



Revert

Your Ultimate Guide to Buying Ceiling Fans

Used in conjunction with other forms of heating and cooling, ceiling fans can help to reduce energy costs both in summer and winter.

Ceiling Fan Buying Guide



The humble ceiling fan has become a staple in most Australian households over the last few decades, becoming the go to choice for helping to cool your home in summer, as well as helping to heat it more efficiently in winter. Why? Well, there are a number of reasons.

- They are a relatively inexpensive choice for helping to cool and heat your home;
- They are extremely energy efficient;
- They help to reduce cooling and heating costs in your home by working in conjunction with other forms of cooling and heating;
- They are environmentally friendly, helping to reduce your energy footprint;
- They are low maintenance; and
- They can be an added design feature in your home.

In this guide, we cover everything you need to know to find the right ceiling fans for your home. Everything from size and blade type, to airflow, motor type and the options you may need to consider specific to your home.

We're here to make you look good!

How do ceiling fans work?

Unlike other forms of cooling or heating you may have in your home, ceiling fans are not designed to lower or raise the temperature of a room. Instead, they circulate the air within a room, in such a way designed to make you feel cooler in summer, and warmer in winter.

During the warmer months of the year, your ceiling fan blades work to generate a breeze, which is pushed down toward you, creating a “wind chill” effect on the skin causing you to feel cooler. Think of those refreshing breezes you get on a hot summer day, and that short burst of relief you get from the heat as the breeze hits your skin. This wind chill factor is created by the turn of the blades pushing air directly down toward you.

During the winter months, most ceiling fans are designed so that the direction of blade spin can be reversed. Instead of pushing air directly down toward you, the blades will pull warm air down from the ceiling, and push it down the walls of your room. We know that warm air tends to rise, so rather than having air directly hitting you, your ceiling fan will redistribute warm air from the ceiling to provide an overall feeling of warmth in the room.

By design, ceiling fans have the ability to lower your energy costs by working in conjunction with other forms of heating and cooling. By redistributing the air in the room more effectively, they allow you to adjust the temperature or setting of say, your air conditioner or heater.



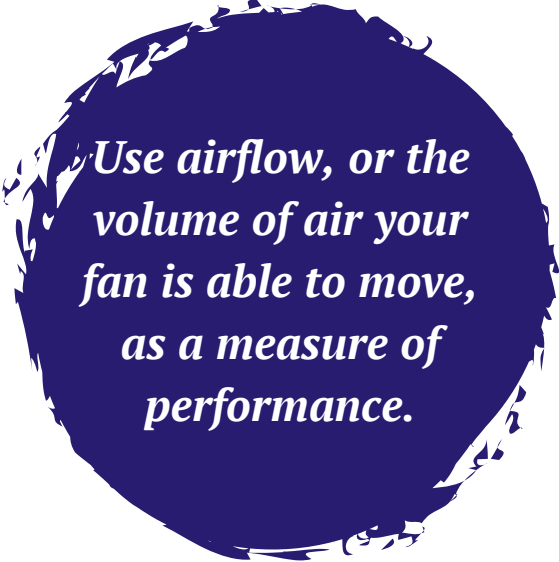


What is airflow?

Airflow is a good place to start as a measure of your fan's performance. It would be easy to look at the breeze created by a ceiling fan, and the speed at which this breeze is produced, as a measure of a fan's performance. This, however, is not the full measure of how well your fan performs.

Simply put, airflow refers to the volume of air a fan is able to move around a room. This volume of air is measured in cubic metres per hour, or CM/H, and is designed to provide an idea of your fan's performance. This is not to be confused with wind speed. Wind speed, or velocity, works to create that wind chill effect directly under the fan, whereas, airflow is a measure of the volume of air that your fan is capable of moving.

For example, a ceiling fan with a high speed setting, but a low airflow measure, would produce a stronger breeze directly under the fan, but would not have the capacity to disperse that breeze over a large area. Conversely, a fan with a low speed setting, but high airflow measure, would produce a gentle breeze directly under the fan, but disperse this breeze over a larger area.



