



## 1. ELECTRICAL SPECIFICATIONS

Accuracy is calculated as  $\pm$  [% readings + (no. of digits\*resolution)] at 23°C  $\pm$  5°C, relative humidity <80%RH

### SAFETY TEST

#### DMM – DC Voltage

Range [V]	Resolution [V]	Accuracy
3 ÷ 1500	1	$\pm$ (1.0%rdg + 2dgt)

#### DMM – AC TRMS Voltage

Range [V]	Resolution [V]	Accuracy
3 ÷ 1000	1	$\pm$ (1.0%rdg + 3dgt)

Frequency range: 42.5Hz ÷ 69Hz ; Voltage zeroed for measured values &lt;3V

#### Insulation Resistance (M $\Omega$ ) – DUAL Mode

Test voltage DC [V]	Range [M $\Omega$ ]	Resolution [M $\Omega$ ]	Accuracy (*)
250, 500, 1000, 1500	0.1 ÷ 0.99	0.01	$\pm$ (5%rdg + 5dgt)
	1.0 ÷ 19.9	0.1	
	20 ÷ 100	1	

(\*) Accuracy indicatec for VPN  $\geq$ 240V, R<sub>fault</sub> $\geq$ 10 $\Omega$ . Accuracy of R<sub>p</sub> and R(+) not declared if R(+)  $\geq$  0.2M $\Omega$  and R(-) <0.2M $\Omega$   
 Accuracy of R<sub>p</sub> and R(-) not declared if R(+) < 0.2M $\Omega$  and R(-)  $\geq$ 0.2M $\Omega$

Open voltage <1.25 x nominal test voltage  
 Short circuit current <15mA (peak) for each test voltage  
 Nominal measured current >1mA on R = 1k $\Omega$  x V<sub>nom</sub> (with VPN, VPE, VNE= 0)

#### Insulation Resistance (M $\Omega$ ) –TMR Mode

Test voltage DC [V]	Range [M $\Omega$ ]	Resolution [M $\Omega$ ]	Accuracy
250, 500, 1000, 1500	0.01 ÷ 9.99	0.01	$\pm$ (5.0%rdg+ 5dgt)
	10.0 ÷ 99.9	0.1	

Open voltage <1.25 x nominal test voltage  
 Short circuit current <15mA (peak) for each test voltage  
 Nominal measured current >1mA on R = 1k $\Omega$  x V<sub>nom</sub> (with VPN, VPE, VNE= 0)  
 Setting timer: 3s ÷ 999s

#### Continuity of protection conductors (RPE)

Range [ $\Omega$ ]	Resolution [ $\Omega$ ]	Accuracy
0.00 ÷ 9.99	0.01	$\pm$ (2%rdg + 2dgt)
10.0 ÷ 99.9	0.1	
100 ÷ 1999	1	

Test current: >200mA DC up to 5 $\Omega$  (included cables), Resolution 1mA, Accuracy  $\pm$ (5.0%rdg + 5dgt)  
 Open voltage 4 < V<sub>o</sub> < 10V

#### GFL (Ground Fault Locator) function

Test voltage DC [V]	Range [M $\Omega$ ]	Resolution [M $\Omega$ ]	Accuracy (*)	Position accuracy
250, 500, 1000, 1500	0.1 ÷ 0.99	0.01	$\pm$ (5%rdg + 5dgt)	$\pm$ 1module
	1.0 ÷ 19.9	0.1		
	20 ÷ 100	1		

(\*) Accuracy indicatec for VPN  $\geq$ 240V, R<sub>fault</sub> $\geq$ 10 $\Omega$ . Accuracy of R<sub>p</sub> and R(+) not declared if R(+)  $\geq$  0.2M $\Omega$  and R(-) <0.2M $\Omega$   
 Accuracy of R<sub>p</sub> and R(-) not declared if R(+) < 0.2M $\Omega$  and R(-)  $\geq$ 0.2M $\Omega$

Open voltage <1.25 x nominal test voltage  
 Short circuit current <15mA (peak) for each test voltage  
 Nominal measured current >1mA on R = 1k $\Omega$  x V<sub>nom</sub> (with VPN, VPE, VNE= 0)  
 Set limit threshold on measure 0.05M $\Omega$ , 0.1M $\Omega$ , 0.23M $\Omega$  ; Number of set modules: 4 ÷ 35

The GFL function allows obtaining correct results with the following conditions:

- > Test carried out with V<sub>test</sub>  $\geq$ V<sub>nom</sub> on a single string disconnected from the inverter, from possible arresters and from earth connections
- > Test performed upstream of any blocking diodes
- > **Single fault** of low insulation located at any position in the string
- > Insulation resistance of the single fault <0.23M $\Omega$
- > Environmental conditions similar to those in which the fault was reported





