Meaning of parameters on battery

Have you ever wondered what the battery parameters mean?

Batteries are a very familiar thing in our lives and are applied to many different purposes. However, not everyone has complete knowledge about this type of product, especially the meaning of battery life information. So in this article, TipsMake.com will help you find out more about this information.

What is battery? Battery application

A battery , also known as a charged device or more easily understood is a secondary power source that converts the energy into electricity to conduct storage and power supply of electrical equipment. Thanks to this feature, the battery has been widely used for many different purposes in life such as:

1. As a backup power source during a power outage.
2. Supplying electricity for electric cars, golf cars .
3. Used to start the engine of machinery such as motorcycles, cars .
4. Reduces pulse pressure and collisions that occur when feeding raw materials to the cylinder.
5. Acting as a shock absorber between body and wheel of vehicles.
6. Absorb pressure, reduce surface collision between machine and actuator in engine.
7. Used for renewable energy sources such as wind power, solar power .
8. Often used for electrical systems requiring high safety such as data centers, telecommunications centers, electricity .
9. Can provide lubrication for the engine or fuel as a handheld lubrication device in case of emergency.
10. Pressure drop due to fuel leakage in the actuator, compensate engine temperature when exposed to direct sunlight or when operating in cold climates.
11. The battery is used as an air compressor, conveying corrosive solutions.
12. Balance hydraulic.

It can be seen, batteries are applied very diverse in business activities, daily production. However, to use the best and safest way, we must always know the specifications of the product. This is something that many people often overlook, making the use of batteries do not bring the best results, maybe even dangerous to yourself and those around you. Therefore, understanding the meaning of the parameters on the battery is something that we always need to be concerned about.

Meaning of parameters on battery

When choosing to buy batteries or UPS, you will often see suppliers clearly indicating V and AH ratings, for example: 12V 7Ah, 12V 18Ah, 12V 40Ah, 12V 65Ah, 12V 100Ah . So what is the Ah symbol on the battery? ?

Electric quantity (Ah): The battery current can be supplied continuously for a certain period of time until the battery voltage drops below the 'cut-off voltage' (10.5V for 12V battery). The battery charge specification published by the manufacturer is usually calculated when generating electricity with a small current for 20 hours (20Hr).

For example: 100Ah battery will produce 5A in 20 hours, the bigger the current, the shorter the generation time.

Cut-off voltage: Also known as 'Breaking voltage' is the level where you should not keep the battery to generate electricity, if you leave the battery to produce electricity below the stop level, it will:

1. **Reduce the life span** : For example, if the battery is 80% charged, the life expectancy is about 25,000 cycles, and if left to 20%, the battery life is approximately 7000 cycles.
2. **Complete battery failure:** This usually happens when multiple batteries are connected in series when one or more of the batteries in that series has run out of power and others have not run out of power and the battery is out of power. will be reversed and completely damaged.

The cutoff voltage is specified by the manufacturer and depends on the discharge current. For example: A battery of 12V 100Ah, the disconnection voltage of each cell is 1.75V corresponding to 0.1 ~ 0.2C10 discharge current and the battery voltage of 1.75V * 6 = 10.5V.

Voltage (Voltage): A measure of the voltage difference between the two terminals of the battery. The battery voltage can be 12V or 24V .

RC (Reserve Capacity): The capacity of the storage battery to use for electrical loads when the power supply system fails. RC is measured in minutes when the battery discharges 25A at 25 ? before the voltage drops below the specified level.

CCA (Cold-cranking amperes): The main function of the battery is the power source to start the engine during start-up, so the requirement is a strong discharge ability in a short time. The CCA is interpreted as the amperage supplied by the battery within 30 seconds at 0 ? (-17.7 ?) until the voltage drops below the usable level.

For example: A battery (12V) has a CCA of 600, which can provide 600 amps of current for 30 seconds at -17.7 degrees Celsius before the voltage drops to 7.2 volts.

CCA is important for vehicles in tropical climates where temperatures often drop below 0 ?. When the temperature gets too low, the engine oil and gearbox oil become thickened and starting the car in the morning will be very difficult, then the battery must have high CCA.

In addition to CCA, there are other parameters that measure the starting current such as CA (Cranking Amps), which indicates the electric current that the battery provides within 30 seconds at 32 ? (0 ?) before the voltage drops to 7.2. V.

Power (W): The energy used to start the engine can also be calculated in Watt (W). Capacity is determined by multiplying the used current and the battery voltage at 0 ?.

Above are the battery parameters that you need to know when choosing to buy and use. In addition to the battery specifications, you also need to know the reading rules of the manufacturer, or in other words the name of the battery. The name of the jar will indicate its rated capacity.

For example: On a 50B24LS recorder (used for Civic, CRV, Yaris, Vios .), the reading is as follows:

1. **Number '50':** Nominal capacity of the bottle. Typically, in 20-hour zoom mode, the capacity is 2.5 Amperes hour, or 2.5 average reading.
2. **Letter 'B':** Horizontal width, type B is 127mm, letter 'D': 172mm .
3. **Number '24':** The length of the jar is 24cm.
4. **Letter 'L':** Left - Pile left, if pile must be written as R - Right or not.
5. **Letter 'S':** If the jar has 2 types of piles then it is a large pile.

