1. ELECTRICAL SPECIFICATIONS

Accuracy is calculated as ± [% readings + (no. of digits) * resolution] at 23°C ± 5°C, con relative humidity <80%HR

1.1. CERTIFIER OF SINGLE PHASE PV INSTALLATION

DC Voltage

Range (V)	Resolution (V)	Accuracy
15.0 ÷ 99.9	0.1	± (0.5%rdg + 2dgt)
100.0 ÷ 1499.9	0.3	

AC TRMS Voltage

Range (V)	Resolution (V)	Accuracy
50.0 ÷ 265.0	0.1	± (0.5%rdg + 2dgt)

Max crest factor: 1.5

DC Current (by external transducer clamp)

Range (mV)	Resolution (mV)	Accuracy
-1100 ÷ -5	0.1	± (0.5%rdg + 0.6mV)
5 ÷ 1100		

The value of current is ALWAYS displayed with positive sign ; The value of current transduced in voltage less then 5mV is zeroed

AC TRMS Current (by external transducer clamp)

Range (mV)	Resolution (mV)	Frequency (Hz)	Accuracy
1 ÷ 1200	0.1	47.5 ÷ 63.0	± (0.5%rdg + 0.6mV)

Max crest factor: 2.0 ; The value of current transduced in voltage less then 5mV is zeroed

FS DC & AC clamp (A)	Resolution (A)	Minimum read value (A)	
		DC	AC
1< FS ≤ 10	0.001	0.05	0.01
10< FS ≤ 100	0.01	0.5	0.1
100< FS ≤ 1000	0.1	5A	1

DC Power (Vmeas > 150V)

FS clamp (A)	Range (W])	Resolution (W)	Accuracy
1< FS ≤ 10	0.000k ÷ 9.999k 10.00k ÷ 99.99k	0.001k 0.01k	± (0.7%rdg+3dgt) (Imeas < 10%FS)
10< FS ≤ 100	0.000k ÷ 9.999k 10.00k ÷ 99.99k 100.0k ÷ 999.9k	0.001k 0.01k 0.1k	±0.7%rdg (Imeas ≥10%FS)
100< FS ≤ 1000	0.00k ÷ 99.99k 100.0k ÷ 999.9k 1000k ÷ 9999k	0.01k 0.1k 1k	

Vmeas = voltage correspondent to measured power

AC Single phase power (@ PF = 1, Vmeas > 200V)

FS clamp (A)	Range (W)	Resolution (W)	Accuracy
1< FS ≤ 10	0.000k ÷ 9.999k 10.00k ÷ 99.99k	0.001k 0.01k	± (0.7%rdg+3dgt) (Imeas < 10%FS)
10< FS ≤ 100	0.000k ÷ 9.999k 10.00k ÷ 99.99k 100.0k ÷ 999,9k	0.001k 0.01k 0.1k	±0.7%rdg (Imeas ≥10%FS)
100< FS ≤ 1000	0.00k ÷ 99.99k 100.0k ÷ 999.9k 1000k ÷ 9999k	0.01k 0.1k 1k	

Vmeas = voltage correspondent to measured power

Frequency

Range (Hz)	Resolution (Hz)	Accuracy
47.5 ÷ 63.0Hz	0.1	±(0.2%rdg+1dgt)

Irradiance (by reference cell)

Range (mV)	Resolution (mV)	Accuracy
1.0 ÷ 65.0	0.1	±(1.0%rdg + 5dgt)

Temperature (by external probe PT1000)

Range (°C)	Resolution (°C)	Accuracy
-20.0 ÷ 100.0	0.1	± (1.0%rdg +1°C)

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1.2. I-V CURVE and IVCK MEASUREMENTS

I-V, IVCK: VDC Voltage @ OPC

Range (V) (*)	Resolution (V)	Accuracy (*)
15.0 ÷ 99.9	0.1	±(0.5%rdg+2dgt)
100.0 ÷ 1499.9	0.3	

(*) The I-V curve measurements start for VDC > 15V and the accuracy is defined for VDC > 20V

I-V, IVCK: IDC Current @ OPC

Range (A) (*)	Resolution (A)	Accuracy
0.10 ÷ 15.00	0.01	±(1.0%rdg+2dgt)

(*) Maximum allowed current = 15A for Voc≤1000V; Maximum allowed current = 10A for Voc>1000V

I-V: DC Power @ OPC (Vmpp >30V, Impp >2A)

Range (W) (*)	Resolution (W)	Accuracy
50 ÷ 99999	1	±(1.0%rdg+6dgt)

Vmpp = Maximum power voltage, Impp = Maximum Power Current
(*) Max measurable value of Power must include FF value(~ 0.7) → Pmax = 1000V x 15A x 0.7 = 10500W
→ Pmax = 1500V x 10A x 0.7 = 10500W

I-V, IVCK: VDC Voltage (@ STC)

Range (V)	Resolution (V)	Accuracy (*,**)
5.0 ÷ 999.9	0.1	±(4.0%rdg+2dgt)

I-V: IDC Current (@ STC)

