

MULTIFUNCTION ELECTRICAL INSTALLATIONS METER

MPI-525



2500V!
Insulation
resistance
measurement



CAT IV
300V

IP 54

Standard accessories of the meter MPI-525:

- probe with START button with UNI-SCHUKO (WS-03)
- test lead with banana plug; 1,2m; yellow
- test lead with banana plug; 1,2m; blue
- test lead with banana plug; 1,2m; red
- test lead on a reel with banana plugs; 30m; red
- test lead on a reel with banana plugs; 15m; blue
- USB transmission cable
- pin probe with banana connector; yellow
- pin probe with banana connector; red
- pin probe with banana connector; blue
- test lead with banana plug; 1,8m; 5kV; red
- test shield lead with banana plug; 1,8m; 5kV; black
- pin probe 5kV with banana connector; red
- crocodile clip K04; 5kV; black
- crocodile clip K02; yellow
- crocodile clip K02; red
- earth contact test probe (rod); 0,3m
- carrying case L2
- hanging straps
- battery case LR14 (size C)
- batteries
- calibration certificate

Optional accessories of the meter MPI-525:

- test lead on a reel with banana plugs; 50m; yellow
- test lead on a reel with banana plugs; 25m; blue
- triple phase socket adapter AGT-32P
- triple phase socket adapter AGT-63P
- adapter AUTO-ISO-2500
- RCD breaker testing adapter TWR-1J - universal pin
- probe with UNI-SCHUKO (WS-04)
- earth contact test probe (rod); 0,8m
- software for creation of documentation from electrical measurements "SONEL PE"
- interface for radio transmission OR-1 - receiver
- laboratory certificate

WAAPRZ050YEBBSZ
WAAPRZ025BUBBSZ
WAADAAGT16P
WAADAAGT32P
WAADAAGT63P
WAADAAIS025
WAADATWR1J
WAADAWS04
WASONG80

WAPROSONPE4
WAADAUSSBOR1
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Multifunction electrical installations meter

Short-circuit loop impedance measurement Z_{L-PE} , Z_{L-N} , Z_{L-L}

Measurement using 23/40A current measurement range in accordance with IEC 61557: 0,13...1999,9Ω (for 1,2m lead):

Range	Resolution	Accuracy
0,00...19,99Ω	0,01Ω	±(5% m.v. + 3 dgt)
20,0...199,9Ω	0,1Ω	
200...1999Ω	1Ω	

rated voltage: 95...270V (for Z_{L-PE} i Z_{L-N}) and 95...440V (for Z_{L-L})
frequency: 45...65Hz

Short-circuit loop impedance measurement Z_{L-PE} [RCD]

Measurement using 15mA current measurement range in accordance with IEC 61557: 0,50...1999,9Ω

Range	Resolution	Accuracy
0,00...19,99Ω	0,01Ω	±(6% m.v. + 10 dgt)
20,0...199,9Ω	0,1Ω	
200...1999Ω	1Ω	

rated voltage: 95...270V
frequency: 45...65Hz

Measurement of earthing R_E

Rated voltage in accordance with IEC 61557-5: 0,5...1999Ω

Range	Resolution	Accuracy
0,00...9,99Ω	0,01Ω	±(2% m.v. + 4 dgt)
10,0...99,9Ω	0,1Ω	
100...999Ω	1Ω	
1,00...1,99kΩ	0,01kΩ	

Insulation resistance measurement

Measurement range in accordance with IEC 61557-2:

- for $U_N = 50V$: 50kΩ...250MΩ
- for $U_N = 100V$: 100kΩ...500MΩ
- for $U_N = 250V$: 250kΩ...1GΩ
- for $U_N = 500V$: 500kΩ...2GΩ
- for $U_N = 1000V$: 1MΩ...3GΩ
- for $U_N = 2500V$: 2,5M...9,99GΩ

Display range *)	Resolution	Accuracy
0...1999kΩ	1kΩ	±(3% m.v. + 8 dgt)
2,00...19,99MΩ	0,01MΩ	
20,0...199,9MΩ	0,1MΩ	
200...999MΩ	1MΩ	±(4% m.v. + 6 dgt)
1,00...3,00GΩ	0,01GΩ	
1,00...9,99GΩ	0,1GΩ	

*) limited to measurement range.

