

Solo Air Heating and Cooling Systems... Off the grid!

Solo Air is a natural, energy efficient system that works with the environment, not against it, to produce cost effective heating and cooling all year round.

What is it?

Solo Air is not your average climate control system. We all know from our energy bills how hard a regular heater has to work in order to convert cold air to warm. So what if there was a different approach? What if there was an approach that could cost you nothing to run?

Solo Air utilises the natural, free resource of solar energy as both a method of heating and cooling. In heating mode, the system uses the sun to heat the air then recirculates this warm air throughout the building. In cooling mode, hot air is extracted out of the building. Both heating and cooling modes use solar powered fans. The installation of Solo Air can reduce usage of a conventional climate control system by up to 60%, significantly cutting those expensive energy bills! Plus, it's environmentally friendly, with no greenhouse gas emissions.

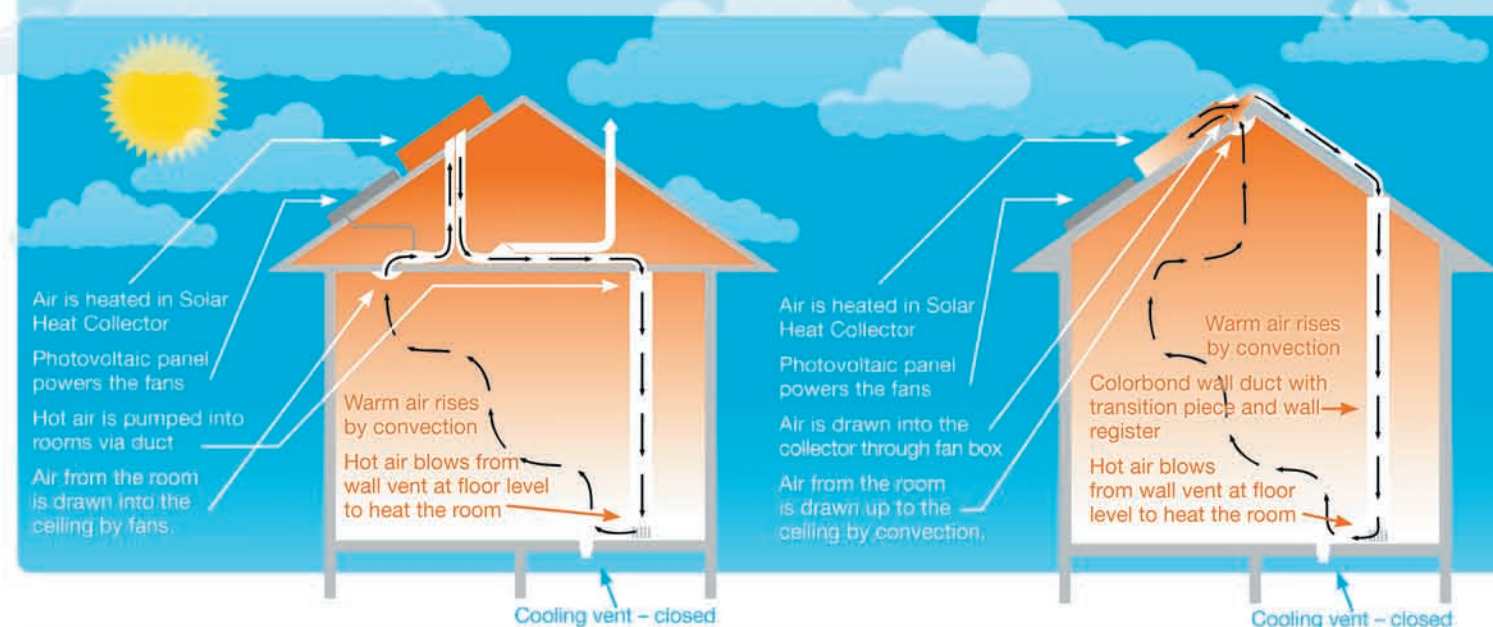
Will Solo Air work in my building?

Solo Air can be retrofitted into existing buildings or easily incorporated into new building designs. There are two systems available: one for buildings with roof cavities and one for buildings without. Each system is also available in two sizes: Single heat collector, for areas up to 100m²; and Dual heat collector, for areas up to 180m².

The effectiveness of the system is directly linked to the amount of sunlight that can be captured. North facing pitched roofs are optimal. However, Solo Air can provide frames that allow the flexibility of installing the unit on different types of roofs. Naturally, the average amount of sunlight per day varies from season to season and state to state. Fortunately in Australia, we enjoy many hours of sunlight throughout the country, all year round. See the table for more information.

