

A storage battery of emf 8v Bouvet Island

A storage battery of emf 8 V, internal resistance 1 Ω , is being charged by a 120 V d.c. source, using a 15 Ω resistor in series in the circuit. Calculate the terminal voltage across the battery during charging.

Emf of the battery $e = 8$ V, emf of DC supply $V = 120$ V Since, the battery is being charged, so effective emf in the circuit $E = V - e = 120 - 8 = 112$ V Current in circuit, $I = \frac{\text{Effective emf}}{\text{Total resistance}} = \frac{112}{0.5 + 15.5} = 7$ A The battery of 8 V is being charged by 120 V, so the terminal potential across battery of 8 V will be greater than its ...

A storage battery of emf 8.0 V and internal resistance 0.5 Ω is being charged by a 120V dc supply using a series resistor of 15.5 Ω what is the terminal voltage of the battery during charging ? What is the purpose of having a series resistor in the charging circuit?

Click here to get an answer to your question 13. A Storage battery of emf 8.0V and internal resistance 0.5 Ω is being charged by a 120V dc supply using a series resistor of 15.5 Ω . What is the terminal voltage of the battery during charging ? 1) 11.5V 2) 15.5V 3) 17.5V 4) 14.5V

The length of a wire of a potentiometer is 100 cm, and the emf of its standard cell is E volt. It is employed to measure the emf of a battery whose internal resistance is 0.5 Ω . If the balance point is obtained at $l = 30$ cm from ...

A storage battery of emf 8V and internal resistance 0.5 ohm is being charged by a 120 v dc supply using a series resistor of 15.5 ohm. What is the terminal voltage of the battery during charging? View More. 00:21. Example 15: - The emf of a storage battery is 90 V before charging and 100 V after charging. When charging began the current was 10 A.

A storage battery is of emf 8V and internal resistance 0.5 ohm is being charged by d.c supply of 120 V using a resistor of 15.5 ohm a) Draw the circuit diagram. b) Calculate the potential difference across the battery. c) What is the purpose of ...

In this scenario, the circuit consists of a 12V DC source, a 15-ohm resistor, and a storage battery with an EMF (electromotive force) of 8V and an internal resistance of 1 ohm. First, let's calculate the total resistance of the circuit. Since the resistor and internal resistance are in series, we can add them together:

A storage battery of emf 8 V, internal resistance 1 Ω , is being charged by a 120 V d.c. source, using a 15 Ω resistor in series in the circuit. Calculate the chemical energy stored in the battery in 5 minutes.

A storage battery of emf 12 V and internal resistance 0.5 ohm is to be charged by a battery charger which

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supplied 110 V d.c . how much resistance must be connected in series with battery to limit the charging current to 5 A ? What will be the potential difference across the terminal of battery during charging ?

A storage battery of emf 8V and internal resistance 0.5 ohm is being charged by a 120 v dc supply using a series resistor of 15.5 ohm. What is the terminal voltage of the battery during charging? 02:34. A battery of emf 10V and internal resistance 3ohm are connected to a resistor. If the current in the circuit is 0.5A what is the resistance of ...

Click here?to get an answer to your question A storage battery of emf 8.0 V and internal resistance 0.522 is being charged using a series resistor of 15.592. What is the terminal voltage of the battery during the purpose of having a series resistor in the charging circuit? a) 23V b) 11.5V c) 12.3V d) 13.5V Six lead-acid type of secondary cells each of emf 2.0 V and internal ...

Solution For A storage battery of emf 8.0 V and internal resistance 0.5? is being charged by a 120 V dc supply using a series resistor of 15.5?. What is the teral voltage of the battery d. World's only instant tutoring platform. Instant Tutoring Private Courses Explore ...

A storage battery of emf 8.0 V and internal resistance `0.5 Omega` is being charged by a 120V dc supply using a series resistor of `15.5Omega` what in <- Prev Question Next Question -> +1 vote

Emf of the storage battery, $E = 8.0 \text{ V}$. Internal resistance of the battery, $r = 0.5 \text{ ?}$. DC supply voltage, $V = 120 \text{ V}$. Resistance of the resistor, $R = 15.5 \text{ ?}$. Effective voltage in the circuit = $V - Ir$. R is connected to the storage battery in series. Hence, it can be written as. $V = \dots$

(i) A storage battery of emf `8V`, internal resistance `1 Omega` is being charged by a `120 V` d.c. source using a `15 Omega` resistor in series in the circuit. Calculate the current in the circuit (ii) terminal voltage across the battery during charging and (ii) chemical energy stored in the battery in `5` minutes.

A storage battery of emf 8 V, internal resistance 1 ?, is being charged by a 120 V d.c. source, using a 15 ? resistor in series in the circuit. Calculate the current in the circuit. Calculate the current in the circuit.

A storage battery of emf 8V, internal resistance 1Omega, is being charged by a 120V d.c. source, using a 15Omega resistor in series in the circuit. Calculate...

A storage battery of emf 8V internal resistance 1 ohm is being charged by a 12 V d.c source using a 15-ohm resistor in series in the circuit. Calculate the current in the circuit. Electric Circuit. An electric circuit is where electron from a potential difference or current source flow. It is designed for the current flow.

A storage battery of emf 8.0 V and internal resistance 0.5 ? is being charged by a 120 V dc supply using a series resistor of 15.5 ?.What is the terminal voltage of the battery during charging? What is the purpose of having a series resistor in the charging circuit?

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A storage battery of emf (8.0 V) and internal resistance ($0.5 \text{ } \Omega$) is being * charged by a (120 V) dc supply using a serie...

Emf of the storage battery $E = 8.0 \text{ V}$ Internal resistance of the battery $r = 0.5 \text{ } \Omega$ DC supply voltage $V = 120 \text{ V}$ Resistance of the resistor $R = 15.5 \text{ } \Omega$ Effective voltage in the circuit = $V - IR$ is connected to the storage battery in series. Hence it can be written as Voltage across resistor R given by the product $IR = 7 \times 15.5 = 108.5 \text{ V}$ DC supply voltage = Terminal voltage of battery + Voltage ...

Step by step video & image solution for (i) A storage battery of emf 8V, internal resistance 1 Ω is being charged by a 120 V d.c. source using a 15 Ω resistor in series in the circuit. Calculate the current in the circuit (ii) terminal voltage across the battery during charging and (ii) chemical energy stored in the battery in 5 minutes ...

A storage battery is of emf 8V and internal resistance 0.5 ohm is being charged by d.c supply of 120 V using a resistor of 15.5 ohm a) Draw the circuit diagram. b) Calculate the potential difference across the battery. c) What is the purpose of having series resistance in this circuit?

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