

Eurotest 61557, Instaltest 61557

Ultimate Instruments for Complete Testing of Electrical Installations



**Testing
Measuring
Analysing
Recording**

VDE 0100
BS 7671
CEI 64.8
HD 384

EN 61557
VDE 0413

EN 61010-1
EN 50081-1
EN 50082-1



Instaltest 61557



NEW

Large display with backlight offers clear reading under any conditions

10
Fault Loop Resistance
 EN 61557-6
 (no tripping out RCD)

8
Line Resistance and Ipsc
 EN 61557-3
 (115 / 230 V mains system)

7
Fault Loop Resistance and Ipsc
 EN 61557-3
 (115 / 230 V mains system)

4
Sensor
 (Measurement of illumination)

- C**omplete safety testing of low-voltage electrical installations, according to EN 61557
- W**ide range of subfunctions and tests, ensure simple maintaining and quick troubleshooting
- P**lug-and-Tip commanders offer one-hand operation (measuring and storing results)
- H**igh immunity against input transients, thanks to unique hardware input protection
- PC** SW Instal Link assures simple and clear handling of test results (Instaltest only)
- E**xhaustive graphic Help menus, provide connection diagrams for each measurement (Eurotest only)
- U**nique PC SW Euro Link - Pro supports entire test procedure (Eurotest only)
- E**xtended Earth Resistance measurement (Eurotest only)
- I**nternet upgradable (Eurotest only)
- Five patented solutions!**

2
Voltage Logging
 (Voltage recording through a certain period of time, recording of slow transient phenomena)

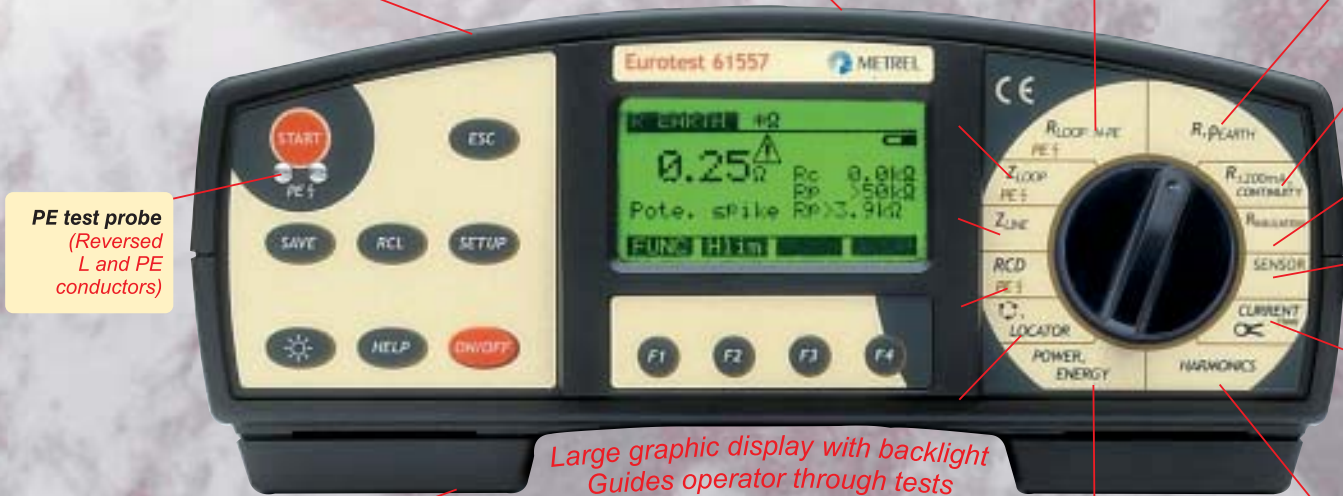
Other functions
 (See the Eurotest)

Eurotest 61557

Line Impedance and Ipsc
 EN 61557-3
 (115 / 230 / 400 V mains system)

