

Data Sheet no. 6.63/3

Dissipation Factor and Capacitance Measuring Bridge, Type TG-3 MOD



General description

The measuring bridge, type TG-3 MOD, is a stand-alone or a built-in (19") universal device for measurements of dissipation factor (tan delta), capacitance (C) and power factor in connection with a standard capacitor (Data Sheet 5.31) at voltages of 50 or 60 Hz. The measuring principle is that of a current comparator bridge. It enables measurements based on automatic balancing by a built-in computer. Furthermore, a WINDOWS® based software package, type TG-0MOD-CP01, is available.

For currents through the test object above the specified 5 A, range extensions of up to 20 A and 35 A can be used (type TG-REXT).

Technical Data

Test voltage frequency	Hz	50 or 60
Max. current through test object	A	5
Max. current through standard capacitor	mA	30
Capacitance range		0.1 x C _N ... 1,000 x C _N
Dissipation factor range		1...2 x 10 ⁻⁵ uncertainty and 10 ⁻⁷ resolution
Uncertainty of capacitance measurement	%	± 0.01
Uncertainty of phase measurement	mrad	0.02 ± 2 % of the displayed value
Display		Capacitance pF, nF, µF Power factor
Setting of standard capacitor C _N	pF	0.10 ... 9,999.99
Initial balancing	s	3 ... 5
Subsequent balancing	s	0.6
Dimension		
Width	mm	500
Depth	mm	470
Height	mm	192
Weight	kg	approx. 15

Reference conditions

Min. current through standard capacitor	µA	35
Temperature	°C	23 ± 2 °C
Humidity (non condensing)	%	45 ... 75

Rated range of use

		According to IEC 359
Temperature	°C	5 ... 40
Humidity (non condensing)	%	20 ... 90

Optional range extensions (Type TG-RXT)

Max. current through test object	A	up to 20 and up to 35
Extended capacitance range to		10,000 x C _N

Optional software for data processing (Type TG-0MOD-CP01)

The Windows® compatible software realizes the following functions on a separate PC:

- processing the measurements
- displaying the measurements
- printing
- saving
- transfer to Excel
- data transfer by RS232 interface

The software is working independently from the HIGHVOLT control software WGMS (Data Sheet 1.55), but also on the control computer of the HV test system.

For further information please contact

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