

Photovoltaic and electrical installations tester MI 3108 EurotestPV



MI 3108 EurotestPV is a combined photovoltaic tester and electrical installations safety tester. It enables complete testing of electrical installations according to EN 61557 standards and in addition performs all necessary tests required on single-phase photovoltaic (PV) installations. This includes all of the tests as required by EN 62446, but also includes I - U characteristic, Calculation of STC values as required by EN 61829 and power measurements on Inverter's DC and AC sides. The unit is designed for the demanding working conditions (up to 1000 V, with 15 A DC). To greatly improve user safety the MI 3108 EurotestPV comes with the PV Safety Probe which ensures safe disconnection every time.

MEASURING FUNCTIONS

Photovoltaic installations:

• Measurements on DC side of PV installation:

- Voltage, current, power;
- Uoc (Open Circuit Voltage) and Isc (Short Circuit Current);
- I - U curve of PV modules and strings;
- Irradiance;
- Module temperature.

• Measurements on AC side of PV installation:

- Voltage, current, power;
- Efficiency of PV module, inverter, PV system calculation.

Electrical installations:

- Insulation resistance;
- Continuity of PE conductors;
- Line impedance;
- Loop impedance (sub-functions with high current and without RCD tripping);
- RCD testing (type AC, A and B);
- Earth resistance;
- AC current (load and leakage);
- TRMS voltage, frequency, phase sequence;
- Power, energy, harmonics.

KEY FEATURES

Photovoltaic installations:

- **Calculation of STC values:** the measured current and voltage values are, according to environment conditions, recalculated to Standard Test Condition values which makes possible, to compare the results even if they were taken under different test conditions.

- **Graphical representation:** the I-V characteristic of PV module or string is graphically represented on LCD display.
- **Power and efficiency measurements:** 2 voltage & 2 current channels for simultaneous AC & DC parameters measurements.
- **PV Remote Unit:** Optional unit for simultaneous measurements of solar irradiation and temperature of PV module.

Electrical installations

- **RCD Auto:** Automated RCD testing procedure significantly reduces test time.
- **Trip Lock function:** Loop impedance test are performed without tripping the RCD.
- **B type RCD testing:** is supported.
- **Earth resistance measurement:** instrument supports 3-wire earth resistance testing.
- **Built-in fuse tables:** for automatic evaluation of the line / loop impedance results.
- **Online voltage monitoring:** monitors all 3 voltages in real time.
- **Scope function:** real-time U/I scope.
- **Harmonics analysis:** 1-phase power and energy measurements with up to 11th harmonics analysis is supported.
- **Memory:** Up to 1800 test results or up to 500 graphical results with timestamp can be stored in internal memory.
- **BT connectivity:** it enables BT communication with Android tablets and smart phones via optional BT dongle.
- **Android application:** enables advanced data management APP EuroLink PV and EuroLink Android.

- PC SW **EuroLink PRO** enables downloading, uploading, review, analyses and printing of test results.

APPLICATION

- Testing, evaluations and troubleshooting of photovoltaic installations.
- Power and energy efficiency measurements (AC and DC).
- Initial and periodic testing of domestic and industrial single and three-phase electrical installations.

STANDARDS

Functionality

- IEC/EN 61557 series;
- IEC 62446 (photovoltaics);
- IEC 61829.

