



PHOTOVOLTAIC  
TESTERS

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ORDER CODE **HV00400W**

# I-V400w

MULTIFUNCTION DEVICE FOR MAINTENANCE  
AND TROUBLESHOOTING  
OF PHOTOVOLTAIC SYSTEMS

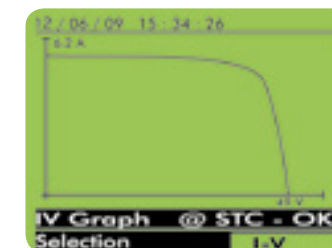
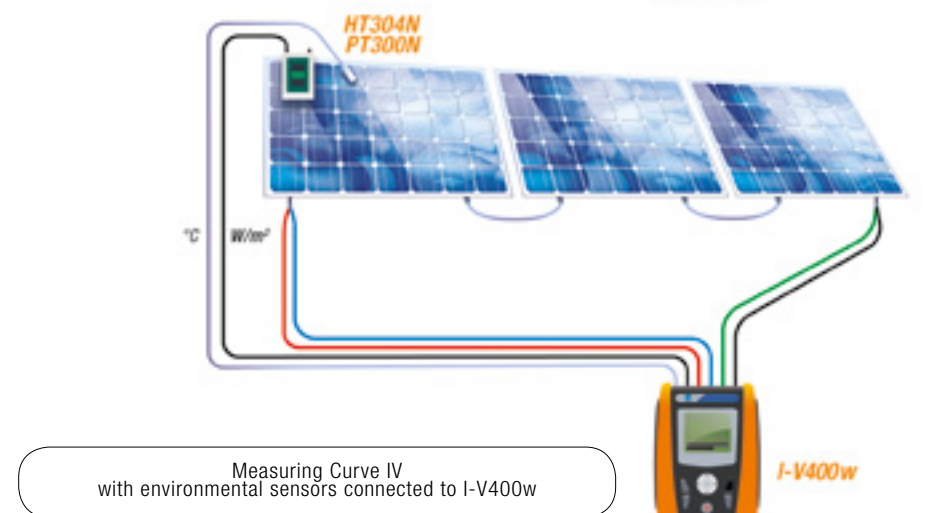
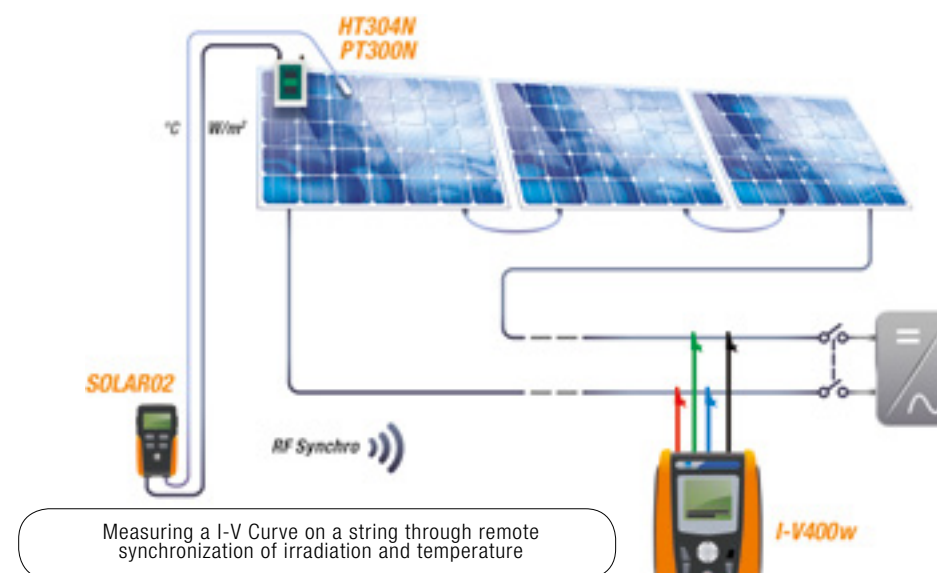
- Measurement of I-V Curve of a module or of a string
- Measurement of open-circuit voltage and of short-circuit current Voc/Isc
- Database of 30.000 selectable photovoltaic modules

I-V400w allows **field detection of I-V Curve** an of the main characteristic parameters both of a single module and of a string for PV installations up to a maximum of **1000V** and **15A**.

