Portable Appliance Testers

PAT-10 / 2E / 2

index: WMGBPAT10 / WMGBPAT2E / WMGBPAT2

LED test results indication (PASS / FAIL)

Quick access to the measurement procedures

Full autotest procedure after pressing START

START

Visual test

Measurements

Saving to memory/printing

IP40 WiFi | LED | CAT II 300 V | R_{PE} 10 A

PAT-10

Security at hand

Features

- LED test results indication
- quick access to the measurement procedures
- compact design and ergonomic soft case
- automatic measurement range selection
- measurement of protective conductor resistance with the currents: 200 mA, 10 A (**PAT-10**)
- insulation resistance measurement: 250 V (**PAT-2E**, **PAT-10**), 500 V
- PRCD trip time testing
- measurement of equivalent, touch and differential leakage current
- measurement of mains voltage
- IEC lead test
- saving results to the memory
- printing labels with measurement results (option)
- works with software: **Sonel Reader** and **Sonel PAT Analysis**
- works with **Sonel PAT Analysis Mobile** application

Capabilities

The PAT-10, PAT-2E and PAT-2 meters are an innovative combination of small dimensions (allowing full mobility) with advanced measuring systems, providing **fully automatic measurements** of electrical devices, IEC cables and extension cords - also those with PRCD.

A set of tests is made with just one press of the START button. Configuration options allow to **modify meter's work mode**, and thus - to better tailor it to user's needs.

PAT instruments are equipped with a manual measurement mode. It is useful in situations where individual test is sufficient instead of a complex measurement sequence.

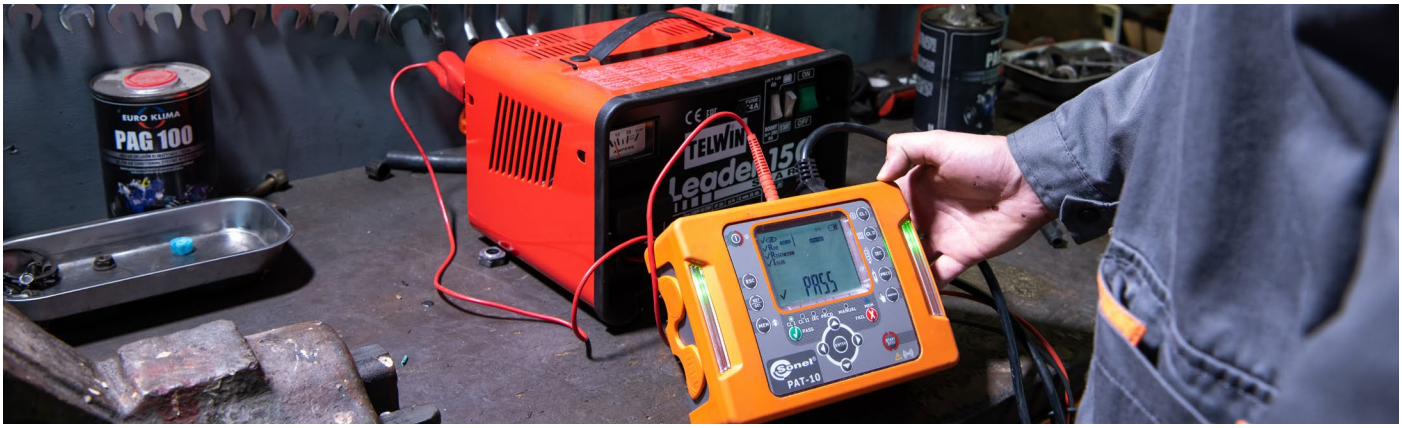
All instruments enable basic tests **without external power supply**: simplified test sets are available in battery mode.

Small dimensions, light weight and a specially designed bag for the meter and accessories provide both convenience and high mobility. Wireless communication with the printer allows free measurement place arrangement without tangled wires. Meter's memory and integration with PC software additionally extends the functionality of the instruments.

Standards

The tester can be used to test the equipment performance in accordance with standards:

