



# PVCHECKS-ONE

ADVANCED INSTRUMENT FOR ELECTRICAL SAFETY TESTING  
AND TROUBLESHOOTING IN PV SYSTEMS UP TO 1000V/30A



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- A single, simple “GO” to run **Commissioning Tests**
- Tests on monofacial and **bifacial** modules (also high efficiency) up to **1000V / 30A**
- All electrical safety tests, continuity, polarity, Voc, Isc, insulation, **on active systems**
- **Ground fault locator (GFL function)** to identify insulation problems between modules
- **AUTOSTART/AUTOSAVE mode** to test all strings of a field switchboard in sequence.
- **OPT function** for insulation testing on MLPE-equipped PV strings (including optimizers and RSDs), allowing measurements to be performed **without the need to disconnect the MLPE devices**

**OPT**  
FUNCTION

**GFL**  
FUNCTION

**1000V**  
**30A**

**DUAL**  
MODE  
Test

**MONO AND**  
**BIFACIALS**  
MODULES

**OK**  
CERTIFICATE OF  
CALIBRATION



**PRODUCT**  
**DATA SHEET**



# TECHNICAL DATA SHEET

## TECHNICAL SPECIFICATIONS

|                                                                                                                                                                      |                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Measurement of open-circuit voltage Voc on PV modules and strings                                                                                                    | 1000V DC                                                                 |
| Measurement of short-circuit current Isc on PV modules and strings                                                                                                   | 30A DC                                                                   |
| Polarity check                                                                                                                                                       | ●                                                                        |
| Use of SOLAR03 remote unit with Bluetooth connection                                                                                                                 | ●                                                                        |
| Front irradiation measurement                                                                                                                                        | ● also with SOLAR03 remote unit and PT305 probe (optional accessories)   |
| Direct measurement of the module temperature                                                                                                                         | ● also with SOLAR03 remote unit and PT305 probe (optional accessories)   |
| PV string/field insulation measurement with test voltages 100, 250, 500, 1000VDC                                                                                     | ●                                                                        |
| P.I. polarisation index measurement                                                                                                                                  | ●                                                                        |
| Dielectric absorption ratio D.A.R measurement                                                                                                                        | ●                                                                        |
| GFL function to locate the position of the low-insulation module within a string                                                                                     | ●                                                                        |
| OPT function for insulation testing on PV strings in the presence of MLPE devices, such as optimizers and RSDs, without the need to disconnect them from the modules | ●                                                                        |
| Protective conductor continuity testing with test current 200mA                                                                                                      | ●                                                                        |
| Measurement category                                                                                                                                                 | CAT III 1000V AC, CAT III 1000VDC<br>Max 1000VAC, 1000VDC between inputs |
| Backlit LCD display                                                                                                                                                  | ●                                                                        |
| Internal memory                                                                                                                                                      | Max 999 tests                                                            |
| Integrated Wi-Fi connection for PC connectivity                                                                                                                      | ●                                                                        |
| Optical/USB serial port for connection with PC                                                                                                                       | ●                                                                        |
| Management of customisable internal PV module database                                                                                                               | ● (Max 64 modules)                                                       |
| Auto power off                                                                                                                                                       | ●                                                                        |
| Online help on display                                                                                                                                               | ●                                                                        |

## GENERAL SPECIFICATIONS

|                             |                                                                                    |
|-----------------------------|------------------------------------------------------------------------------------|
| Dimensions (L x W x H)      | 235 x165 x 75mm                                                                    |
| Weight (batteries included) | 1.2 kg                                                                             |
| Operating temperature       | from -10°C to 50°C                                                                 |
| Operating humidity          | <80% RH                                                                            |
| Protection rating           | IP40                                                                               |
| Power supply                | 6x1.5V type AA alkaline batteries or<br>6x1.2V type AA rechargeable NiMH batteries |

(\*) This characteristic is only available for certain models

# ACCESSORIES

## STANDARD ACCESSORIES

|                                                               |                                                                 |
|---------------------------------------------------------------|-----------------------------------------------------------------|
| KITGSC4                                                       | Set of 4 cables banana 4mm, 2m + 4 alligator clips              |
| KITPCMC4                                                      | Set of 2 adapters with connector compliance MC4 and single wire |
| C2006-0                                                       | Optical/USB connection cable                                    |
| YABAT0007HT0                                                  | Alkaline battery 1.5V, type AA LR06 (6 pcs)                     |
| VA507                                                         | Hard carrying case                                              |
| SP-5100                                                       | Set of bells for slinging the instrument over one's shoulder    |
| Quick start guide                                             |                                                                 |
| Calibration report                                            |                                                                 |
| Complete user manual and management software available online |                                                                 |

## OPTIONAL ACCESSORIES

|                |                                                                                                                                                          |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| SOLAR03        | Remote unit                                                                                                                                              |
| PT305          | PT1000 probe for cell temperature measurement                                                                                                            |
| HT305          | Reference cell for irradiance measurement with set of fixed screws                                                                                       |
| M304           | Mechanical inclinometer for detection of sun incidence angle                                                                                             |
| SP-2002        | Strap with magnetic termination for SOLAR03                                                                                                              |
| KITPVPROEXT20  | Set of 2 cables banana male/banana female 4mm, Red/Black, 20m                                                                                            |
| KIT2TIPS15     | Set of 2 cables with test leads/MC4, CAT III 1500V, 25cm, Red/Black                                                                                      |
| YABAT0003000   | Rechargeable battery NiMH, 1.2V, type AA                                                                                                                 |
| YABAT0004001   | External charger                                                                                                                                         |
| KITBIFACIALONE | 2 × HT305, reference cells for irradiance measurement, and SOLAR03, remote unit for measurement of irradiance, temperature and inclination of PV modules |