YTE216X Series Insulation Resistance Testers

YTE2160 / YTE2161 — Insulation, PI / DAR, AC / DC Voltage



OVERVIEW

The YTE216X series are multi-function digital insulation resistance testers designed for field testing — portable instruments with high accuracy, high stability, low power consumption and easy operation. They measure the insulation resistance of motors, transformers, cables, switches, electrical equipment and insulating materials, for the maintenance, testing and inspection of all kinds of electrical equipment. They also measure AC / DC voltage and low resistance.

FEATURES

- LCD display with backlight for use in dark places
- High-voltage indicator lamp, buzzer prompts and danger warning symbols
- Automatic voltage discharge
- Polarization index (PI) and absorption ratio (DAR) calculated and displayed
- AC / DC voltage and low-resistance measurement
- 100-reading data storage
- Built-in 3.7 V / 1500 mAh rechargeable lithium battery

MODEL SPECIFICATIONS

Item	YTE2160	YTE2161
Rated voltage	100 V, 200 V, 500 V, 1000 V	100 V, 200 V, 500 V, 1000 V
Output voltage accuracy	±10 % ± 10 V	±10 % ± 10 V
Insulation resistance range	0–10 GΩ	0–100 GΩ
Measurement functions	DC voltage, AC voltage, low resistance, insulation resistance	
Absorption ratio (DAR) test	Yes	
Polarization index (PI) test	Yes	
Short-circuit current	≤ 2 mA	
DC voltage input impedance	10 MΩ	
AC voltage input impedance	5 MΩ	

Item	YTE2160	YTE2161
Power supply	3.7 V, 1500 mAh lithium battery	
Dimensions	155 × 105 × 45 mm	
Display	LCD, maximum reading 9999	
Data storage	100 readings	
Low battery	Indication when the battery voltage falls below 3.2 V — charge in time	

INSULATION RESISTANCE TEST INDEX

Output Voltage	Range	Resolution	Basic Error
Output DC 100 V ± 10 %	0–5 MΩ	0.01 MΩ	—
	5–20 MΩ	0.1 MΩ	—
	20–50 MΩ	0.1 MΩ	—
	50–100 MΩ	0.1 MΩ	—
Output DC 200 V ± 10 %	0–10 MΩ	0.01 MΩ	—
	10–50 MΩ	0.1 MΩ	—
	50–100 MΩ	0.1 MΩ	—
	100–200 MΩ	0.1 MΩ	—
Output DC 500 V ± 10 %	0–20 MΩ	0.01 MΩ	—
	20–100 MΩ	0.1 MΩ	—
	100–200 MΩ	0.1 MΩ	—
	200–500 MΩ	0.1 MΩ	—
Output DC 1000 V ± 10 %	0–200 MΩ	0.1 MΩ	±3 % rdg ± 5 dgt
	200–500 MΩ	1 MΩ	±3 % rdg ± 5 dgt
	500 MΩ – 5 GΩ	0.01 GΩ	±3 % rdg ± 5 dgt
	5–10 GΩ	0.01 GΩ	±5 % rdg ± 3 dgt
Output DC 2500 V ± 10 %	0–500 MΩ	0.1 MΩ	±3 % rdg ± 5 dgt
	500 MΩ – 1 GΩ	1 MΩ	±3 % rdg ± 5 dgt
	1–10 GΩ	0.01 GΩ	±5 % rdg ± 3 dgt
	10–100 GΩ	0.1 GΩ	±10 % rdg ± 3 dgt

Note: the DC 2500 V ranges reach 100 GΩ, matching the YTE2161 range; the factory model table lists rated voltages to 1000 V for both models. Basic error is not specified in the factory table for the 100 V, 200 V and 500 V sections.