

# I-V500w | I-V400w

Multifunction instruments for **I-V curve test** of PV strings and modules.

- **I-V Curve tracers up to 1500V\***
- **Voc and Isc measurement up to 1500V and 15A**
- **Database of 30.000 PV modules curve types**
- **Auto Start function to measure multiple strings in sequence**
- **Compatible with the APP HTANALYSIS**

\*1500V only I-V500w

## Immediate recording of the I-V characteristic and of the characteristic parameters

**I-V500w** carries out the field measurement of the **I-V characteristic** and of the main characteristic parameters both of a **single module** and of **module strings on PV plants** (up to a maximum of 1500V and 10A or 1000V and 15A).

## Immediate compliance test result

The acquired data are then processed **to extrapolate the I-V characteristic** under standard test conditions (**STC**) in order to proceed comparing them with the rated data declared by the modules' manufacturer, thus immediately **determining whether or not the string or the module under test comply with the characteristics declared by the manufacturer**. On the other hand the analysis of **IV curve** permits to detect any fault condition on each single module composing the string under test.

## Remote irradiation and temperature measurement

**Irradiation and temperature measurements** play an essential role for extrapolation of the I-V characteristic under standard test conditions. **I-V400w** carries out such measurements directly or under remote mode through the optional unit **SOLAR-02, synchronized with main unit**. **I-V500w** can effect measurements at the inverter, while **SOLAR-02** simultaneously detects environmental values close to modules **without using long cable extensions**.

## Friendly use with possibility of continuous updating of PV modules

**I-V500w** manages a **database of PV modules**, which can be updated at any time both via the management software and directly on the instrument through the user interface.

## Very accurate measurements even using cable extensions

Current and voltage measurements on modules or strings are effected with the 4-terminal method, which allows extending measuring cables without requiring any resistance compensation, so providing **accurate and precise measurements**.



### Test outcome: OK or NOT OK

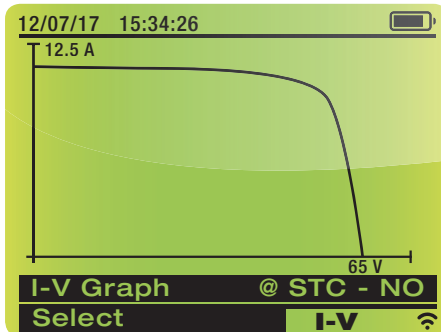
**I-V500w** compares the measured values with the values declared by the module manufacturer, **immediately providing the test result**.

### Functions

- Measurement of output voltage from module/string up to 1500V\* DC
- Measurement of output current from module/string up to 15A\*\*
- Measurement of solar irradiation [W/m<sup>2</sup>] with reference cell HT304N
- Measurement of temperature, automatic or by means of probe PT300N
- Measurement of output DC and nominal power from module/string
- Numerical and graphical display of I-V characteristic
- Measurement of the resistance of photovoltaic module series
- Mechanical inclinometer for incidence angle of solar irradiation
- 4-terminal measuring method
- Comparison with standard conditions (STC 1000 W/m<sup>2</sup>, 25°C)
- Evaluation of testing result: OK / NO
- Management of up to 30 types of modules in the internal database
- Internal memory for data saving
- Recalling results on the display
- Optical/USB port for PC connection
- Help on line on the display

\*1500V only I-V500w

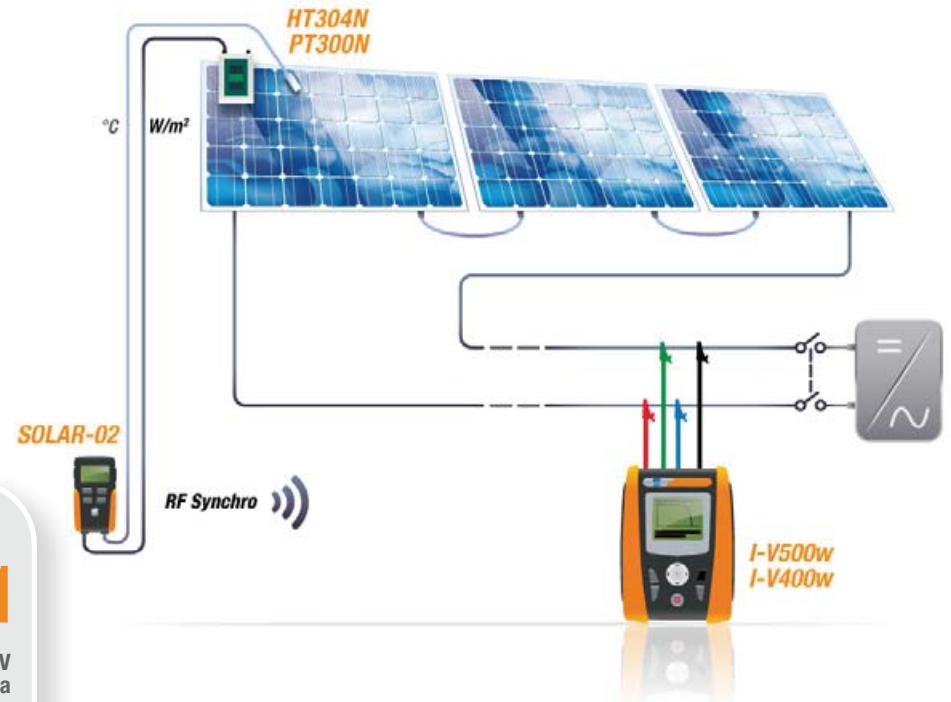
\*\*1500V\10A or 1000V\15A



MEM	FLD	STR	MOD
001	021	001	134
002	022	002	135
003	023	003	136
004	024	004	137
<b>005</b>	<b>025</b>	<b>005</b>	<b>138</b>
006	026	006	139
007	027	007	140
008	028	008	141

Select MEM I-V

**I-V500w 1**  
 Detection of IV characteristic on a string of PV modules through remote measurement of radiation and temperature



**I-V500w 2**  
 Direct measurement of IV characteristic on a string of PV modules