Use airflow, or the volume of air your fan is able to move, as a measure of performance.

Does ceiling fan size impact airflow?

When you are assessing the airflow of your ceiling fan it is important to consider the size of your fan. The airflow measure, that is, the volume of air your fan can move around a room, will be directly related to the size of your fan. Generally, the larger the fan, the more it will be capable of moving.

So, what do we mean when we talk about a ceiling fan size? A ceiling fan's size is given as the diameter of the ceiling fan from the tip of one fan blade to the tip of the opposite blade. This is referred to as the fan's blade span.

Generally, we refer to blade span in inches. For example a fan with a 52" inch blade span will measure 52" from the tip of one blade to the tip of the opposite blade. The greater the blade span, the greater the volume of airflow it will be capable of moving, and the larger the area it will cover.





Ceiling Fan Size

So, what ceiling fan size do you need for your space?

When it comes to ceiling fans, size is actually everything, and, while there's no exact science to selecting the right size ceiling fan for a space, there are some general rules you can follow.

Before you start to look at fan options, there are a few things you can do to help determine the ideal fan size for your space.

- *Measure the size of your space, including your floor to ceiling height;*
- *Create a rough layout on paper of the fixtures and furniture within your space;*
- *Rough out approximately 50cm from the perimeter of the space, or other fixtures and furniture of significant height, as the minimum allowance between the tip of your ceiling fan and the wall, the door or other furniture and fixtures; and*
- *Make a note of whether your space is enclosed, such as a bedroom, or an open space, such as a living area that opens onto other spaces.*

Now that you have your rough layout and measurements, and following our simple guide below, you can start to work out what size ceiling fan your space needs.

Ceiling fans for small spaces

In Australia, a small room is around 2.8m x 2.5m, and is usually rooms like **small bedrooms or a study**. For spaces this size, we would recommend something smaller, like a 44" or 48" blade span ceiling fan. Consider the room layout and décor when deciding on size, as well as how much breeze and airflow you would like your fan to provide. A 48" fan in a study, for instance, may provide too much breeze when working directly beneath it to make it a comfortable working environment.

Rovert ... the ceiling fan experts!

Ceiling fans for mid size spaces

For medium sized spaces between say 3m x3m and 4m x4m, you can afford to go a little larger in fan blade span. **Standard bedrooms, living areas, or your dining space**, are examples of what we would classify as mid size rooms in most Australian homes, and these are rooms where you need greater airflow, and can also afford to have a stronger breeze without it being uncomfortably breezy or disrupting other tasks. Commonly used in these types of rooms is a 52" blade span ceiling fan.

A **master bedroom** may be the exception to this. The average master bedroom in Australian homes is around 4.2m x 3.9m, which still falls in our mid size range, however, positioned over the bed, you could go a little larger to something like a 56" blade span ceiling fan, which would have a greater capacity to move air around the room.

Tip: position your fan over areas you gather or sleep to provide optimal wind chill.

Tip: consider installing more than one ceiling fan in very large spaces.

Ceiling fans for large spaces

For large spaces over 4m x4m, consider installing a 56" ceiling fan, or above to ensure good breeze and airflow.





Ceiling Fan Blades

How many blades should my ceiling fan have?

It is a common question, with a not so common answer, as the number of blades your ceiling fan has is far less important than other design factors.

A common misconception is that the more blades your ceiling fan has, the better airflow it will produce. In fact, it can be quite the opposite due to the “drag” the blades have on the motor. “Drag” refers to the force that wants to slow down the fan blade as it moves through the air. Drag can reduce the airflow produced by your ceiling fan by slowing down the motor. It can also increase energy consumption, as the motor has to work harder to try and maintain airflow.

Many ceiling fan manufacturers have overcome this problem with innovations in DC motor design, which are more energy efficient in maintaining airflow, making the number of blades, and therefore, the “drag” effect nominal.

