

Home Aircon Buyer's Guide

The cold hard facts!

When purchasing an air conditioning system for your home, there is much to consider — which is why we've drawn on our many years in the business and compiled this handy guide.

In the guide, you'll find answers to some of the most frequently asked questions that we hear on an almost daily basis.

Naturally, this guide is by no means comprehensive — if there is anything our experience has taught us, it's that there is no simple formula to use when figuring out how best to air condition your home. A one-size-fits-all approach simply doesn't work and reading a guide can never be a substitute for talking to an experienced professional.

BUT... it does give you a solid foundation of knowledge, which will help when you're talking to your aircon specialist.



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Choosing the right type of system for YOUR home

There are basically two types of air conditioning systems — split systems and ducted air conditioning. To decide which of these two types best suits your needs, you will need to decide what areas of your home you want to air-condition.

This may seem like a simple decision, but take the time to think it through carefully because it has important cost ramifications that could affect you for years to come.

A few things to bear in mind...

1. What area(s) in your home do you want air-conditioned?

If you only want to air condition a few rooms (for example in a small apartment or only selected rooms in your house), the best option is to set up a split system in each room.

This type of system is easier to install than ducted air conditioning and gives you more control over individual room temperatures. But... it does have some drawbacks — especially if you want to add more areas in the house to the system at a later stage.

2. Think about your family's long term air conditioning requirements

Remember we are living in an increasing warm climate AND our bodies are exposed to air-conditioning much more frequently than they were even a few short years ago. This means we are becoming accustomed to being in air-conditioned environments. It is very important therefore to consider not only your current needs, but to plan for future air conditioning requirements as well.

For example, if you purchase a split system to air condition only a few rooms, and later decide that you want to air condition more areas in your house — you would have to make a difficult choice. Either change the whole house over to a ducted system, or add more individual split units (which would be more costly in the long run).



3. Draw up a plan of your current and possible future home usage.

Sit down with your family and make a list of how much time you spend in each area of your home. Include the types of activities you do in each room and the time of day you spend there.

Perhaps you spend most of your time in the rumpus room and hardly ever use the formal dining room?

Or the kids' playroom is used almost every afternoon and it gets a lot of afternoon sun so it needs to be cooled down?

This kind of thinking will give you a good indication of where your greatest air-conditioning requirements are.

Be sure to show this plan to your air conditioning specialist — it will go a long way to assisting them in providing you with the best possible air conditioning system for your home.

4. Consider your budget, but be careful not to base your decision entirely on price

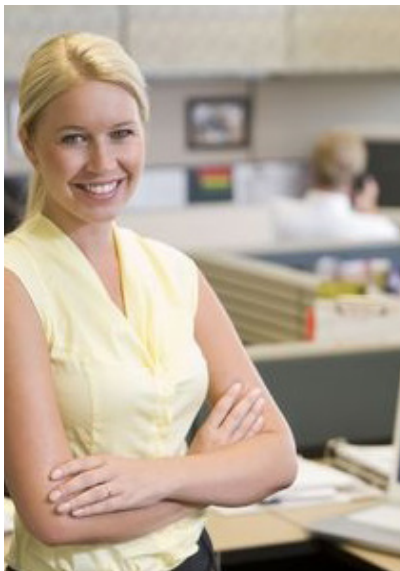
When purchasing an air conditioner for your home, you must be sure that the unit is going to last. The best way to do this is NOT to base your decision on price alone — pay close attention to the quality of the units on offer.

More often than not the cheaper models end up costing you more in the long run. They work less efficiently using much more energy and causing your running costs to soar.

They also tend to breakdown more frequently, which means you'll have to spend more on services and maintenance. So, be sure to select a brand that's well established in the market and offers (at least) a five-year warranty.

Also, if you're on a tight budget, and (after assessing your home usage) you feel that a ducted air conditioning system might better suit your needs than a split system — discuss this with your air conditioning supplier. They will be able to give you the best advice.

At Acer Services, we have a wide range of payment options available to make it even easier to choose the right system from the start.



How to calculate the size of system you'll need

A heat load survey will assist you in working out the size of air conditioning system you need. Your air-conditioning consultant will help you with this.

A typical heat load survey takes the following into consideration:

- The type of materials used in the construction of your home
- The number and size of windows in your home
- The ceiling height
- Roof ventilation
- Roof insulation
- Shading
- House elevation – whether your house is built on a slab or off the ground.

In some cases, measuring the space (in m²) you want to condition and multiplying it by a factor of 0.15, can yield a useful estimate of the size of the unit required in kilowatts.

Much can be done to reduce costs and maximise the performance of your air conditioning system, but the methods used will vary depending on individual circumstances — which is why it is vital to always consult an experienced air conditioning professional such as Acer Services.

What is the difference between split air conditioning and ducted air conditioning?



1. Energy Efficiency and Running Costs

Modern air conditioning systems (including both split and ducted systems) are quieter, more effective and more energy efficient than their older counterparts.

Both split and ducted systems use reverse cycle technology to create heat. By reversing the flow of refrigerant rather than using traditional systems. This technology makes modern systems exceptionally energy efficient.

