

AIR CONDITIONING

Air conditioning systems cool the air in the home while heating the air outside. The air of the room to be conditioned, for example at 25°C, is sucked out by the fan into the evaporator, where it is cooled and dehumidified. It is then returned to the room at about 15°C.

In the outdoor unit the air is taken from the atmosphere (at, say, 32°C), heated as it goes through the condenser and finally expelled at a higher temperature (around 45°C).

EQUIPMENT

1. Split (or decentralised) systems

When we talk about split systems, there are several options depending on the size of the room or rooms. They always consist of an outdoor unit and one or more indoor units which, depending on the option you choose, will cool your home to a pleasant temperature.

Types:

- ▶ Portable: can be moved from one room to another.
- ▶ Window-mounted: not recommended. It is an older system which does not provide climate control; it simply blasts cold air into the home.
- ▶ Wall-mounted: these are very easy to install and do not interfere with the décor.
- ▶ Floor-standing.
- ▶ Ceiling-mounted: does not require a suspended ceiling.
- ▶ Cassette: suitable for larger areas. It requires a suspended ceiling for installation. The elegant vent design means it fits in with any style of décor.

INSTALLATION

Installing a wall-mounted split air conditioner:

- ▶ Indoor unit: When deciding where to install it, we recommend placing it as high as possible because cold air is heavier and tends to fall.
- ▶ Outdoor unit: We recommend positioning it away from direct sunlight (north-facing if possible). Normally they are installed on:
 - ▶ The balcony or terrace: this is the simplest option.
 - ▶ Outside wall: If it is the first appliance to be installed on the outside wall of the building (and assuming municipal regulations permit it), you must ask for permission from the homeowners' association.
 - ▶ Roof: Only if it is the top flat and the roof is flat.
 - ▶ Inner courtyard: Not recommended because of the noise.
 - ▶ Old city centre: See Municipal Regulations. Installation conditions tend to be more restrictive than in other areas.

The indoor and outdoor units are connected by two pipes, one incoming and one outgoing (the cooling circuit). This simply requires drilling some small holes in the wall so the pipes can pass through.

The indoor unit also has to be connected to the nearest power point.

With these models, some of the cold air condenses, causing condensation drops. This condensate has to be removed via a suitable exit pipe.

DEADLINES

It normally takes 2 to 3 hours to complete a 1x1 installation (one indoor and one outdoor unit). The outdoor unit is more complicated to install.

2. Ducts

These consist of an outdoor and indoor unit, as well as a ducting system to distribute air throughout the different rooms. The indoor unit and the ducts are not visible, as they are hidden above a suspended ceiling. The only thing you can see is the vent that distributes the air into each room. Installation requires a considerable amount of work. The kind of installation of a ducted system depends on whether the house/premises are under construction or being refurbished, and on the layout of the rooms.

INSTALLATION

The indoor unit and the ducts are not visible, as they are hidden above a suspended ceiling.

- ▶ The ducts distribute the air throughout the rooms.
- ▶ As for the outdoor unit: We recommend positioning it away from direct sunlight (north-facing if possible). Normally they are installed on:
 - ▶ The balcony or terrace: this is the simplest option.
 - ▶ Outside wall: If it is the first appliance to be installed on the outside wall of the building (and assuming municipal regulations permit it), you must ask for permission from the homeowners' association.
 - ▶ Roof: Only if it is the top flat and the roof is flat.
 - ▶ Inner courtyard: Not recommended because of the noise.
 - ▶ Old city centre: Not possible. You have to find another solution.

HEAT PUMP

Heat pump systems provide cooling in summer or when temperatures are high, and heating in winter.

Heat pumps extract the heat from one environment and transfer it to another. They are reversible: depending on your needs, they can extract heat from indoors by cooling it, or extract it from outdoors and transfer it to the rooms by heating them.

Heat pumps are:

- ▶ More convenient. Heating and air conditioning in one single appliance, with just one installation.
- ▶ More inexpensive. Climate control systems based on heat pumps use less energy than conventional electric heating systems.
- ▶ More ecological. By using less energy you reduce CO2 emissions and contribute to a more sustainable world.

Heat pump climate control systems can also include an Inverter system, which improves the efficiency of your climate control system and offers the following benefits:

STORAGE HEATING

Take your bill and just cut it in half.

- ▶ Save more than 45% by signing up for time-of-day rate.
- ▶ Simple, quick and safe installation.

TYPES OF SYSTEMS: DIRECT ELECTRIC HEATING

Maximum comfort at all times.

- ▶ Heat emission systems and ClimaStar System
- ▶ Coil radiators

TYPES OF SYSTEMS: ELECTRIC STORAGE IMMERSION HEATERS

The best systems to enjoy hot water in your home using electric storage immersion heaters. All the hot water you need without having a gas installation.