TN05 & TN10

电流监测显示仪

电池电量表

AIWAY

使用说明书 V1.0

内置说明 | 说明书 | 内置可能

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产品简介

本款产品为高精度电流监测显示仪，专为电动车、太阳能系统、储能系统、家庭或工业电源系统设计，可实时监测电池组的电压、电流、剩余电量、累计安时数（Ah）及累计瓦时数（Wh），并通过高亮度显示屏直观呈现数据，帮助用户精确掌控电池状态。

核心优势：

- 精确计量：采用高精度分流器与专业计量芯片，可实时监测电池组的电压、电流、剩余电量、累计安时数（Ah）及累计瓦时数（Wh），为电池管理提供精确数据支撑。
- 多场景适用：适用于电动车、太阳能系统、储能系统、家庭或工业电源系统等场景，满足不同应用需求。
- 直观显示：高亮度显示屏实时呈现关键数据，操作简单易懂，即使非专业人士也能快速读取电池状态。
- 灵活设置：支持通过按键调整参数，适配不同电池规格与使用习惯，提升设备兼容性与实用性。

产品尺寸与外观图

正面 | TN05侧面 | TN10侧面

TN05背面 | TN10背面

接线图示

1.直接安装接线示意图(适用于电动车、太阳能系统、储能系统、家庭或工业电源系统)

2.第一根BMS-2x5.0mm²红色线接BMS B+端口，第二根BMS-2x5.0mm²红色线接BMS P+端口，第三根BMS-2x5.0mm²黑色线接BMS B-端口。

3.电池组B+端口接电池组B+端口，电池组B-端口接电池组B-端口。

4.电池组B-端口接负载B-端口，电池组P+端口接负载P+端口，**请勿将电池组B-端口接负载P+端口，否则会烧毁设备！**

5.负载B-端口接负载B-端口。

注意：请根据实际情况选择合适的线缆规格，不合适的线缆可能导致设备损坏甚至引发安全隐患。

激活唤醒方法

- 长按按键唤醒设备，设备会显示开机动画。
- 在设置模式下，长按按键可保存当前设置并退出设置模式。

使用说明

- 设备通电后，屏幕会显示开机动画，随后进入主显示界面，实时监测电池组的电压、电流、剩余电量、累计安时数（Ah）及累计瓦时数（Wh）。
- 长按按键进入设置模式，可调整电池容量、电压、电流等参数，调整完成后长按按键保存并退出设置模式。
- 设置模式下，若长时间（约30秒）未操作，设备将自动保存当前设置并退出设置模式。

安装方式

- 步骤1：在安装位置选择合适位置，确保设备稳定安装，避免剧烈振动。
- 步骤2：从背面开孔安装支架，确保开孔尺寸与设备尺寸匹配。
- 步骤3：将设备固定在开孔位置，确保设备牢固安装。

常见问题

问题：设备无显示

- 检查电池组是否有电压输出，确保电池组正常工作。
- 检查设备接线是否正确，确保电源线连接牢固。

问题：显示数值不准确

- 检查分流器是否安装正确，确保分流器与电池组正常连接。
- 检查设置参数是否与电池组实际参数匹配，调整电池容量、电压、电流等参数以确保数据准确性。

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- 检查设置参数是否与电池组实际参数匹配，调整电池容量、电压、电流等参数以确保数据准确性。

TN05 & TN10

Current Collection

Type Battery Monitor

AIWAY

Instruction V1.0

Sample | Precision | Brightness

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Product Introduction

This product is a high-precision current collection type battery monitor, using advanced 32-bit MM series chip technology, capable of real-time monitoring of battery voltage, current, remaining capacity, and cumulative ampere-hours (Ah) and watt-hours (Wh) after the input current is processed by the CHUB coin accuracy sheet the real-time voltage, current, remaining capacity, and cumulative ampere-hours (Ah) and watt-hours (Wh) of the battery pack are displayed on the high-brightness screen, providing accurate data support for battery management.

- It is equipped with a built-in sample, suitable for small devices with built-in lithium batteries, & can be used in electric vehicles, solar energy systems, energy storage systems, home or industrial power supply systems, medical equipment, various instruments and meters, and other battery equipment.
- The interface is simple and easy to operate, and even non-professionals can quickly read the battery status.
- Comes in two specifications: 5A and 10A, suitable for different power scenarios.

Appearance Diagram

Wiring Method

1. B- is connected to the shell, and the negative B- of the battery pack is connected to the shell, ensuring the shell is grounded. B-/- for charging and discharging.

