1. ELECTRICAL SPECIFICATION

Uncertainty is indicated as ± (% rdgs + no. of dgt) at 23°C ± 5°C, con relative humidity <80%HR

DC/AC TRMS VOLTAGE

Range	Resolution	Uncertainty	Overload protection
10 ÷ 660V	1V	±(2%rdg+2dgt)	CAT IV 600 to ground

INSULATION RESISTANCE

Range	Test Voltage	Resolution	Uncertainty (*)
0.01MΩ ÷ 0.19MΩ	≥ 100V DC	≤1%rdg	±(5%rdg + 7dgt)
0.20MΩ ÷ 199GΩ			±(5%rdg.+3dgt) if $Rmis \leq \frac{Test\ Voltage}{5nA}$ ±(20%rdg.+3dgt) if $Rmis > \frac{Test\ Voltage}{5nA}$
0.20MΩ ÷ 499GΩ	≥ 250V DC		
0.20MΩ ÷ 999GΩ	≥ 500V DC		
0.20MΩ ÷ 1.99TΩ	≥ 1000V DC		
0.20MΩ ÷ 4.99TΩ	≥ 2500V DC		
0.20MΩ ÷ 9.99TΩ	5000V DC		

(*) Load Capacitance < 1nF

GENERATED TEST VOLTAGE (compliance to IEC/EN61557-2)

Test mode	Nominal test voltage	Uncertainty
FIX	100V,250V,500V,1kV, 2.5kV, 5kV	-0%, +10% +15V
AJUSTABLE	100 ÷ 1kV in steps of 25V	
	1kV ÷ 5kV in steps of 50V	
RAMP	100 ÷ 1kV in steps of 25V	
	1kV ÷ 5kV in steps of 50V	

TEST CURRENT

Test Voltage	Test current
100 ÷ 5000V	1mA ≤ Test Current ≤ 3mA (**)

(**) Test current automatically controlled.

TEST TIME

Setting Range	Resolution
5s – 99min 59s	1s

CAPACITANCE

Range	Resolution	Resistance Load	Test Voltage (Vn)	Uncertainty
1nF ÷ 999nF	1nF	≥ 5MΩ	Vn ≤ 5kV	±(10%rdg+5dgt)
1.00µF ÷ 5.00µF	0.01µF			
1nF ÷ 999nF	1nF		Vn ≤ 2.5kV	
1.00µF ÷ 9.99µF	0.01µF			
10.0µF ÷ 19.9µF	0.1µF			
1nF ÷ 999nF	1nF		Vn ≤ 1kV	
1.00µF ÷ 9.99µF	0.01µF			
10.0µF ÷ 49.9µF	0.1µF			

Capacitor charge time (OV→ 5000V): < 3s x 1µF
Capacitor discharge time (5000V→ 25V): < 5s x 1µF

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LEAKAGE CURRENT

Range	Resolution	Uncertainty
1nA ÷ 99.9nA	0.1nA	±(7%rdg+3dgt) if $Rmis \leq \frac{Test\ Voltage}{5nA}$
100nA ÷ 999nA	1nA	
1.00µA ÷ 9.99µA	0.01µA	
10.0µA ÷ 9.99µA	0.1µA	
100µA ÷ 999µA	1µA	±(22%rdg+3dgt) if $Rmis > \frac{Test\ Voltage}{5nA}$
1.00mA ÷ 2.5mA	0.01mA	

P.I (Polarization Index) – D.A.R (Dielectric Absorption Ratio)

Range	Resolution	Uncertainty
0.01 ÷ 9.99	0.01	±(5%rdg+3dgt) if $Rmis \leq \frac{Test\ Voltage}{5nA}$ ±(20%rdg+3dgt) if $Rmis > \frac{Test\ Voltage}{5nA}$

(*) Load Capacitance < 1nF

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2. GENERAL CHARACTERISTICS

DISPLAY, MEMORY, SERIAL INTERFACE

- Backlight LCD with three simultaneous readings:
  Group 1 (main) → Insulation Resistance, Leakage Current, PI, DAR, Capacitance
  Group 2 → Test voltage (nominal and generated)
  Group 3 → Test Time
- Bargraph: 32 segments
- Low battery indications
- Memory: 700 test
- Communication interface: RS232 optoinsulated

POWER SUPPLY:

- Internal battery charger, power supply: 220-240V 50/60Hz, 20VA
- Internal NiMH rechargeable battery
- Protection fuse on power supply: T 200mA/250V, Ir: 1.5kA
- Low battery indication:  symbol at display
- Battery life: >1000 Test @ 5kV on 5MΩ (test time: 5s, delay between two test: 25s) according to IEC/EN61557-2. (par. 6.7)
- AutoPowerOFF: after 5min since last operation

ENVIRONMENT:

• Ref. Temperature:	23°C ± 5°C
• Working temperature:	0° ÷ 40°C
• Maximum relative humidity:	< 80%UR
• Storage temperature:	-10 ÷ 60°C
• Storage humidity:	< 80%UR

MECHANICAL DATA:

• Dimensions:	360(L) x 310(W) x 195(H) mm 14.2'' (L) x 12.2''(W) x 7.7''(H)
• Weight:	about 3.5kg about 7.8lv

GUIDELINES

Instrument's safety	IEC/EN61010-1, IEC/EN61557-1, IEC/EN61557-2
Technical documentatiion :	IEC/EN61187
Accessories safety :	IEC/EN61010-031
Insulation:	Double insulation
Type of Protection:	2
Mechanical protection:	IP40 (open case), IP53 (closed case)
Over voltage category:	CAT IV 600V to ground, max 600V between inputs
Maximum altitude	max altitude 2000m
Patented certification:	TÜV protocol conformity

This instrument complies with the requirements of the European Low Voltage Directives 2006/95/EEC (LVD) and EMC 2004/108/EEC

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