Email : sales@scilabexport.com
Phone: +91-7082934803

Product Name :

Iron-Clad Electromagnet

Product Code :

SLE/EM/14



Science Lab

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Description :

Iron-Clad Electromagnet (Product Code: SLE/EM/14) is a compact but powerful electromagnet for showing how much force a coil and iron can produce from ordinary dry cells. The enamel-covered winding is enclosed in iron, which gathers the magnetic flux at the pole face and gives a very strong grip on an iron plate or bar placed across it; the listing rates it to lift up to 200 lb. It measures 75mm in diameter by 260mm in length and is supplied with instructions, with batteries not included. Manufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, it isa memorable addition to school physics lab equipment in India for the magnetic effects of current.

Specifications

Parameter	Detail
Type	Iron-clad electromagnet with enamel-covered winding
Size	75mm diameter x 260mm length
Lifting capacity (as listed)	Up to 200 lb
Power source	Dry-cell batteries, not included (please confirm the cell type with us — see FAQ)
Documentation	Instructions provided

Typical Use

The electromagnet is normally used as a teacher demonstration. With the current off, an iron plate falls away from the pole face; with the cell connected, the same plate is held so firmly that students struggle to pull it off, and a hanging load can be added to show the lifting force. Disconnecting the cell releases the load, which makes the point that an electromagnet can be switched — the principle behind scrap-yard lifting magnets, relays and electric door locks. Comparing the pull with the cell connected in each direction shows that the force does not depend on which way the current flows, only on its size.

Keep feet and hands out from under any suspended load, because it drops as soon as the circuit is broken. Connect the battery only for the length of each demonstration, since a strong electromagnet draws heavily on dry cells. As a demonstration model for the physics lab it pairs well with student-built electromagnets, letting the class see how the same idea scales up.

Manufacturer

Jain Scientific Equipments Private Limited manufactures this electromagnet in Ambala, Haryana, and sells it under the ScienceLab name to schools and colleges. Company background is available on our company profile.

Related Electricity Equipment

Other apparatus for teaching the magnetic effect of current: