

Magnetic Field Module

MFT Series



- IEC 61000-4-8
- GB/T 17626.8

Features

- > Support electromagnetic relay protection against overvoltage and overcurrent
- > Support overtemperature protection
- > Support test sequence function via Autolab software
- > Ethernet RJ45 interfaces for PC remote control and test reports printing

Introduction

MFT series magnetic field module is designed to conduct immunity tests for electrical and electronic products according to IEC 61000-4-8 and GB/T 17626.8.

It can simulate magnetic field conditions in residences, commercial areas, industrial sites, power plants and medium/high-voltage substations.

Application Areas



Technical Parameters

Magnetic Field Strength	MFS 400 + MFT 400 (Matched with magnetic field coil TCXS111)	1 A/m ~ 400 A/m 1.26 μ T ~ 504 μ T
	MFS 1200 + MFT 1200 (Matched with magnetic field coil TCXS113)	1 A/m ~ 1,200 A/m 1.26 μ T ~ 1,512 Mt
Output Accuracy	Error: < 1 dB of set output ultra-low value (e.g. 1 A/m) needs manual calibration	
Current Waveform	50 Hz/60 Hz, sine wave	
Current Total Harmonic Distortion	< 5%	
Waveform Repetition	1 s ~ 9,999 s	
MFS 400 Test Duration	1 A/m ~ 100 A/m (continuous) 100 A/m ~ 400 A/m (short duration 1 s ~ 10 s)	
MFS 1200 Test Duration	1 A/m ~ 400 A/m (continuous) 400 A/m ~ 1,200 A/m (short duration 1 s ~ 10 s)	
Trigger Mode	Automatic, manual, external signal trigger	
Coil Dimension	1 m*1 m or other sizes	
Coil Shape	Rectangular or other types	
Coil Turns	Single-turn or three-turn	

General Parameters

Working Power	AC 220 V, $\pm$ 10%, 50 Hz /60 Hz
Fuse	6 A
Max. Power Consumption	100 VA
Auxiliary Interface	D-sub 25pin
Working Status Indication	Front panel LED indication
Grounding Method	Flat grounding wire
Dimension	6 U rack, 450 mm(W)*280 mm(H)*620 mm(D)
Weight	Approx. 70 kg
Ambient Temperature	15 $^{\circ}$ C ~ 35 $^{\circ}$ C
Relative Humidity	45% ~ 75%
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories

Test Cable, User Manual, Power Cord, Ground Wire, Parallel Cable, Fuse

Optional Module

1	MFT 400	Max. magnetic field strength: 400 A/m
2	MFT 1200	Max. magnetic field strength: 1,200 A/m

Optional Main Unit

1	Combined Immunity Tester	Model: CCS 600x In compliance with IEC 61000-4-8 Max. field strength: 400 A/m (continuous) Max. filed strength: 1,200 A/m (short duration)	
2	Magnetic Field Simulator	Model: MFS 400 Match with MFT 400 and TCXS111 Max. field strength: 100 A/m (continuous) Max. filed strength: 400 A/m (short duration)	
3	Magnetic Field Simulator	Model: MFS 1200 Match with MFT 1200 and TCXS113 Max. field strength: 400 A/m (continuous) Max. filed strength: 1,200 A/m (short duration)	

Optional Accessories

1	Magnetic Field Coil	Model: TCXS111	
		Magnetic field strength: 1 A/m ~ 400 A/m (1.26 μ T ~ 504 μ T)	
		Coil factor (typical): 0.87	
		Number of turns: Single turn	
		Magnetic field orientation: 90°/180°	
		Max. continuous current: AC 120 A	
		Test duration:	
		≤100 A/m: continuous operation for 8 h;	
		>100 A/m: short-term operation for 10 s	
		Frequency: 50 Hz/60 Hz	
		Coil dimensions: 1 m (D)*1 m (W)	
		Overall dimensions (incl. mounting shaft): 1,400 mm (D) × 1,000 mm (W)	
		Coil height adjustment range: 500 mm	
		Package dimensions:	
		1,500n(D)*1,250 (W)* 200 (H) mm	
		Weight: Approx. 10 kg	

Optional Accessories

2	Magnetic Field Coil	Model: TCXS113	
		Magnetic field strength:	
		1 A/m ~ 1,200 A/m	
		(1.26 μ T ~ 504 μ T)	
		Coil factor (typical): 0.87	
		Number of turns: three-turn	
		Magnetic field orientation: 90°/180°	
		Max. continuous current: AC 460 A	
		Test duration:	
		≤400 A/m: continuous operation for 8 h;	
		>400 A/m: short-term operation for 10 s	
		Frequency: 50 Hz/60 Hz	
3	Immunity Test Software	Coil dimensions: 1 m (D)*1 m (W)	
		Overall dimensions (incl. mounting shaft): 1,400 mm (D)*1,000 mm (W)	
		Coil height adjustment range: 500 mm	
		Package dimensions:	
		1,350n(D)*1,100 (W)* 100 (H) mm	
		Model: CoreLab	
		> Compatible with Windows 7/8/10/11	
		> Support Ethernet and serial communication	
		> Support scheduled tests, test sequences, and one-click operation	
		> Support customer information settings, automatic report generation and printing	

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