2.Take a red wire (2X1.0AWG) to connect the positive B+ of the battery pack to the B+ for power supply of the meter (just connect any one of the four ports).

3.Take a red wire (2X1.0AWG) to connect the positive B+ of the battery pass through the product.

First Use Method

Battery Power Supply Current

After connecting the connection according to the **Wiring Method**, power on and the screen will display the startup animation. The product will automatically enter the main interface after the startup animation. In the main interface, the battery voltage, current, remaining capacity, and cumulative ampere-hours (Ah) and watt-hours (Wh) are displayed. Long-press the button to enter the setup interface. If no operation is performed for 30 seconds, the system will automatically save the current settings and exit the setup interface.

Battery capacity, voltage, current, and other parameters can be adjusted according to actual battery specifications. The specifications of the battery should be set correctly when the battery is used for the first time or replaced, see Instruction.

Note: If the battery voltage is not displayed, you need to follow the steps below:

1. Ensure the battery is fully charged and the battery voltage is stable. For example, it is up to 13.8V for a 12V battery, and it is up to 27.6V for a 24V battery.
2. Ensure the battery pack and the same time (see the capacity value for the battery pack, and then change the battery pack capacity value to the actual capacity of the battery pack, see Instruction).
3. Capacity metering (synchronized) the battery capacity is changed to 100% and the voltage is 13.8V (approx. When the battery is discharged (empty), Press and hold the button ⏻ to set capacity synchronization to 0%.
4. Full capacity: When the battery is fully charged, Press and hold the button ⏻ to set the capacity synchronization to 100%.

Installation Method

Specification Version Information

Product Model	Specification Version
TN05-7X7-5A-NO-S	5A
TN05-7X7-5A-NO-D	5A
TN05-7X7-5A-NO-T	5A
TN10-7X7-5A-NO-S	10A
TN10-7X7-5A-NO-D	10A
TN10-7X7-5A-NO-T	10A

Parameter Function

- **Battery Capacity Setting:** Adjust the battery capacity according to the actual battery capacity.
- **Battery Voltage Setting:** Adjust the battery voltage according to the actual battery voltage.
- **Battery Current Setting:** Adjust the battery current according to the actual battery current.
- **Battery Capacity Synchronization Setting:** Synchronize the battery capacity according to the actual battery capacity.
- **Battery Capacity Synchronization Setting:** Synchronize the battery capacity according to the actual battery capacity.
- **Battery Capacity Synchronization Setting:** Synchronize the battery capacity according to the actual battery capacity.

Display Parameter Switching

Capacity Metering / Synchronization Settings

- **Battery Capacity Synchronization Setting:** Press and hold the button ⏻ to set the capacity synchronization to 100%.
- **Battery Capacity Synchronization Setting:** Press and hold the button ⏻ to set the capacity synchronization to 0%.

Preparation Settings

- **Battery Capacity Setting:** Press and hold the button ⏻ to enter the project settings interface (SET1 flashes).
- **Battery Capacity Setting:** Press and hold the button ⏻ to enter the project settings interface (SET1 flashes).

Technical Parameters

Parameter	Min.	Regular	Max.	Unit	Notes
Working voltage	9.0		32	V	
Working current	Backlight off		1.5	mA	
	Backlight on		3.5	mA	
	Sleep state	0.2		μA	
Accuracy of voltage collecting			0.1	%	
Accuracy of current collecting			0.2	%	
Working temperature	-20	25	70	℃	
Backlight on current			10	mA	
Capacity detection range	0.1	100	999	Ah	
Power detection range	0.1	100	999	Wh	
Time	Value updated current	1	2	S	
	Power-on to start collecting	1	2	S	
Dimensions	Front panel	86.5×86.5×2.5		mm	Tolerance ±0.5mm
	Open hole	76×76		mm	
Weight	TN05	80.5±0.5g		g	
	TN10	81.5±0.5g		g	

Note

1. The current limit should be used during the installation process.
2.Keep heat ventilation and heat dissipation when using the maximum current for long periods of time.
3.Do not open, disassemble, repair or modify the product.
4.Do not use in environments with high temperature, high humidity, or corrosive chemicals.
5.Do not open, disassemble, repair or modify the product.
6.Do not use in environments with high temperature, high humidity, or corrosive chemicals.
7.If it is out of the box, put out the fire with a PP-ABC or CO2 fire extinguisher.