

## PORTABLE APPLIANCE TESTER

# PAT-800 PAT-805



PAT-800 and PAT-805 digital meters are used to measure the parameters of portable electrical equipment (power tools, white goods, etc.) which determine their safety: **resistance of protective conductors, insulation resistance, continuity of connections, leakage current, power.**

**PAT-800 and PAT-805 can be used to test the equipment performed 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)

#### Basic functions:

- measurement of protective conductor resistance with the currents: 200mA, 10A (PAT-805), 25A (PAT-805) (protection class I),
- measurement of insulation resistance – three measurement voltages: 100V (PAT-805), 250V (PAT-805) and 500V
- measurement of equivalent leakage current,
- measurement of PE leakage current,
- measurement of residual leakage current,
- measurement of touch leakage current,
- measurement of equivalent leakage current,
- measurement of power,
- measurement of current consumption,
- IEC lead test,
- fuse test,
- check of the L-N circuit test,
- measurement of mains voltage and frequency.

#### Other:

- automatic measurement range selection,
- 990 memory cells for measurement results with option of uploading to a PC through a USB port or printing,
- professional software for data processing and reporting,
- cooperation with a barcode reader and printer,
- supports pendrive flash memory,
- large and clear display with backlight,
- ergonomic operation.

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## Measurement of L-N circuit resistance

Display range	Resolution	Accuracy
0...999Ω	1Ω	±(5% m.v. + 5 digits)
1,00...4,99kΩ	0,01Ω	

- test voltage: 4...8V AC
- short-circuit current: max. 5mA

## Measurement of protective earth conductor resistance I=200mA (protection class I)

Display range	Resolution	Accuracy
0,00...0,99Ω	0,01Ω	±(4% m.v. + 2 digits)
1,00...19,99Ω		±(4% m.v. + 3 digits)

- test current: ≥200mA for R= 0,2...1,99Ω
- upper limit adjustable in the 10mΩ ... 1,99Ω range with the 0,01Ω resolution
- measurement time adjustable in 1...60s range, with the 1s resolution

## Measurement of protective earth conductor resistance I=10A (protection class I, only PAT-805)

Display range	Resolution	Accuracy
0...999mΩ	1mΩ	±(3% m.v. + 4 digits)
1,00...1,99Ω	0,01Ω	±(3% m.v. + 40 digits)*

- \* for two-wire measurement
- technical method
- test current: ≥10A for R≤0,5Ω
- limit adjustable in the 10mΩ ... 1,99Ω range with the 0,01Ω resolution
- measurement time adjustable in 1...60s range, with the 1s resolution

## Measurement of protective earth conductor resistance I=25A (protection class I, only PAT-805)

Display range	Resolution	Accuracy
0...999mΩ	1mΩ	±(3% m.v. + 4 digits)
1,00...1,99Ω	0,01Ω	±(3% m.v. + 40 digits)*

- \* for two-wire measurement
- technical method
- measurement with sinusoidal current of the mains frequency, test current: ≥25A for R≤0,2Ω
- limit adjustable in the 10mΩ ... 1,99Ω range with the 0,01Ω resolution
- measurement time adjustable in 1...60s range, with the 1s resolution

## Measurement of insulation resistance

Measurement range according to IEC 61557-2 for:

**U<sub>n</sub>=100V:** 100kΩ...99,9MΩ (only PAT-805)

**U<sub>n</sub>=250V:** 250kΩ...199,9MΩ (only PAT-805)

**U<sub>n</sub>=500V:** 500kΩ...599,9MΩ

U <sub>n</sub>	Range	Resolution	Accuracy
100V	0...1999kΩ	1kΩ	±(5% m.v. + 8 digits)
	2,0...19,99MΩ	0,01MΩ	
	20,0...99,9MΩ	0,1MΩ	
250V	0...1999kΩ	1kΩ	
	2,00...19,99MΩ	0,01MΩ	
	20,0...199,9MΩ	0,1MΩ	
500V	0...1999kΩ	1kΩ	
	2...19,99MΩ	0,01MΩ	
	20,0...599,9MΩ	0,1MΩ	

- limit adjustable in the: 0.01...9.9mA range with the 0.1MΩ resolution
- adjustable measurement time: continuous measurement (Cont), or from 4s to 3min with 1s resolution
- automatic discharge of the capacity of the tested device after measurement
- protection against measuring live devices
- output current max. 1.4mA

## Measurement of PE and residual leakage current:

Display range	Resolution	Accuracy
0,00...3,99mA	0,01mA	±(5% m.v. + 2 digits)
4,0...19,9mA	0,1mA	

- limit adjustable in the 0.01...9.9mA range with the 0.01mA/0.1mA resolution
- adjustable measurement time: continuous measurement (Cont), or 1...60s with 1s resolution
- in the middle of the measurement time, the meter automatically switches the polarity at the measuring terminal and displays the greater value

## Measurement of equivalent leakage current:

Display range	Resolution	Accuracy
0,00...3,99mA	0,01mA	±(5% m.v. + 2 digits)
4,0...19,9mA	0,1mA	

- limit adjustable in the 0.01...9.9mA range with the 0.01mA/0.1mA resolution
- adjustable measurement time: continuous measurement (Cont), or 1...60s with 1s resolution
- open circuit voltage 25...50V

## Measurement of touch leakage current:

Display range	Resolution	Accuracy
0,00...4,999mA	0,001mA	±(5% m.v. + 3 digits)

- limit adjustable in the 0.01...9.9mA range with the 0.01mA/0.1mA resolution
- adjustable measurement time: continuous measurement (Cont), or 1...60s with 1s resolution
- current measurement band 20Hz...100kHz

## Measurement of power S:

Display range	Resolution	Accuracy
0...999VA	1VA	±(5% m.v. + 3 digits)
1...3,99kVA	0,01kVA	

- adjustable measurement time: continuous measurement (Cont), or 1...60s with 1s resolution

## Measurement of current consumption:

Display range	Resolution	Accuracy
0,00...15,99A	0,01A	±(2% m.v. + 3 digits)

- adjustable measurement time: continuous measurement (Cont), or 1...60s with 1s resolution

## Voltage measurement:

Display range	Resolution	Accuracy
187,0...265,0V	0,01V	±(2% w.m. + 2 cyfry)

## Conforms to the EMC requirements according to EN 61326-1:2006 and EN 61326-2-2:2006.

### Electrical safety:

- insulation according to EN 61010-1 and IEC 61557
- measurement category II 300V acc.to EN 61010-1
- enclosure protection rating acc. to EN 60529: IP40

### Other technical specification:

- power supply 187...265V, 50Hz
- load current max. 16A (230V)
- measurement results memory 990 cells
- data transmission to PC łącząc USB
- dimensions: 330 x 235 x 120mm
- weight PAT-800 about 4,05kg, PAT-805 about 4,75kg
- operating temperature: 0...+40°C
- storage temperature: -20...+70°C
- humidity 20...80%