Structure & Principle of operation of air conditioner, air conditioner

Join TipsMake.com to learn about the structure and operation principles of air conditioning and air conditioning - familiar devices that help us overcome the hot summer days.

Air conditioning, air conditioning are extremely familiar devices for each of us. However, not everyone understands the **structure and operation principles of air conditioning and air conditioning** . Read TipsMake.com's article for a more detailed discussion of this issue!

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What is air conditioning?

Air conditioner is a household appliance that uses electricity to change the temperature in the room according to the user's needs. In the market, air conditioning is divided into 2 types, one-way air conditioner and two-way air conditioner. A one-way air conditioner is only capable of cooling, so it is often called an air conditioner. Meanwhile, two-way air conditioning has both cooling (summer use) and heating features (used in winter).

Air conditioner - device capable of regulating air temperature

Structure and operating principle of air conditioner, air conditioner

1. Structure of air conditioner, air conditioner

The structure of an air conditioner, air conditioner usually includes the following parts:

Air conditioner chiller : Has the effect of absorbing heat in the room so that the refrigerant is brought out. The air conditioner unit has copper pipes running parallel and encased by aluminum fins.

Air- conditioner outdoor unit **:** It is responsible for discharging heat into the environment when the refrigerant has absorbed heat in the indoor unit and moved to the outdoor unit. The structure of the outdoor unit is similar to the indoor unit.

Air conditioner : Also known as air conditioner compressor, it works to evacuate air in the indoor unit, compressing gas to liquid form in outdoor unit to help the heat discharge process most effectively.

Cooling fan: Create continuous air flow through the indoor unit for better heat absorption. If the indoor cooling fan fan is weak or not running, the air conditioner will not be able to cool the entire room.

Outdoor **fan** : Blow air through the outdoor unit, helping to discharge heat to the outside environment most effectively.

Throttle valve : Is a gas pressure lowering unit after the gas is passed through the outdoor unit to dissipate heat. Gas passing through the throttle will be converted to gas form with low pressure and low temperature.

Gas pipe : It is duty to lead the station from the indoor unit to the outdoor unit. Gas pipes are usually made of copper, resistant to high pressure and temperature, not oxidized.

Control panel : Mounted on the cold, is the operating part and controls the entire operation of the air conditioner.

Electrolytic capacitor : It is used to help the electric motor of compressor start.

In addition to the above main parts, the structure of air conditioner, air conditioner also has many other parts such as temperature sensor of indoor unit, shell frame, water trough, safety parts, .

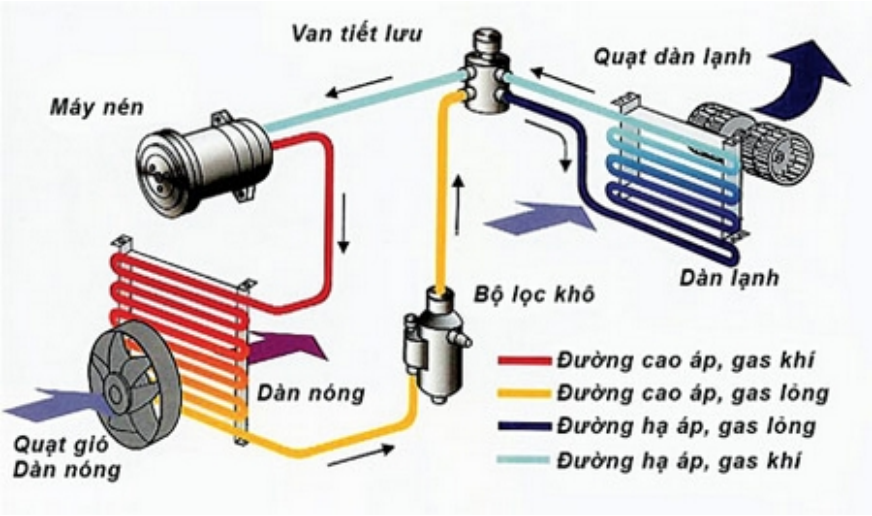

Diagram of conditioning air conditioner

2. Principle of operation of air conditioner and air conditioner

Together, we have a quick understanding of air conditioning and air conditioning. So what is the operating mechanism of air conditioning?

Step 1 : After passing throttle valve, gas (refrigerant) will have low pressure, low temperature.

Step 2: The refrigerant that goes through the indoor unit will absorb heat from the surrounding environment. The blower in the cold room sucked in the room air, pushed it through the indoor unit to cool it and then brought it back to the room.

Step 3 : The heat carrier will be taken to the compressor. Here, gas will be compressed to higher pressure.

Step 4 : Gas with high temperature, high pressure is put through the outdoor unit to cool by the fan and aluminum foil radiator. When passing through the outdoor unit, the medium will have a lower temperature.

Step 5 : Gas continues to be brought to the throttle to reduce pressure, reduce heat and start a new cycle.

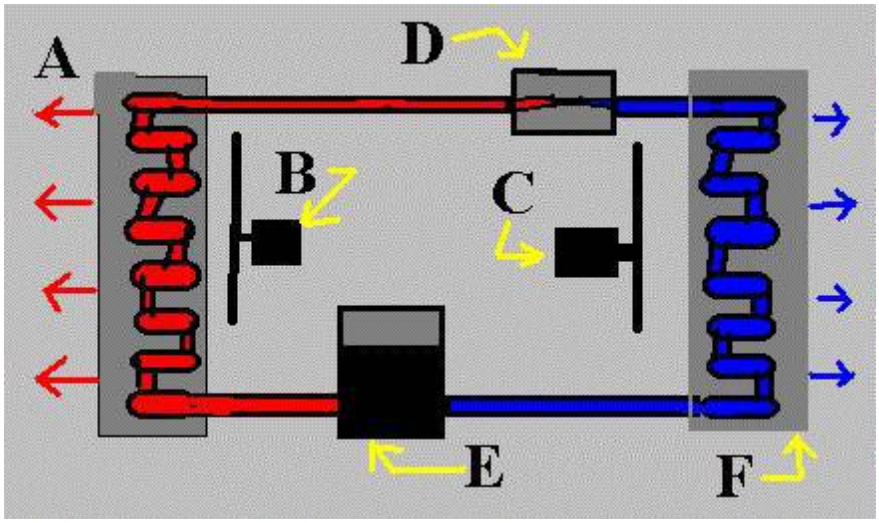

Diagram of air conditioner operation principle

Hopefully, our sharing will help you better understand the structure and operating principle of air conditioner and air conditioner.

>>> More references:

1. 4 ways to turn on the air conditioner without using control
2. Why does air conditioner blow out heat?
3. Mysteriously saving electricity with Dry mode on air conditioner
4. What is the error of the air conditioner flashing continuously?
5. How much is air conditioning air conditioning?

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