MAGNUS

Step-Up Transformer

Programma®

A Megger Group Company

MAGNUS

Step-up transformer

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. Even though it weighs only 16 kg (35 lbs), it provides 1 A at 2.2 kV. Two-hand control enhances personal safety.

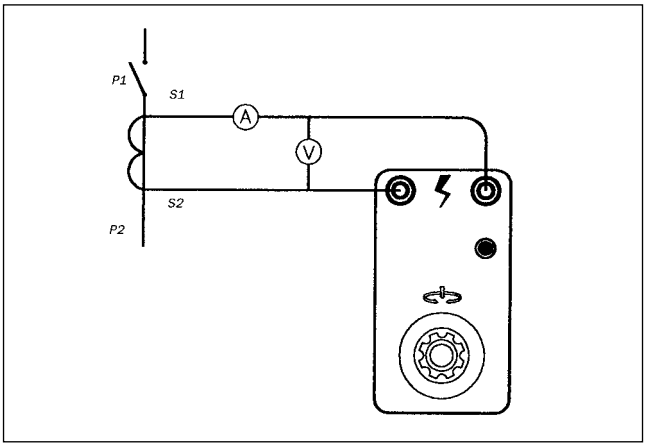
As standard, MAGNUS is delivered with a special high-voltage cable and a robust transport case.

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 MAGNUS

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	
LVD	Low Voltage Directive 73/23/ EEC am. by 93/68/EEC
EMC	EMC Directive 89/336/EEC am. by 91/263/EEC, 92/31/EEC and 93/68/EEC
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 5 m (16.4 ft) / 1,5 mm², 15 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.

Ordering information

	Art.No.
MAGNUS	
Complete with: Cable set GA-00090 Transport case GD-00182	
Magnus 115 V mains voltage	**BT-11190**
Magnus 230 V mains voltage	**BT-12390**

Cable set GA-00090

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