



**NEW**

# PV CHECK

MULTIFUNCTION INSTRUMENT TO CHECK SAFETY, PARAMETERS AND PERFORMANCE OF A PV PLANT



*Your single source for PV testing equipment*

# PVCHECK

## MULTIFUNCTION INSTRUMENT TO CHECK SAFETY, PARAMETERS AND PERFORMANCE OF A PV PLANT

The IEC/EN62446 describes the minimum commissioning tests, inspection criteria and documentation expected to verify the safe installation and correct operation of a PV system. Thanks to his experience, HT is pleased to introduce the PVCHECK, the first field instrument for safety and performance measurements on photovoltaic installations, as required by the guideline IEC/EN62446 (Section DC).

PVCHECK runs:

- the continuity of protective earthing and/or equipotential bonding conductors;
- the insulation resistance of the DC circuits of modules, strings, and PV fields according to methods 1 and 2 of the IEC/EN62446 **even on live circuits without the need to use an external switch to short-circuit the positive and negative terminals. PVCHECK automatically identifies which pole cable (either positive or negative) eventually has a poor insulation;**
- the polarity test;
- the string open circuit voltage test;
- the string current test (short circuit current and operational current).

Each test result and measure is compared to the standards to provide an easy to understand OK/NO result.

Moreover, PVCHECK provides the automatic testing sequence (**AUTO function**) to measure the continuity of protective earthing and/or equipotential bonding conductors, the insulation resistance of the DC circuits,

the polarity, the string open circuit voltage, and the string current. The test are performed in sequence providing the overall result (OK/NO) as well as the single tests results.

Thanks to its advanced technology, PVCHECK is the only instrument performing the insulation test even on live circuits. A whole PV field can be tested at once. Safely and quickly.

PVCHECK also verifies the connections and the string mismatch with two measurement methods:

- by the comparison among the strings' open circuit voltages and short circuit currents;
- by comparing the measured open circuit voltage and short circuit current to the values provided by the manufacturer of the modules (this measurement requires the optional accessories HT304N and PT300N to measure the solar radiation and the temperature of the modules).

PVCHECK displays real time results (OK/NO).

PVCHECK also measures the performance of a PV array under OPC (while connected to the inverter) providing an indication of the power generated and the efficiency of the array as specified by IEC/EN62446.



### PVCHECK: safety checks

PVCHECK verifies the continuity of the protective conductors (and associated connections) and measures the insulation resistance of the active conductors on a module, a string, or a photovoltaic field in accordance to IEC/EN62446 guideline, without the need of any external switch to short-circuit the positive and negative terminals.

### PVCHECK: functionality checks

PVCHECK verifies the functionality of a PV string in accordance to the EN62446 guideline by measuring the open circuit voltage and the short-circuit current at operating conditions and extrapolating the results to the STC (by measuring the solar radiation). Finally, it displays the measurements and a comparison to the PV strings previously tested.

### PVCHECK: performance checks

PVCHECK analyses the performance of a PV array (DC) under the operating conditions (connected to the inverter) displaying the generated power and the efficiency of the PV plant in accordance to the IEC/EN62446.

