

# PVCHECKs

MULTIFUNCTION DEVICE FOR COMMISSIONING TESTS OF ELECTRIC SAFETY AND PERFORMANCE OF A PHOTOVOLTAIC SYSTEM

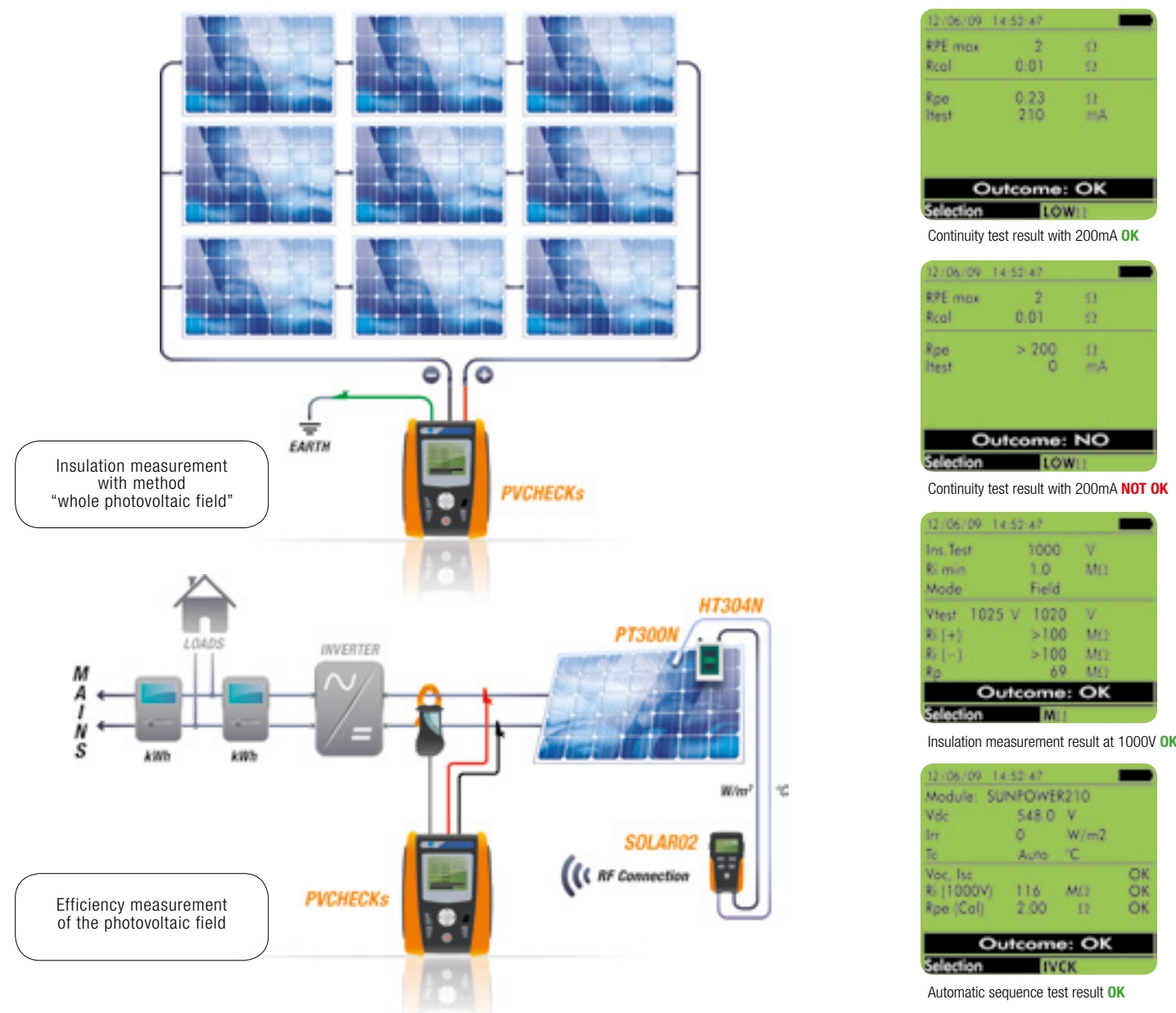
Automatic test in a sequence of:

