fairly effective in moderate humidity (around 40–50 per cent).
- ◆ Regular maximum temperatures are also relevant. For example, the higher the outside temperature, the higher the temperature of the cooled air produced by the evaporative air conditioner.
- ◆ In Queensland evaporative air conditioner use is suitable in dry climates. For example some inland areas, as shown in the map at right. The striped area indicates optimal operating conditions (considering average temperature as well as humidity).
- ◆ In areas which are more humid or very hot during summer, standard refrigerative air conditioners are more effective as they dehumidify the air (although they are also more expensive and bigger consumers of electricity). Inverter air conditioners are the most energy efficient of this type.

Evaporative air conditioner suitability in Queensland during summer months



*Based on average summer temperature and humidity.

Appropriate water supply

Due to their high water use, evaporative air conditioners may not be the best choice for your home if the availability of a secure water supply, poor water quality, or water restrictions are issues in your local area.

Refrigerated air conditioners do not require a water supply.

Points to consider before installation

- ◆ Consider your climate. If summers in your area are humid or very hot, the cooling effect of evaporative air conditioners will be reduced.
- ◆ Match the cooling capacity of your evaporative air conditioning unit to the size of the area you wish to cool. The volume of air pumped through the air conditioner every two minutes should be equivalent to the volume of space in the room.
- ◆ If possible, select a unit that offers a two-speed (or variable-speed) fan, as well as a thermostat. This will help you to run it no more than is necessary.
- ◆ Consider a unit with a 'dump' system rather than a bleed-off system. If using a 'bleed-off' system, ensure that the bleed-off rate is set as low as appropriate for the water quality in your area.