Fault Loop Impedance and Ipsc
 EN 61557-3
Contact Voltage at Ipsc - SEV 3569
 (Efficiency of additional equalizing)

N-PE Loop / Earth Resistance and Ipsc
 (Internal test voltage, no trip out RCD)



NEW

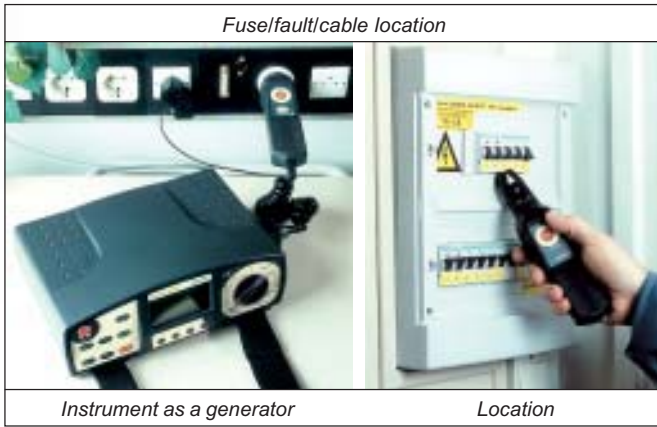
Large graphic display with backlight Guides operator through tests

Complete RCD analysis EN 61557-6
 (Automatic test, without or with probe, Fault Loop Resistance without tripping RCD)

Fuse/fault/cable Locator
 (Enables troubleshooting and detecting of individual installation parts)
Phase rotation EN 61557-7

Power W, VA, Var, cos φ, Energy
 (True RMS current, True RMS voltage)

Harmonics up to 21 st Voltage and Current
 (Electric power quality)



Earth Resistance EN 61557-5
 4-terminal 2-test rod method
 One-clamp method (No disconnection of rusty bonds)
 Two-clamp method (Rodless, for urban environment)

Specific Earth Resistance EN 61557-5

Continuity of Protection Conductors EN 61557-4
 (Up to 2 kohm)

Continuity (continuous function)
 (Low test current for diodes, and other quick tests)

Insulation Resistance EN 61557-2
 (Test voltages 50, 100, 250, 500 and 1000 V)

Varistor Overvoltage Devices - U breakdown
 (Voltage ramp 500 V/s, threshold current 1 mA)

Sensor
 (Measurement of illumination)

True RMS Current
 (No need to care for current shape)

Peak current
 (To measure e.g. start-up currents)



TECHNICAL CHARACTERISTICS Eurotest 61557/Instaltest 61557

Insulation Resistance

Display range	0 – 1000 MΩ (Un≥250 V) 0 – 200 MΩ (Un<250 V)
Resolution	0.001 0.01 0.1 1 MΩ
Accuracy	±(2 % + 2 D)...(0 – 200 MΩ)
Test voltage	50 100 250 500 1000 V
Generator current capability	>1 mA

Continuity of Protection Conductors (single measurement)

Display range	0.00 – 19.99 20.0 – 199.9 200 – 2000 Ω
Accuracy	±(2 % + 2 D)...(0 – 20 Ω)
Open-terminal test voltage	4 – 7 Vd.c.
Test current	>200 mA
Compensation of test leads	yes
Automatic polarity exchange	yes

Continuity (continuous measurement)

Display range	0.0 – 199.9 Ω 200 – 2000 Ω
Accuracy	±(3 % + 3 D)
Short-circuit test current	<7 mA
Open-terminal voltage	4 – 7 Vd.c.

Earth Resistance (four-lead method)

Display range	0 – 20 kΩ
Resolution	0.01; 0.1; 1; 10 Ω
Basic accuracy	±(2 % + 3 D)...(0 – 2 kΩ)
Test voltage	40 V(d.c.) / 125 Hz / sine wave
Short-circuit test current	<20 mA
Aut. potential and current probe res. test	yes

Earth Resistance (four-lead method + clamp)

See the characteristics under **four-lead method**

Earth Resistance (two test clamps)

Display range	0 – 19.99 Ω 20.0 – 100.0 Ω
Basic accuracy	±(10 % + 2D) ±(20 %)

Specific Earth Resistance

Display range	0 – 2000 kΩm
Calculation	$\rho = 2\pi a R_e$
Distance between test rods	1 – 30 m

RCD Protection Devices – general data

Nom. test current	10; 30; 100; 300; 500; 1000 mA (0 or 180 °C)
RCD type	AC, standard or selective

RCD – Contact Voltage

Display range	0.00 – 9.99 10.0 – 100 V
Resolution	0.01 0.1 V
Basic accuracy	(-0 / +10) % ± 0.2 V (-0 / +10) %
Test current	<0.5 IΔN

Eurotest 61557 Instaltest 61557



RCD – Earth Loop Resistance

Measurement principle	with or without probe
Display range	0 – 10 kΩ

RCD – Trip out Time

Display range (general type)	0 – 300 ms (0.5 IΔN, IΔN) 0 – 150 ms (2 IΔN) 0 – 40 ms (5 IΔN)
Display range (selective type)	0 – 500 ms (0.5 IΔN, IΔN) 0 – 200 ms (2 IΔN) 0 – 150 ms (5 IΔN)
Accuracy	±3 ms

RCD – Tripping Current

Display range IΔ	(0.2 – 1.1) IΔN
Display range tΔIΔ	0 – 300 ms
Display range Uci (Uc/IΔ)	0 – 100 V

Fault Loop Impedance / Resistance and Ipsc

Display range Z, R, X	0.00 – 19.99 20.0 – 199.9 200 – 2000 Ω
Accuracy Z, R, X ...Eurotest	±(2 % + 3 D)
Accuracy R...Instaltest	±(5 % + 5 D)
Display range Ipsc	0.06 A – 24.4 kA
Nominal voltage	100 – 264 V 45 – 65 Hz

Contact Voltage at Prospective Short-circuit Current

Display range	0.00 – 9.99 10.0 – 99.9 100 – 264 V
Accuracy	±(3 % + 0.02 Ω × Ipsc)

Line Impedance / Resistance and Ipsc

Display range Z, R, X	0.00 – 19.99 20.0 – 199.9 200 – 2000 Ω
Accuracy Z, R, X ...Eurotest	±(2 % + 3 D)
Accuracy R...Instaltest	±(5 % + 5 D)
Display range Ipsc	0.06 A – 42.4 kA
Nominal voltage	100 – 440 V 45 – 65 Hz

N-PE Loop / Earth Resistance and Ipsc

Test method	internal generator (Earth resistance)
Display range R I-pe	0.00 – 19.99 20.0 – 199.9 200 – 2000 Ω
Accuracy R I-pe	±(2 % + 3 D)
Display range Ipsc	0.06 A – 24.4 kA

Phase rotation

Display of result	1.2.3 or 2.1.3
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Voltage Frequency

Display range	0 – 440 V 45.0 – 65.0 Hz
Accuracy	±(2 % + 2 D) ±0.2 Hz
Nominal frequency range	45 – 65 Hz

Current (True RMS)

Measurement principle	current clamp
Display range	0 – 200 A
Resolution	0.11 mA 0.01 0.1 1 A
Basic accuracy	±(5 %)...(0.1 – 100 A)
Nominal frequency	50/60 Hz

Peak Current

Display range	5 – 280 A
Basic accuracy	±(5 %)



Varistor Overvoltage Prot. Devices – Breakdown Voltage

Measurement principle	d.c. voltage ramp (500 V/s)
Display range	50 – 1000 V
Accuracy	±(5 % + 10 V)

Fault, Fuse, Conductor Locator

Principle	Loading of mains voltage or applying a test signal
Loading	I _s < 1 A pulsed f _s = 3600 Hz U _n = 30 – 264 V / 45 – 65 Hz
Imposing	U _s < 7 V pulsed f _s = 3600 Hz I _{sc} < 50 mA pulsed

Power (one-phase)

Display range	0 – 88 k W/VA/Var
Resolution	0.1 1 0.01 k 0.1 k W/VA/Var
Accuracy	±(7 % + 1 D)
Nominal voltage, frequency	10 – 440 V, 50/60 Hz
Display range cosφ	0 – 1

Energy

Calculation	W = ∑ P × Δt
Display range	0 – 2000 kWh
Accuracy	±(7 % + 1 D)

Harmonic Analysis (Voltage and Current)

Component range	odd values up to 21-st
Display range (each component)	0.0 – 100.0 %
Display range (THD)	0.0 – 1000 %
Accuracy	±(5 % + 5 D)
Voltage measurement (True RMS)	0 – 440 V
Current measurement (True RMS)	0 – 200 A
Nominal frequency	50/60 Hz

Illumination Type B Type C

Measurement principle	silicion photodiode	
Display range	0.01 ± 20 kLux	0.1 ± 20 kLux
Accuracy	±(5 % of r. + 2 D)	±(10 % of r. + 3 D)
Cosine error	< 2.5 %	< 3.0 %

GENERAL CHARACTERISTICS

Power supply	6 V (4 × 1.5 V IEC LR14)
Automatic evaluation of test results	yes
Visual and acoustic warnings	yes
Display	graphic LCD (with backlight)
Memories	2000 meas. (Eurotest) 1000 meas. (Instaltest)
Computer connection	RS 232
Dimensions (w × h × d)	265 × 110 × 185 mm
Mass (without acces., with bat.)	2.1 kg (Eurotest) 1.8 kg (Instaltest)
Protection classification	double insulation
Overvoltage category	III/300 V or III/600 V
Pollution Degree	2
Degree of protection	IP 44
Working temperature range	0 – 40 °C
Max. humidity	85 % RH (0 – 40 °C)
Auto power OFF	yes



