

## KWS-DC26

# KWS-DC26 DC Power Meter Battery Load Tester User Manual

Model: KWS-DC26

## INTRODUCTION

The KWS-DC26 DC Power Meter Battery Load Tester is a high-precision instrument designed for comprehensive measurement of electrical parameters in DC circuits. It accurately measures voltage, current, power, and energy consumption. This device is ideal for various applications, including battery performance testing, solar system monitoring, and electric vehicle charging station analysis. Featuring a high-precision color LCD display, multiple alarm indicators, bidirectional measurement capabilities, and data logging, it offers ease of operation and high reliability.

## SAFETY INFORMATION

- Always ensure proper polarity when connecting the device to avoid damage to the meter or the circuit under test.
- Do not exceed the maximum voltage (DC80V) or current (50A) ratings specified for the device.
- Handle with care to prevent physical damage. Avoid exposure to extreme temperatures or moisture.
- Disconnect power before making or changing any connections.
- Refer to your specific application requirements and local electrical codes before utilizing the load tester.

## PRODUCT OVERVIEW

The KWS-DC26 features a compact design with a clear color LCD display. It is equipped with various connectors to suit different applications. The device provides real-time data and historical records for comprehensive analysis.

### Key Features:

- **Multifunctional Testing:** Measures voltage (DC8V-DC80V), current (up to 50A), power, and energy consumption.
- **High Visibility Display:** 51\*30mm color LCD screen for easy reading in various conditions.
- **Bidirectional Measurement:** Capable of measuring both charge and discharge.
- **Data Logging:** Features power failure memory to retain recorded data.
- **Safety Alarms:** Includes multiple alarm indicators for overvoltage, overcurrent, and overtemperature conditions.

- **Temperature Monitoring:** Real-time temperature monitoring with an external thermostat to prevent overheating.



Figure 1: KWS-DC26 DC Power Meter with XT90 connectors, displaying various electrical parameters.

## SETUP INSTRUCTIONS

1. **Identify Connectors:** The KWS-DC26 is available with different connector types (e.g., XT-90, XT-60, Anderson, 3-pin). Ensure you have the correct variant for your application. The current model features XT-90 connectors.
2. **Connect to Source:** Connect the "SOURCE" side of the power meter to your DC power source (e.g., battery, solar panel output, wind turbine controller output). Ensure the positive (+) and negative (-) terminals are correctly aligned.



Figure 2: Connecting the KWS-DC26 to a power source and load.

3. **Connect to Load:** Connect the "LOAD" side of the power meter to your DC load (e.g., electric vehicle, outdoor power source, battery charger). Again, verify correct polarity.
4. **External Thermostat (Optional):** If your model includes an external thermostat, connect it to the designated port on the meter. This allows for real-time temperature monitoring of the charging product.

