

VOLTCRAFT

VOLTCRAFT - RELIABLE AND PRECISE. SINCE 1982.

For decades, our product range has been dynamically adapting to the constant changes in the industry.

We commit to offering first-class quality to our customers while delivering an excellent cost-performance ratio. This philosophy remains the cornerstone of Voltcraft's success.

ET-500 ISOLATION TESTER

CE

Item no. 3414443

This instrument measures insulation resistance in cables, motors, generators, transformers, mutual inductors, high-voltage switches, and lightning arresters.

It is suitable for use in electric power, telecommunications, meteorology, server rooms, oil fields, and electromechanical installation and maintenance, as well as for power supply departments in industrial and mining operations.

PACKAGE CONTENTS

Insulation resistance tester // 14.8V/5200mAh rechargeable lithium battery x 1 (installed inside the tester) // Test lead (red, black, green: 1 for each): 3pcs // USB cable x 1pc // Lithium battery charger x 1 // Carrying strap x 1 // Manual // Carrying case



FEATURES

Insulation resistance up to 5TΩ // Output voltages: 250V, 500V, 1000V, 2500V, 5000V // Short-circuit current approx. 5mA // Insulation resistance, AC/DC voltage, and capacitance testing // Polarization Index (PI) and Dielectric Absorption Ratio (DAR) // Resistance comparison with upper/lower limits // Timer testing mode // External voltage detection // Automatic discharge and high voltage alarm // Analog bar graph display // Stores up to 999 data sets // USB data upload to PC // LCD with backlight // Auto power off

TECHNICAL SPECIFICATIONS

- Error limit: ± (a% of reading + b digits)
- Environment temperature: 23±5°C
- Environment humidity: 45~75%RH
The humidity must be less than 50%RH when testing insulation objects with a resistance greater than 50GΩ in the parameters.
- Temperature coefficient:
Add an error of ±0.25% per degree (°C) when testing at temperature of >28°C or <18°C.

Current

Measurement accuracy	Display accuracy	Range
±(10%+5)	0.01nA 0.01μA 0.01mA	0.01nA 5.00mA

Insulation resistance

Rated voltage	Measurement range	Accuracy
250V	<0.25MΩ	For reference only
	0.25MΩ to 4.99GΩ	± (5%+5)
	5.00GΩ to 49.9GΩ	± (10%+10)
	50.0GΩ to 250GΩ	For reference only
500V	<0.50MΩ	For reference only
	0.50MΩ to 4.99GΩ	± (5%+5)
	5.00GΩ to 99.9GΩ	± (10%+10)
	100GΩ to 500GΩ	For reference only
1000V	<1.00MΩ	For reference only
	1.00MΩ to 9.99GΩ	± (5%+5)
	10.0GΩ to 199GΩ	± (10%+10)
	200GΩ to 1.00TΩ	For reference only
2500V	<2.50MΩ	For reference only
	2.50MΩ to 24.9GΩ	± (5%+5)
	25.0GΩ to 499GΩ	± (15%+10)
	500GΩ to 2.50TΩ	For reference only
5000V	<5.00MΩ	For reference only
	5.00MΩ to 49.9GΩ	± (5%+5)
	50.0GΩ to 999GΩ	± (15%+20)
	1.00TΩ to 5.00TΩ	For reference only
Over-range indication: >		
Short-circuit current: Approx. 5.0mA current with load: 1mA~1.2mA (250V, 0.25MΩ; 500V, 0.5MΩ; 1000V, 1.0MΩ; 2500V, 2.5MΩ; 5000V, 5.0MΩ)		

Output voltage

Rated voltage	Output accuracy	Display accuracy	Output voltage
250V	+(0%~20%)	1V	250V to 300V
500V			500V to 600V
1000V			1000V to 1200V
2500V			2500V to 3000V
5000V			5000V to 6000V

Voltage testing

Voltage measurement	Measurement range	Accuracy	Resolution
DC voltage	30 to 1000VDC	± 3%+5	1V
AC voltage	30 to 750VAC	± 3%+5	1V

Capacitance testing

Voltage	Measurement range	Accuracy	Over-range indication
250V	0.01uF to 1.00uF	± 15%+3	>1.00uF
500V	1.00uF to 15.0uF		>15.0uF
1000V	1.00uF to 15.0uF		>15.0uF

General

Power supply	Rechargeable lithium battery (14.8V, 5200mAh)
Rated voltage	250V, 500V, 1000V, 2500V, 5000V
Output voltage accuracy	+ (0% 20%)
Continuous insulation resistance measurement	√ (default mode)
Polarization index testing	√ (automatic display)
Absorption ratio testing	√ (automatic display)
Timing measurement	√
Resistance comparison measurement	√
Voltage testing	√ can automatically identify AC/DC voltage
Capacitance testing	√
Current display	Current is displayed when measuring insulation resistance.
Voltage stepping	√
Live voltage monitoring	Monitors voltage on test object and discharge status after testing. Testing is blocked above 36V for safety.
High voltage warning	The warning symbol flashes if detected voltage exceeds the safety voltage.
Timer testing	Record testing time automatically. Timing range: 0s 99m and 59s
Storage function	Store 999 groups of data
Communication function	Upload testing data to computer via USB cable.
Battery power indication	Battery power indication to indicate charging when low battery occurs.
Auto power off	Power off automatically in 15 minutes of inactivity and without occurrence of high voltage.
Dimensions	238 (L) x 166 (W) x 90.5 (D) mm
Weight	Approx. 1800g (including battery)
Operating environment	0°C 35°C; <75%RH
Storage environment	-20°C 60°C; <80%RH
Altitude	<2000m
Pollution degree	2
CAT rating	CAT IV 600V