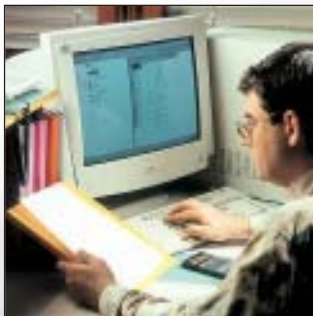
The Euro - Link Pro distinctions

Save 30% of your time and be competitive.
User friendly



Eurotest 61557

Transfer installation structure



Insert installation structure to PC

Print test report

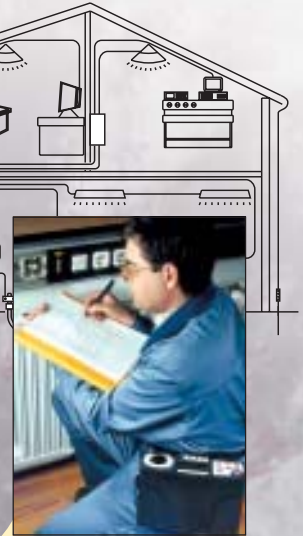


Transfer stored results to PC



Perform and store measurements

Verify installation diagrams



START

Recommended procedure for testing of electrical installations

FUNCTION	Eurotest 61557	Instaltest 61557	REQUIRED ACCESSORIES
Insulation Resistance	✓	✓	Tip Commander or Universal Cable
Continuity of Protection Conductors	✓	✓	Tip Commander or Universal Cable
Continuity	✓	✓	Tip Commander or Universal Cable
Earth Resistance (Four-terminal method)	✓		Earth Test Set - 20 m or Earth Test Set - 50 m
Earth Resistance (Four-terminal method + clamp)	✓		Earth Test Set - 20 m or Earth Test Set - 50 m Low-range Current Clamp
Earth Resistance (Two-clamp method)	✓		Clamp Test Set
Specific Earth Resistance	✓		Earth Test Set - 20 m or Earth Test Set - 50 m
Fault Loop Impedance, Ipsc	✓		Universal Cable
Line Impedance, Ipsc	✓		Universal Cable
Contact Voltage at Ipsc (SEV 3569)	✓		Universal Cable Probe Test Lead
Fault Loop Resistance, Ipsc	✓	✓	Tip Commander or Universal Cable
Line Resistance, Ipsc	✓	✓	Tip Commander or Universal Cable
RCD - Contact Voltage at IΔn	✓	✓	
RCD - Trip out Time	✓	✓	Universal Cable
RCD - Tripping Current	✓		
RCD - Loop Resistance	✓		
RCD - Earth Resistance	✓		Universal Cable Probe Test Lead and Earth Rod
Phase Rotation	✓	✓	Universal Cable or Three-Phase Cable
Fuse, Fault, Conductor Tracing	✓	✓	Universal Cable Locator
Power, cosφ, Energy	✓		Universal Cable
Harmonics	✓		Standard-range current Clamp
True RMS Current	✓		Standard-range curr. Clamp or Low-range curr. Clamp
Varistor Overvoltage Device - Breakdown Voltage	✓	✓	Universal Cable
Voltage Logging		✓	Universal Cable
Illumination	✓	✓	Lux meter probe

ORDERING INFORMATION	Eurotest 61557 Euro Set	Eurotest 61557 Standard Set	Instaltest 61557 Standard Set
Order No.	MI 2086 EU	MI 2086 ST	MI 2087 ST
Scope of supply			
Plug Commander	✓	✓	✓
Universal test cable 3 × 1.5 m	✓	✓	✓
Low-range Clamp 1 A/1 mA	✓		
Probe test lead 4 m	✓		
Alligator clip	✓	✓	✓
Test tip (blue)	✓	✓	✓
Test tip (black)	✓	✓	✓
RS232 cable	✓	✓	✓
PC SW Euro Link - Pro (for Windows 95/98/2000/NT/XP)	✓		
PC SW Euro Link - St (for Windows 95/98/2000/NT/XP)		✓	
PC SW Instal Link (for Windows 95/98/2000/NT/XP)			✓
Neck and back belts	✓	✓	✓
Soft carrying bag	✓	✓	✓
Instruction manual	✓	✓	✓
Handbook „Measurements on electric installations in theory and practice“	✓	✓	✓
Declaration of conformity	✓	✓	✓
Production verification data	✓	✓	✓
Declaration of warranty Type B	✓	✓	✓

Optional accessories				
Tip Commander	Order No. A 1002	✓	✓	✓
Fuse / fault / cable Locator	Order No. A 1005	✓	✓	✓
LUX meter probe Type B	Order No. A 1102	✓	✓	✓
LUX meter probe Type C	Order No. A 1119	✓	✓	✓
Probe test lead 4 m	Order No. A 1012		✓	
Earth test set – 20 m	Order No. S 2001			
General cable 4 × 1 m				
H test lead 20 m				
S test lead 20 m				
ES test lead 4.5 m	✓		✓	
E test lead 4.5 m				
Earth test rod 4pcs				
Small soft carrying bag				
Earth test set – 50 m	Order No. S 2002			
General cable 4 × 1 m				
H test lead 50 m vound up on spool support				
S test lead 50 m vound up on spool support				
ES test lead 4.5 m	✓		✓	
E test lead 4.5 m				
Earth test rod 4pcs				
Soft carrying bag				
Low-range Clamp 1 A/1 mA	Order No. A 1018		✓	
Standard-range Clamp 1 A/1 mA	Order No. A 1019	✓	✓	
Three phase cable	Ref. No. A 1110	✓	✓	✓
Three phase adapter	Ref. No. A 1111	✓	✓	✓
General cable 4 × 1 m	Ref. No. A 1021	✓	✓	✓

Eurotest – Euro Set



Order No. MI 2086 EU

Eurotest – Standard Set



Order No. MI 2086 ST

Instaltest – Standard Set



Order No. MI 2087 ST