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Product Name :

Teltron Helmholtz Pair of Coils D

Product Code :

SLE/PHY/56



Description :

Teltron Helmholtz Pair of Coils D (Product Code: SLE/PHY/56) is a pair of Helmholtz coils used to generate a uniform magnetic field perpendicular to the axis of Teltron D-series tubes inelectron-beam experiments. University and senior-school physics laboratories use it with an EMratio apparatus set-up; the coils have 320 turns and reach a maximum field of approximately 10mT. It is supplied by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, as part of itsrange of school physics lab equipment in India.

Specifications

Parameter	Detail
Function	Uniform magnetic field perpendicular to the axis of Teltron D-series tubes
Configurations	Helmholtz geometry, or fields aligned vertically or coaxial with respect to the tube axis
Number of turns	320
Max. continuous current	1.0 A
Max. momentary current	1.5 A for 10 min; 2 A for 3 min
Effective impedance	6 ohm
Max. field strength	Approx. 10 mT
Connectors	4 mm sockets
Documentation	Instructions included
Product code	SLE/PHY/56
Supplied by	Jain Scientific Equipments Pvt Ltd (ScienceLab), Ambala, India

What Are Teltron Helmholtz Coils D Used For?

Two identical coils set up in Helmholtz geometry give a nearly uniform field in the space between them, which is where a D-series tube sits. When current flows, the electron beam inside the tube bends into a curve, and by recording the coil current and the tube's accelerating voltage students can work through a specific charge electron experiment to estimate e/m. The same pair can also be arranged to give a vertical field or a field coaxial with the tube, so one set of coils covers several deflection studies.

Keep the coil current at or below 1.0 A for continuous running; 1.5 A is allowed for up to 10 minutes and 2 A for up to 3 minutes, after which the coils should rest. An ammeter in series makes it easy to stay within these limits. For scale, the approx. 10 mT maximum is about 300 times weaker than the roughly 3 T field of an MRI scanner.

What to Specify When Ordering

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