Range (A)	Resolution (A)	Accuracy (**)
0.10 ÷ 99.00	0.01	±(4.0%rdg+2dgt)

I-V: DC Power @ STC (Vmpp >30V, Impp >2A)

Range (W) (*, **)	Resolution (W)	Accuracy (**)
50 ÷ 99999	1	±(5.0%rdg+1dgt)

Vmpp = Maximum power voltage, Impp = Maximum Power Current
(*) Measurements start for VDC > 15V and the accuracy is defined for VDC > 20V
(**) Test conditions:
- Test cond.: Steady Irrad.≥700W/m^2 , spectrum AM 1.5,solar incidence vs perpendicular. ≤ ± 25°, Cells Temp. [15..65°C]
- Accuracy include contribute of solar sensor and its measuring circuit

Irradiance (with reference cell)

Range (mV)	Resolution (mV)	Accuracy
1.0 ÷ 100.0	0.1	±(1.0%rdg+5dgt)

Temperature of module (with auxiliary PT1000 probe)

Range (°C)	Resolution (°C)	Accuracy
-20.0 ÷ 100.0	0.1	±(1.0%rdg+1°C)

2. GENERAL SPECIFICATIONS

DISPLAY AND MEMORY:	
Features:	128x128pxl custom LCD with backlight
Memory capacity:	256kbytes
Saved data:	max 99 yield test ; 249 curves (I-V curve test), 999 IVCK
POWER SUPPLY:	
Internal power supply:	6x1.5V alkaline batteries type AA, LR06
Battery life:	> 249 curve (I-V curve test), 999 IVCK test approx 120 hours (yield test)
SOLAR-02 power supply:	4x1.5V alkaline batteries type AAA LR03
SOLAR-02 max recording time (@ IP=5s):	approx 1.5h
Auto Power OFF:	after 5 min of idleness
RF MODULE SPECIFICATIONS:	
Frequency range:	2.412 ÷ 2.462GHz
Modulation:	802.11b Compatibility: DSSS (CCK-11, CCK-5.5, DQPSK-2, DBPSK-1), 802.11g: OFDM
R&TTE category:	Class 1
Max transmission power:	30µW
Max distance of RF connection:	1m
OUTPUT INTERFACE	
PC communication port:	optical/USB and WiFi
Interface with SOLAR-02 :	wireless RF communication (max distance 1m)
MECHANICAL FEATURES	
Dimensions (L x W x H):	235 x 165 x 75mm
Weight (batteries included):	1.2kg
ENVIRONMENTAL CONDITIONS:	
Reference temperature:	23°C ± 5°C
Working temperature:	0°C ÷ 40°C
Working humidity:	<80%RH
Storage temperature (batt. not included):	-10°C ÷ 60°C
Storage humidity:	<80%RH
GENERAL REFERENCE STANDARDS:	
Safety:	IEC/EN61010-1
EMC:	IEC/EN61326-1
Safety of measurement accessories:	IEC/EN61010-031
I-V curve measurement:	IEC/EN60891 (I-V curve test) IEC/EN60904-5 (Temperature measurement)
Insulation:	double insulation
Pollution degree:	2
Overvoltage category:	CAT II 1000V DC, CAT III 300V AC to ground Max 1500V among inputs P1, P2, C1, c2
Max altitude of use:	2000m

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

Diensten van EURO-INDEX

EURO-INDEX is fabrikant, importeur en distributeur van diverse A-merken op het gebied van test- en meetinstrumenten. Daarnaast leveren wij een groot aantal diensten om het gebruik van deze instrumenten in uw bedrijfsvoering te optimaliseren. Dit omvat uiteraard onderhoud, reparatie en kalibratie van de instrumenten, maar ook kennisdeling via de EURO-INDEX Academy en verhuur van instrumenten.

Geautoriseerd Service Centrum

EURO-INDEX b.v. is van alle vertegenwoordigde merken een Geautoriseerd Service Centrum. Dit betekent dat uw instrumenten worden behandeld door technici die zijn opgeleid door de fabrikant en beschikken over de juiste gereedschappen en software. Er worden uitsluitend originele onderdelen toegepast en de garantie van uw instrument, evenals de certificering (ATEX, EN50379, etc.) blijven intact.

Kalibratielaboratorium

Ons moderne service- en kalibratielaboratorium beschikt over een RvA accreditatie naar NEN-EN-ISO/IEC 17025. Deze accreditatie geldt voor grootheden, zoals gespecificeerd in de scope bij accreditatienummer K105.

Meer info

Kijk voor een overzicht van al onze diensten op euro-index.nl/diensten

Mobiele Service

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

Meer info

KWS®

KWS® is een uniek servicesysteem voor uw meetinstrumenten met periodiek onderhoud en kalibratie tegen vaste, lage kosten. Uw kalibratiecertificaten zijn digitaal beschikbaar via Mijn KWS (gratis webportaal en app).

Meer info

Verhuur van meetinstrumenten

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

Meer info

EURO-INDEX Academy

- Trainingen (individueel en klassikaal)
- Cursussen en workshops
- Demonstratie- en instructievideo’s
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