

DC Magnetic Field Ramp Rate Simulator

Change Rate **MFS 1600DG**

■ HJB 34A

— Features

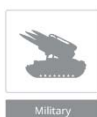
- > 5.7-inch color touch screen front panel operation
- > Max. magnetic field strength: 1,600 A/m
- > Excellent magnetic field homogeneity

— Introduction

The MFS 1600DG DC Magnetic Field Ramp Rate Simulator is developed and designed in accordance with HJB 34A. It is mainly applied to magnetic field immunity tests for ships.

Adopting a new-generation control platform and programmable controller technology, it greatly simplifies system integration and enhances operational reliability. Equipped with a distinctive color touch screen, it delivers user-friendly human-machine interaction for easy operation. The complete system consists of the MFS 1600DG simulator and the TCXS1166 magnetic field coil.

— Application Areas



Technical Parameters

MFS 1600DG DC Magnetic Field Ramp Rate Simulator	
Magnetic Field Strength	400 A/m ~ 1,600 A/m ($\pm 10\%$)
Magnetic Field Ramp/Change Rate	1,600 A/m/s ~ 16,000 A/m/s, continuously adjustable
Max. Output Voltage	60 A DC
Max. Output Current	30 A DC
Test Duration	1 s ~ 600 s

General Parameters

Display Screen	5.7" TFT touch screen
Working Power	AC 220 V, $\pm 10\%$, 50/60 Hz
Max. Power Consumption	2,000 W
Grounding Method	4 mm banana plug
Output Port	4 mm banana jack
Working Status Indication	LED indication and LCD display in front panel
Communication Mode	Ethernet LAN, RJ45
Dimension	8U rack, 450 mm (W)*380 mm (H)* 620 mm (D)
Weight	Approx. 46 kg
Atmospheric Pressure	86 kPa ~ 106 kPa
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75% (no condensation)

Coil Parameters TCXS1166

Coil Shape	Rectangular
Magnetic Field Direction	90°/180°
Coil Turns	66 turns
DC Resistance	$\leq 1.2 \Omega$
Coil Factor	59.4
Coil Inductance	$\leq 11 \text{ mH @ } 1 \text{ kHz}$
Input Port	4 mm banana jack
Dimension	1,000 mm (W) * 1,000 mm (D)
Weight	Approx. 65 kg

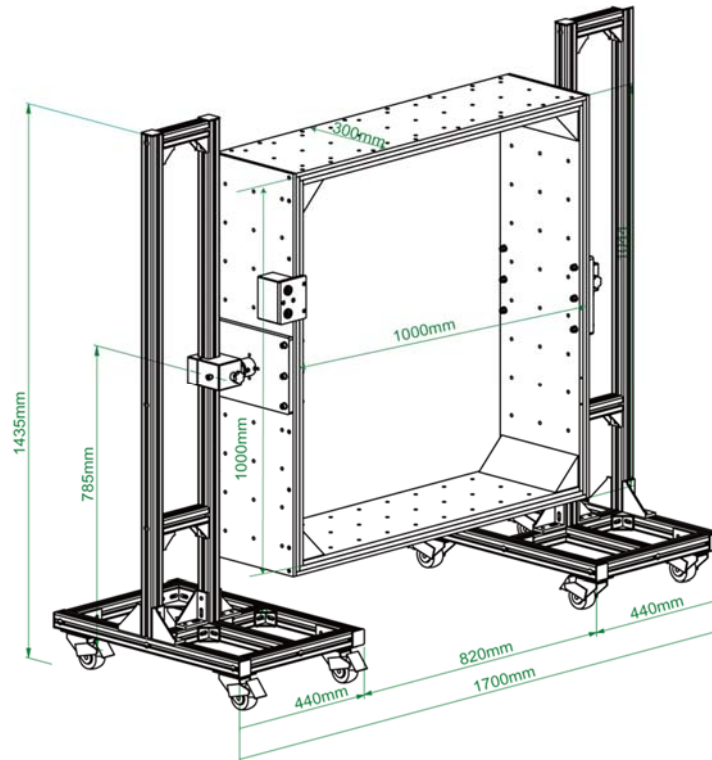
Standard Accessories

Power Cord, User Manual, Test Cables, Grounding Wire

Standard Coil

1	Magnetic Coil	Model: TCXS1166 Matched with MFS 1600DG DC Magnetic Field Ramp Rate Simulator, max. magnetic field strength up to 1600 A/m	
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Standard Coil



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