How to choose the capacity of the air conditioner to be cold enough and consume less electricity?

How to choose to buy an air conditioner - air conditioner is to choose the right capacity needed to be cold enough and use less electricity in accordance with the area of ????the house.

The way to choose to buy an air conditioner - air conditioner is to choose the right capacity needed to be cold enough and use less electricity, suitable for the area of ????the house and room volume. And you will do this after going through the instructions below.

How to choose the capacity of the air conditioner to be cold enough and consume less electricity?
first

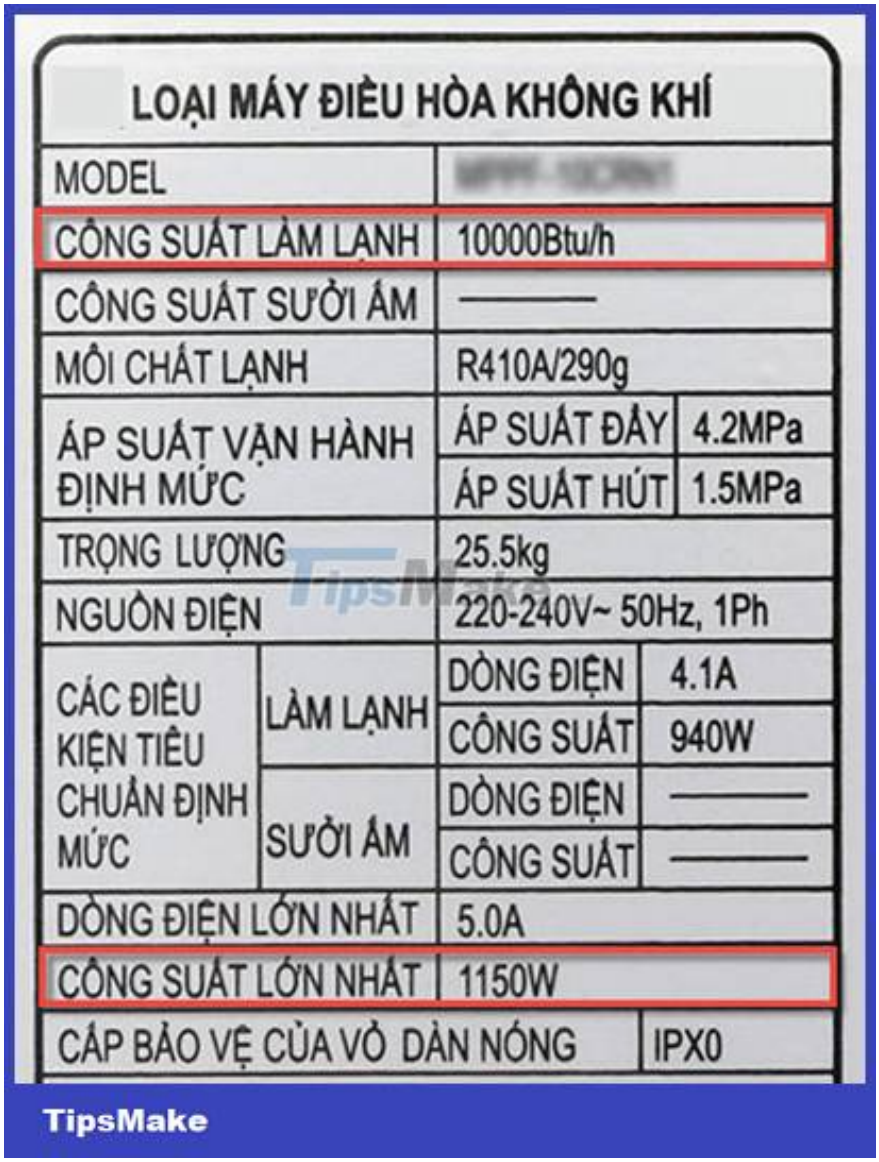
Check the capacity of the air conditioner

The capacity of the air conditioner is often understood as its cooling capacity, but few people care about the electric capacity or the maximum capacity of the air conditioner.

On all air conditioners, the cooling capacity is clearly stated - the unit is **BTU/h** and the maximum capacity - the unit is **W** or **Kw** . If the air conditioner is two-way, the heating capacity will be added.

Cooling Capacity - Cooling capacity, is an index to measure the cooling capacity of an air conditioner, the higher this index, the more capable the air conditioner is to cool a larger area, often said is to run stronger.

Power - The maximum power or capacity of the air conditioner is its ability to consume electricity when operating. This indicator only indicates the level of power consumption, not the strong or weak cooling capacity.