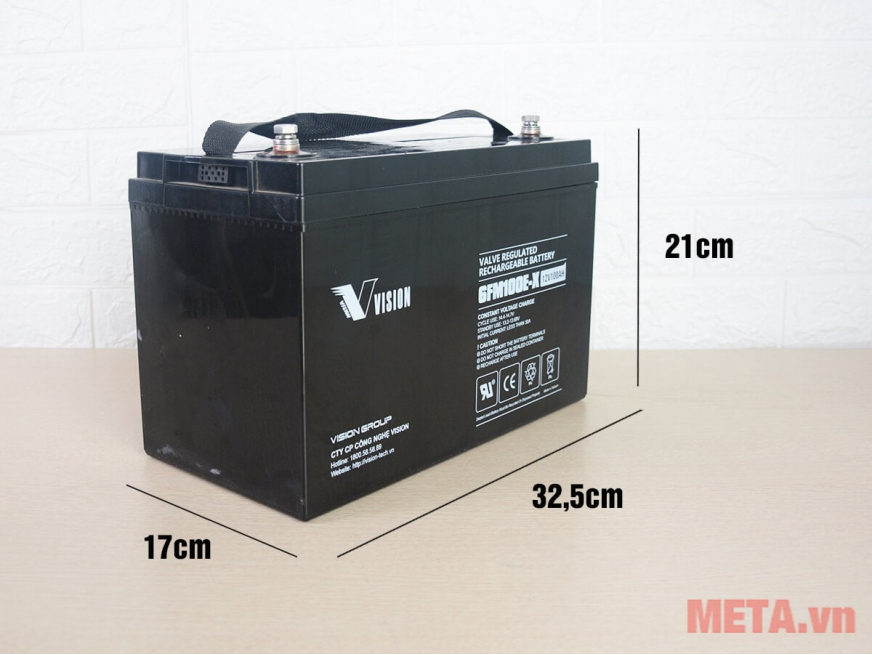
In addition, if you see the symbol MF or SMF (maintenance free), this is the type of battery that does not need maintenance (dry battery).

By now you must have understood quite a lot about battery parameters, right? Do not rush to leave, but please consult TipsMake.com some more types of cheap, durable batteries below! Maybe you will find a product like that!

Some types of batteries are cheap and durable

Telecommunication battery Vision 100Ah with AGM technology (6FM100EX)

Accumulators telecommunications Vision 100Ah technology AGM used for UPSs UPS, excitation power . longevity 3x and discharge time 1.6 times compared to the battery startup (battery used to start automobiles) has the same capacity.



Specifications of telecommunication battery Vision 100Ah with AGM technology

1. Battery type: AGM VRLA (airtight, maintenance-free).
2. Capacity: 100Ah.
3. Weight: 31kg.
4. Origin: Vision - Vietnam.
5. Specialized for: UPS , electric stimulator, telecommunication equipment, network equipment .
6. Design life: 10 years.
7. Service life: 3 - 10 years (used correctly).

Telecommunication battery Vision 150Ah with AGM technology (6FM150MV-X)

Vision 150Ah telecommunications battery AGM technology is rated by consumers as one of the best quality products when it comes to the battery industry today. The shell and cap are made of high-grade ABS or HBO heat-resistant plastic, so they have good heat resistance, fire resistance, and great durability.

Specifications of telecommunication battery Vision 150Ah with AGM technology

1. Battery type: AGM VRLA (airtight, maintenance-free).
2. Capacity: 150Ah.
3. Weight: 47kg.
4. Dimensions (length x width x height x thickness): 482x170x240x240mm.
5. Specialized for: UPS, electric actuators, telecommunication equipment, network equipment .
6. Design life: 10 years.
7. Service life: 3 - 10 years (used correctly).

Battery vision 12V-150AH CGT12-150EXA

The Vision 12V-150AH CGT12-150EXA battery is a durable GEL battery that reduces corrosion progress during operation, effectively preventing the evaporation of the solution. With 12V capacity of 150AH, Vision 12V-150AH battery CGT12-150EXA helps to supply power for many devices for a long time, so it can be used in many cases such as: Backup of medical sources and medical equipment. International, computer data backup system, backup system, home and office, for solar power system .

Specifications of Vision battery 12V-150AH CGT12-150EXA

1. Battery type: GEL.
2. Capacity: 150Ah.
3. Weight: 46kg.
4. Dimensions (length x width x height): 548x105x316mm.
5. Specialized for: UPS, electric actuators, telecommunication equipment, network equipment .
6. Design life: 10 years.
7. Service life: 3 - 10 years (used correctly).

Dong Nai Battery N120 (12V - 120Ah)

Dong Nai car battery for cars N120 12V-120Ah is a favorite item of drivers, especially large-capacity vehicles such as trucks, trucks and boats . Dong Nai batteries N120 120Ah is a wet battery line that can easily be replaced when dried, has a long life, stable quality, high starting current.

Technical data

1. Capacity: 120 Ah.
2. Acid capacity: 9.7 liters.
3. Pile position: R.
4. Number of plates / drawers: 19.
5. Icc (CCA): 180A.
6. Dimensions: 502x180x 209mm.
7. Product weight: 21.26 kg.

Dong Nai Battery N150 (12V - 150Ah)

Dong Nai battery N150 has a sturdy battery cover design, prevents leakage and power loss, is safe for users and vehicles but still easy during maintenance. The 12V battery has a large capacity of up to 150Ah, an acid capacity of 12 liters will ensure stability and robustness during long journeys of cars.

Technical data

1. Battery type: Water.

2. Capacity: 150Ah.
3. Acid capacity: 12 liters.
4. Pile position: R.
5. Number of plates / drawers: 25.
6. Icc (CCA): 270A.
7. Size: 505x220x209mm
8. Product weight: 26.02 kg.

Through the information that we provide, surely you have a better understanding of the parameters on the battery as well as reference a number of battery products, right? Hopefully this knowledge will help you better in the process of buying and using batteries.