MAGNUS
Step-up transformer

- **Quick and easy preparation of excitation curves for instrument transformers**
- **Demagnetize current transformer cores**
- **Conduct turn-ratio tests on voltage transformers**
- **Two-hand control enhances personal safety**

DESCRIPTION

When power systems are put into operation or when faults occur, it becomes necessary to check the instrument transformers to make sure that they are providing test instruments and protective relay equipment with the correct outputs.

MAGNUS™ permits you to prepare excitation curves for instrument transformers quickly and easily.

MAGNUS is also used to demagnetize current transformer cores and to conduct turn-ratio tests on voltage transformers. It weighs only 16 kg (35 lbs) and provides 1 A at 2.2 kV. Two-hand control enhances personal safety.

As standard, MAGNUS is delivered with special high-voltage cables and a robust transport case.

APPLICATION EXAMPLE

IMPORTANT

Read the User's manual before using the instrument.

Prepare an excitation curve

1. Connect MAGNUS to the secondary side of the current transformer being tested and also to an ammeter and voltmeter.
2. Increase the voltage with the dial.
3. Jot down the values of U (voltage) and I (current).
4. Repeat steps 2 and 3 until the current (I) rises sharply without any significant rise in voltage (U).
5. Conclude the test by reducing U (voltage) slowly to zero, thereby providing demagnetization.

SPECIFICATIONS

Specifications are valid at nominal input voltage and an ambient temperature of +25°C, (77°F). Specifications are subject to change without notice.

Environment

Application field	The instrument is intended for use in high-voltage substations and industrial environments.
Temperature	
Operating	0°C to +50°C (32°F to +122°F)
Storage & transport	-40°C to +70°C (-40°F to +158°F)
Humidity	5% – 95% RH, non-condensing

CE-marking

EMC	2004/108/EC
LVD	2006/95/EC

General

Mains voltage	115/230 V AC, 50/60 Hz
Power consumption	2300 VA (max)
Protection	Thermal cut-outs
Dimensions	
Instrument	356 x 203 x 241 mm (14" x 8" x 9.5")
Transport case	610 x 290 x 360 mm (24" x 11,4" x 14,2")
Weight	16.3 kg (35,9 lbs) 26.7 kg (58.9 lbs) with accessories and transport case
High voltage cables	2 x 10 m (33 ft) / 1,5 mm², 5 kV

Measuring outputs

Voltage	100/1, (max load of 1 MΩ)
Inaccuracy	±1,5%
Current	10/1
Inaccuracy	±1,5% at 2 A output current ±3% at 0,5 A output current

Outputs

Voltage outputs, AC

230 V mains voltage

(I) High voltage output [1]	0 – 2200 V AC
(II) Variable transformer, not isolated from mains [1]	0 – 250 V AC

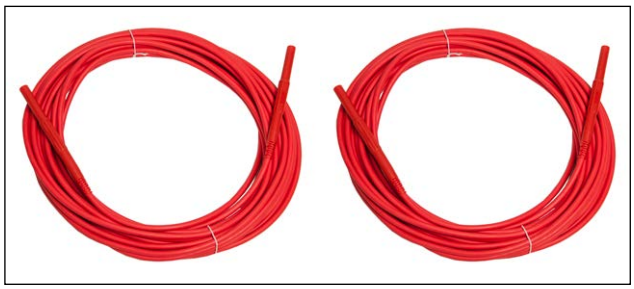
Voltage	Current	Max. load time	Rest time
2200 V AC	1 A	30 s [2]	10 minutes [2]
250 V AC	6 A	Continuous	–

115 V mains voltage

(I) High voltage output [1]	0 – 2000 V AC
(II) Variable transformer, not isolated from mains [1]	0 – 110 V AC

Voltage	Current	Max. load time	Rest time
2000 V AC	1 A	30 s [2]	10 minutes [2]
110 V AC	10 A	Continuous	–

1) The outputs I and II must not be loaded at the same time.
2) The load time and rest time for the high voltage output is calculated at the maximum output voltage and current. During an excitation test the voltage and current is only at their maximum level at the end of the test.



Test cables 04-35312

ORDERING INFORMATION

Item	Art. No.
MAGNUS Complete with: Test cables 04-35312 (2 pcs) Transport case GD-00182	
115 V mains voltage	BT-11190
230 V mains voltage	BT-12390

Postal address
Megger Sweden AB
Box 724
SE-182 17 Danderyd
SWEDEN

T. 08 510 195 00
E. seinfo@megger.com

MAGNUS_DS_en_V04a
Printed matter:
Art.No. ZI-BT01E ▪ Doc. BT0074EE ▪ 2017
Subject to change without notice

Registered to ISO 9001 and 14001

Megger