**ANENG MH12**

# ANENG MH12 Digital Insulation Resistance Tester User Manual

Model: MH12 | Brand: ANENG

## Introduction

The ANENG MH12 is a high-precision digital insulation resistance tester designed for measuring insulation resistance of various electrical equipment and insulating materials. This includes transformers, motors, cables, switches, and other electrical appliances. It is an essential tool for maintenance, repair, testing, and verification in electrical applications. The device features automatic release voltage, variable rated output voltage, high voltage indication, strong load capacity, and low battery voltage indication, making it easy to operate and carry.

## Safety Information

Always observe the following safety precautions to prevent electric shock or damage to the instrument:

- **High Voltage Warning:** A red LED light on the machine indicates high voltage output. Exercise extreme caution to avoid electric shock.
- Do not use the meter if it is damaged or operating abnormally.
- Ensure test leads are in good condition and properly connected before any measurement.
- Do not touch the test leads or the circuit under test during measurement.
- Always disconnect power to the circuit before connecting or disconnecting test leads for resistance measurements.
- Do not operate the meter in explosive gas, vapor, or dusty environments.
- Replace batteries promptly when the low battery indicator appears to ensure accurate readings.

## Product Overview

The ANENG MH12 features a robust design with a clear digital display and intuitive controls. It is equipped with a silicone shock protection casing for durability and a support frame for convenient operation.


Figure 1: Front view of the ANENG MH12 Digital Insulation Resistance Tester, showing the display, buttons, and input terminals.


Figure 2: Detailed view of the ANENG MH12 function panel, highlighting the display, output voltage range, AC/DC voltage range, and digital display count.


Figure 3: The adjustable support frame of the ANENG MH12, allowing the device to be leaned on a table for convenient measurement and standing operation.

## Setup

The ANENG MH12 is battery-powered for portability and ease of use. Before first use, or when the low battery indicator appears, ensure fresh batteries are installed.

1. Open the battery compartment cover on the back of the device.
2. Insert the required batteries, observing correct polarity.
3. Close the battery compartment securely.
4. Connect the test leads to the appropriate input terminals (L, G, E, AC/DC 600V) on the meter.

## Operating Instructions

### Insulation Resistance Measurement

This function is used to measure the insulation resistance of electrical equipment to determine if it is short-circuited or has insulation breakdown.

1. Ensure the circuit under test is de-energized and safely discharged.
2. Connect the test leads to the equipment under test.
3. Select the desired output voltage (50V, 100V, 250V, 500V, 1000V) using the function buttons. The rated output voltage is variable.
4. Press the **TEST** button to initiate the measurement. The test button will automatically discharge the circuit after measurement.
5. Read the insulation resistance value displayed on the screen.


Figure 4: The ANENG MH12 performing an insulation resistance measurement on an electrical appliance.

## AC/DC Voltage Measurement

The meter can also measure AC and DC voltages within the range of 10V to 600V.

1. Press the **SELECT** key to switch between ACV (AC voltage) and DCV (DC voltage) modes.

2. Connect the test leads to the circuit where voltage needs to be measured.
3. Read the voltage value displayed on the screen.


Figure 5: Examples of AC voltage measurement (left, household socket) and DC voltage measurement (right, car battery) using the ANENG MH12.

## Data Storage and Recall

The ANENG MH12 supports storing up to 100 groups of measurement data.

- To save a measurement, press the **HOLD** button.
- To recall stored data, use the **MEM READ** button.


Figure 6: Illustration of the ANENG MH12's data storage capability, showing multiple stored readings.

## Polarization Index (PI) and Dielectric Absorption Ratio (DAR) Measurement

The meter can automatically compute PI and DAR values, which are important indicators of insulation quality.

- Press the **PI/DAR** button to initiate the measurement for these values.
- The device will perform measurements at specific time intervals (e.g., 1 minute and 10 minutes for PI) and calculate the ratio.