- **Measurement of insulation** up to 1000VDC
- **Open-circuit voltage** and **short-circuit current Voc/Isc**
- **Continuity of protective conductors** with 200mA

The multifunction device PVCHECKs allows quickly and safely carrying out the commissioning tests provided for a PV system (section in DC) and the functional test of modules/strings the system consists of according to the requirements of Standard IEC/EN62446.

When testing safety, PVCHECKs is a real innovation, since it is capable of measuring insulation of a module, string or of a whole photovoltaic field (IEC/EN62446) with no need to use an external switch to short-circuit the positive and negative terminals.

PVCHECKs also allows checking the functionality of the connections and of the strings in a photovoltaic field, according to the provisions of standard IEC/EN62446 by measuring the open circuit voltage and the short-circuit current at operating conditions (OPC) and referred to STC (via the optional measurement of irradiation, also with the use of optional accessories SOLAR02 and HT304N), providing an immediate result as regards the measurement just carried out, both in absolute terms and by comparison with the previously tested strings. Finally, PVCHECKs also allows analyzing the performance of the photovoltaic field (DC) under operating conditions (therefore connected to the inverter) with the use of optional accessories SOLAR02 and HT304N, providing an indication of the generated power and of the performance of the field itself.



## Functions

### Maintenance of photovoltaic system

- Continuity of protective conductors with test current 200mA
- Insulation measurement with test voltage 250,500 and 1000VDC
- Open-circuit voltage (VOC) measurement up to 1000V DC
- Short-circuit current (ISC) measurement up to 15A DC
- DC voltage - DC current - DC power measurement
- Measurement of irradiation [W/m²] through reference cell HT304N
- Environmental and photovoltaic module temperature measurement through PT300N probe
- Use of compensation relationships Cells/Environment on Pdc
- Measurements always compared to the values declared by the module's manufacturer
- Internal database for managing up to 30 PV modules (30.000 modules by software)
- Test measurement of string operation
- Mechanical inclinometer for verifying the correct inclination of sun rays
- Result for every measurement OK/NO
- Internal memory and USB output for PC connection
- Help on line on the display

### Efficiency measurements of the photovoltaic system

- Efficiency measurement of the photovoltaic field (DC side)

## Main features

Display:	LCD, 128x128pxl, with backlight
Power supply:	6x1.5V alkaline batteries type AA LR06
Auto power off:	after 5 minutes
Internal memory:	256kBytes
PC interface:	optical/USB
Safety:	IEC/EN61010-1
Safety of accessories:	IEC/EN61010-031
Measurements:	IEC/EN 62446
Insulation:	Double insulation
Pollution level:	2
Overvoltage category:	CAT III 1000VDC (to earth) Max 1000V between inputs
Size:	235x165x75mm
Weight (batteries included):	1.2kg

## Accessories provided

HT4004	Standard 10-100A DC clamp, diameter 30mm
KITGSC4	Set of 4 cables + 4 alligator clips
KITPCMC3	Set of 2 adapters with connectors MC3
KITPCMC4	Set of 2 adapters with connectors MC4
TOPVIEW2006	Windows software + optical/USB C2006 cable
BORSA2051	Soft carrying bag
	ISO9000 calibration certificate
	User manual and quick guide

## Optional accessories

PT300N	PT1000 probe for PV modules temperature
SOLAR02	Remote unit for Irradiation/Temperature measurement
HT304N	Reference cell for irradiation measurement
M304	Mechanical inclinometer
SP-0400	Shoulder strap to use the device with free hands
KITPVEXT25M	Set of 2 banana cables 4mm, Green/Black, 25m
606-IECN	Connectors with magnetic terminal