

ES3045 Series Digital Insulation Resistance Meter



I . Characteristic

ES3045 series digital insulation resistance tester, also known as megohmmeter, high voltage insulation resistance meter, is used for insulation resistance test. The instrument has large-screen LCD gray and white backlight display, data storage, data access, alarm, automatic discharge, charging, automatic shutdown and other functions. At the same time, it also has the function of measuring the absorption ratio of DC voltage and AC voltage and polarization index. The whole machine is beautiful and high-grade, with a wide range, high resolution, convenient operation, convenient carrying, accurate, reliable, stable performance, large output power, and strong anti-interference ability.

ES3045 series digital insulation resistance tester has a shock-proof, dust-proof and moisture-proof structure, and is suitable for harsh working environments. And an essential instrument. It is suitable for measuring the insulation resistance value of various insulating materials and transformers, motors, cables and electrical equipment.


ES3045 series digital insulation resistance tester consists of medium and large scale integrated circuits. This watch has large output power and many output voltage levels (there are 6 voltage levels). The rated insulation test voltage range is 100V ~ 15kV (the output voltage is determined according to the model), and it has a step-by-step voltage adjustment function to output a variety of different voltage levels (such as 15kV models can generate 12KV and other voltage levels, and the use range is wider), insulation The resistance measurement range is 0.01MΩ~50TΩ (determine the measurement range according to the model); the DC voltage measurement range is 0~1000V; the AC voltage measurement range is 0~750V; the DC current measurement range is 0.01nA~6mA; the capacitance measurement range is 10nF~50uF.

II . Technical Specification

Model	ES3045	ES3045E	ES3045F
Maximum output voltage	5000V	10KV	15KV

Resistance limit range	10TΩ	35TΩ	50TΩ
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III. Packing List

Features	Insulation resistance test, voltage test, current test, capacitance test		
Baseline conditions	23°C ± 5°C, below 75%rh		
Rated applied voltage (V)	100V; 250V; 500V; 1000V; 2500V; 5000V	Accuracy rated voltage × (1 ± 10%)	
	250V; 500V; 1000V; 2500V; 5000V; 10KV	Accuracy rated voltage × (1 ± 10%)	
	500V; 1000V; 2500V; 5000V; 10KV; 15KV	Accuracy rated voltage × (1 ± 10%)	
Insulation resistance range (GΩ)	0.01MΩ ~ 10TΩ	Accuracy: ± 3%rdg ± 5dgt	Resolution 0.01MΩ
	0.01MΩ ~ 35TΩ	Accuracy: ± 3%rdg ± 5dgt	Resolution 0.01MΩ
	0.01MΩ ~ 50TΩ	Accuracy: ± 3%rdg ± 5dgt	Resolution 0.01MΩ
DC voltage range	0.1~1000V	Accuracy: ± 1.5%rdg ± 3dgt	Resolution 0.1V
AC voltage range	0.1~750V	Accuracy: ± 1.5%rdg ± 3dgt	Resolution 0.1V
DC current measurement	0.01nA~6mA	Accuracy: ± 5.0%rdg ± 5dgt	Resolution 0.01nA
Capacitance measurement	10nF~50uF	Accuracy: ± 10%rdg ± 5dg	(resolution 10nF)
Output short circuit current	≥ 6mA		
Absorption Ratio and Polarization Index Measurements	Have		
Power supply	12V rechargeable battery		
Backlight	Controllable gray and white screen backlight, suitable for use in dark places		
Display mode	4-digit large LCD display, gray and white screen backlight		
LCD display size	108mm × 65mm		
Meter size	240mm (L) × 188mm (W) × 85mm (H)		
USB interface	With USB interface, software monitoring, storage data can be uploaded to the computer, save and print		
Communication line	1 USB communication line		
Test line	High voltage bar red 3 meters, high voltage test line black 1.5 meters, green line 1.5 meters		
Data storage	500 groups, flashing "FULL" symbol indicates that the storage is full		
Data access	Data access function: "READ" symbol display		
Overflow display	Overrange overflow function: "OL" symbol display		
Alarm function	When the measured value exceeds the alarm setting value, an alarm prompt will be issued		
Power consumption	Standby: 30mA Max (backlight off)		
	Turn on the backlight: 42mA Max		
	Measurement: 200mA Max (backlight off)		
Instrument quality	2340g (including battery)		
Battery voltage	Low battery voltage, showing low battery symbol “  ”		

Automatic shut-down	The meter shuts down after about 15 minutes of inactivity
Insulation resistance	$\geq 50M\Omega$ (between measurement line and shell)
Pressure resistance	AC3kV/50Hz 1min
Operating temperature and humidity	-10°C ~ +50°C < 85%RH
Storage temperature and humidity	-15°C ~ +55°C < 90%RH
Suitable for safety regulations	IEC61010-1, IEC1010-2-31, IEC61557-1, 5, IEC60529 (IP54), pollution, etc. 2, CAT III 300V

III. Packing List

Instrument	1 set
High pressure rod	1 red
High Voltage Test Lead	2 (black, 1 green each)
Monitoring software CD	1 serving
USB communication cable	1
Charger	1
Manual, Warranty	1 set
Instrument box	1

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