

IPS 4050/3050

Tph Portable Standard



The IPS 4050/3050 is a portable standard to verify active and reactive three phase meters (3 or 4 wires) and single phase meters (2 or 3 wires). It's designed to work in the field or in the laboratory.

Its main relevant specifications are:

- U_{RANGE} : 2 - 600V. Accuracy 0.05/0.02%
- I_{RANGE} in direct connection: 2 mA - 20A. Accuracy 0.05/0.02%
- Connection with current clamps: Range 0.01 A - 100A. Accuracy: 0.15%. Other Current clamps as an option: 200A, 500A and 2000A.
- AC voltage auxiliary supply (85V to 450 V, 50/60 Hz, 5-20 VA).
- DC voltage supply Li ion battery with 10h continuously working.
- Supply from the measuring circuit itself.
- Accuracy in direct connection:
 - Active energy; better than 0.1/0.05%,
 - Reactive energy; better than 0.2/0.1%
- Accuracy with current clamps:
 - Active energy; better than 0.2%,;
 - Reactive energy: better than 0.4%,
- Phase angle: 0 to 359.999 °. Accuracy: 0.005°
- Power factor: 0-+/-0.9999. Accuracy: +/- 0.01
- Temperature influence: lower than 10 ppm/°C
- Weight: 1.9 / 9.5 Kg (with accessories)
- Size: 220x138x61 / 460 x 370 x 220 (mm, L x W x H) with the carry case.

Functions

The IPS3050 has a 640x480 High Res LCD screen with lighted background. It incorporates a 19 keys keyboard with which is very easy to access to the following main functions:

Measuring mode: gives information about the parameters of the line under test, like:

- Phase-neutral and phase-phase voltage.
- Phase current.
- Phase and three-phase active power.
- Phase and three-phase reactive power.
- Phase and three-phase apparent power.
- Phase and three-phase power factor.
- Phase angle and power factor between V and I
- Frequency.

Vector diagram: draws the line vector diagram.

Wave form: shows the wave form of current and voltage.

Meters test: Performs the test of up to two meters simultaneously. The data field configurable in this function are the serial number, the meter type (active or reactive), the constant, the divisor factor (for HF), the type of test (automatic/manual) and the number of disks revolutions or pulses of each test.



The IPS3050 can store up to 1000 data groups. Each data group includes voltage, current, power, phase angle, error and other AC parameter analyzed. Has an autonomy higher than 20 hours (non-continuously working), 10 hours continuously.

Harmonics: makes a graphic or numeric analysis of the THD. Up to the 63rd harmonic.

The IPS3050 has a RS232 interface to communicate with a PC. The data output are of three types:

- Screen copy, to print the real time test values (voltage, current and power).
- Output of real-time test data, that are transmitted out instantly.
- Output of recorded data.

The IPS3050 is delivered with the following components:

- Three units of 100A current clamps transformers, that allow the connection of wires up to Ø18 mm (other CCT and sizes available).
- Direct connection current up to 20A.
- Voltage wires with adaptors and clamps.
- Scanning head for electronic and electromechanical meters with support.
- Manual switch for manual tests.
- DC power module (charged in 4 hours).
- DC power module charger.
- Data transfer software.
- User's Guide.
- Thermal printer (as an option).
- 1 ABS carrying case.



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