Why does the battery only have voltage but no current

What happens if voltage is not present in a circuit?
If the voltage is absent,those electrons cannot move between points in a circuit,which means that the current does not exist. However,the voltage is still present because you have a circuit with points whose electrical potential varies. Just look at a pack of batteries. A current cannot flow unless those batteries are introduced to a circuit.

Do batteries have a fixed voltage?
So,as a general rule of thumb,batteries have a fixed voltagebut: 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 This entry was posted in -- By the Physicist,Engineering,Physics.

Can a current flow if a battery is added to a circuit?
A current cannot flowunless those batteries are introduced to a circuit. And yet,before you add those batteries to a circuit,a difference in electrical potential exists between the terminals. Therefore,you still have voltage. That doesn't include situations that involve superconductors which are a special case.

What determines the maximum current a battery can supply?
It only determines how long the battery can supply a current for (that is,how much energy is can output over a period of time). The max current is determined by it's internal resistance. Many 4.2V lipo batteries can supply much more current than 9V batteries since they tend have lower internal resistances.

Can a battery supply unbounded current?
In the ideal case,the current is unbounded. However,this isn't physical. A physical battery cannot supply unlimited current(there is an effective internal resistance) and so,to model this,we add a small resistance in series with the battery. When you have a fixed voltage and unknown current,you should re-state Ohm's law this way:

Why is voltage a current?
Think of voltage as water pressure difference. Those surplus electrons want to move,and the only available path they have is through the circuit (and thus they constitute a current - think of current as the water flow) because they aren't able to move through the liquid interior of the battery.

Electrons flow out one side (the negative one) and come back in from the other (the positive one). Current is not associated with electron accumulation, but with electron flow. The point of the ...

Ohm"s law does state the direct proportionality of current and voltage, and resistance is indeed the constant of proportionality. Question 2: Assertion: The resistance of a conductor always ...

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Now as others have pointed out, in real life a battery is not an ideal voltage source. The voltage of a real battery changes depending on how much current is being drawn and how much charge ...

The voltage across the (ideal) battery is independent of the current through. That is to say, the battery is not an ohmic device and thus, does not "obey" Ohm"s law. In other ...

A lead-acid battery can have voltage but no current due to several reasons related to its internal condition or external connections. Here are some common causes. ...

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Ensuring your battery operates at its optimal voltage not only enhances performance but also extends its lifespan. Here are some key tips to help you get the most out ...

The graph that you have there it shows the LOAD line, the voltage at current equal zero is the open voltage current of the cell and the current at voltage equal zero is the short circuit current. So it shows all the ...

Classic sign of an old battery at the end of its useful life, it can have proper voltage but not be able to provide enough current. As @tcmichnorth says do a load test . 4 Likes

$begingroup$ the battery emf causes the current, not the terminal voltage. If you short-circuit the battery, the emf drives a large current through the internal resistance and the short-circuit, but the terminal voltage is ...

An electric battery is a source of electric power consisting of one or more electrochemical cells with external connections [1] for powering electrical devices. When a battery is supplying power, its positive terminal is the cathode and its ...

Once you get to R=100 ohms, then 100*0.02=2V, so that the 0.02 A when flowing through the resistor R will exactly produce the 2V drop and thus require no current ...

Batteries are stores of chemical energy.When being used in portable electrical devices like your phone, they transfer chemical energy into electrical energy.. When a battery stops working, it is ...

If you have an electric circuit with a 12V battery in series with an open switch and a resistor, the voltage drop across the open switch is 12V. But this doesn"t quite make ...

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The voltage across the (ideal) battery is independent of the current through. That is to say, the battery is not an ohmic device and thus, does not "obey" Ohm"s law. In other words, the voltage across the (non-zero) ...

No, you generally cannot fix a battery that has voltage but no current. This situation indicates that the battery likely has internal damage or a significant inability to deliver ...

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