

# MI 3210 TeraOhmXA 10kV



**Professional  
insulation testing  
with powerful  
diagnostic tools**

**NEW**



**MI 3210 TeraOhm XA 10kV is a portable, battery or mains powered test instrument with excellent IP protection (IP65), intended for diagnosing of Insulation Resistance by using high DC test voltages of up to 10 kV. Because of its robustness (CAT IV protection) and high immunity to radiated RF fields it is best suited for industrial environment.**

#### **Measuring functions:**

- Insulation Measurement;
- Diagnostic Test (PI, DAR, DD) ;
- Step Voltage Test;
- Withstanding Voltage Test (DC) up to 10 kV;
- Voltage and frequency measurement up to 550 V TRMS.

#### **Key features:**

- Insulation resistance up to 20 TΩ;
- Adjustable test voltage (50 V...10 kV) 50 V and 100 V step;
- Programmable timer;
- Capacitance measurement;
- Charging rate for capacitive load < 3 s / μF at 10 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@600 V) and additional averaging of the result (5, 10, 30, 60);
- CAT IV / 600 V;
- 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.

#### **STANDARDS**

Instruments operation:

- IEC/EN61557-2

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

## INSULATION

Test Voltage range	50 V ... 10 kV
Measuring range	10 kΩ ... 20 TΩ
Voltage steps	50 V (50 V ... 1 kV) and 100 V (1 kV ... 10 kV)
Step voltage test	in 5 steps
Timer	Max. 100 min
Short circuit / charge current	5 mA ±10 %
Charging rate for capacitive load	< 3 s / μF at 10 kV
Discharging rate for capacitive load	< 0,25 s / μF at 10 kV

## VOLTAGE AND FREQUENCY

Voltage AC/DC	5 V ... 550 V
Frequency	10 Hz ... 500 Hz

## ACCURACY

Insulation	±(5 % of reading + 3 digits) up to 1T
Test voltage	±(15 % of reading + 1 digit) from 1T ... 20T
Trms Voltage	-0%, +10% ± 10 V
Frequency	±(2 % of reading + 2 digits)
Capacitance	±(0.2 % of reading + 1 digit)
DISPLAY	±(5 % of reading + 3 digits)
Graphic display	320 x 240 dot matrix LCD with backlight

## MEMORY, SOFTWARE AND COMMUNICATION

USB and RS232 COM ports	galvanic separated, 9600 bps
Bluetooth interface	115 kbps
Memory size	4 MB
Software	HVLink PRO PC Software

## SAFETY AND PROTECTION

IP	65 (case closed)
Safety category	CAT IV / 600 V

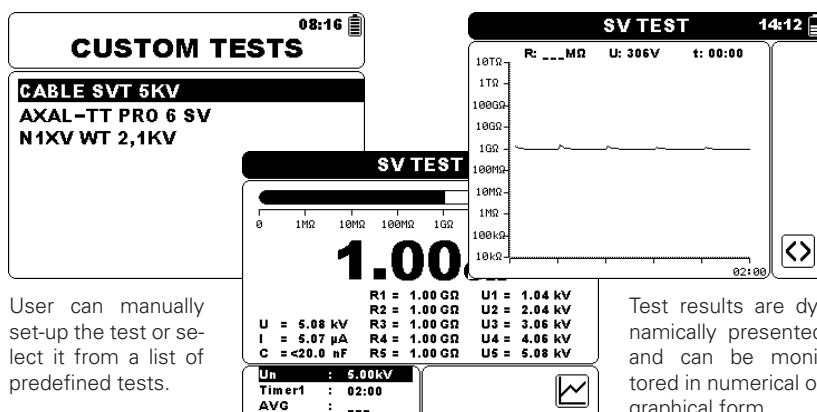
## POWER SUPPLY

Rechargeable batteries	Lead-Acid, LC-R123R4PG
Battery life	4 h at 10 kV

## DIMENSIONS

Weight	6.5 kg
Dimensions (w x h x d)	360 x 160 x 330 mm

## Typical measurement procedure



User can manually set-up the test or select it from a list of predefined tests.

Test results are dynamically presented and can be monitored in numerical or graphical form.

## Ordering information

### Standard set

MI 3210

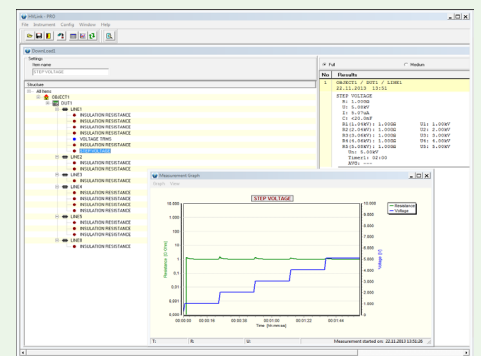


- Instrument MI 3210 TeraOhmXA 10kV
- 10 kV shielded test lead with probe, 2 m
- 10 kV shielded test lead, 2 m, 2 pcs (black, red)
- 10 kV crocodile clip, 2 pcs (black, red)
- Guard test lead, green, 2 m
- Crocodile clip, green
- Mains cable
- PC SW HVLink PRO with USB and RS 232 cable
- Handbook "Guide to modern insulation testing" on CD
- Instruction manual on CD
- Calibration certificate

## Optional accessories

Photo	Order No.	Acc. decription
	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.



Measuring and Regulation Equipment Manufacturer

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