Ultimately though, because fans differ in so many ways, it is very difficult to tell how effective they are by counting their blades. Some high airflow fans have three blades, some have two, and some have more. A better indicator of your fan’s performance is to look at airflow, however, if you need to choose between a 3 blade fan and a 4 blade fan, both with similar specs, choose based on design, which looks better to your own eye?

For a more detailed look at the number of fan blades, see our blog post [*Ceiling Fan Blades - 3,4 or 5?*](#)

What ceiling fan blade pitch should I choose?

Ceiling fan blade pitch affects the amount of air a ceiling fan can move, so is critical to your ceiling fan’s efficiency. The blade pitch of a ceiling fan is the angle (measured in degrees) at which the blades are set relative to the fan’s base. The pitch of the blade is what allows your ceiling fan to “pick up” the air. Generally, the greater the blade pitch, the more efficiently your ceiling fan can move air. A commonly accepted ideal blade pitch is between 12 -15 degrees.

What blade material should I choose for my ceiling fan?

There are three commonly used blade materials.

1. **Plastic blades** or ABS polymer, are becoming a popular choice with fan manufacturers due to their durability, their lightness, and their ease of cleaning. In particular, manufacturers have turned to plastic because of their ability to create different styles. This has paved the way for ceiling fans to become more than a functional fixture, but an added design element within a space, with innovations like curved blades that make a style statement in themselves.
2. **Timber blades** have always been a go to option for ceiling fans due to them being incredibly lightweight. A lot of ceiling fans still use a laminated plywood timber to create a more sleek look, but hold onto the lightweight qualities of the timber.
3. **Metal blades** were more common years ago, but still used now, as they make for a robust construction. They also make a style statement, perfectly at home in modern industrial decors.



The material your ceiling fan blades are made of can impact its effectiveness. The heavier the blade material, the more the fan weighs, and this added “weight” can impact the motor’s ability to generate airflow. However, with advances in fan technology the weight impact has become less of a concern.

The biggest concern when it comes to blade material tends to be noise. Ceiling fans with timber or plastic blades tend to be slightly quieter than their metal counterparts as they cut through the air.

Much like the number of blades you choose, your choice of blade material will come down to personal preference, rather than one performing better than the other. For a more detailed look at blade type, see our blog post [Selecting Ceiling Fan Blade Type – Things to Know](#).



Ceiling Fan Motor


You may have heard the terms AC and DC in regard to ceiling fans? For modern ceiling fans, this is one of the biggest features that separates different fan models. So, what is the difference between AC and DC ceiling fans?

When we refer to AC or DC, we are referring to the way current flows within a circuit to generate power. Alternating Current (AC), simply means that the current flows in alternating directions, back and forth. Direct Current (DC), as its name suggests, refers to current that flows in a single direction.

While we could go into a lot of technical detail about the differences between AC and DC, what we really want to know is what this means for your ceiling fan.

In any ceiling fan, a force needs to be generated that is strong enough to rotate the rotor, and push the fan blades. In a ceiling fan with an AC motor, this force is generated directly from the power source. In a ceiling fan with a DC motor, the power source connects to a transformer, which converts the AC power to DC, and then uses magnets to create the force needed to rotate the motor's rotor.

Both AC ceiling fans and DC ceiling fans require the same force to rotate the motor's rotor, and push the blades. The resulting difference between the two, however, is the amount of energy required directly from the power source to do this.



***DC ceiling fans
consume up to
70% less power
than their AC
counterparts.***

Energy efficient ceiling fans to suit every budget!

AC or DC Ceiling Fan?

Given this is one of the biggest choices you will make when it comes to your ceiling fan, let's have a look at some of the pros and cons of both.

AC ceiling fans

Pros:

- AC fans tend to have more control options, such as wall control and remote.
- AC ceiling fans tend to be cheaper than their DC counterparts.
- AC fans can usually be easily repaired.

