1. ELECTRICAL SPECIFICATIONS

Accuracy is calculated as ± [% reading + (number of dgts) x resolution] at 23°C ± 5°C, <80%HR

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 15A 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:	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
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
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
Mechanical protection:	IP40
ENVIRONMENTAL CONDITIONS:	
Reference temperature:	23°C ± 5°C
Working temperature:	0° ÷ 40°C
Working humidity:	<80%HR
Storage temperature (batt. not included):	-10 ÷ 60°C
Storage humidity:	<80%HR
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