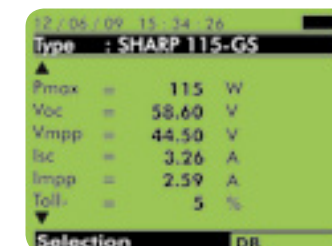
For measuring I-V Curve, I-V400w manages an **internal database modules**, (which can be updated at any time by the user) to compare the measured data with the rated values, thus allowing the immediate evaluation whether the string or the module fulfills the efficiency parameters declared by the manufacturer.

I-V400w carries out irradiance and temperature measurement directly or under remote mode trough the optional unit SOLAR 02, synchronized with main unit I-V400w.

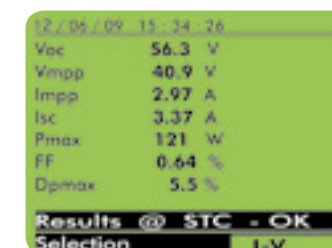
Also for I-V400w, **the display at the end of the test of I-V Curve** is a clear indication about the compliance with the specifications declared by the panel manufacturer.



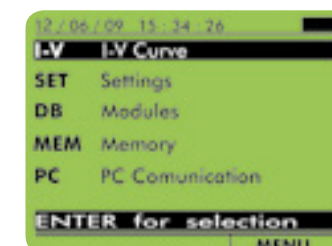
Result of I-V Curve: **OK**



Manual insertion of a module



Detail of the single results of I-V Curve: **OK**



General Menu



## Functions

### Maintenance of photovoltaic system

- Measurement of PV module/string output voltage up to 1000V DC
- Measurement of PV module/string output current up to 15A DC
- 128 points per I-V Curve in STD or Capacitive mode
- Measurement of Voc-Isc-Pmax-Vmpp-Impp-Fill Factor
- Measurement of cell temperature through external probe
- Measurement of irradiation [W/m²] through reference cell
- Measurement of DC and rated power at module/string output
- Detection of I-V Curve with direct measurement of Irr/Temp parameters
- Detection of I-V Curve using the remote unit SOLAR02
- Measurement of resistance of series Rs of panels
- Measuring method with 4 terminals
- Direct comparison with reference conditions (STC — 1000W/m², 25°C)
- Test result OK / NO
- Internal database for managing up to 30 PV modules (30.000 modules by software)
- Internal memory for data saving
- Recalling measured data on the display
- Optical/USB interface for transferring data onto the PC
- Help on line on the display



## Main features

<b>Display:</b>	LCD custom, 128x128pxl, with backlight
<b>Power supply:</b>	6x1.5V alkaline batteries type AA LR06
<b>Automatic power off:</b>	after 5 minutes in stand-by
<b>Duration for I-V Curve:</b>	> 200 curves
<b>PC interface:</b>	opto-isolated optical / USB
<b>Safety:</b>	IEC/EN61010-1
<b>Safety and measuring accessories:</b>	IEC/EN61010-031, IEC/EN61010-032
<b>Measurement of I-V Curve:</b>	IEC/EN60891, IEC/EN62446
<b>Insulation:</b>	double insulation
<b>Pollution level:</b>	2
<b>Measurement category:</b>	CAT II 1000V DC, CAT III 300V (to earth)
<b>Size:</b>	Max 1000V between inputs
<b>Weight (batteries included):</b>	235x165x75 mm
	1.3 kg



## Accessories provided

KITGSC4	Set of 4 cables + 4 alligator clips
KITPVMC3	Set of 2 adapters with connectors MC3
KITPVMC4	Set of 2 adapters with connectors MC4
HT304N	Sensor for irradiance measurement
M304	Mechanical inclinometer
TOPVIEW2006	Windows software + optical/USB C2006 cable
VA500	Rigid carrying case
	User Manual
	ISO9000 calibration certificate



## Optional accessories

PT300N	PT1000 probe for PV modules temperature
SP-0400	Shoulder strap to use the device with free hands
SOLAR02	Remote unit for Irradiance and Temperature
KITPVEXT25M	Set of 2 banana cables 4mm, Green/Black, 25m

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