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Product Name :

Generator Model (for high school)

Product Code :

SCL280/045



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Description :

Generator Model (for high school) (Product Code: SCL280/045) is an open teaching model that shows how mechanical rotation is turned into electrical energy. Every constructive element is visible: the support, the stator coils or permanent magnets, the coil rotor and the copper or carbon blade brushes that carry current out of the moving coil. The model is designed to demonstrate the working principle of a generator in both its alternating current (AC) and direct current (DC) forms. It is manufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, India, as a demonstration model for the physics lab.

Key Details

Parameter	Detail
Type	Open generator demonstration model
Support	Plastic or metal
Field system	Stator coils or permanent magnets
Rotor	Coil rotors
Brushes	Copper or carbon blade brushes
Construction	All constructive elements visible
Demonstrates	Working principle of the generator, of the AC generator and of the DC generator

Typical Use

The teacher turns the rotor slowly with the output connected to a centre-zero galvanometer. As the coil cuts the magnetic field the needle swings, and students can link each swing to the coil's position in the field. In an AC generator the current reverses every half turn, so the needle swings first one way and then the other; in a DC generator the current is kept flowing in one direction, and the needle stays on one side of zero. Seeing both behaviours on one open model makes the role of the brushes and the output connection easy to explain.

Turning faster produces larger deflections, which leads naturally to the factors that affect induced voltage: speed of rotation, strength of the field and number of turns. Because nothing is hidden inside a casing, students can trace the path of current from the coil through the brushes to the meter. The model fits any electromagnetic kit for school lessons on power generation and complements motor demonstrations, since a motor is a generator run in reverse.

Manufacturer

This generator model is made by Jain Scientific Equipments Private Limited, an Ambala, Haryana manufacturer that brands its educational apparatus as ScienceLab. For vendor registration, the company's GSTIN is 06AAECJ8618A1ZT and its LEI is 3358004HRD1JIVXKYX49. Read more on the company profile.

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