

High voltage insulation testers

MI 3205 TeraOhmXA 5 kV



MI 3205 TeraOhmXA 5kV is a portable battery (Li-ion) or mains powered test instrument with excellent IP protection (IP65 case closed and IP54 case open), intended for diagnosing of Insulation Resistance by using high test voltages of up to 5 kV. It is designed and produced with the extensive knowledge and experience acquired through many years of working in this field.

High Voltage Insulation / Continuity / Earth

MEASURING FUNCTIONS

- Insulation measurements;
- Diagnostic testing (PI, DAR, DD);
- Step voltage test;
- Withstanding voltage test (DC) up to 5 kV;
- Voltage and frequency measurement up to 550 V TRMS.

KEY FEATURES

- Insulation resistance up to 15 TΩ.
- Adjustable test voltage (50 V...5 kV) 50 V and 100 V step.
- Programmable timer.
- Capacitance measurement.
- Charging rate for capacitive load < 1.5 s / μF at 5 kV.
- Automatic discharge of test object after completion of measurement.
- Guard terminal.
- High voltage breakdown detection.

- Custom defined tests.
- Auto adjustment function.
- Measurement results in numerical and graphical form.
- PC software HVLink PRO for downloading and analysing of the test results and test report printing.
- Isolated RS232 and USB communication ports, BT interface.
- High quality accessories including shielded test leads in standard set.
- High EM interferences protection: Input AC current noise rejection (1 mA@300 V) and additional averaging of the result (5, 10, 30, 60).
- CAT IV / 600 V.
- Increased working nominal altitude to 3000 m.
- High power Li-ion battery pack (14.8V, 4.4Ah).
- Mains and rechargeable battery power supply.

APPLICATION

- Power transformers;
- Measuring transducers in distribution networks;
- Testing insulation resistance of rotating machinery and cables;
- Production line periodic testing and maintenance;
- Troubleshooting and analysis of all kinds of insulation problems;
- High voltage generators;
- Surge arrestors and varistors.

STANDARDS

Electromagnetic compatibility

- EN 61326 class A

Safety


- EN 61010-1 (instrument)
- EN 61010-2-030
- EN 61010-2-033
- EN 61010-031 (accessories)

Distributed by
TransNet NZ Limited



p: +64 9 274 3340
e: sales@transnet.co.nz
w: www.transnet.co.nz

TECHNICAL DATA

FUNCTION	Measuring range	Resolution	Accuracy
Insulation resistance	0.01 MΩ ... 9.99 MΩ	10 kΩ	±(5% of reading + 3 digits)
	10.0 MΩ ... 99.9 MΩ	100 kΩ	±(5% of reading + 3 digits)
	100 MΩ ... 999 MΩ	1 MΩ	±(5% of reading + 3 digits)
	1.00 GΩ ... 9.99 GΩ	10 MΩ	±(5% of reading + 3 digits)
	10.0 GΩ ... 99.9 GΩ	100 MΩ	±(5% of reading + 3 digits)
	100 GΩ ... 999 GΩ	1 GΩ	±(5% of reading + 3 digits)
	1.0 TΩ ... 9.9 TΩ	10 GΩ	±(15% of reading + 3 digits)
	10 TΩ ... 15 TΩ	1 TΩ	±(15% of reading + 3 digits)
Test voltage	0 V ... 999 V	1 V	±(5% of reading + 3 digits)
	1.00 kV... 4.99 kV	10 V	
Insulation leakage current	1.00 mA ... 5.00 mA	10 μA	
	100 μA ... 999 μA	1 μA	
	10.0 μA ... 99.9 μA	100 nA	±(5% of reading + 3 digits)
	1.00 μA ... 9.99 μA	10 nA	
	100 nA ... 999 nA	1 nA	
	10.0 nA ... 99.9 nA	100 pA	
	0.00 nA ... 9.99 nA	10 pA	±(10% of reading + 0.15 nA)
Dielectric absorption ratio (DAR)	0.01 ... 9.99	0.01	±(5% of reading + 3 digits)
	10.0 ... 100.0	0.1	
Polarization index (PI)	0.01 ... 9.99	0.01	±(5% of reading + 2 digits)
	10.0 ... 100.0	0.1	
Dielectric discharge (DD)	0.01 ... 9.99	0.01	±(5% of reading + 2 digits)
	10.0 ... 100.0	0.1	
Capacitance	20.0 nF ... 999 nF	1 nF	±(5% of reading + 3 digits)
	1.00 μF ... 9.99 μF	10 nF	
	10.0 μF ... 50.0 μF	100 nF	
True RMS voltmeter (DC, 45 Hz ... 65 Hz)	5 V ... 550 V		±(2 % of reading + 2 digits)
Frequency	10 Hz ... 500 Hz		±(0.2 % of reading + 1 digit)
Power supply	90-260 VAC, 45-65 Hz or 14,4 VDC (4,4 Ah Li-Ion)		
Protection degree close / open case	IP 65 / IP 54		
Display	320 x 240 dots matrix display with backlight		
Overvoltage category	CAT IV / 600 V		
Protection class	Reinforced insulation 		
Degree of protection	IP 65 (case closed)		
	IP 54 (case open)		
COM port	RS232, USB and Bluetooth		
Dimensions	345 x 160 x 335 mm		
Weight	6.5 kg		

STANDARD SET

MI 3205 Standard set (ST)

- Instrument MI 3205 TeraOhmXA 5 kV
- 10 kV shielded test lead, 2 m, 2 pcs (black, red)
- 10 kV crocodile clip, 2 pcs (black, red)
- Guard test lead, green, 2 m
- Crocodile clip, green
- Mains cable
- PC SW HVLink PRO with USB and RS 232 cable
- Handbook "Guide to modern insulation testing" on CD
- Instruction manual on CD
- Calibration certificate

MI 3205 Euro set (EU)

- Instrument MI 3205 TeraOhmXA 5 kV
- Large HV Crocodile with cable, red, 3 m
- Large HV Crocodile with shielded cable, black, 3 m
- Guard test lead, green, 3 m
- Crocodile clip, green
- Mains cable
- PC SW HVLink PRO with USB and RS 232 cable
- Handbook "Guide to modern insulation testing" on CD
- Instruction manual on CD
- Calibration certificate



Picture of MI 3205 ST set



Picture of MI 3205 EU set