• with UNI-Schuko additional error ±2%.

Phase sequence

- phase sequence indicator: forward, reverse
- mains voltage range U_{L-L} : 100...440V (45...65Hz) U_{L-N} : 100...440V (45...65Hz)
- display of phase-to-phase voltages

Measurement of the active P, passive Q and apparent S power and $\cos\phi$

- Range of voltages U_{LN} : 0...440V
- Nominal frequency of the network: 45...65Hz
- frequency measurement for voltage 50...440V in range 45,0...65,0Hz (accuracy max. ± 0,1% m.v. + 1 digit)
- measurement $\cos\phi$: 0,00...1,00 (resolution 0,01)

Low voltage test of the circuit and insulation continuity

Test of PE wire continuity using a ±200mA current

Range	Resolution	Accuracy
0,00...19,99Ω	0,01Ω	±(2% m.v. + 3 dgt)
20,0...199,9Ω	0,1Ω	
200...400Ω	1Ω	

- Voltage on open terminals: 4...9V
- Test current at $R<2\Omega$: min. 200mA at rated battery voltage
- Autocalibration of test leads
- Measurements for both polarizations of the current

RCD trigger and response time test t_A (for t_A mode) Measurement ranges as per IEC 61557: 0ms ... up to the upper bound of the displayed value

Breaker Type	Test Current Multiplier	Measurement Range	Resolution	Accuracy
Standard	0,5*I _{An}	0...300ms	1ms	±(2% m.v. + 2 dgt)
	1*I _{An}	0...150ms		
	2*I _{An}	0...40ms		
	5*I _{An}	0...8ms		
Selective	0,5*I _{An}	0...500ms	1mA	±(2% m.v. + 2 dgt)
	1*I _{An}	0...200ms		
	2*I _{An}	0...100ms		
	5*I _{An}	0...150ms		

Precision of the differential current: for $0,5*I_{An}$: -8...0% for $1*I_{An}$, $2*I_{An}$, $5*I_{An}$; 0...8%

Measurement of the RCD disconnection current (I_A) for sine waveform testing current

Selected Current	Range	Resolution	Test Current	Accuracy
10mA	3,3...10,0mA	0,1mA	$0,3 \times I_{An} \dots 1,0 \times I_{An}$	± 5% I_{An}
30mA	9,0...30,0mA			
100mA	33...100mA			
300mA	90...300mA			
500mA	150...500mA			
1000mA	330...1000mA			

- It is possible to start the measurement from the positive or negative half of the forced leaking current

Measurement of the RDC disconnection current (I_A) for a unidirectional half period sine waveform test current with a 6mA direct current offset

Selected Current	Range	Resolution	Test Current	Accuracy
10mA	4,0...20,0mA	0,1mA	$0,4 \times I_{An} \dots 2,0 \times I_{An}$	± 10% I_{An}
30mA	12,0...42,0mA			
100mA	40...140mA			
300mA	120...420mA			
500mA	200...700mA			

- a measurement is possible for a positive or negative forced leakage current

Measurement of the RCD disconnection current (I_A) for direct testing current

Selected Current	Range	Resolution	Test Current	Accuracy
10mA	4,0...20,0mA	0,1mA	$0,4 \times I_{An} \dots 2,0 \times I_{An}$	± 10% I_{An}
30mA	12...60mA			
100mA	40...200mA			
300mA	120...600mA			
500mA	200...1000mA			

- a measurement is possible for a positive or negative forced leakage current

„m.v.” measured value.

Rated operational conditions:

- operation temperature 0...+50°C

Electric security:

- type of insulation double, according to PN-EN 61010-1 and IEC 61557, EMC IV 300V acc. to PN-EN 61010-1
- measurement category
- protection class acc. to PN-EN 60529 IP54

Other technical data:

- power supply battery package Ni-MH or alkaline batteries LR14 (4 pcs.)