Other reference standards for testing

- BS 7671;
- EN 61008;
- EN 61009;
- EN 60364-4-41;
- AS/NZ 3017

Electromagnetic compatibility

- EN 61326

Safety

- EN 61010-1;
- EN 61010-2-030;
- EN 61010-031;
- EN 61010-2-032

TECHNICAL DATA

PHOTOVOLTAIC INSTALLATION MEASUREMENTS

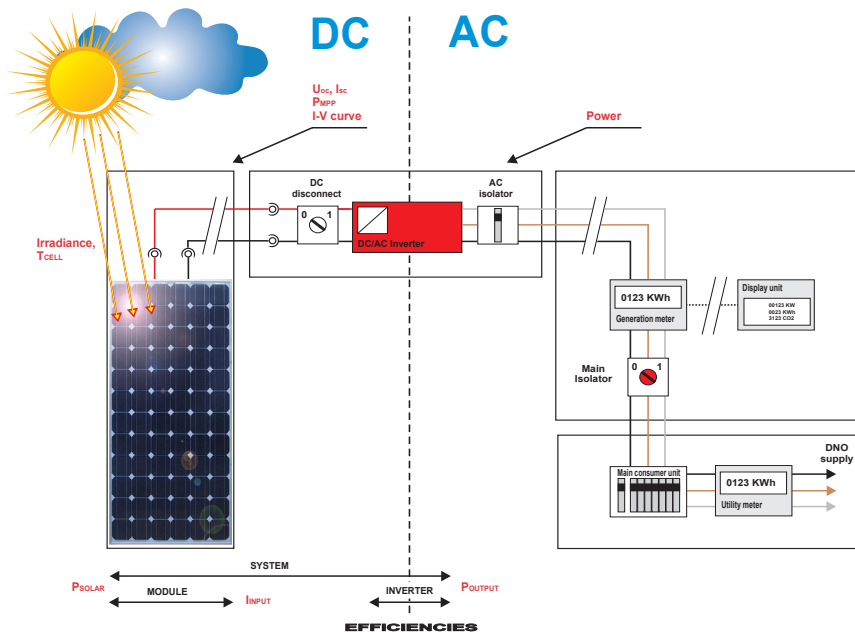
Function	Measuring range	Basic accuracy
Voltage	0 VDC ... 999 VDC	±(1 % of reading + 2 digits)
	0 VAC ... 999 VAC	±(1.5 % of reading + 3 digits)
	I-V m.: 0 VDC ... 999 VDC	±(1 % of reading + 2 digits)
Current	Panel m.: 0.0 mA ... 300 ADC	±(1 % of reading + 2 digits)
	Invert. m.: 0.0 mA ... 300 AAC	±(1.5 % of reading + 3 digits)
	I-V m.: 0.00 A ... 15 ADC	±(1 % of reading + 2 digits)
Power	Panel m.: 0 ... 999 kW	±(2.5 % of reading + 6 digits)
	I-V m.: 0 ... 14.99 kW	±(2 % of reading + 3 digits)
U / I curve	1000 V / 15 A / 15 kW	
Irradiation	000 ... 1.75 kW/m ²	±(4 % of reading + 5 digits)
Temperature	-10.0 °C ... + 85.0 °C	± 5 digits

ELECTRICAL INSTALLATION MEASUREMENTS

Function	Measuring range	Basic accuracy
Insulation resistance (EN 61557-2)	U = 50, 100, 250 VDC: R: up to 199.9 MΩ	±(5 % of reading + 3 digits)
	U = 500 VDC, 1 kVDC: R: up to 999 MΩ	
Continuity, 200 mA (EN 61557-4)	0.00 Ω ... 1999 Ω	±(3 % of reading + 3 digits)
Continuity, 7 mA	0.0 Ω ... 1999 Ω	±(5 % of reading + 3 digits)
Loop impedance (EN 61557-3)	0.00 Ω ... 9.99 kΩ	±(5 % of reading + 5 digits)
Line impedance (EN 61557-3)	0.00 Ω ... 9.99 kΩ	±(5 % of reading + 5 digits)
Voltage	0 VAC ... 550 VAC	±(2 % of reading + 2 digits)
Frequency	0.00 Hz ... 499.9 Hz	±(0.2 % of reading + 1 digits)
Phase sequence (EN 61557-7)	1.2.3 or 3.2.1	
RCD testing (EN 61557-6)	IΔN: 10 mA, 30 mA, 100 mA, 300 mA, 500 mA, 1 A	
Contact voltage UC	0.0 V ... 99.9 V	(-0 % / +15 %) of reading
Trip-out time	0 ms ... 40 ms	±1 ms
Trip-out current	0.2 x IΔN ... 2.2 x IΔN	±0.1 x IΔN
Earth resistance (EN 61557-5)	0.00 Ω ... 9999 Ω	±(5 % of reading + 5 digits)
Energy	0.000 Wh - 1999 kWh	
Harmonics	up to 11th	

General	Main unit	Remote unit
Display	128 x 64 dots matrix display with backlight	128 x 64 dots matrix display with backlight
Power supply	6 x 1.2 V NiMH batteries, type AA	6 x 1.2 V NiMH batteries, type AA
Overvoltage category	CAT II / 1000 VDC; CAT III / 600 V; CAT IV / 300 V	
Protection class	double insulation	
COM port	RS232 and USB	RS232
Dimensions	230 x 103 x 115 mm	140 x 230 x 80 mm
Weight	1.3 kg	1.0 kg

PV SYSTEM PARAMETERS



METREL D.O.O.

