

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

