

Best Value Portable Air Conditioners

What are the things to look for on a portable air conditioner?

What features do you need?

Do cheap portable air conditioners provide the best value?

This article tries to provide a consumers guide to portable air conditioners. It sets out some of the advantages of portable air conditioners and alternatives you might consider. It then sets out to cover the areas for which they are suitable, factors to take into account about the area in which you wish to use one and the way portable air conditioners get rid of the hot air. It also considers what is essential and what is a nice extra to have on the portable air conditioner you choose.

The main advantage of a portable air conditioner in providing a comfortable environment is that it can be used almost immediately. Most can be wheeled into position, plugged in and used within minutes, directing the hot air out of a nearby window or door. They are also relatively cheap as there is no fitting charge necessary and no worry about getting a landlord's or local council's permission to install it.

Alternatives to portable air conditioners include fitted air conditioning, coolers (also called evaporators) and fans. Fitted air conditioners can be more efficient to use and quieter than portable air conditioners. However, the fitting cost can be high if a professional air conditioning engineer is required. With portable air conditioners getting quieter in recent years, the gap has narrowed and many people choose to "fit" their portable unit permanently in one place simply by drilling one hole through the wall to let hot air escape.

Fans are the cheapest alternative to air conditioning. However, they really only move the air around but do not cool it and they only effect the immediate area around the fan.

Coolers (or evaporators) are an alternative to portable air conditioners but they are not as effective. They work by soaking a large pad in cool water and then cooling air by blowing it through the pad and into the room. Micro-droplets of the water are also sprayed into the room adding to the cooling effect. Coolers work best if the windows are open. They do not work so well on very humid days when the air already has a lot of water in it. They also need to be regularly filled with water. However, they may be the best method available if there is nowhere (such as a window) through which to exhaust hot air.

So what areas are suitable for a portable air conditioner? Well, almost any indoor area that is not excessively damp (like a laundry room). The one key factor is that it has to be possible to expel the hot air from the area. Each portable air conditioner has either an exhaust hose or an umbilical pipe with a condenser on the end. The hot air from the room travels through the exhaust hose or through the umbilical pipe and condenser to the outside. This may be out of a window, out of the door, through a hole in an outside wall or up into a false ceiling.

(It should be noted that letting the hot air go up through the exhaust into the false ceiling works on the principle that hot air rises. Thus, once it is in the ceiling, it wont come down again unless it has cooled.)

Air Conditioners do work best when an area can be enclosed. The windows and doors should be shut as much as possible. However, many portable air conditioners are now used at outdoor events to cool tents and marquees so the areas for which they are suitable are very varied.

It is very important to take into account the size of an area, what encloses it and what will be happening in it before choosing any air conditioner. A lot of people simply do not think rationally before they purchase one.

How many people would buy a 2Kw fire and expect it to heat a ballroom in the depths of winter? Not many! But lots buy a tiny 8000btu (2.3Kw) portable air conditioner and expect it to cool a large conservatory in the height of summer.

So what do you need to take into account when deciding the power of the portable air conditioner you need? Clearly, the size of the room and the height of the ceiling need to be calculated. Also, of what are the walls and ceiling made? A flat felt roof will let in more heat from the sun than a tiled roof. Glass can let in three to four more times heat than brick. Additionally you need to consider the number of people in the space. Each will produce circa 400btu of heat. Similarly, you need to consider anything else in the room producing heat. Computers, coffee machines, faxes etc all add to the heat load.

I am not going to produce a calculator here. There are several on the internet. Try several and see what results you get. Then choose a unit that has that amount of power plus a bit in hand. You do not want the machine you buy to be working constantly, straining to its maximum capacity to meet your needs. In the view of the author, the smallest size worth bothering with for any application is 11000btu (3.2Kw).

Having arrived at the power you need to cool the area, ask what else you need. If you are working in an office and need to be able to answer the phone it is important you get one that is quiet. Anything over 50 decibels it gets hard to hear a caller on a poor line. If you want it for your bedroom, ensure it is quiet but also ensure it has a timer so you can set it to cool your room before you go to bed.

Bear in mind that some portable air conditioners have features built into them that make them much more useful. For instance, some can now heat as well as cool so for very little extra you can get a machine that can be used throughout the year. The Koolbreeze Climatedmaster even has the ability to switch from cool to heat automatically, thus cooling the room during the day but then heating it during the chilly evening.

Portable air conditioners with "heat pump" technology feature the ability to cool and heat very economically. They can produce 3 times the cooling power or heating power compared to the electric they use. This is because they draw latent energy out of the surrounding air and use it to produce heat or cooling. Units with this capability are not the cheapest to buy but they are far cheaper to run.

A lot of portable air conditioners also have the ability to operate as dehumidifiers. They can remove dampness from the room and many are as effective as professional dehumidifiers. You can therefore economise by buying just the one unit.

Portable Air conditioners have come a long way in the last few years. Quality and features have increased whilst prices have dropped. The best now provide high quality air conditioning at a very accessible price.

This article was written by D.Heaney