

Power Frequency Magnetic Field Simulator

MFS xxx Series

Datasheet



In Compliance with

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

Introduction

Power frequency magnetic field simulator MFS series is designed to conduct power frequency magnetic field immunity test of electrical and electronic products with high reliability as per IEC/EN 61000-4-8 and GB/T17626.8. It can offer accurate reference for EUT during power frequency magnetic field immunity test. It is mainly to simulate the magnetic environment in residence, commercial and industrial district, power station, and low and high substation.

Features

- > 5.7" color touch screen front panel;
- > Fully in compliance with IEC 61000-4-8 test requirements;
- > Electromagnetic relay protection with voltage/current higher than rated values;
- > Over-temperature protection;
- > Test sequencing via control software AutoLab;
- > Ethernet RJ45 for PC remote control;
- > Easy test report generation;

Application Areas

- > Automotive
- > Healthcare
- > Railway
- > Military
- > New energy Electricity
- > New energy automotive
- > Telecom
- > Broadcasting
- > IT
- > Avionics

| Technical Parameters | |
|-------------------------|--|
| As per Standards | IEC/EN 61000-4-8, GB/T 17626.8 |
| Magnetic field strength | <p>MFS 400 1 A/m – 100 A/m (continuous), 100 A/m – 400 A/m(1 s – 10 s, short-term) (with TCXS 111 single- turn 1,000*1,000 mm square coil);</p> <p>MFS 1200 1 A/m – 300 A/m (continuous), 300 A/m – 1,200 A/m (1 s - 10 s, short-term) (with TCXS 113 three-turn 1,000*1,000 mm square coil);</p> |
| Output accuracy | less than 1 dB; (Minimal magnetic field strength such as 1A/m shall be calibrated manually before test) |
| Current waveform | 50 Hz/60 Hz sinusoid |
| Current distortion | <5% |
| Pulse interval | 1 s - 9,999 s |
| Test duration | 1 s - 28,800 s |
| Triggering mode | Automatic, manual or external signal triggering |
| Coil size | 1,000*1,000 mm or other |
| Coil shape | Square/circular |

| General Parameter | |
|------------------------|--|
| Display screen | 5.7 inch TFT touch screen |
| Operating power supply | 110 V / 220 V, ±10%, 50/60 Hz (AC 220 V 50 Hz by default) |
| Fuse | 6 A |
| Max. Power consumption | 100 W |
| Memory space | Infinite (PC) |
| Communication method | Ethernet LAN, RJ45 |
| Output method | Standard 1 m coaxial cable |
| Dimension | 19 inch/6U/4U |
| Weight | Approx. 35 Kg + 68 Kg |
| Operating temperature | 15–35 °C |
| Operating humidity | 45%–75% |
| Operating air pressure | 86 kPa – 106 kPa |

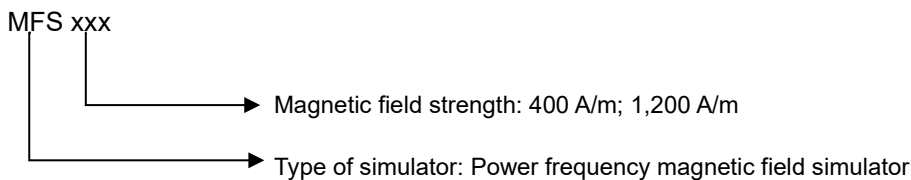
| Standard Accessories |
|--|
| Magnetic field coil, power supply cable, EUT power supply cable, network cable, power cord, grounding wire 5 meters, factory test report, warranty report, user manual |

| Model Selection | |
|-----------------|---|
| MFS 400 | Magnetic field strength up to 400 A/m |
| MFS 1200 | Magnetic field strength up to 1,200 A/m |

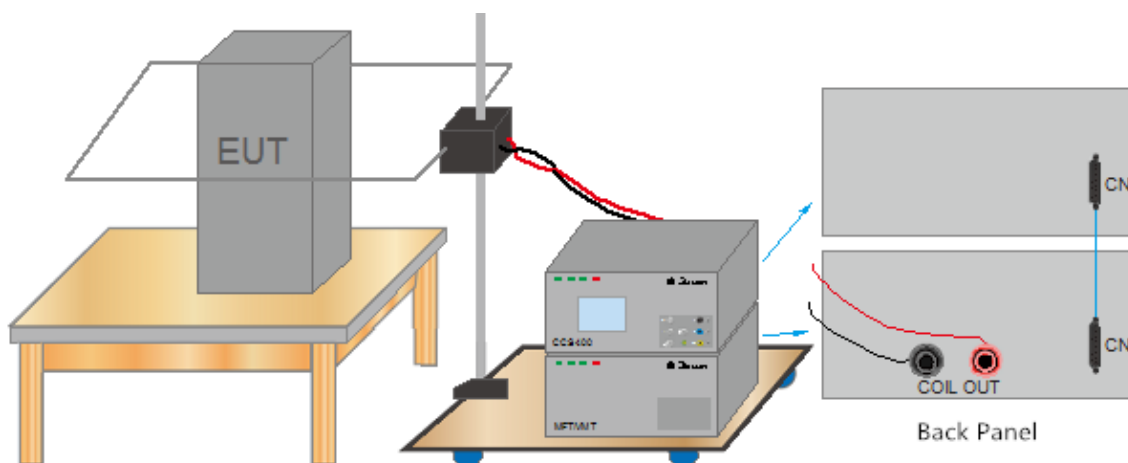
| MFS 400 - Optional Accessories | |
|--------------------------------|--|
| MFT 400 | Power frequency magnetic field regulator |
| TCXS 111 | 1,000*1,000 mm magnetic field coil |
| VMT 2216SV | 220 V, 16 A, incl. voltage variation |
| VMT 2216S | 220 V, 16 A, excl. voltage variation |
| EMSLab | Control software |

| MFS 1200 - Optional Accessories | |
|---------------------------------|---|
| MFT 1200 | Power frequency magnetic field regulator |
| TCXS 113 | 1,000*1,000 mm magnetic field coil |
| TCXH 1110 | 1,000*1,000 mm magnetic field coil, Helmholtz |
| VMT 2216SV | 220 V, 16 A, incl. voltage variation |
| VMT 2216S | 220 V, 16 A, excl. voltage variation |
| EMSLab | Control software |

Naming Rules



Equipment Connection Diagram





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