How does it work? In winter: Heating mode

A Solar Heat Collector on the roof collects available heat directly from the sun. Solar powered fans draw air up from the building and through the Heat Collector, boosting the air temperature to over 50°C. This hot air is then blown back through the low-placed outlet vent and naturally rises to warm the whole building.



WINTER	City	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	ACT
* Average Clear Sunlight hours per day (May–Sept.)		6-7	4-5	7-8	5-6	5-6	4-5	5-6

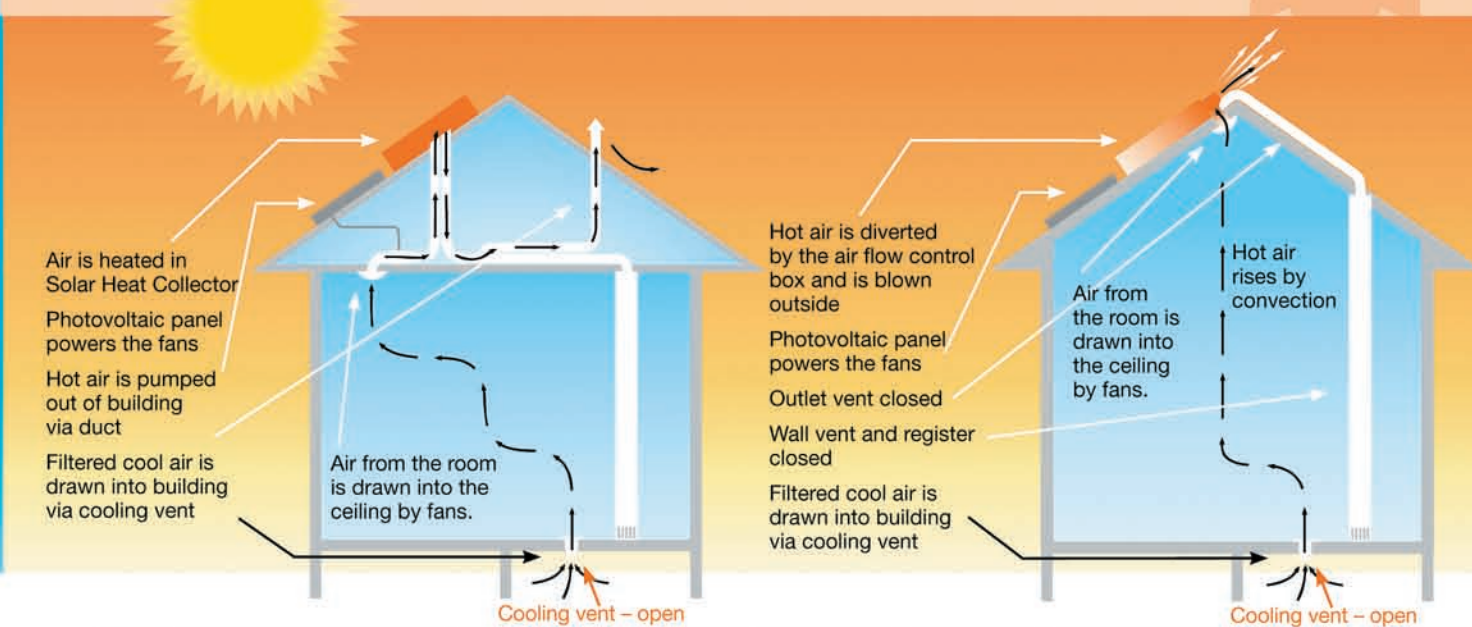
What results can I expect?

This effective closed loop system is designed to work during the day when there is sunlight. Up to 2.4 kilowatts of heat is produced, making your building around 4-6°C warmer. Hence, when night falls and sunlight is no longer available, only a small amount of heat from a conventional heating source is needed to maintain the comfortable temperature.

* Hours of sun with no cloud cover.

How does it work? In summer: Cooling mode

Warm air that has been trapped in your building by the ceiling, roof and insulation is drawn up by solar powered fans and released outside. Cooler air (for example, from basements, the southern side of the building or under the floor) is then drawn back in through filtered cooling vents.



SUMMER	City	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	ACT
* Average Clear Sunlight hours per day (Oct.–April)		7-8	7-8	7-8	8-9	9-10	6-7	8-9

What results can I expect?

This system reduces the need for air conditioning by removing the hot air that can build up indoors and lowering your building's thermal mass temperature (bricks, concrete, tiles and furniture), resulting in an overall decrease of up to 10°C. Additionally, after working for free all day using solar power, Solo Air can automatically switch to mains power at night to continue the air movement.

* Hours of sun with no cloud cover.