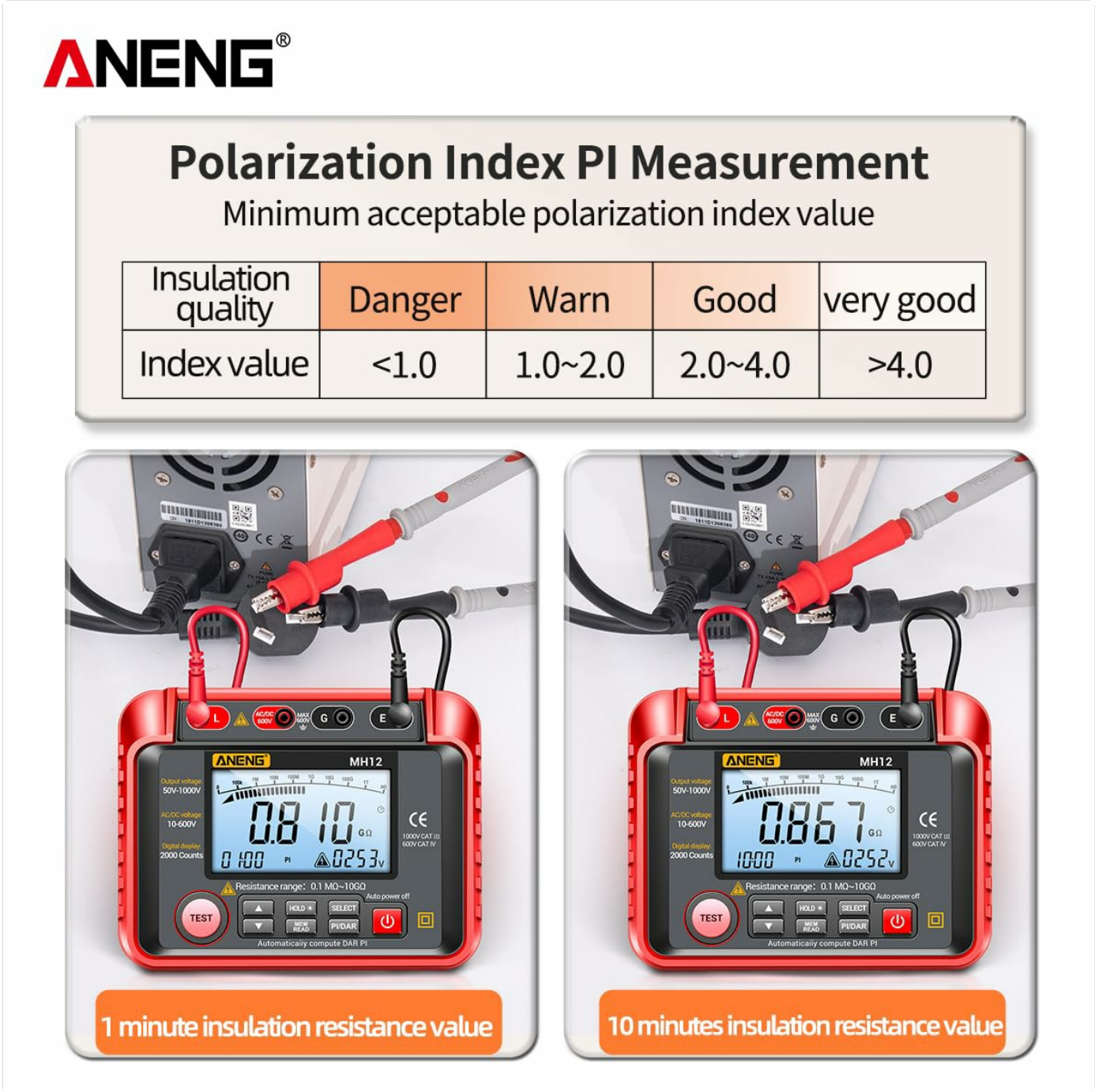


Figure 7: Table showing acceptable Polarization Index (PI) values and corresponding insulation quality ratings (Danger, Warn, Good, Very Good).

## Maintenance

Proper maintenance ensures the longevity and accuracy of your ANENG MH12.

- **Cleaning:** Wipe the meter with a damp cloth and mild detergent. Do not use abrasives or solvents.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures. If storing for extended periods, remove the batteries.
- **Silicone Shock Protection:** The device is designed with a silicone casing for effective anti-shedding and hardware protection. While durable, avoid excessive drops or impacts.


Figure 8: The ANENG MH12 featuring its silicone shock protection, designed for groove fitting and effective anti-shedding, providing robust hardware protection.

## Troubleshooting

If you encounter issues with your ANENG MH12, try the following:

- **No Display/Power:** Check battery installation and ensure batteries are not depleted. Replace if necessary.
- **Inaccurate Readings:** Ensure test leads are securely connected. Verify the correct measurement mode is selected.
- **High Voltage Indication (Red LED):** This is normal during insulation resistance tests. Ensure no contact with test leads or circuit.
- **Meter Not Responding:** Turn the meter off and then on again. If the issue persists, remove and reinsert batteries.

## Specifications

| Feature | Specification |
|---|---|
| Brand | ANENG |
| Model | MH12 |
| Output Voltage | 50V, 100V, 250V, 500V, 1000V (Switchable) |
| AC/DC Voltage Range | 10V - 600V |
| Resistance Range | 0.1 MΩ - 10 GΩ |
| Digital Display | 2000 Counts |
| Power Source | Battery Powered |
| Product Dimensions (LxWxH) | 20 x 18 x 8 cm |
| Color | Red |
| Safety Rating | 1000V CAT III, 600V CAT IV |

## Warranty and Support

For warranty information or technical support, please refer to the product packaging or contact the retailer from whom the ANENG MH12 was purchased. Keep your proof of purchase for any warranty claims.



