

5KV HV Digital Insulation Resistance Tester | 513B/513C

513B / 513C are digital high-voltage insulation resistance testers with high-voltage output ranges of 250V, 500V, 1000V, 2500V, and 5000V. They are commonly used and essential instruments for power, telecommunications, meteorology, computer rooms, oil fields, electrotechnical installation and maintenance, and power supply departments of industrial and mining enterprises.

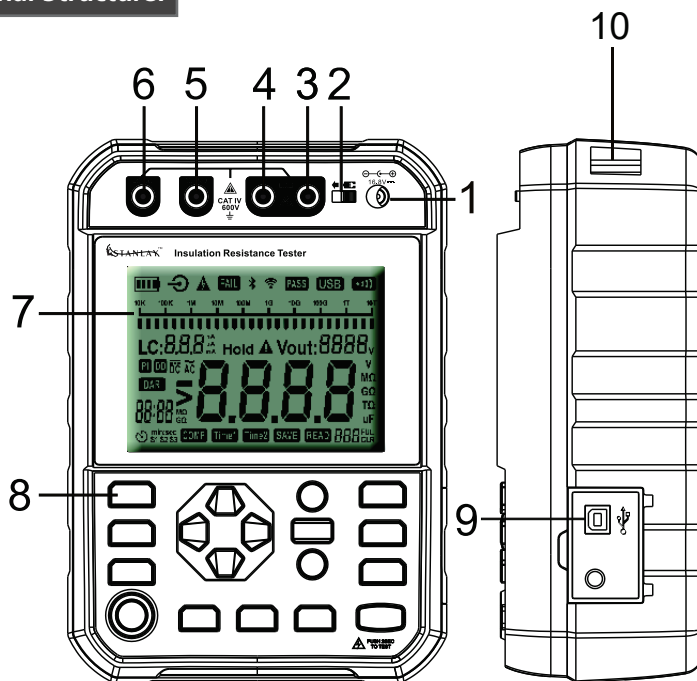
Features :

- Output voltage: Up to 5kV
- PI & DAR measurement
- Automatic leakage current display
- Stepping voltage: 10% of the range
- Comparison function
- Timer measurement
- Data storage: 999 sets
- PC software analysis: via USB cable
- Automatic discharge
- High voltage output alarm function
- Rechargeable lithium battery 14.8V, 5200mAh
- Over voltage category: CAT IV 600V
- **GUARD**: Grounding Protection built-in



513B

External Structure:



513C

1	Battery charging port	7	LCD segmented display screen
2	Selection switch for charging and testing modes	8	Functional buttons
3	LINE: High-voltage output outlet (dual-plug red lead)	9	USB port
4	LINE: Outlet for shielding high-voltage lead (dual-plug red lead)	10	Carrying strap location
5	GUARD: Grounding protection outlet (single-plug green lead)		
6	EARTH: High resistance measurement outlet (single-plug black lead)		

Specification:

Parameters	513B			513C		
Measurements	Test Voltages	Range	Accuracy	Test Voltages	Range	Accuracy
Insulation Resistance (Ω)	250V	0.25M Ω ~2.49G Ω 2.50G Ω ~24.9G Ω	$\pm(5\%+5)$ $\pm(10\%+10)$	250V	0.25M Ω ~4.99G Ω 5.00G Ω ~49.9G Ω	$\pm(5\%+5)$ $\pm(10\%+10)$
	500V	0.50M Ω ~4.99G Ω 5.00G Ω ~49.9G Ω	$\pm(5\%+5)$ $\pm(10\%+10)$	500V	0.50M Ω ~4.99G Ω 5.00G Ω ~99.9G Ω	$\pm(5\%+5)$ $\pm(10\%+10)$
	1000V	1.00M Ω ~9.99G Ω 10.0G Ω ~99.9G Ω	$\pm(5\%+5)$ $\pm(10\%+10)$	1000V	1.00M Ω ~9.99G Ω 10.0G Ω ~199G Ω	$\pm(5\%+5)$ $\pm(10\%+10)$
	2500V	2.50M Ω ~24.9G Ω 25.0G Ω ~249G Ω	$\pm(5\%+5)$ $\pm(15\%+10)$	2500V	2.50M Ω ~24.9G Ω 25.0G Ω ~499G Ω	$\pm(5\%+5)$ $\pm(15\%+10)$
	5000V	5.00M Ω ~49.9G Ω 50.0G Ω ~499G Ω 500G Ω ~2.00T Ω	$\pm(5\%+5)$ $\pm(15\%+20)$ reference only	5000V	5.00M Ω ~49.9G Ω 50.0G Ω ~999G Ω 1.00T Ω ~5.00T Ω	$\pm(5\%+5)$ $\pm(15\%+20)$ reference only
Capacitance Test	N/A			0.01uF~15.0uF		
Output voltage	Stepping voltage range					
250V	250V, 275V, 300V					
500V	250V, 300V, 350V, 400V, 450V, 500V, 550V, 600V					
1000V	500V, 600V, 700V, 800V, 900V, 1000V, 1100V, 1200V					
2500V	1250V, 1500V, 1750V, 2000V, 2250V, 2500V, 2750V, 3000V					
5000V	2500V, 3000V, 3500V, 4000V, 4500V, 5000V					
DC Voltage (V)	1000V		$\pm(3\%+5)$	1000V		$\pm(3\%+5)$
AC Voltage (V)	750V		$\pm(3\%+5)$	750V		$\pm(3\%+5)$
Current	0.01nA~3.5mA			0.01nA~5.0mA		
Short-Circuit Current	>3.5mA			>5.0mA		
Polarization Index (PI)	Yes			Yes		
Dielectric Absorption Ratio (DAR)	Yes			Yes		
Timing Measurement	Yes			Yes		
Resistance Comparison	Yes			Yes		
Voltage Step	Step by 10% of each range each time, and adjust the voltage range to 50%~120% of each range: Display accuracy: $\pm(10\% \text{ read}+10\text{V})$ Output accuracy: $\pm(0\% \sim 20\%)$					
Monitoring Function	Monitors voltage of measured object and the discharge state after testing.					
Auto Detect AC/DC	No			Yes		
Timer Testing	Record testing time automatically. Timer testing Timing range: 0s~99m and 59s					
Data Storage	999 Set					
USB Interface	Yes			Yes		
Bluetooth	No			Yes		
Low Battery Indication	Yes			Yes		
Auto Power Off	Yes			Yes		
Category Safety Ratings	CATIV 600V					
Safety	EN 61010-1; EN IEC 61010-2-034; BS EN 61010-1; CE ; UKCA					
Power	14.8V, 5200mAh Rechargeable Lithium-ion battery with charger					
Display	5.1-inch LCD display					
Product Weight	1.8kg					
Product Dimensions (LWD)	238 mm x 166 mm x 90.5 mm					
Standard Accessories	Test lead (red, black, green, 1 for each), USB cable, Lithium battery charger, Carrying strap					