Insulation Tester PCE-ITE 50

Robust Insulation Tester/ Electrical resistance / Earthing resistance/

Grinding impedance / Voltage measurement / Low resistance measurement/ RCD test

The PCE-ITE 50 is a robust installation tester with a large 3.5" TFT color LCD display.The installation tester PCE-ITE 50 also offers, in addition to the various measuring modes such as insulation resistance, grounding resistance, loop impedance, voltage, low-impedance measurement and RCD test with the camera function, the possibility of documenting suitable photos with the measurements.With the installation tester PCE-ITE 50, you can ensure that fixed installations are safely and correctly installed.Thanks to the dual display, the intuitive symbols and the high viewing angle, you can comfortably and quickly perform your measurements with the PCE-ITE 50 installation tester. With the low-resistance measurement of the PCE-ITE 50 installation tester, you can check grounding conductors, potential equalization rails and protective conductors for low impedance.

The measuring range for low-resistance measurement with the installation teser PCE-ITE 50 is in the range of 0 - 2000 Ω with a resolution of 0.001 - 1 Ω. Probably the most important measurement of the installation tester PCE-ITE 50 is the measurement ofinsulation resistance. Electrical cables are placed under voltage during the insulation measurement in order to detect fault currents, Which generate material migration or heat.In most cases, these current faults are so minimal that they are not detected by protective devices and in the worst case they can lead to a fire.The installation tester PCE-ITE 50 can carry out installation measurement with a test voltage of 125V, 250V, 500V or 1000V.The load current is in each case 1 mA. The PCE-ITE 50 installation tester is independent of the mains supply.In order to bring all systems and circuits of a power supply system to a common potential (ground reference or potential reference) and to protect against short-circuit currents and overvoltages, the earthing resistor should be as low-impedance as possible.With a measuring range of 0 ... 2000 Ω with a resolution of 0.01 ... 1 Ω, the installation tester DT-6650 offers all the prerequisites for a meaningful measurement of the grounding resistance.

- 3.5" color TFT LCD display
- Loop resistance L-N, L-PE and N-PE
- Adjustable FI test current
- SD card and Bluetooth
- Dual display
- Good / bad FI test
- Low Ohm measurement
- Up to 1000V terminal voltage

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Specifications

Isolation test

Terminal voltage	Measuring range	Resolution	Accuracy	Load current	Short circuit current
125V (0 ... 10 %)	0,125 ... 4 MΩ	0.001 MΩ	± (2% + 10 digits)	1-mA @ Last 125 kΩ	<= 1-mA
	4,001 ... 40 MΩ	0.01 MΩ	± (2% + 10 digits)		
	40,01 ... 400 MΩ	0.1 MΩ	± (4% + 5 digits)		
	400,1 ... 1000 MΩ	1 MΩ	± (5% + 5 digits)		
250V (0 ... 10 %)	0,125 ... 4 MΩ	0.001 MΩ	± (2% + 10 digits)	1-mA @ Last 250 kΩ	<= 1-mA
	4,001 ... 40 MΩ	0.01 MΩ	± (2% + 10 digits)		
	40,01 ... 400 MΩ	0.1 MΩ	± (3% + 2 digits)		
	400,1 ... 1000 MΩ	1 MΩ	± (3% + 2 digits)		
500V (0 ... 10 %)	0,125 ... 4 MΩ	0.001 MΩ	± (2% + 10 digits)	1-mA @ Last 500 kΩ	<= 1-mA
	4,001 ... 40 MΩ	0.01 MΩ	± (2% + 10 digits)		
	40,01 ... 400 MΩ	0.1 MΩ	± (3% + 2 digits)		
	400,1 ... 1000 MΩ	1 MΩ	± (4% + 5 digits)		
1000 V (0 ... 10 %)	0,125 ... 4 MΩ	0.001 MΩ	± (3% + 10 digits)	1-mA @ Last 1 MΩ	<= 1-mA
	4,001 ... 40 MΩ	0.01 MΩ	± (2% + 10 digits)		
	40,01 ... 400 MΩ	0.1 MΩ	± (3% + 2 digits)		
	400,1 ... 1000 MΩ	1 MΩ	± (4% + 5 digits)		

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Low Ohm

Measuring range	Resolution	Accuracy	Max. open circuit voltage	Overload protection
2,000 Ω	0.001 Ω	± (1.5% + 30 digits)	5.8V	250 Vrms
20,00 Ω	0.01 Ω	± (1.5% + 3 digits)	5.8V	250 Vrms
200,0 Ω	0.1 Ω	± (1.5% + 3 digits)	5.8V	250 Vrms
2000 Ω	1 Ω	± (1.5% + 5 digits)	5.8V	250 Vrms

Continuity tester

Measuring range	Resolution	Max. open circuit voltage	Overload protection	Short circuit current
2000 Ω	0.01 Ω	5.8V	250 Vrms	>= 200-mA

Grinding resistance

L-PE (Hi-Amp): Load current 4.0 A

Measuring range	Resolution	Accuracy
0.23 ... 9.99 Ω	0.01 Ω	± (4% + 4 digits)
10.0 ... 99.9 Ω	0.1 Ω	± (4% + 4 digits)
100 ... 999 Ω	1 Ω	± (4% + 4 digits)

