

## Eversame 00005

# Eversame 2-in-1 Type C USB Tester User Manual

Model: 00005

## 1. INTRODUCTION

The Eversame 2-in-1 Type C USB Tester is a versatile digital multimeter designed to monitor the charging status and performance of your USB-enabled and Type-C devices. It provides real-time data on voltage, current, capacity, electric quantity, power, load impedance, and D+/D- voltage. This device supports various fast charging protocols, including QC3.0, QC2.0, and BC1.2, making it an essential tool for evaluating chargers, cables, and power banks.

### Key Features:

- **Multifunctional Measurement:** Detects voltage, current, power, capacity, and more.
- **Wide Compatibility:** Supports USB-A and Type-C inputs/outputs, compatible with various devices and fast charging protocols.
- **Safety Protections:** Features over-voltage, over-current, under-voltage, and low energy protection with an alarm system.
- **Multiple Display Modes:** Offers 8 LCD color screen display interfaces for comprehensive data visualization.
- **Data Storage:** Automatically saves data even if power is suddenly lost.

## 2. PRODUCT OVERVIEW

The Eversame USB Tester features a compact design with multiple ports and a clear LCD screen for displaying measurement data.



Image 2.1: Front view of the Eversame USB Tester displaying measurement data.

### Components:

- **USB Input (Male):** Connects to power sources (chargers, power banks).
- **Type-C Input (Male):** Connects to Type-C power sources.
- **Micro USB Input:** For triggering PD charging function with the included adapter.
- **USB Output (Female):** Connects to devices to be charged/tested.
- **Type-C Output (Female):** Connects to Type-C devices to be charged/tested.
- **Function Button:** Used for display switching, data resetting, and system settings.
- **LCD Color Screen:** Displays various measurement parameters.



Image 2.2: Labeled diagram of the Eversame USB Tester's ports and button.

### 3. SETUP AND CONNECTION

To begin using your Eversame USB Tester, follow these connection steps:

1. **Connect to Power Source:** Insert the USB-A male connector or the Type-C male connector of the tester into your power source (e.g., wall charger, power bank, computer USB port).
2. **Connect Device:** Plug the device you wish to test (e.g., smartphone, tablet, USB fan) into the corresponding USB-A female output or Type-C female output port on the tester.
3. **Power On:** The tester will automatically power on and display readings once a connection is established and power flows through it.

#### Important Notes for Display:

- The tester requires the connected devices to meet specific charging protocols before the screen will light up.
- If the screen does not light up after confirming the protocol is met, try flipping the Type-C cable. The tester is designed to work on one side for Type-C connections.
- If the USB Tester doesn't display any parameters, especially for PD charging, insert the small adapter (included with the package) into the Micro USB input port on the side of the USB Tester to trigger the PD Charging Function.

Specification of USB Tester			
Voltage Measuring Range:	3.6V~32.0V	Voltage Resolution Precision:	0.01V
Current Measuring Range:	0.00~5.10A	Current Resolution Precision:	0.01A
Capacity Cumulative Range:	0~999999mAh	Capacity Resolution Precision:	0.001Ah
Power Cumulative Range:	0~999999mWh	Power Resolution Precision:	0.001Wh
Power Metering Range:	000.00~150.00W	Power Resolution Precision:	0.01W
Resistance Measuring Range:	1~999.9Ω	Resistance Resolution Precision:	0.001Ω
Temperature Measuring Range:	0~80°C/32~176°F	Temperature Resolution Precision:	1°C/1.8°F
Maximum Timing Range:	999H 59M 59S	Timing Resolution Precision:	1s
Timer Charging Reminder:	Arbitrary in 24 hours	Pressure of Work:	80~106kPa
USB D+ Voltage Range:	0V~2.999V	USB D+ Voltage Resolution Precision:	0.001V
USB D- Voltage Range:	0V~2.999V	USB D- Voltage Resolution Precision:	0.001V
Full Charger Reminder Parameters of Mobile :	<2W/0.5h	Time to Refresh:	500mS/times
Measurement Rate:	0.5 times/s	Self-consumable Current:	<0.02A
Working temperature:	-10~+60°C/14~140°F	Working Humidity:	10~80(no doubt)

Image 3.1: Correct connection for display activation.



