

TeraOhm 5kV

High Voltage Diagnostic Insulation Tester

Testing
Analysing
Certifying

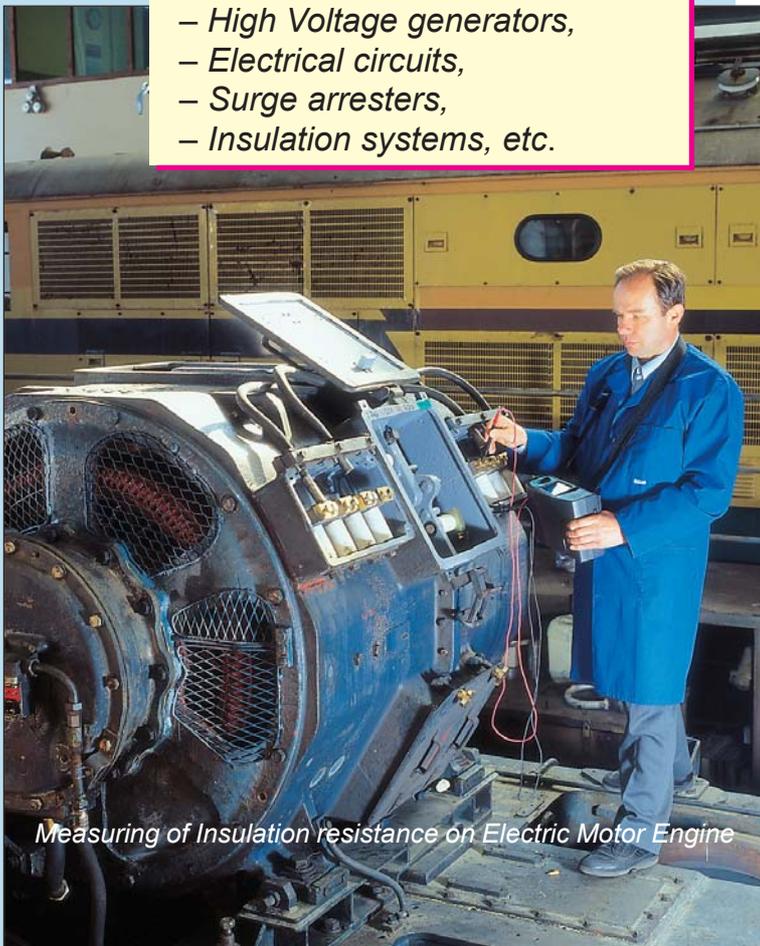


CE

EN / IEC 61557-2
EN 61010-1
Cat III 600 V

TeraOhm 5 kV is a digital multipurpose tester intended for testing of insulation on:

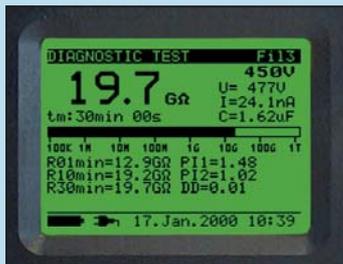
- Rotating machines,
- Transformers,
- Cables,
- High Voltage generators,
- Electrical circuits,
- Surge arresters,
- Insulation systems, etc.



Measuring of Insulation resistance on Electric Motor Engine

- ◆ Ultra high **Insulation Resistance** measurement:
 - Pre-set DC test voltages **250 V ÷ 5000 V** in steps of 50 V.
 - Measuring range up to **5 TΩ**
 - Timer mode from 1 s up to 30 min.
 - Capacitance measurement up to 50 μF.
 - ◆ Powerful feature of **Diagnostic tests**:
 - Discharge Current, Voltage and Capacitance measured on the equipment under test.
 - Polarization Index (**PI**) calculated.
 - Dielectric Discharge Ratio (**DD**) calculated.
 - ◆ **Step voltage** measurement of Insulation Resistance.
 - Pre-set DC test voltage up to 5000 V automatically divided in 5 steps.
 - Pre-setting of the test time for the voltage step.
 - ◆ **Withstanding voltage test** up to 5500 V.
 - Leakage current measurement.
 - **Ramp mode** rising voltage within the selected values.
 - Pre-set treshold test current from 1 μA to 1.4 mA.
 - ◆ **External voltage** 0 ÷ 600 V AC/DC and frequency.
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- Automatic discharge of capacitive loads.
 - Guard terminal to eliminate surface leakage current.
 - Digital and bar graph display shows results with date and time.
 - Built-in battery charger.
 - User-friendly PC software with RS 232 isolated communication port.

