# **Product Datasheet**

The Tekneka 850 Insulation Resistance Tester 1kV is a durable and versatile instrument for precise electrical testing. With numerous test voltage options ranging from 50V to 1000V, it can be used for a broad range of applications. This tester is a great instrument for checking insulation because it can measure voltage up to 600V, resistance up to 999MΩ, and continuity. Readings are easy to see thanks to the 65 x 30mm LCD and analog bar graph. 6 x 1.5V batteries power the Tekneka 850, making it both dependable and portable. With an IP50 rating that offers protection against water and dust and durability, it is appropriate for a variety of working environments. This is an instrument that should be chosen by professionals who want to test insulation, voltage, and continuity efficiently.

#### **Features**

- Users can select 50V to 1000V for insulation resistance measurement
- Can measure AC/DC voltages from >25V to 600V
- · A blown internal fuse will be shown until the instrument is switched off
- Pre-selectable measurement time for insulation test (10s to 5min)
- Capable of measuring low resistance measurements from  $0.01\Omega$  to  $99.9\Omega$
- Go/No-Go limits selectable from  $1M\Omega$  to  $2G\Omega$
- Compensate test lead resistance for accurate measurement
- Min/Max value can be stored & updated constantly
- Capable of storing & retaining 10 readings in each of the 5 resistance measurements
- Analog & digital display for insulation resistance measurement
- Display backlight for taking measurements in a dark environment
- · It can operated by battery & external power supply (optional)
- · Low battery indication and auto power off option can save battery usage



The Tekneka 850 Insulation Resistance Tester is frequently utilized in the fields of equipment testing, motor and generator testing, cable and wire insulation testing, electrical substations, building maintenance, electrical workshops, manufacturing quality control, renewable energy systems, aircraft and aerospace, railway systems, oil and gas industry, research and development.



# **Insulation Resistance Measurement Specifications**

Functions	Test Voltage		Accuracy
	50V, 100V	250V, 500V, 1000V	
Insulation	$0.01$ to $0.99 \text{M}\Omega$	$1.0$ to $9.9 \text{M}\Omega$	±3% ± 2dgt.
Resistance*	$1.0$ to $9.9M\Omega$	10 to 99MΩ	±5% ± 2dgt.
	10 to 99MΩ	$100 M\Omega$ to $2 G\Omega$	±20%
Functions	Measuring Range	Resolution	Accuracy
Low Ohms**	0 to 0.99Ω	0.01Ω @210mA	±3% ± 2dgt.
	>10 to 99.9Ω	0.1Ω @21mA	±5% ± 2dgt.
Continuity**	0 to 0.99Ω	0.01Ω @210mA	±3% ± 2dgt.
	>10 to 99.9Ω	0.1Ω @21mA	±5% ± 2dgt.
Voltage AC/DC	25 to 450V	1V	±2% ± 3dgt.
	450 to 600V	1V	±3%

# \*For IR Range

rated voltage

- \*\*For Low Ohms & Continuity • Terminal Voltage (open circuit, DC): -0% +30% of • Open Circuit Voltage: 5V + 1V DC
- Short Circuit Current: <2mA</li>
- Test current on load 1mA at min. pass value of Note: Overload Value/Duration: 1200Vrms/10 insulation

### **Ordering Info**

850..... Insulation Resistance Tester 1kV

- Lead Resistance Compensation: 0 9.99

to 99MΩ	±5% ± 2dgt.	Electrical Safety	300V CAT-III/600V CAT-II	
0MΩ to 2GΩ	±20%	Retain Memory	50 readings (10 values per range)	
Resolution	Accuracy	Auto Discharge	Yes (device under test)	
0.01Ω @210mA	±3% ± 2dgt.	Operating Temperature $-20$ to $40$ °C (full range)   $-20$ to $60$ °C (up to $100$ MΩ) Max. $90$ % @ $40$ °C		
0.1Ω @21mA	±5% ± 2dgt.	Reference Conditions	Temp: 23°C   Humidity: 45 to 55%RH   Votage: 8V+0.1V	
0.01Ω @210mA	±3% ± 2dgt.	for Accuracy (battery), AC (Sine), 50/60Hz		
0.1Ω @21mA	±5% ± 2dgt.	Storage Temperature -20 to 65°C		
1V	±2% ± 3dgt.	Protection Level	IP50 (Instrument), IP20 (Terminal Socket)	
1V	±3%	Power Supply	230V AC/9V DC, 500mA (optional)	
**For Low Ohms & Continuity • Open Circuit Voltage: 5V + 1V DC • Lead Resistance Compensation: 0 - 9.99Ω		Battery	6 x 1.5V Li-ion batteries (replaceable)	
		Service Life	Display Light OFF: 2500 x 5s operation Display Light ON: 1250 x 5s operation	
Note: Overload Value/Duration: 1200Vrms/10sec		Fuse	500mA (F)/400V H.B.C 10kA min	
		Compliance Standards	IEC 61010-1, EMC: IEC 61557, IEC61326-1, DIN 43751	
Packing Includes		Dimension (W x H x D)	Device: 84 x 195 x 35mm, Package: 230 x 195 x 70mm	
<ul><li>Test Leads Set</li><li>Crocodile Clip Set</li><li>Power Adapter (optional)</li></ul>	<ul> <li>Rubber Holster</li> <li>6 x AA Batteries</li> <li>Adjustable Strap</li> </ul>	Weight	Device: 500g, Package: 1Kg	

Yes

2.7"(65 x 30mm) LCD with Analog Scale

General

**Backlight** 

**Specification Display**