LOẠI MÁY ĐIỀU HÒA KHÔNG KHÍ			
MODEL			
CÔNG SUẤT LÀM LẠNH		10000Btu/h	
CÔNG SUẤT SƯỞI ẤM		———	
MÔI CHẤT LẠNH		R410A/290g	
ÁP SUẤT VẬN HÀNH ĐỊNH MỨC		ÁP SUẤT ĐẨY	4.2MPa
		ÁP SUẤT HÚT	1.5MPa
TRỌNG LƯỢNG		25.5kg	
NGUỒN ĐIỆN		220-240V~ 50Hz, 1Ph	
CÁC ĐIỀU KIỆN TIÊU CHUẨN ĐỊNH MỨC	LÀM LẠNH	DÒNG ĐIỆN	4.1A
		CÔNG SUẤT	940W
	SƯỞI ẤM	DÒNG ĐIỆN	———
		CÔNG SUẤT	———
DÒNG ĐIỆN LỚN NHẤT		5.0A	
CÔNG SUẤT LỚN NHẤT		1150W	
CẤP BẢO VỆ CỦA VỎ DÀN NÓNG			IPX0

Capacity of the air conditioner

What is TBU Cooling Index?

BTU - British Thermal Unit , is a power unit used in the United States. BTUs are used to describe the energy value of fuels and to accurately describe the capacity of heating and cooling systems. BTU is a widely used indicator in heaters, ovens, ovens, air conditioners.

What is HP Power Index?

HP - Horse Power is horsepower, also known as horse for short, is an old unit used to refer to power. It is defined as the work required to lift a 75kg mass 1 meter high in 1 second or **1HP = 75kgm/s** . Because it corresponds to the pulling power of a horse, it is called horsepower.

In fact, to quickly convert between units of W, HP, BTU, people often use relative coefficients as follows:

1. 1BTU/h = 0.293071W/h

2. 1BTU/h = 0.00039HP
3. 1W = 3.412142BTU/h
4. 1W = 0.001341022HP
5. 1HP = 745.7W
6. 1HP = 2544.4335776BTU/h

Why call an air conditioner with a cooling capacity of 9000BTU/h as 1 horse (1HP)

9000BTU/h is not equal to 1 horse (1HP)

To explain this, you can understand that the cooling capacity is **9000BTU/h** , the electric capacity of the air conditioner is about **1HP.**

1HP = 745.7W means that it takes **745.7W** of work to achieve a heat output of about: **9000 - 9500BTU/h** , so people usually calculate: **1HP = 9000BTU/h** .

For conventional compressors - Standard Block: 1HP = 9,000BTU/h
For compressors using inverter technology - Inverter Block: 1HP = 9,900BTU/h.

2

Calculate the cooling capacity of the air conditioner in accordance with the room area

To calculate the cooling capacity of an air conditioner, many people often apply the formula **1m ^{2} x 600BTU** . Accordingly, you can calculate the following:

If the room has an area of ??15m2, the cooling capacity will be: **15m ^{2} x 600BTU = 9000BTU**

Based on the actual area and environment, you can find out the cooling capacity of the air conditioner according to the following table

Cooling capacity	**9,000BTU**	**12,000BTU**	**18,000BTU**	**24,000BTU**
Cool room, no direct sunlight	26m ^{2}	35m ^{2}	50m ^{2}	60m ^{2}
Hot room with direct sunlight	16m ^{2}	21m ^{2}	35m ^{2}	42m ^{2}

Choose the capacity of the air conditioner for the room with sunlight
In addition, the choice of the capacity of the air conditioner also depends on the number of people often in the room because human body temperature will reduce the coldness, sunlight coverage, room insulation, location. and the size of the window,. These are factors that can reduce the cold. In addition, a room with many electrical appliances also emits a significant amount of heat.

3

Choose an air conditioner with enough capacity to save money

If you choose an air conditioner with enough capacity, you will ensure that the investment is appropriate, the amount of electricity consumed is also appropriate.

Never choose an air conditioner that lacks capacity compared to the usable area of ??the room. The temperature is not cold enough will force the air conditioner to work continuously, leading to power loss, overheating and the durability of the machine will also decrease without achieving the necessary cold.

When buying an air conditioner, you should choose a capacity slightly larger than your need. The initial investment may be more than choosing the right machine, but the benefit is that the machine is strong, the time to reach the cold temperature is faster and when the machine reaches the cold enough temperature, it will automatically stop working. With a machine with excess capacity compared to demand, the machine will have a lot of "break" time, helping to prolong the machine's durability.

A large capacity air conditioner does not mean it will consume more electricity than a small capacity air conditioner. It only differs in price, you will be wasted when not using its full capacity.

See instructions on how to choose and buy an air conditioner