

MAG 100

Power Frequency Magnetic Field Test Equipment

■ The **MAG 100** is to be used for EMC Tests requiring AC Magnetic Fields.

Power frequency magnetic fields are generated by AC current flowing in conductors. The normal 50/60Hz mains power cord is a good example, although currents with other frequencies may be present dependant on the application.

Magnetic fields may interfere with equipment operated in close proximity. Typical EUTs are monitors of all kinds.

MAG 100 has a 1m x 1m square, single turn antenna. A current of 120A is needed to feed the coil to produce a field of 100A/m. MAG 100 includes a current transformer capable of delivering 120A from a low current source.

Magnetic field strength is defined at the center of a coil with $\pm 3\text{dB}$ variation. Magnetic field is orthogonal to the coil plane. Coil dimensions define the maximum EUT size as being 0.6m x 0.6m x 0.5m.

The MAG 100 can be used for both vertical and horizontal plane testing, by simply rotating the coil antenna in its mounting on the (optional) stand. The MAG 100 can only be used for continuous mode testing.

FEATURES

- Up to 110A/m field strength
- Different coil sizes available
- Exactly as defined in IEC 1000-4-8
- Sturdy construction
- Horizontal and vertical testing possible
- Manufactured according ISO 9001

BENEFITS

- **Software Control** (when used together with Haefely EMC power sources)
- **Single Turn Coils**

ONE SOLUTION FOR

- IEC 61000-4-8
- EN 61000-6-1
- EN 61000-6-2

All EN product standards and many other applications.



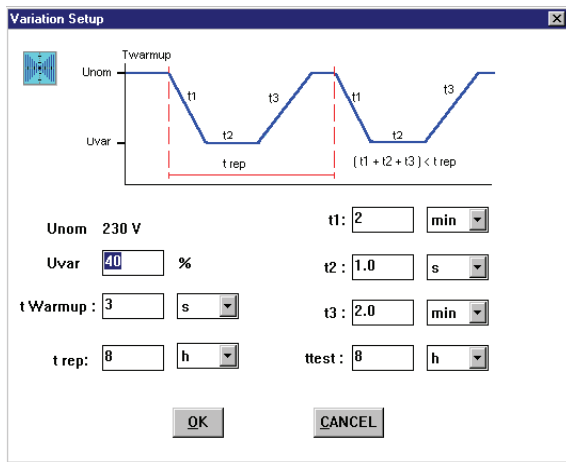
MAG 100 current transformer, 1mx1m antenna mounted on support stand (right) shown with the power source (left)



MAG 100 current transformer, 2mx2.6m antenna mounted on two support stands

AUTOMATIC TESTING

In conjunction with other Haefely EMC Test products, magnetic field testing can be fully or partially automated. PLINE 1610 used together with the MAG 100 can provide semi automatic testing from the instrument front panel. A special menu MAG100 is included in the PLINE 1610 software. Voltages can be programmed which correspond to a magnetic field strength at the center of the coil antenna.



WinFEAT&R software used to control the PLINE 1610, means that magnetic field testing can be automated with other EMC tests.

LARGE EUTS

To satisfy the needs of manufacturers with test objects larger than 0.6m x 0.6m, a coil antenna is available with dimensions 2m x 2.6m.



The increased antenna size means that objects up of 1.2m x 1.6m can be tested. However, because the coil antenna is still used with the MAG 100 current transformer, maximum current in the coil is 120A. This results in a magnetic field of only 36A/m at coil center.

The larger coil antenna requires two stands to support it. It can still be used for both horizontal and vertical plane testing.

TECHNICAL SPECIFICATIONS

Input Voltage range	0 - 230V
Output Voltage range	0 - 1.2V
Output Current range 1	0 - 13A
Output Current range 2	0 - 130A

Maximum EUT size	0.6 x 0.6 x 0.5m
max field 1m x 1m coil	110 A/m
max field 2m x 2.6m coil	36 A/m
Input connection	10A IEC
Weight	approx. 17 kg

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