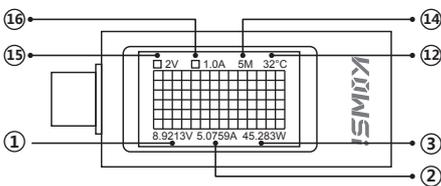
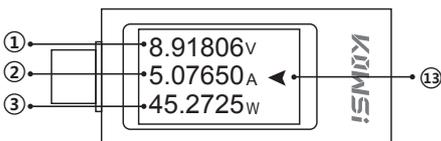
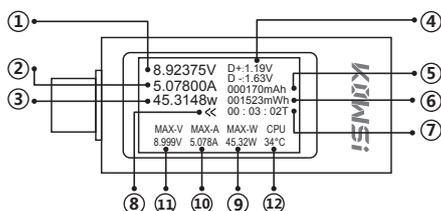


# 70x200mm

## KWS-2303C 产品说明书



### 产品参数

- |                  |                 |
|------------------|-----------------|
| 1: 电压4-30V       | 2: 电流0-12A      |
| 3: 功率0-360W      | 4: 数据接口电压       |
| 5: 容量0-666666mAh | 6: 电能0-999999Wh |
| 7: 计时0-99小时      | 8: 电流方向标        |
| 9: 记录单次最大功率      | 10: 记录单次最大电流    |
| 11: 记录单次最高电压     | 12: CPU温度       |
| 13: 电流方向         | 14: 页面曲线时间      |
| 15: 每个格子电压       | 16: 每个格子电流      |

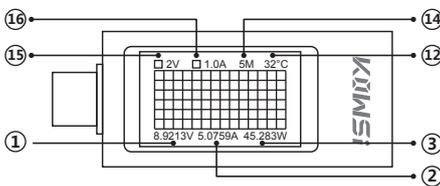
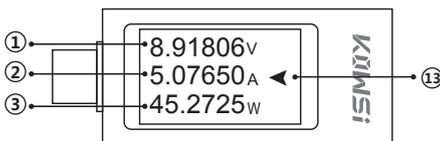
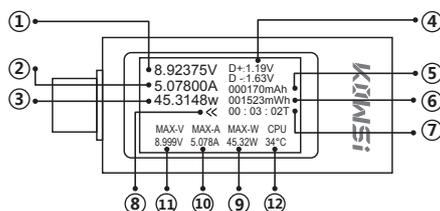
### 功能操作

产品背面有一个按键，可以通过按键单击变换显示页面，快速双击按键可以变换显示方向，长按3秒左右可以清除记的计时和容量以及电能。在曲线图页面时长按按键可以变换曲线时间，时间区别为每个页面是5分钟、15分钟、60分钟、2小时4种量程。

### 常见问题

- 问题1:** 产品为什么插上电产品不显示？  
**答:** type-c口大部分的充电产品是默认没有电压输出的，只有检测到负载协议时才会有电压输出。
- 问题2:** 我的产品充电器上标了10A或120W为什么测试表不能测出10A或120W？  
**答:** 本产品测试出来的数值是充电过程中的实时充电参数，充电器上标的参数是产品的最大功率参数。
- 问题3:** 产品在使用中没有连接负载也会有0.00001-0.00005A的电流？  
**答:** 本产品是选用TI的INA226双向电流电压采集芯片，出现很小的空载电流属于正常现象，但也可以通过按键校准消除。消除方法：确保没连接任何负载时按住按键不放，再连接带5.0000V的基准电源type-c到母座，等显示屏出现CAL时再松开按键，机器会自动消除空载电流。如没有出现CAL，1是产品不需要校准，2是基准电源的电压不准确。

## KWS-2303C Product Manual



### Product parameters

- |   |                                 |
|---|---------------------------------|
| 1: Voltage 4-30V                                | 2: Current 0-12A                |
| 3: Power 0-360W                                 | 4: Data interface voltage       |
| 5: Capacity 0-666666mAh                         | 6: Electricity 0-999999Wh       |
| 7: Timing 0-99 hours                            | 8: Current Direction Indicator. |
| 9: Record the maximum power recorded.           |                                 |
| 10: Record a maximum current measurement.       |                                 |
| 11: Record a maximum voltage at a single point. |                                 |
| 12: CPU temperature                             |                                 |
| 13: Direction of current                        | 14: Page curve time             |
| 15: Voltage per cell                            | 16: Current per cell            |

### Functional operation

There is a button on the back of the product that can be clicked to change the display page. Double-click the button to change the display direction. Press and hold for about 3 seconds to clear the recorded timing, capacity, and power. Long press the button on the curve page to change the curve time, the time difference is 5 minutes per page, 15 minutes, 60 minutes, 2 hours 4 kinds of ranges.

### Frequently Asked Questions

- Question 1: Why is the product plugged in and not displayed?**  
**Answer:** Most charging products with type-c ports have no voltage output by default and only become active when the load protocol is detected.
- Question 2: My product charger is marked with 10A or 120W. Why can't the test table detect 10A or 120W?**  
**Answer:** The value tested by this product is the real-time charging parameter during the charging process, and the marked on the charger is the maximum power parameter of the product.
- Question 3: Will the product have a current of 0.00001-0.00005A without connecting to the load during use?**  
**Answer:** The product uses the INA226 bidirectional current and voltage acquisition chip of Texas Instruments. It is normal for a small no-load current to occur. But it can also be eliminated through button calibration. Elimination method: Hold the button when no load is connected, and then connect the reference power supply with 5.0000V type-C to the micro usb. Release the button when the screen shows CAL, and the product will automatically eliminate no-load current. If there is no CAL, one reason is that the product does not require calibration, and another reason is that the voltage of the reference power supply is inaccurate.