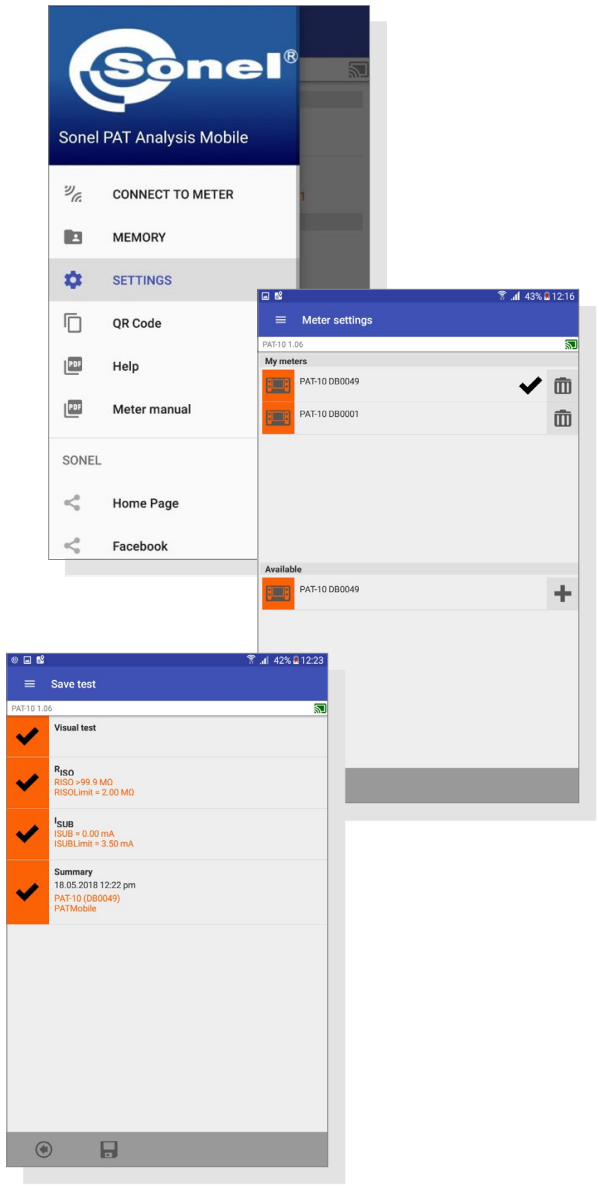
- EN 60745-1 Hand-held motor-operated electric tools. Safety. General requirements
- EN 61029 Safety of transportable motor-operated electric tools - General requirements
- EN 60335-1 Household and similar electrical appliances -Safety - Part 1: General requirements
- EN 60950 Safety of information technology equipment (IT Equipment)
- AS/NZS 3760:2010 In-service safety inspection and testing of electrical equipment
- VDE 0404-1 Prüf- und Messeinrichtungen zum Prüfen der elektrischen Sicherheit von elektrischen Geräten. Teil 1: Allgemeine Anforderungen
- VDE 0404-2 Prüf- und Messeinrichtungen zum Prüfen der elektrischen Sicherheit von elektrischen Geräten. Teil 2: Prüfeinrichtungen für Prüfungen nach Instandsetzung, Änderung oder für Wiederholungsprüfungen
- VDE 0701-0702 Prüfung nach Instandsetzung, Änderung elektrischer Geräte. Wiederholungsprüfung elektrischer Geräte. Allgemeine Anforderungen für die elektrische Sicherheit



Sonel PAT Analysis Mobile

The mobile application extends the capabilities of Sonel PAT-10, PAT-2E, PAT-2 testers series. It available on devices with Android operating system (version 5.0+). Sonel PAT Analysis Mobile:

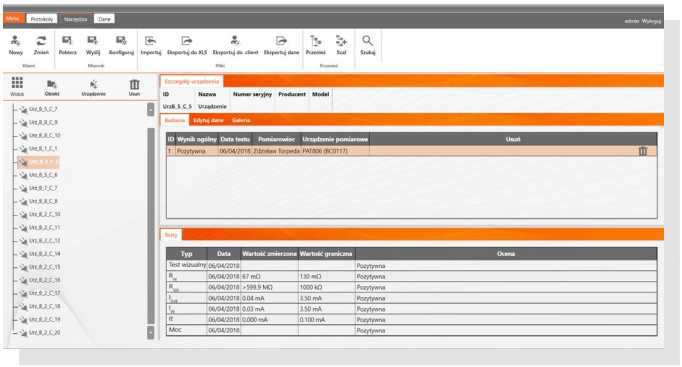
- connects wirelessly to the selected tester and printer,
- downloads measurement results,
- saves results to PAT memory structure (client, appliances and measurement data),
- prints reports and QR codes,
- reads QR codes of the PAT system,
- sends data via internet.



Sonel PAT Analysis

This software is intended for companies that perform safety measurements of electrical equipment.