Image 3.2: Example of the tester in use with a charger and phone.

## 4. OPERATING THE TESTER

The Eversame USB Tester features a single function button for navigating display modes, resetting data, and accessing system settings.

### 4.1 Display Modes

The tester offers 8 main color screen display interfaces. You can switch between these interfaces by pressing the function button.

Main Interfaces of the USB Tester

Welcome	电压: 5.13V ↔ 电流: 1.96A 功率: 0010.05W 002.6Ω 电量: 0851.62Wh 16°C 容量: 01096mAh 061°F 计时: 0002:39:26 NO.01	Vol : 5.13V ↔ Cur: 1.96A Pwr : 0010.05V 002.6Ω Ene: 0851.62Wh 16°C Cap: 01096mAh 061°F Tme: 0002:39:26 NO.01	5.09V / NO.02 ↔ 1.89A 09625mAh 9.62W 00050Wh	9.28V ↔ 6.41A 0059.48W 002.9Ω 0007.92Wh / 16°C 00819mAh Tme: 0000:16:59 ON.01
Boot Screen	Chinese Display Interface	English Display Interface	Large Display Interface 1	Large Display Interface 2
V-: 0V FCP 999.9Ω D+: 2.69V FAST 008.220Wh D-: 2.63V 00008mAh V+: 5.15V ↔ 4.52A / 0023.27W Tme: 0000:00:00 ON.01	4.73V RiPpLe VPP: 048mV 4.73V 4.55V 0.035V 0.8S 4.55V	5.00V VA 0.5S 0.10A 5.00V 0.040V 0.020A 0.00A	System Settings 1. > 32.0V (OVP/过压) 2. Long press to enter 3. 长按进入 4. Screen Rotation/旋转	System Settings 5. Default Set... / 出厂值 6. Clear Data / 数据清零 7. USB IAP / USB 升级 8. Exit / 退出
USB Four-wire Detection Interface	Ripple Value of a charger	Voltage/Current Graph View	System Setting Interface 1	System Setting Interface 2
System Settings 1. > 32.0V (OVP/过压) 2. < 0.00V (LVP/低压) 3. > 8.00V (OCP/过流) 4. Screen Rotation/旋转	Display Off 3	> 30.0V	< 3.00V	> 8.00A
Screen Rotation	Screen OFF Countdown	Over-voltage Warning Interface	Low-voltage Warning Interface	Over-current Warning Interface

! Click the key to switch between the different screens

Image 4.1: Overview of the different display interfaces.

Each interface provides different data sets:

- **Main Interface:** Shows voltage, current, power, resistance, capacity, energy, temperature, timer, and test group number.
- **Large Display Interfaces:** Provide larger fonts for key readings like voltage, current, power, and

capacity.

- **USB Four-Wire Detection Interface:** Displays ground wire voltage, USB protocol, data line voltages (D+/D-), and positive power line voltage.
- **Ripple Value of a Charger:** Visualizes voltage ripple.
- **Voltage/Current Graph View:** Graphs voltage and current over time, with adjustable time resolution.
- **System Settings Interface:** Allows configuration of protection values and other settings.

## 4.2 Button Functions

The single function button controls various operations:

- **Short Press (Single Click):** Switches between different display functions/screens.
- **Double Click:** Resets the mAh (Amp-hour) field.
- **Triple Click:** Resets the Wh (Watt-hour) field.
- **Four Clicks:** Resets the timer.
- **Long Press (Hold):** Resets all three fields (mAh, Wh, Timer).
- **Five Clicks:** Selects the current test group (there are 10 test groups to log data separately).