## FUNCTIONALITY TEST (IVCK)

### DC Voltage @ OPC

Range [V]	Resolution [V]	Accuracy
3.0 ÷ 1500.0	0.1	$\pm(1.0\%rdg+2dgt)$

Minimum VPN voltage to start the test: 15V

### IDC Current @ OPC

Range [A]	Resolution [A]	Accuracy
0.10 ÷ 40.00	0.01	$\pm(1.0\%rdg+2dgt)$

### DC Voltage @ STC

Range [V]	Resolution [V]	Accuracy
3.0 ÷ 1500.0	0.1	$\pm(4.0\%rdg+2dgt)$

### IDC Current @ STC

Range [A]	Resolution [A]	Accuracy
0.10 ÷ 40.00	0.01	$\pm(4.0\%rdg+2dgt)$





## 2. GENERAL SPECIFICATIONS

### DISPLAY AND MEMORY

Features:	240x240pxl custom LCD with backlight
Memory:	max 999 test
Internal database for PV modules:	max 64 saving modules

### POWER SUPPLY

Internal power supply:	6x1.5V alkaline batteries type LR6, AA or 6x1.2V rechargeable NiMH batteries type LR6, AA (External adapter needed for NiMH batteries recharging)
Battery life (@Temp = 20°C):	RPE: >500 Test (RPE $\geq$ 0.1 $\Omega$ ) GFL, M $\Omega$ : >500 test (Riso $\geq$ 1k $\Omega$ xVTest) IVCK: >500 test (no SOLAR03)
Auto Power OFF:	after 5 minutes of idleness

### OUTPUT INTERFACE

PC communication port:	optical/USB and WiFi
Interface with SOLAR03:	Bluetooth BLE communication (up to 100m/328ft in free space)

### MECHANICAL FEATURES

Dimensions (L x W x H):	235 x 165 x 75mm
Weight (batteries included):	1.2kg
Mechanical protection:	IP40

### ENVIRONMENTAL CONDITIONS

Reference temperature:	23°C $\pm$ 5°C
Working temperature:	-10°C $\div$ 50°C
Working humidity:	<80%RH (without condensation)
Storage temperature:	-10°C $\div$ 60°C
Storage humidity:	<80%RH (without condensation)
Max height of use:	2000m

### REFERENCE GUIDELINES

Safety:	IEC/EN61010-1, IEC/EN61010-2-030 IEC/EN61010-2-033, IEC/EN61010-2-034
EMC:	IEC/EN61326-1, IEC/EN61326-2-2
Safety of measurement accessories:	IEC/EN61010-031
IVCK measurements:	IEC/EN62446-1, IEC/EN60891, IEC/EN60904-1-2
M $\Omega$ measurement:	IEC/EN61557-2
RPE measurement:	IEC/EN61557-4
Insulation:	double insulation
Pollution degree:	2
Radio:	ETSI EN300328, ETSIEN301489-1, ETSIEN301489-17
Measurement category:	CAT III 1000VAC, CAT III 1500VDC to ground Max 1000VAC, 1500VDC between inputs

**This instrument complies with the requirements of the European Low Voltage Directives 2014/35/EU (LVD), EMC directive 2014/30/EU and RED 2014/53/EU directive**  
**This instrument satisfies the requirements of 2011/65/EU (RoHS) directive and 2012/19/EU (WEEE) directive**



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## Kalibratielaboratorium

Het laboratorium in Nederland beschikt over een RvA accreditatie naar EN-ISO/IEC 17025. Deze accreditatie geldt voor grootheden, zoals gespecificeerd in de scope bij accreditatienummer K105. RvA kalibratiecertificaten zijn internationaal geaccepteerd en is gelijkwaardig aan BELAC.



## Mobiele Service

Naast de vaste kalibratielaboratoria in Zaventem en Capelle aan den IJssel beschikken wij ook over een laboratorium op wielen met de naam "Mobiele Service". Dit biedt vertrouwde service en kwaliteit, bij u voor de deur!

## KWS®

KWS® is een uniek servicesysteem voor uw meetinstrumenten met periodiek onderhoud en kalibratie tegen vaste, lage kosten. Via een gratis webportal ([mijnkws.be](http://mijnkws.be)) heeft u altijd en overal beschikking over uw kalibratiecertificaten.

## Verhuur van meetinstrumenten

- Uitgebreid assortiment
- Nauwkeurigheid aantoonbaar door actueel kalibratiecertificaat
- Deskundig advies
- Complete levering inclusief accessoires

## EURO-INDEX Academy

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Servicebalie



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Mobiele Service

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