### Related Documents

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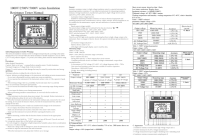
|  | ANENG MH12 Insulation Resistance Tester Manual: 1000V, 2500V, 5000V Specifications & Operation<br>Comprehensive user manual for the ANENG MH12 series insulation resistance testers (1000V, 2500V, 5000V). Covers safety precautions, general description, technical specifications, appearance, measurement procedures for insulation resistance, AC/DC voltage, DAR, and PI, along with data handling and battery replacement. |
|  | ANENG MH12 Megohmmeter and Earth Resistance Tester<br>The ANENG MH12 is an insulation resistance tester with a wide measurement range from 0.1 MΩ to 10 GΩ and test voltage up to 1000V. It tests the resistance of motors, cables, mechanical and electrical equipment, telecommunications equipment, power facilities, and more. The MH12 model features a wide measurement range, polarization index measurement, absorption ratio, data recording, and other additional functions. |

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|  | [ANENG M107 Mini Multimeter: Features, Specifications, and Usage Guide]<br>Discover the ANENG M107, a compact and intelligent smart digital multimeter. This guide covers its automatic measurement capabilities, AC/DC voltage and current testing, resistance measurement, NCV detection, flashlight, innovative storage, and detailed functional parameters. |
|  | [ANENG 683 Digital Multimeter User Manual and Specifications]<br>Comprehensive user manual for the ANENG 683 digital multimeter, covering safety instructions, technical specifications, operating procedures, maintenance, and package contents. Learn how to accurately measure voltage, current, resistance, capacitance, and temperature. |

Documents - ANENG – MH12


[ANENG MH12 Megohmmeter and Earth Resistance Tester]
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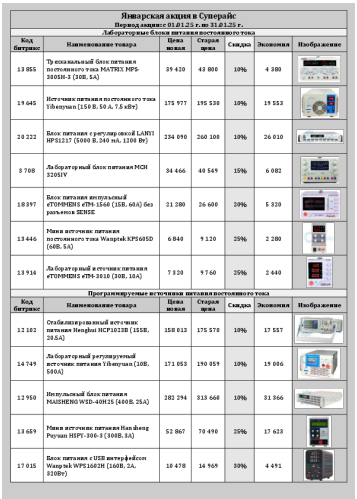


[Январская акция на оборудование Суперайс]
Каталог оборудования Суперайс с январскими скидками на лабораторные блоки питания, микроскопы, паяльные станции, осциллографы и многое другое. Акция действует с 01.01.2025 по 31.01.2025.
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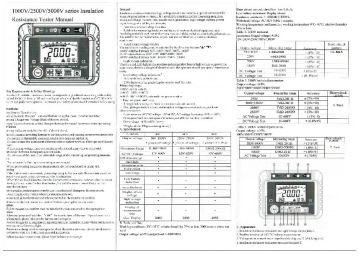


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User manual View ANENG MH12 Digital Megohmmeter Meters Insulation Earth Resistance Tester cable High Voltage Voltmeter Meter AliExpress 1420 S43c35cae078d4f23a072461700c121a3n ae01 alicdn kf
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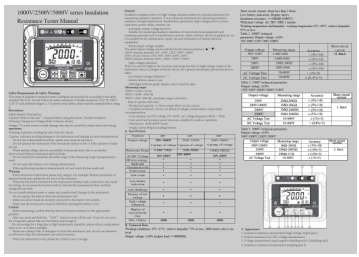

[ANENG MH12 Insulation Resistance Tester Manual: 1000V, 2500V, 5000V Specifications & Operation]

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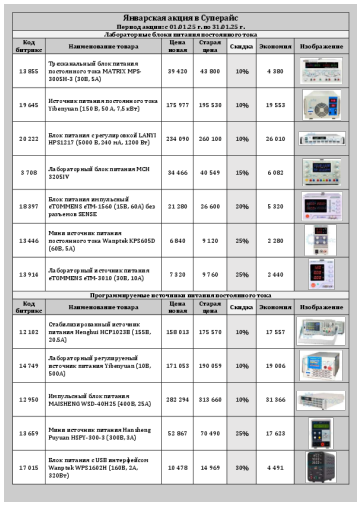

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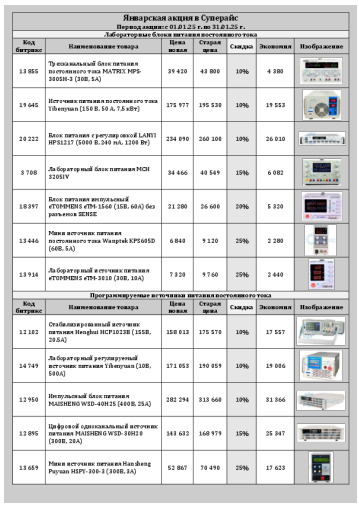

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