## 4.3 System Settings

To enter System Settings, perform a long press on the function button. Once in settings:

- **Navigate:** Click once to step through parameters.
- **Edit:** When the desired parameter is highlighted, perform a long press until it flashes.
- **Adjust Value:** Single click to decrement, double click to increment. Long press while flashing quickly adjusts the value.
- **Save:** After a few seconds of no clicks, the displayed value is saved, and the tester shows "OK".

Adjustable parameters include:

- **Over Voltage Protection (OVP):** Sets the maximum voltage threshold.
- **Lower Voltage Protection (LVP):** Sets the minimum voltage threshold.
- **Over Current Protection (OCP):** Sets the maximum current threshold.
- **Screen Rotation:** Flips the display 180° with a long press.
- **Default Set:** Returns to factory default values with a long press.
- **Clear Data:** Clears all data in all test groups with a long press.
- **Standby Style:** Changes the screen displayed after timeout.
- **Capacity Ratio:** Used for power bank capacity calculations.
- **Exit:** Exits the settings menu.

# 5. APPLICATIONS

The Eversame USB Tester can be used for various testing scenarios:

## 5.1 Testing Charging Speed & Quality of USB Cables

By connecting the tester in-line with a charger and a load, you can observe the voltage drop across the

USB cable. Under constant power supply and load, a larger voltage and lower voltage drop indicate a higher quality USB cable.

## 5.2 Testing Capacity & Electric Energy of Power Banks

1. Ensure the power bank is fully charged before testing.
2. Long press the function button to reset the capacity and electric energy readings on the tester.
3. Connect a phone or other discharging device to the power bank via the tester.
4. Keep the power bank discharging until it is drained.
5. Read the final capacity and electric energy values from the tester.

Formula for Power Bank Electric Energy:  $Wh / 3.75V * mAh * 1000 * 90%$  (Note: 3.75V is default battery voltage)

## 5.3 Testing Chargers

Insert the USB Tester into a USB charging port of the charger. Connect an adjustable constant current load to the tester's output. By varying the load, you can observe the charger's voltage and current output under different conditions.

### Detailed Description of the Functional Interface

#### Main Interface

Labels: Voltage, Power, Electricity, Capacitance, Timing, Current Direction, Current, Resistance, Celsius, Fahrenheit, Group Set No.

#### Large Display Interface 1

Labels: Voltage, Current, Power, Group Set No., Current Direction, Capacitance, Electricity

#### Large Display Interface 2

Labels: Voltage, Power, Electricity, Timing, Current Direction, Current, Resistance, Capacitance, Group Set No.

#### USB Four Wire Detection

Automatically Identify Multiple Fast Charging Protocols

Labels: Ground Wire, USB fast charge D+ logic voltage value, USB fast charge D- logic voltage value, Supply Voltage, Timing, Fast Charge Identification Display, Resistance, Electricity, Capacitance, Power, Group Set No.

#### Ripple Value of a Charger

#### Voltage Current Graph View

#### System Settings Interface 1

#### System Settings Interface 2

#### Others

Screen rotation

Long press to rotate screen

Over-voltage warning

Low-voltage warning

Over-current warning

#### Detail Operations

1. Short Press to change different functions, long press to confirm
2. Quick 2 press: Reset capacity (mAh)
3. Quick 3 press: Reset electricity (Wh)
4. Quick 4 press: Reset Timing (00:00:00)
5. Quick 5 press: Change group No.
6. Long Press to reset capacity, electricity and timing of curent group
7. Keep press before power on to enter system setting interface
8. Long press second line of system settings interface is Zero calibration of current at no load
9. In warning interface, double click to add, triple click to reduce the value, and keep press to continuously add or reduce

Image 5.1: Visual examples of application tests.

## 6. SPECIFICATIONS

Detailed technical specifications for the Eversame 2-in-1 Type C USB Tester:

### Application Test



#### Test Charging Speed & Quality of USB Cable

Under the circumstance of the constant power supply and sustained load, the larger voltage and the lower voltage drop of the USB cable detected by this USB Tester means that the better quality of USB Cables will be.

