



UNI-T®



UT515B

10KV Insulation Resistance Tester

This is a digital high-voltage insulation resistance tester with 6 ranges: 500V, 1000V, 2500V, 5000V, 10000V. It allows fine-tuning voltage with a 10% step. Test data can be saved in the instrument's memory and transferred to a PC via USB cable. It is widely used to measure insulation resistance in transformers, cables, and electrical equipment, as well as in high-voltage power, telecommunications, meteorology, and oil fields.



IR test



high output
voltage



PI test



DAR test



PC software



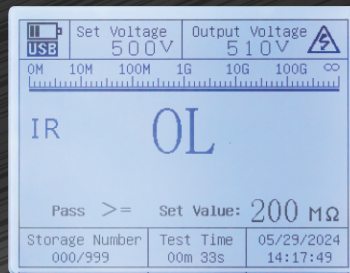
5200mAh

💡 High-Voltage Insulation Tester with Advanced Features

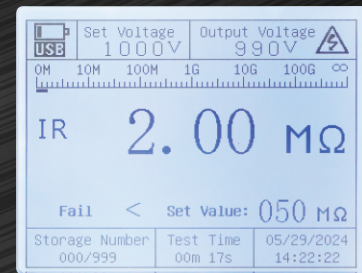


- 1, Insulation resistance: 0~10TΩ
- 2, Output voltage: up to 10KV
- 3, Short-circuit current: ≥3.7mA (0~1000V output voltage)
- 4, Short-circuit current: ≥5mA (2500V~10000V output voltage)
- 5, Stepping voltage: 10% of each range

💡 Comparative measurement

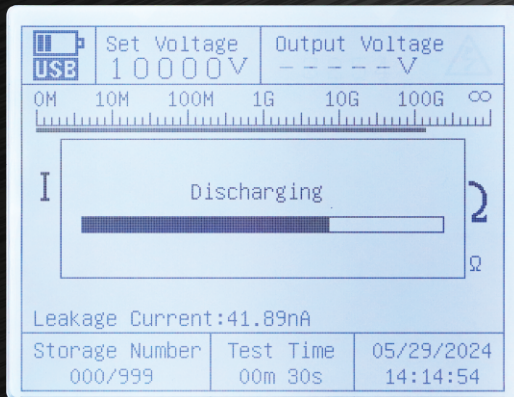


comparative test pass



comparative test fail

💡 Auto discharge



💡 Polarization index

$$PI = \frac{\text{IR value after 10 minutes measurement}}{\text{IR value after 1 minute measurement}}$$

PI = IR 10 minutes/IR R1 minute	
PI value	IR condition (standard)
<1.0	Not good/Bad
1.0~2.0	safety risks
2.0~4.0	Good
>4	Very good

Dielectric Absorption Ratio (DAR)

$$\text{DAR} = \frac{\text{IR value after 60s measurement}}{\text{IR value after 15s measurement}}$$

$$\text{DAR} = \text{IR 60s} / \text{IR 15s}$$

DAR value	IR condition (standard)
<1.0	Bad or safety risks
1.0~1.25	Good
>1.4	Very good

Power supply



Equipped with a built-in 14.8V/5200mAh lithium battery pack.

Input: AC 100V~240V/50~60Hz

Output: DC 16.8V/2A

PC software



It can upload, save, print, and analyze the test data as desired.

Specifications				
Function	Range	Resolution	Accuracy	Input protection
Insulation resistance	500V (0.50MΩ~500GΩ)	0.01MΩ	0.50MΩ~4.99G: 5%+5 5.00G-49.9GΩ: 10%+10 50.0GΩ- 500GΩ: FYI	Stepping voltage: 400V~600V; 10% of the range
		0.1MΩ		
		1MΩ		
		0.01GΩ		
		0.1GΩ		
	1000V (1.00MΩ~1000GΩ)	0.01MΩ	1.00MΩ~9.99G: 5%+5 10.0G-99.9GΩ: 10%+10 100GΩ- 1000GΩ: FYI	Stepping voltage: 500V~1200V; 10% of the range
		0.1MΩ		
		1MΩ		
		0.01GΩ		
		0.1GΩ		
	2500V (2.50MΩ~2.5TΩ)	0.01MΩ	2.50MΩ~24.9G: 5%+5 25.0G-249GΩ: 15%+10 250GΩ- 2.5TΩ: FYI	Stepping voltage: 400V~600V; 10% of the range
		0.1MΩ		
		1MΩ		
		0.01GΩ		
		0.1GΩ		
	5000V (5.00MΩ~5.0TΩ)	0.01MΩ	5.00MΩ~49.9G: 5%+5 50.0G-499GΩ: 15%+20 500GΩ- 5.0TΩ: FYI	Stepping voltage: 2500V~6000V; 10% of the range
		0.1MΩ		
		1MΩ		
		0.01GΩ		
		0.1GΩ		
10000V (10.0MΩ~10TΩ)	0.01MΩ	10.0MΩ~99.9G: 10%+10 100G-999GΩ: 10%+10 1000GΩ- 10TΩ: FYI	Stepping voltage: 5000V~10000V; 10% of the range	
	0.1MΩ			
	1MΩ			
	0.01GΩ			
	0.1GΩ			
Output voltage	500V	1V	0%---+20%	30v
	1000V	1V		
	2500V	1V		
	5000V	1V		
	10000V	1V		
Rated current	1mA		0%---+20%	
	1mA			
	1mA			
	1mA			
	0.15~1.2mA			
Voltage measurement	DC: ±30V~±1000V	1V	±(3%+5)	1100V DC 800V AC
	AC: 30V~750V (50~60Hz)	1V	±(3%+5)	
Features				
Display count	9999			
Short-circuit current	500V/1000V: ≥3.7mA; 2500V/5000V/10000V: ≥5mA			
IR stepping voltage	√ (10% of the range)			
Leakage current	0.01nA~5.00mA, ±(10%+5)			
DAR	0.00~999: ±2dgt			
PI	0.00~999: ±2dgt			
Compare function	√			
Timing measurement	√			
Auto discharge	√ (with discharge process)			
Output protection	√ (the energied target voltage >30V; indicating the "energized" icon)			
Data storage	999 set			
Data transmission	√ (all data; via USB cable)			
Powr on/off	√ (Manual/Auto)			
OL & low battery indication	√			
Testing indication	Long press to turn on; short press again to turn off			
Backlight	Auto backlight			
Rechargeable battery	14.8V/5200mAh lithium battery pack			
Over voltage category	CAT IV 600V			
General characteristics				
Product color	Grey			
Product weight	Around 7.4kg			
Product dimension	Tool box: 432x427x202mm			
Standard accessories	power adaptor 1pcs; Test lead 3pcs (red/black/green); USB cable 1pcs; Manual 1pcs			
SPQ	1pcs/carton			
Dimension (SP)	505x275x505mm			
Gross weight (SP)	Around 9.8kg			

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