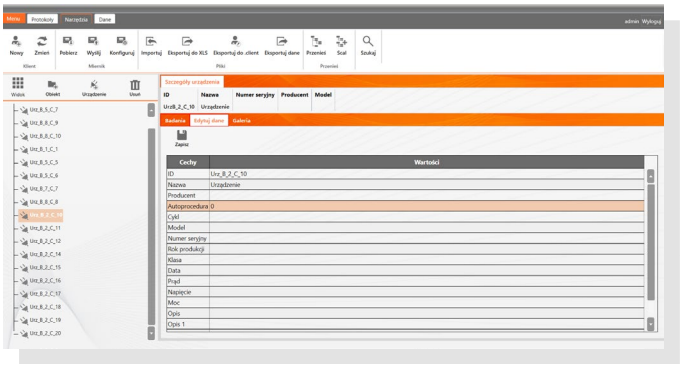
Applications are compatible with Sonel PAT-series testers. Data saved by the meter is entered into the test report for the selected item of equipment.



- Perfect for production plants, electrical tool rental services, repair and maintenance services, etc.
- Hierarchical data entry structure - a device is assigned to a specific company or department.
- Capability of gathering information about a given piece of equipment.
- Tracking the test history of a device.
- Capability of advanced meter configuration via software.
- Label printing on standard adhesive papers.
- Capability of creating a custom measurement standard using the report editor.
- Capability of scheduling measurements - every device contains a “Measurement cycle” list - the application automatically displays devices whose testing deadline is approaching or has expired.

Report printing according to the following standards:

- VDE 0701:1, VDE 0701:200, VDE 0701:240, VDE 0701:260, DIN VDE 0702, EN 61010, EN 60335, EN 60950, IEC 60601, EN62353



Standard accessories

Test lead 1.2 m, 1 kV (terminated in a crocodile clip) red

WAPRZ1X2REBK

Mains power cable 230 V (IEC C13 orange plug)

WAPRZ1X8REIEC

USB cable

WAPRZUSB

2 x Fuse 16 A, 5 x 20 mm (PAT-2E, PAT-10)

WAPOZB16PAT

M-12 carrying case

WAFUTM12

Optional accessories

Three-phase socket adapter 16 A

5P
WAADAPAT16P

5P switchable
WAADAPAT16PR

4P
WAADAPAT16C

4P switchable
WAADAPAT16CPR

Three-phase socket adapter 32 A

5P
WAADAPAT32P

5P switchable
WAADAPAT32PR

4P
WAADAPAT32C

4P switchable
WAADAPAT32CPR

3P industrial socket adapter

16 A
WAADAPAT16F1

32 A
WAADAPAT32F1

Test lead 1.2 m CAT III/1000V CAT IV/600V (2.5 mm2 / banana plugs) red

WAPRZ1X2REBB2X5

Pin probe 1 kV CAT III/1000 V CAT IV/600 V (banana socket) red

WASONREOGB1

Brush probe (banana socket)

WASONSZ1

Crocodile clip, red, 1 kV, 20 A

WAKRORE20K02

Report / barcode printer (Wi-Fi / D3, portable)

WAADAD3

Accessories for Brother printer

Ink tape
WANAKD3

Rechargeable battery
WAAKU19

IEC/Uni Schuko adapter for extension cords testing

WAADAPATIEC2

IEC 60320 C6 to C13 adapter

WAADAPATIEC1

Sonel PAT Analysis

WAPROSONPAT3

Specifications

Model	PAT-10	PAT-2E	PAT-2
Visual test	√	√	√
Resistance measurement of PE conductor I = 200 mA	0.01…19.99 Ω	0.01…19.99 Ω	0.01…19.99 Ω
Resistance measurement of PE conductor I = 10 A	0.01…1.99 Ω	-	-
Insulation resistance measurement U = 250 V	0.25…99.9 MΩ	0.25…99.9 MΩ	-
Insulation resistance measurement U = 500 V	0.50…99.9 MΩ	0.50…99.9 MΩ	0.50…99.9 MΩ
Measurement of substitute leakage current	0.01…19.9 mA	0.01…19.9 mA	0.01…19.9 mA
Measurement of touch leakage current	0.001…4.999 mA	0.001…4.999 mA	-
Measurement of differential leakage current	0.10…19.9 mA	0.10…19.9 mA	-
IEC cord test (R_{ISO}, R_{PE}, polarity)	√	√	√
PRCD test (tripping time for $I_{\Delta n}$: x1/x5; 0° and 180°)	10 mA, 30 mA	10 mA, 30 mA	-
Built-in memory for results / transmission to computer	√	√	√
Wi-Fi	√	√	√
Compatible with printer	√	√	√
Meter configuration from computer	√	√	√
Power supply	Network power supply: 220 V; 230 V; 240 V 50/60 Hz Built-in rechargeable battery	Network power supply: 220 V; 230 V; 240 V 50/60 Hz Built-in rechargeable battery	Built-in rechargeable battery (measurements can be performed during charging)
Measurement category CAT II 300 V	√	√	√
Weight	ca. 1.40 kg		
Dimensions	200 x 180 x 77 mm