L-PE (without tripping): Load current 15-mA

Measuring range	Resolution	Accuracy
0.23 ... 9.99 Ω	0.01 Ω	± (5% + 6 digits)
10.0 ... 99.9 Ω	0.1 Ω	± (5% + 6 digits)
100 ... 999 Ω	1 Ω	± (5% + 6 digits)

L-N: Load current 4.0 A

Measuring range	Resolution	Accuracy
0.23 ... 9.99 Ω	0.01 Ω	± (4% + 4 digits)
10.0 ... 99.9 Ω	0.1 Ω	± (4% + 4 digits)
100 ... 999 Ω	1 Ω	± (4% + 4 digits)

RCD Test

RCD (In)	10-mA, 30-mA, 100-mA, 300-mA, 650-mA, 1 A
Factors	x 1/2, x1, x2, x5
Accuracy of the tripping time	± (1% + 1 ms)

Signal form of the test current	Sine (AC), pulse (DC)
Tripping characteristics	G and S
Release time	0° or 180°
Voltage range	194 ... 260V AC (50/60 Hz)
Accuracy of current measurement	± (5% + 2 digits)
RCD Types	Type A, Type B

Voltage measurement

Measuring range	Resolution	Accuracy
80...500 V AC/DC	1 V	± (2 % + 2 digits)

Frequency measurement

Measuring range	Resolution	Accuracy
45...65 Hz	1 Hz	±2 Hz

Grounding measurement

Measuring range	Resolution	Accuracy
0.00...99.99 Ω	0.01 Ω	± (2% + 30 digits)
100.0...999.9 Ω	0.1 Ω	± (2% + 6 digits)
1000...2000 Ω	1 Ω	± (2% + 6 digits)

General specifications

Power supply	8 x 1.2 ... 1.5V AA batteries
Operating time	ca. 15 h
Measurement category	CAT III 600V
Protection class	IP 65
Display	3.5" TFT (320 x 240 Pixel)
Operating environment	0 ... 45°C 0 ... 95% rH, non condensing
Measurements	24.2 x 10.5 x 14.5 cm
Weight	1.56 kg / 3.4 lbs

PAT Tester / Portable Appliance Testing Equipment
PCE-EVSE 300

PAT Tester for charging plugs type 1 and 2 / PP and CP simulation /
Shock-proof socket connection / Direct acceptance of all connections via laboratory plugs

Electromobility is playing an increasingly important role. An important point here are the charging stations for electric vehicles. Special measuring devices are needed to check the function, protective devices and insulation of permanently installed charging stations, also known as wallboxes. Often, measuring devices are already available to perform the required measurements. An PAT Tester is therefore required so that the measuring device can be connected to the charging station.

The PAT Tester is specially designed for this application and already comes with a variety of functions. For example, all lines leaving the charging station are output individually via laboratory plugs. Thus, all lines can be tapped via the PAT Tester. This allows the charging station to be checked for insulation with the help of the EVSE adapter. The EVSE adapter has a shock-proof plug connection. The PAT Tester can be used to check the residual current device.

A charging cable not only contains the supply lines for charging an electric vehicle, but also two interfaces. The electric vehicle communicates with the charging station via the CP line (Control Pilot) and communicates the current status of the electric vehicle. The PP line (Proximity Plug) is used for communication between the connected charging cable and the charging station. The charging cable can thus tell the charging station how many amps it may be loaded with. To test both functions, the PAT Tester is equipped with corresponding simulators.

- CP and PP simulation
- Transport bag included in delivery
- Direct connection for wallboxes
- Adapter with type 1 and type 2 charging plugs
- PE conductor test
- Integrated schock-proof socket

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Specifications

Functions	
PE test (protective conductor)	available, error
PP simulation (charging cable coding)	open, 13 A, 20 A, 32 A, 63 A
CP simulation (communication line)	A, B, C, D, error
Outputs (only for test purposes)	
Measuring connections	L1, L2, L3, N, PE max. 250 / 430 V AC, 10 A laboratory plug
Schuko connection	max. 250 V AC, 10 A
Fuse from the Schuko connection	fuse F 10 A / 250 V, 5 x 20 mm / 0.19 x 0.78"
CP signal output	± 12 V PWM
Further specifications	
Input voltage	1 phase: 250 V AC / 3 phase 430 V AC, 50 / 60 Hz, max. 10 A
Charging cable connector Type 1	AC charging mode 3, compatible with IEC62196-1 Type 1 or SAE J1772 with vehicle connection (Type 1, 5 pin, 1-phase)
Charging cable connector Type 2	AC charging mode 3, compatible with IEC62196-2 Type 1 or SAE J1772 with vehicle connection (Type 2, 7 pin, 3-phase)
Measurement category	CAT II 300 V
Protection class	IP54
Pollution degree	2
Operating conditions	0 ... 40 °C / 32 ... 104 °F, 10 ... 85% RH, non-condensing
Storage conditions	-10 ... 50 °C / 14 ... 122 °F, 10 ... 60% RH, non-condensing
Maximum working height	max. 2000 m / 6561 ft
Dimensions (handheld only)	277 x 109 x 63 mm / 10.9 x 4.3 x 2.4"
Weight	ca. 1 kg / 2.2 lb

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