Cons:

- Most AC fans only have up to 3 speed options available.
- AC motors can produce more noise than their DC counterparts while operating at low speeds.
- While they are energy efficient, AC fans are less energy efficient than DC fans.

DC ceiling fans

Pros:


- DC ceiling fans are highly energy-efficient, consuming up to 70% less power than their AC counterparts.
- DC ceiling fans are slimmer in design.
- DC motors allow you more control over power consumption and rotating speed. Often, DC fans will give you up to 6 speed options for greater airflow control and energy consumption.
- By allowing for greater control of things like speed, the life of DC fans tends to be longer.
- DC ceiling fans are extremely quiet.

Cons:

- DC ceiling fans tend to be more expensive to purchase, although, this cost has come down significantly with improvements to technology and manufacturing.
- Most DC fan models generally only come with a remote control, although improved technology, has seen the addition of wall controls in many models.

To read more about the differences between AC and DC ceiling fans, visit our blog [*Pros and Cons of AC and DC Ceiling Fans.*](#)

Ceiling Fan Installation



By this stage, you are probably nearly ready to make a decision on your ceiling fan. Before that though, there are a few more things to consider in regard to where your fan will be installed.

Do you have raked or pitched ceilings?

If so, you will need to check the fan specs to make sure it is suitable for pitched ceilings.

What climate do you live in?

This is particularly important if you live in a coastal climate. Opting for materials that will withstand this type of climate is important. Again, check your fan specs to find out if your fan is rated for coastal climates. Like the [Brilliant Amari range](#).

Where are you installing your ceiling fan?

This wasn't always a question you could ask, but with advanced technology, there are now a huge range of fan options suited to outdoor use. Like the [Hunter Pacific Aqua range](#), designed to be completely waterproof for outdoor use. Again, your fan specs will tell you if your fan is suited to outdoor use.

Do you need a downrod?

Depending on your ceiling height, you may need to drop your fan a little from the ceiling.

Standard ceiling height in Australian homes is 2.4m, with a minimum height required of 2.1m between the lowest point of the fan blades and the floor. If you have higher than average ceilings, you may want to consider lowering your fan to meet this 2.1m height minimum, so as to get the best efficiency and performance from your fan.

For more information regarding ceiling heights and minimum requirements, always refer to the data sheet supplied with your fan.

Do you need a light?

This is actually a more important consideration than you initially may think.

There is nothing worse than installing a fan in your space below downlights, for instance, which will make for a great party atmosphere as the fan swings by the downlights creating a strobe effect, but not so great for everyday living.

One way to eliminate this is to opt for a ceiling fan with a light, and there are some great energy efficient LED options available for this.

While a ceiling fan is never going to replace that statement piece or provide mood lighting, it will provide you with a functional light source that is generally centrally located to provide effective ambient lighting.

In many cases, your ceiling fan will replace an existing light fitting, so it makes sense to replace the light source, while providing the comfort a ceiling fan can bring.

Some ceiling fans also have adaptable light kits, which allow you to easily add a light later if you decide to.

***DC ceiling fans
with LED light are
75% more energy
efficient than
standard AC
ceiling fans***



Other Tips To Consider



Now that you have the functional side sorted, it's time to decide on style, and thanks to advances in fan technology, the options for choice really are limitless!

Ask yourself:

- *What colour? Do you want your fan to blend into the ceiling seamlessly with a white ceiling fan, or make a style statement with a matt black ceiling fan?*
- *What design? If you really want to make a design statement with your fan, you might opt for something that has curved blades, or a feature, such as timber or bamboo blades set against a matt white or black. Something like the Eglo Noosa with bamboo blades.*

*Always buy from
a ceiling fan
specialist to
ensure quality of
product and
knowledge.*

Our biggest tip? Always buy from a ceiling fan specialist to ensure you are getting quality of product, as well as knowledge to ensure you are getting the right ceiling fan for your space!