

TM2300 / TM2330 Helmholtz Coil



One-dimensional coil



Three-dimensional coil

* This figure is for reference only. There may be some differences according to the technical specifications

1. Summary

The TM2300 / TM2330 is a series of Helmholtz coils. The generated magnetic field has good linearity with the current, and the standard DC magnetic field can be generated with the precise excitation current source.

2. Applications

- Calibration of magnetic sensors
- Calibration of magnetometers
- Electromagnetic interference simulation experiments
- Magnetic field influence experiments

3. Specifications

3.1 One Dimensional Coil

Specifications	Diameter (mm)	Maximum magnetiz ation field (G)	Homogeneous area @uniformity	Maximum current (A)	Power (kW)
TM2300-1000mm-100G	1000	100 G	Φ200 mm@1% Φ166 mm@0.5% Φ130 mm@0.2% Φ110 mm@0.1%	± 25	2.1
TM2300-1000mm-50G	1000	50 G		± 25	1.2
TM2300-1000mm-30G	1000	30 G		± 25	0.9
TM2300-1000mm-20G	1000	20 G		± 25	0.6
TM2300-1000mm-10G	1000	10 G		± 25	0.3
TM2300-1000mm-5G	1000	5 G		± 5	0.15
TM2300-500mm-200G	500	200 G	Φ100 mm@1% Φ83 mm@0.5% Φ66 mm@0.2% Φ55 mm@0.1%	± 25	2.1
TM2300-500mm-100G	500	100 G		± 25	1.2
TM2300-500mm-50G	500	50 G		± 25	0.6
TM2300-500mm-20G	500	20 G		± 5	0.15
TM2300-500mm-10G	500	10 G		± 5	0.15
TM2300-500mm-5G	500	5 G		± 5	0.15
TM2300-300mm-200G	300	200 G	Φ60 mm@1% Φ50 mm@0.5% Φ40 mm@0.2% Φ33 mm@0.1%	± 25	0.9
TM2300-300mm-100G	300	100 G		± 25	0.6
TM2300-300mm-50G	300	50 G		± 25	0.3
TM2300-300mm-20G	300	20 G		± 5	0.15
TM2300-300mm-10G	300	10 G		± 5	0.15
TM2300-300mm-5G	300	5 G		± 5	0.15
TM2300-200mm-200G	200	200 G	Φ40 mm@1% Φ33 mm@0.5% Φ26 mm@0.2% Φ22 mm@0.1%	± 25	0.6
TM2300-200mm-100G	200	100 G		± 25	0.3
TM2300-200mm-50G	200	50 G		± 5	0.15
TM2300-200mm-20G	200	20 G		± 5	0.15
TM2300-200mm-10G	200	10 G		± 5	0.15

TM2300-200mm-5G	200	5 G		± 5	0.15
TM2300-150mm-200G	150	200 G	Φ30 mm@1% Φ25 mm@0.5% Φ20 mm@0.2% Φ16 mm@0.1%	± 25	0.3
TM2300-150mm-100G	150	100 G		± 25	0.3
TM2300-150mm-50G	150	50 G		± 5	0.15
TM2300-150mm-20G	150	20 G		± 5	0.15
TM2300-150mm-10G	150	10 G		± 5	0.15
TM2300-150mm-5G	150	5 G		± 5	0.15

Notes: Other sizes of coils with magnetized fields can be customized.

3.2 Three Dimensional Coil

Specifications	Diameter (mm)	Maximum Magnetization Field (G)	Homogeneous Area @uniformity	Maximum Current (A)	Power (kW)
TM2330-1000mm-100G	1000	100	Φ200 mm @ 1% Φ160 mm @ 0.5% Φ130 mm @ 0.2% Φ110 mm @ 0.1%	± 25	2.4
TM2330-1000mm -50G	1000	50		± 25	1.2
TM2330-1000mm -20G	1000	20		± 25	0.6
TM2330-1000mm -10G	1000	10		± 25	0.3
TM2330-1000mm -5G	1000	5		± 5	0.15
TM2330-500mm-200G	500	200	Φ100 mm @ 1% Φ80 mm @ 0.5% Φ65 mm @ 0.2% Φ55 mm @ 0.1%	± 25	3.0
TM2330-500mm-100G	500	100		± 25	1.5
TM2330-500mm-50G	500	50		± 25	0.9
TM2330-500mm-20G	500	20		± 5	0.15
TM2330-500mm-10G	500	10		± 5	0.15
TM2330-500mm-5G	500	5		± 5	0.15
TM2330-300mm-200G	300	200	Φ60 mm @ 1% Φ50 mm @ 0.5% Φ40 mm @ 0.2% Φ33 mm @ 0.1%	± 25	1.5
TM2330-300mm-100G	300	100		± 25	0.9
TM2330-300mm-50G	300	50		± 25	0.6
TM2330-300mm-20G	300	20		± 5	0.15
TM2330-300mm-10G	300	10		± 5	0.15
TM2330-300mm-5G	300	5		± 5	0.15
TM2330-200mm-200G	200	200	Φ40 mm @ 1% Φ33 mm @ 0.5% Φ26 mm @ 0.2% Φ22 mm @ 0.1%	± 25	0.9
TM2330-200mm-100G	200	100		± 25	0.6
TM2330-200mm-50G	200	50		± 5	0.15
TM2330-200mm-20G	200	20		± 5	0.15
TM2330-200mm-10G	200	10		± 5	0.15
TM2330-200mm-5G	200	5		± 5	0.15
TM2330-150mm-200G	150	200	Φ30 mm @ 1%	± 25	0.6
TM2330-150mm-100G	150	100	Φ25 mm @ 0.5%	± 25	0.3
TM2330-150mm-50G	150	50	Φ20 mm @ 0.2%	± 5	0.15

TM2330-150mm-20G	150	20	Φ16 mm @ 0.1%	± 5	0.15
TM2330-150mm-10G	150	10		± 5	0.15
TM2330-150mm-5G	150	5		± 5	0.15

Notes: The three-axis Helmholtz coil shall be equipped with a three-channel excitation current source. The preceding power supplies are single-channel current sources.

4. Ordering Information