#### Test Capacity & Electric Energy of Power Bank

- 1st: Make sure the power bank is fully charged before test
- 2nd: Plug the USB tester into power bank
- 3rd: Long press to reset the capacity and electric energy
- 4th: Connect with phone or load or other discharging devices
- 5th: Keep the power bank discharging until the power is drained
- 6th: Read the values after power on again.

**Formula:** (Note: 3.75 V is default battery voltage)  
Power bank Electric energy =  $Wh / 3.75V * mAh \times 1000 \times 90\%$



#### Test Charger

First insert this USB Tester into a USB Charging Port of the charger you need to test, then use the adjustable constant current tester to Change the current value, detect the current and voltage data of charger.

Image 6.1: Detailed specifications table.

Parameter	Range	Resolution/Precision
Voltage Measuring Range	3.6V-32.0V	0.01V
Current Measuring Range	0.00-5.10A	0.01A
Capacity Cumulative Range	0-99999mAh	0.001Ah
Power Cumulative Range	0-99999mWh	0.001Wh
Power Metering Range	000.00-150.00W	0.01W
Resistance Measuring Range	1-999.9Ω	0.001Ω
Temperature Measuring Range	0-80°C / 32-176°F	1°C / 1.8°F
Maximum Timing Range	999H 59M 59S	1s
USB D+ Voltage Range	0V-2.999V	0.001V
USB D- Voltage Range	0V-2.999V	0.001V
Measurement Rate	0.5 times/s	
Self-consumable Current	<0.02A	
Working Temperature	-10~+60°C / 14~140°F	
Working Humidity	10-80 (no doubt)	

## 7. MAINTENANCE

To ensure the longevity and accurate performance of your Eversame USB Tester, follow these general maintenance guidelines:

- **Storage:** Store the tester in a cool, dry place away from direct sunlight and extreme temperatures.
- **Cleaning:** Use a soft, dry cloth to clean the device. Avoid using abrasive cleaners or solvents that could damage the screen or casing.
- **Handling:** Handle the tester with care to prevent physical damage. Avoid dropping it or exposing it to excessive force.
- **Moisture:** Keep the device away from water and high humidity to prevent internal damage.

## 8. TROUBLESHOOTING

If you encounter issues with your Eversame USB Tester, refer to the following common problems and solutions:

- **No Display/No Output:**
  - Ensure the connected devices meet the necessary charging protocols for the tester to activate.
  - For Type-C connections, try flipping the cable. The tester may require a specific orientation.

- If testing PD charging and no parameters are displayed, insert the small adapter (included) into the Micro USB input port to trigger the PD charging function.
  - Verify that both the power source and the connected device are functioning correctly.
- **Inaccurate Readings:**
    - Ensure all connections are secure and free from debris.
    - Avoid using excessively long or low-quality cables, which can introduce resistance and affect readings.
    - If you suspect calibration issues, you can reset the device to factory defaults via the System Settings menu (refer to Section 4.3).
- **Tester Shuts Down Automatically:**
    - Check if any of the protection thresholds (OVP, LVP, OCP) have been triggered. The tester is designed to cut off output and alarm if these limits are exceeded.
    - Ensure the power source can provide sufficient power for the connected device.

## 9. WARRANTY AND SUPPORT

Eversame is committed to providing high-quality products and excellent customer experience.

### Warranty Information:

- **18-Month Worry-Free Warranty:** Eversame offers an 18-month warranty for this product.
- **365 Days Unconditional Replacement:** Within 365 days of purchase, you are eligible for a one-time unconditional replacement.
- **30 Days Product Trial:** A 30-day product trial period is provided.

### Customer Support:

For any reason you are unsatisfied with your product, or if you require technical assistance, please feel free to contact Eversame customer support for exchange, refund, or troubleshooting.

- **Online After-sales Support:** Available within 24 hours.
- **Contact:** Refer to your product packaging or the official Eversame website for the most current contact information.



Image 9.1: Eversame Quality Maintenance and Support.