Key Features



Large custom LCD dot matrix display with bar graph and with back light. Simultaneous display of measurement parameters. Built-in timer and real time clock.



Guard terminal to eliminate effects of surface leakage current. Three safety banana sockets galvanic separated. RS 232 port for communication to PC.

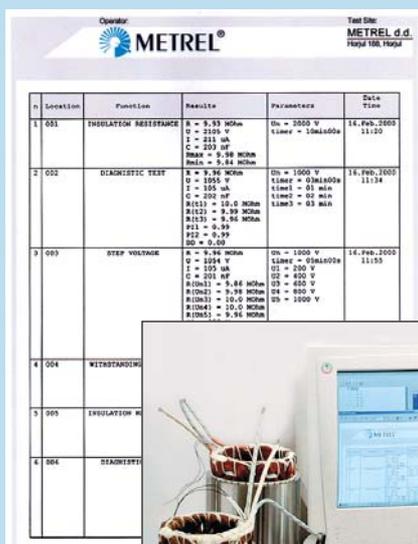


Built-in battery charger for NiCd or NiMH enable measurement during the charging.



Simple and fast setting of measurement

Windows PC Software Tera Link



- The memories of TeraOhm 5 kV can store 1000 measurement results.
- Transfer of measurement values to a PC.
- Print-out of tabular display used as a measuring report.



Diagnostic test of motor windings

Technical Specifications

Digital resistance range	0.01 MΩ ÷ 5 TΩ ± (5 % of reading + 3 dig.)
Test voltage ranges (DC)	250 V ÷ 5000 V in steps by 50 V ± (3 % of reading + 3 V)
Bar Graph Trend	0 ÷ 5 TΩ
Withstanding test voltage	0 ÷ 5500 V ± (3 % of reading + 40 V)
Leakage current range	0 ÷ 1.4 mA ± (3 % of reading + 3 dig.)
Voltage AC/DC range	0 ÷ 600 V ± (3 % of reading + 3 V)
Input resistance	3 MΩ
Capacitance range	0 ÷ 50 μF ± (5 % of reading + 2 dig.)
Polarization index (PI) range	0 ÷ 99.9 ± (5 % of reading + 2 dig.)
Dielectric discharge test (DD) range	0 ÷ 99.9 ± (5 % of reading + 2 dig.)

General Characteristics

Power supply	7.2 V d.c. (6 x 1.2 V) NiCd or NiMH or 9 V d.c. (6 x 1.5 V) alkaline
Display	LCD dot matrix with backlight
Protection classification	double insulation □
Overvoltage category	CAT III 600 V
Pollution degree	2
Degree of protection	IP 54
Working temperature range	-10 ÷ +50 °C
Storage temperature range	-20 ÷ +70 °C
Communication	Serial port RS 232, optically isolated
Memory	1000 measurement result
Dimensions (w x h x d)	265 x 110 x 185 mm
Mass (with batteries)	2.3 kg

Standard set

Order No. MI 2077



- Instrument TeraOhm 5 kV
- Test lead, 2 m, red
- Test lead, 2 m, black (with alligator clip)
- Test lead, 2 m, green (with alligator clip)
- Test tip, black
- Test tip, red
- Alligator clips, black, 2 pcs
- Mains cable
- Soft carrying bag
- Instruction manual
- Declaration of conformity
- Production verification data

Optional Accessories

Order No.:



- A 1046** 6 x 1.2 V NiCd batteries
- A 1056** Windows Software "Tera Link" with RS 232 interface cable
- S 2003** High Voltage Cable Set:
 - h.v. alligator, 2 pcs
 - h.v. measuring lead, 2 pcs

A 1056

S 2003