1. GENERAL SPECIFICATIONS OF I-V 400 METER

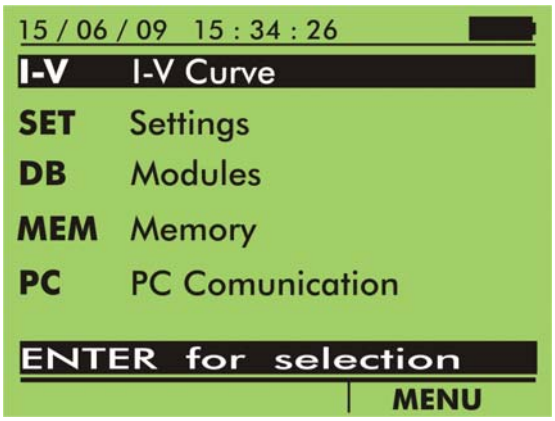
HT ITALIA enlarges its range of products for photovoltaic system introducing the new **I-V 400**

The instrument allows the on field measurement of I-V curve as well as of the main parameters of a single module and of a whole photovoltaic system up to a maximum of 1000V and 10A

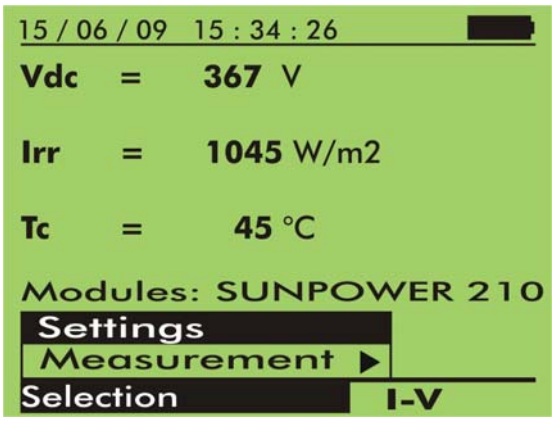
The acquired data are then worked out and transferred to the reference conditions (STC) in order to compare them with the rated data declared by the manufacturer of those modules

The comparison between the detected and the rated data permits to immediately determine whether the string or the module respect the parameters declared by the manufacturer

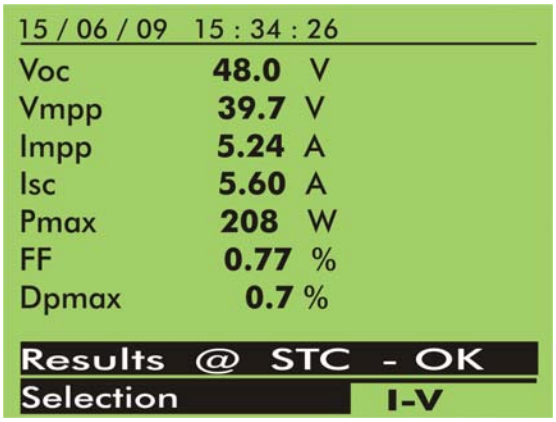
I-V 400 manages an internal database of the most common photovoltaic modules. Such a database can be updates at any time by the user both through the management software and directly through the instrument's interface



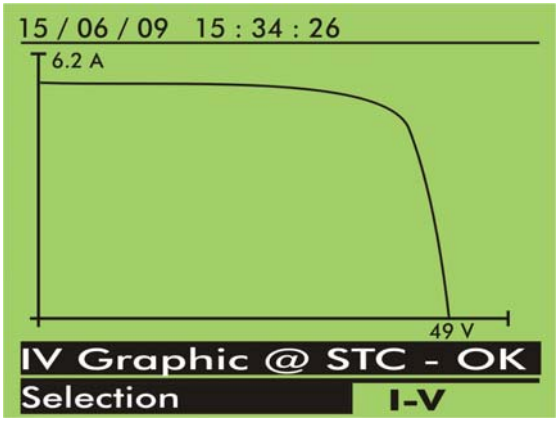
A very user-friendly main menu permits to **I-V 400** the access to all available internal features in easy to way mode



The **I-V 400** interface is realized by a menu level structure management which is easy and intuitive



The immediate display of results allows to evaluate the technical features of the modules.
I-V 400 also provides an indication (OK/NO) for the correspondence between the detected and the rated features declared by the manufacturer



I-V 400 permits to evacuate also by graphical mode the I-V curve of panels both on standard reference (STC) and operating conditions

2. ELECTRICAL SPECIFICATIONS (*)

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

VDC VOLTAGE

Range (V)	Resolution (V)	Accuracy
5.0 ÷ 999.9	0.1	±(1.0%rdg+2dgt)

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

IDC CURRENT (by internal sensor) – Detection of I-V Curve

Range (A)	Resolution (A)	Accuracy
0.10 ÷ 10.00	0.01	±(1.0%rdg+2dgt)

MAX POWER (@ Vmpp >30V, Impp >2A)

Range (W)	Resolution (W)	Accuracy
50 ÷ 9999	1	±(1.0%rdg+6dgt)

Vmpp = voltage on point of maximum power ; Impp = current on point of maximum power

IRRADIANCE (with reference cell HT304)

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

TEMPERATURE OF CELL (with PT300N probe)

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

(*) Technical specifications can be modified without advise

3. GENERAL SPECIFICATIONS

DISPLAY:	
Feature:	LCD custom, 128x128 pxl with backlight
POWER SUPPLY:	
Power supply:	6x1.5V alkaline battery type AA LR06
Low battery indication:	"▭" symbol is shown at display
Battery life:	>200 test
AutoPowerOFF:	after 5 minutes of idleness
MEMORY AND PC INTERFACE	
Memory size:	256Kbytes
Number of saved curves:	>200
PC interface:	optical/USB (with C2006 cable)
MECHANICAL SPECIFICATIONS	
Sizes:	235 (L) x 165 (W) x 75 (H) mm
Weight (included batteries):	1.2kg
ENVIRONMENTAL CONDITIONS:	
Reference temperature:	23°C ± 5°C
Working temperature:	0° ÷ 40°C
Working humidity:	<80%HR
Storage temperature:	-10 ÷ 60°C
Storage humidity:	<80%HR
STANDARD REFERENCE:	
Safety:	IEC/EN61010-1, IEC/EN61010-031
Insulation:	double insulation
Measurements:	IEC/EN60891
Pollution degree:	2
Category of measurement:	CAT II 1000V, CAT III 300V to gnd, 1000V max between inputs
Max altitude of use:	2000m

This instrument complies with the European Directive on low voltage 2006/95/CE (LVD) and with EMC 2004/108/CE

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