

# Professional insulation testing with powerful diagnostic tools

## MI 3205 TeraOhmXA 5kV



MI 3205 TeraOhm XA 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.



NEW

High Voltage Insulation / Continuity / Earth

### MEASURING FUNCTIONS

- Insulation Measurement;
- Diagnostic Test (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 analyzing 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)

## TECHNICAL SPECIFICATION

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	100 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	±(5% of reading + 3 digits)
	100 μA ... 999 μA	1 μA	
	10.0 μA ... 99.9 μA	100 nA	
	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	
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)		
Display	Matrix LCD with backlight, 320 x 240 dots		
Overvoltage category	CAT IV / 600 V		
Protection class	Double insulation		
Degree of protection	IP 65 (case closed)		
	IP 54 (case open)		
COM port	BT, RS232 and USB		
Dimensions	345 x 160 x 335 mm		
Weight	6.5 kg		

## ORDERING INFORMATION



### Standard set MI 3205

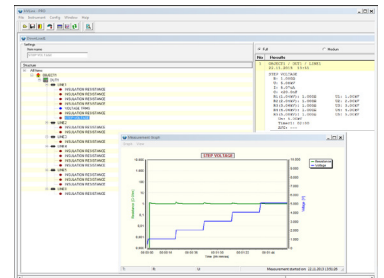
- Instrument MI 3205 TeraOhmXA 5 kV
- 10 kV shielded test lead, 2 m, 2 pcs (black, red)
- 10 kV crocodile clip, 2 pcs (black, red)
- Guard test lead, green, 2 m
- Crocodile clip, green
- Mains cable
- PC SW HVLink PRO with USB and RS 232 cable
- Handbook "Guide to modern insulation testing" on CD
- Instruction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

### OPTIONAL ACCESSORIES

Photo	Order No.	Acc. description
	S 2029	10 kV shielded test lead, 8 m, 2 pcs (black, red)
	S 2030	10 kV shielded test lead, 15 m, 2 pcs (black, red)
	S 2036	10 kV crocodile clip, 2 pcs (black, red)

### PC SOFTWARE HVLink PRO

With the help of HVLink PRO, which is included in the standard set, the stored results can be downloaded to PC where they can be reviewed, analysed and reported.



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Note! Photographs in this catalogue may slightly differ from the instruments at the time of delivery. Subject to technical change without notice.