



Equipotential surface assembly for voltage controller and 12 VDC, 5A source

EQ029D

Function

Intended for study, physics laboratory, physics experiments on: Electricity. Equipotential surfaces, lines of force and electric field between point electrodes. The electric field. The equipotential surfaces of an electric field. Analogy between the Earth's gravitational field and the electric field, conservative field. Checking the circuit with point electrodes. Joining points and understanding the equipotential surface between two point electrodes. Michael Faraday, equipotential surfaces, lines of force and the electric field vector between two point electrodes. What is a line of force of an electric field. Properties of the lines of force of the electric field. Equipotential surfaces, lines of force and electric field between parallel plane electrodes. Analogy between the Earth's gravitational field and the electric field, conservative field. Checking the circuit with parallel plane electrodes. Joining points and understanding the equipotential surface between two parallel plane electrodes. The Faraday cage and electrostatic shielding. Checking the circuit with parallel flat electrodes and a hollow metal cylinder between them. The positioning of the equipotential surfaces in relation to the lines of force and the electric field vector. The zero electric field inside a cavity of a conductor in equilibrium, the electrostatic shielding, etc. Note: Does not include a multimeter and power supply.

Knowledge areas

Physical

Level

Graduation - Technical Education - High School

Key Experiments

Equipotential surfaces, lines of force and electric field between point electrodes. - 1082.029C1

Equipotential surfaces, lines of force and electric field between parallel plane electrodes. - 1082.030C1

Faraday cage and electrostatic shielding. - 1082.031C1

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Victor Barreto Ave, 592 - Zip Code 92010-000 - Canoas - RS - Brazil