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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.

ORDERING INFORMATION



MI 3108 ST

- Instrument MI 3108 EurotestPV
- A 1552 Large carrying bag
- A 1053 Schuko-plug test cable
- A 1193 Test lead, 3 x 1.5 m
- A 1016, A 1062, A 1015, A 1014 Test probe, 4 pcs (red, green, blue, black)
- A 1064, A 1309, A 1310, A 1013 Crocodile clip, 4 pcs (red, green, blue, black)
- A 1384 PV Safety Probe
- S 2145 PV MC3/4 male/female adapters
- A 1427 PV Reference Cell
- A 1400 Temperature probe
- A 1707 Set of carrying straps
- USB and RS232 - PS/2 cable
- Power supply adapter + 6 NiMH batteries, type AA
- PC SW EuroLink PRO
- Short instruction manual
- Instruction manual and handbook on storage media
- Calibration certificate

MI 3108 PS

- MI 3108 ST
- A 1378, A 1414 EurotestPV Remote
- A 1401 Tip commander
- PC SW EuroLink PRO Plus licence

OPTIONAL ACCESSORIES

Photo	Order No.	Acc. description
	A 1378	EurotestPV Remote
	A 1314	Plug commander
	A 1401	Tip commander
	A 1018	Current clamp (low range, leakage)
	A 1391	AC/DC Current clamp
	A 1105	Barcode scanner
	A 1431	EuroLink Android
	A 1436	Bluetooth dongle
	A 1385	PV fused test lead
	S 2026	Earth 20 m set, 3 wire
	S 2027	Earth 50 m set, 3 wire
	A 1292	Upgrade code EuroLink PRO to EuroLink PRO Plus

Services d'EURO-INDEX

EURO-INDEX est un fabricant, importateur et distributeur de diverses marques A dans le domaine des instruments de test et de mesure. Nous fournissons également une large gamme de services pour optimiser l'utilisation de ces instruments dans vos activités. Ces services comprennent naturellement l'entretien, la réparation et l'étalonnage des instruments, mais nous proposons aussi une assistance sous forme de formation via notre EURO-INDEX Academy et la location d'instruments.

Centre de Service Agréé

EURO-INDEX est un Centre de Service Agréé pour toutes les marques représentées. Cela signifie que vos instruments sont pris en charge par des techniciens formés par le fabricant et disposant des outils et logiciels adéquats. Seules des pièces d'origine sont utilisées et la garantie de votre instrument, ainsi que les certifications (ATEX, EN50379, etc.) restent intactes.

Laboratoire de maintenance et de calibrage

Le laboratoire des Pays-Bas est accrédité RvA selon la norme EN-ISO/IEC 17025. Cette accréditation est valable pour différentes grandeurs, telles que spécifiées dans le champ d'application associé au numéro d'accréditation K105. Les certificats de calibrage RvA sont acceptés à l'international et équivalents à ceux de BELAC.



Service Mobile

Outre les laboratoires d'étalonnage fixes de Zaventem et de Capelle aan den IJssel, nous disposons également d'un laboratoire itinérant appelé "Service mobile". Nos services peuvent venir vers vous, en offrant une qualité équivalente.

MQS®

MQS® est une formule d'entretien exclusive comportant un entretien et un calibrage périodiques de vos instruments de mesure à un coût fixe et faible. Via un portail Web gratuit (monmq.be), vous avez toujours accès à vos certificats de calibrage.

Location d'instruments de mesure

- Vaste assortiment
- Précision démontrable par le certificat d'étalonnage actuel
- Conseils avisés
- Les instruments sont livrés avec leurs accessoires

EURO-INDEX Academy

- Formations et séminaires
- Vidéos de démonstration et d'instruction
- Notes d'application



Comptoir de service



Entretien, réparation et calibrage



Formations et séminaires



Service Mobile

Sous réserve de modifications EURO-INDEX® FR 23001



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