2. Maintenance Requirements

Provided you choose a reputable brand, your new system should require surprisingly little maintenance — irrespective of whether it is a split or a ducted system.

For optimum performance and efficiency, you should arrange with your supplier to have the system serviced every 12 months.

A qualified technician should perform the service. It should include checking all mechanical and electrical components, as well as topping up the refrigerant if required.

Reports issued from these services should be kept in a safe place as without them, your warranty may be deemed null and void.

3. Aesthetic Appeal

Ducted systems have a high aesthetic appeal as they are barely noticeable inside the house — the fan coil (also called the indoor unit) is placed in the ceiling and conditioned air is directed to different zones in the house via a network of flexible ducting through neat grills in the ceilings.

Although the indoor units for split systems are usually more noticeable (with the fan coil mounted on a wall inside the room) — they are also available in less conspicuous bulkhead concealed and four-way ceiling cassette variations.

In both split and ducted systems, the condensing unit (also called the outside unit) is positioned outside the house. In split systems there is usually one outdoor unit for every indoor unit. Two refrigerant pipes and a variety of control cables connect the outside unit to the indoor unit. A special PVC casing covers and protects these pipes, making them more aesthetically pleasing; while allowing access for maintenance.

4. System components

This is where ducted and split systems differ quite considerably. Ducted systems are more complex — comprising many components including:

- The plant,
- Zoning system,
- Duct work, and
- Supply air diffusers.

When selecting the right system for your home it is critical to rely on a qualified professional to design and manage the installation of your system.

The right professional will do more than simply guide you through:

- The latest in Variable Refrigerant Flow (VRF) technology,
- Advanced Noise Reduction Technology (NRT),
- Compressor types and
- Fan speeds...

They will help you select the most important and suitable alternatives from the multitude of additional options available.

Split systems are generally simpler than ducted systems — consisting of:

- An indoor unit, which houses the fan and filters,
- An outdoor unit, which houses the compressor, and
- Pipes and cables, which connect the two units.
- In some models:
 - A 24-hour ion system generates negative ions even when the air conditioner is not running – allowing you to experience the health benefits of this technology without incurring additional electricity costs.
 - A self-cleaning operation, which operates up to 2 hours after the unit has stopped. This restricts the growth of mould.
 - An allergen clearing system, which suppresses the influence of allergens caught by the filter, by controlling the temperature and humidity inside the fan coil.

A number of sizes and features are available in split systems and it is best to consult a reputable dealer for the best advice in finding a system that suits your needs.

New Queensland legislation has made it mandatory that all domestic air conditioning systems — whether split or ducted are fitted with a high efficiency rated system. These systems usually engage inverter technologies. This technology offers variable speed compressor outputs and ensures quick cooling or heating after start up.

5. What to expect during installation ...

Possibly the most important thing to consider when it comes to installing your air conditioning system is to ensure that your supplier provides licensed electricians to install all electrical control cables and circuit cables. These **MUST** be installed, according to specification, by qualified electricians — otherwise the warranty may be declared void. The unit **MUST** be fitted with an outdoor weatherproof isolator to enable power isolation of the system during maintenance or emergency.

Unfortunately, some dust will inevitably be stirred up during the installation of your air conditioning system. So it's a good idea to be prepared by covering delicate items and soft furnishings.

It would also be wise to safely store expensive artwork, appliances or items of furniture that may be in the vicinity of a grille or indoor unit.

In the case of ducted air conditioning, much of the installation process takes place in the ceiling. This is extremely difficult. It frequently requires the installation crew to work in dusty, confined spaces at temperatures in excess of 60°C. To make it as easy as possible to get the job done, it is best to ensure that they have clear access between their van and the ceiling space.

6. ... And after installation

Once all final connections have been made, the system must be tested to ensure that the refrigerant charge is correct and the airflow to all areas is correct. During this testing period the temperature of your house may vary dramatically.

After testing, the crew should explain how to operate the system, paying special attention to the temperature and zone controllers.

Make sure that you keep a copy of the instructions in a safe place. Also ask about maintenance and warranties — make sure that the warranty covers both installation AND unit and that the relevant warranty cards are sent to the manufacturer.

Why zone your air conditioning system?

Implementing a well-thought out zoning strategy when installing your home air conditioning system, can reduce both upfront costs and running expenses — while providing you with the ability to independently modulate the temperature in different areas of your home.

Ducted systems offer the widest choice and most effective zoning options. Zoned systems allow you to open and close the ducts to certain areas of your home — for example, you can isolate areas that are seldom used — reducing the size of air-conditioning unit you require and the running costs involved.

A professional air conditioning specialist will assist you with a plan that makes your air conditioning system as affordable and efficient as possible. This plan should clearly show the locations of the indoor and outdoor units, temperature and zone controllers, return air grilles, and supply air diffusers. It should also ensure that those components with the highest noise levels (outside units) are kept away from sensitive areas.



A few MORE things to bear in mind

1. Always ensure that the warranty covers all components of the system, not just the unit.
2. Temperatures in different areas in your house may drift by between 1.5°C and 2°C unless you opt for a temperature-based zoning system.
3. Be sure to ask about maintenance and how often you should clean your filter.
4. Fill in all warranty cards and be sure to return them to the relevant manufacturer.