Why does a small battery have a large current

Why do batteries with the same voltage have different currents?
Experts say "current depends on voltage". So, if the voltage is high, current would be high. Agreed; (I = V/R) If the voltage is low, the current would also be low. Agreed -> I = V/R

What happens if a battery carries a current?
When a battery or power supply sets up a difference in potential between two parts of a wire,an electric field is created and the electrons respond to that field. In a current-carrying conductor,however,the electrons do not all flow in the same direction.

How do voltage and current affect a battery?
The higher the current,the more work it can do at the same voltage. Power = voltage x current. The higher the power,the quicker the rate at which a battery can do work--this relationship shows how voltage and current are both important for working out what a battery is suitable for.

What happens when a battery is connected to a circuit?
When a battery is connected to a circuit,the electrons from the anode travel through the circuit toward the cathodein a direct circuit. The voltage of a battery is synonymous with its electromotive force,or emf. This force is responsible for the flow of charge through the circuit,known as the electric current.

Can a car battery charge a large amount of current?
This is because the car battery is capable of discharging a large amount of current in a very short period of time. I'm not sure how this could work given Ohm's law V=IR. If we assume the resistance of toucher is constant, then we'd expect the current to be the same as well.

Why do batteries need to be connected in a circuit?
With this analogy, it is plainly obvious why both the positive and negative ends of a battery must be connected in a circuit. If, say, you connect only the negative electrode to ground, there is no current because there is no electricity coming in on the positive electrode that can be pumped out.

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With some batteries the current should be artificially limited to protect the battery from self-destruction. It may be able to produce a high current for a short time and then chemical products build up that limit the current ("polarization"). The electrolyte and connections will have some resistance and that limits the current.

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A flow of charge is known as a current. Batteries put out direct current, as opposed to alternating current, which is what comes out of a wall socket. With direct current, the charge flows only in ...

I understand that a high resistance of a voltmeter will allow nearly no current to pass through it. However, why is this condition required? Let"s consider a simple circuit that consists of a cell,... Skip to main content. Stack ...

When a load, such as a motor or a light bulb, is connected to a battery, it draws current. This current flow, combined with the battery"s internal resistance, causes a voltage drop. The greater the internal resistance, the more significant the voltage drop. To illustrate this, consider a simple experiment with a AA cell. When connected to a 4 ? resistor, the voltage ...

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All batteries have some internal resistance (which varies with temperature, battery condition and charge state). On car batteries you can find a specification "Cold Cranking Amps" that tells you how a lot about the battery"s ability to supply current. High current capacity requires different internal construction. -

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A single AAA battery is only one cell, whereas an RV battery has 4 to 6 cells. This is why the average, fully charged car battery will measure around 12.6 volts (also known as the resting voltage). Meanwhile, a AAA battery will only measure about 1.5 volts. These two different types of battery power electronics have completely different power ...

Small batteries are generally designed to drive small current loads, so their internal resistance (perhaps an ohm or two) could be fairly large in comparison to a piece of wire (which might be milliohms or microohms). So, the short circuit current might be just a couple of amps, and doing the calculations, you"d get a few watts of

power ...

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So, as a general rule of thumb, batteries have a fixed voltage but: big or new batteries tend to have a low internal resistance, so they can deliver a high current. small or old batteries tend to have a high internal resistance, so they can"t deliver much current

A flow of charge is known as a current. Batteries put out direct current, as opposed to alternating current, which is what comes out of a wall socket. With direct current, the charge flows only in one direction. With alternating current, the charges slosh ...

$begingroup$ If you are asking about motors rather than the term "draw", the resistance does not change under load but something called the back-EMF does. The back EMF of a freely spinning motor will cause the current to be at its minimum. The back-EMF disappears when the motor is stalled and you are left with the resistance of the windings which is relatively ...

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