

TD3730 Energy Meter Power Frequency Strong Magnetic Field Test Device



Power frequency magnetic field
generator

Power frequency excitation
current source

Handheld alternating
magnetometer

* Reference only. Configurations and details may vary depending on the application scenario.

1. Summary

TD3730 is a device specially used to test the influence of industrial frequency strong magnetic field on electric energy meter. It consists of power frequency excitation current source, power frequency magnetic field generator and handheld alternating magnetometer.

2. Features

- The power frequency magnetic field generator is excited by the excitation current source to generate a 0-100mT programmable power frequency magnetic field.
- The power frequency magnetic field generator can generate a large power frequency magnetic field within the range of 70 mm × 35 mm.
- The magnetic field strength of the testing point can be tested by scanning the magnetic field with the coil probe of the handheld alternating magnetometer.
- The power frequency magnetic field is applied to the six faces of the electric energy meter to be

tested, and the user's electric energy meter calibration device is used to complete the test of the influence of the power frequency strong magnetic field on the electric energy meter error.

3. Specification

Power Frequency Excitation Current Source	Output voltage	0 ~ 240 V
	Output current	0 ~ 63 A
	Maximum excitation power	15 kVA
	Operating frequency	45 Hz ~ 65 Hz
Power Frequency Magnetic Field Generator	Magnetic field adjustment range	0 ~ 100 mT
	Adjustment fineness	0.1 mT
	AC magnetic field stability	1%/min
Handheld Alternating Magnetometer (Magnetic Field Testing)	Range	20 mT, 200 mT
	Measurement range	2 mT ~ 240 mT
	Optimal measurement uncertainty (k=2)	2%
	Frequency range	45 Hz ~ 100 Hz
	Display digits	4 decimal digits display

4. General Specification

Device	Power frequency excitation current source	Power frequency magnetic field generator	Handheld alternating magnetometer
Power Supply	Three-phase five- wire system	—	3 AA batteries
Size (mm) (W*D*H)	730 × 600 × 1270	300 × 300 × 250	165 × 90 × 40
Weight (kg)	200	40	0.4
Communication interface	RS232	—	USB

Temperature performance	Working temperature: 5°C~45°C; Storage temperature: -10°C~55°C
Humidity Performance	Working humidity: < 80% @ 30°C, < 70% @ 40°C, < 40% @ 50°C Storage humidity: (20%~80%) R·H, no condensation