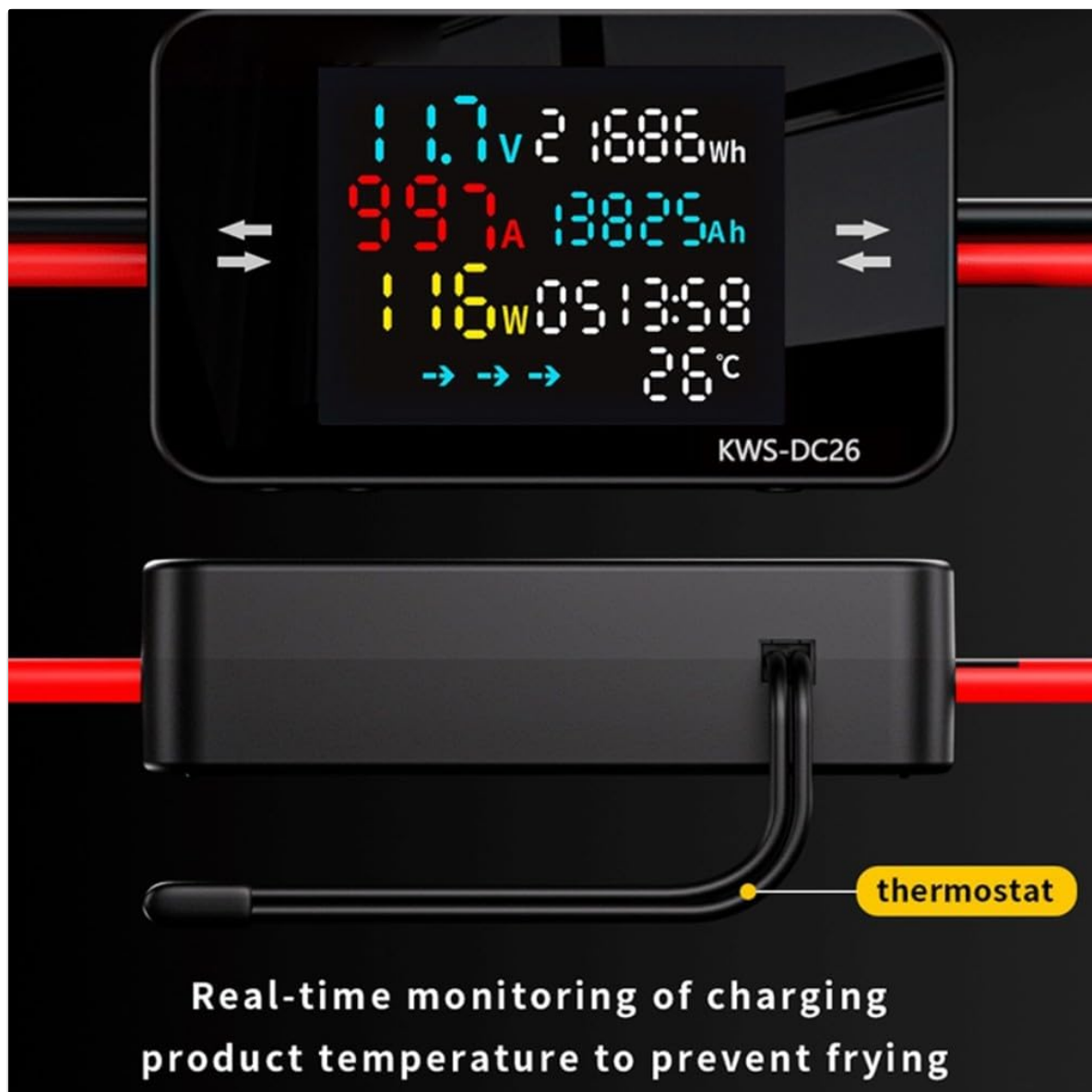


Figure 3: External thermostat connection for temperature monitoring.

5. **Power On:** Once all connections are secure, apply power to the circuit. The LCD display should illuminate and begin showing readings.

### Visual Setup Guide:

Your browser does not support the video tag.

Video 1: Demonstrates the connection and basic operation of the KWS-DC26 power analyzer, showing how to connect it to a power source and load, and how to read the display.

## OPERATING INSTRUCTIONS

The KWS-DC26 provides real-time measurements and historical data. The color LCD displays multiple parameters simultaneously for easy monitoring.

### Display Readings:

- **Voltage (V):** Displays the current voltage of the circuit.
- **Current (A):** Shows the current flowing through the circuit.
- **Power (W):** Indicates the instantaneous power consumption or generation.

- **Energy (Wh):** Accumulates the total energy consumed or generated over time.
- **Amp-Hour (Ah):** Accumulates the total charge transferred over time.
- **Timer:** Tracks the duration of the measurement.
- **Temperature (°C):** Displays the temperature from the external thermostat.

### Navigating Historical Data:

The device stores historical data such as peak watts (Wp), peak amps (Ap), and minimum voltage (Vm). Use the buttons on the device to cycle through these historical readings. The video in the setup section also demonstrates this functionality.



Figure 4: Close-up of the KWS-DC26 display and control buttons.

## MAINTENANCE

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures.
- **Data Reset:** The device features power failure memory. Consult the device's physical buttons or specific instructions for resetting accumulated data (Wh, Ah, Timer) if needed.
- **Protection Features:** The KWS-DC26 includes built-in overvoltage, overcurrent, and overtemperature



protection. If an alarm triggers, identify and resolve the underlying issue in your circuit before continuing operation.

## TROUBLESHOOTING

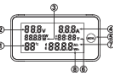
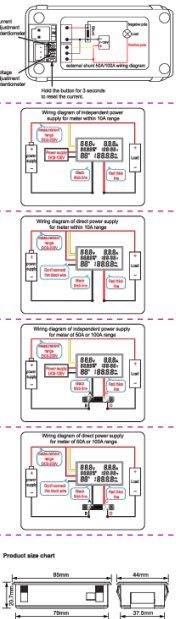


- **No Display:** Check all power connections to ensure they are secure and correctly polarized. Verify that the input voltage is within the specified range (DC8-80V).
- **Incorrect Readings:** Ensure all connections are tight and that the device is correctly wired in series with the circuit you intend to measure. Check for any loose wires or damaged connectors.
- **Alarms Triggering:** If overvoltage, overcurrent, or overtemperature alarms activate, immediately disconnect the power source and inspect your circuit for faults. Address the cause of the alarm before reconnecting.
- **Data Not Resetting:** Refer to the device's physical buttons for specific reset procedures. Typically, a long press on a designated button might reset accumulated values.

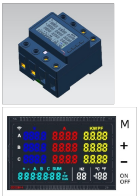
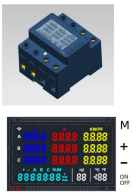
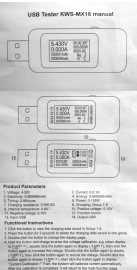

## SPECIFICATIONS

Parameter	Value
Part Name	Battery Load Tester
Material	ABS
Color	Black
Model	KWS-DC26
Voltage Measurement Range	DC8-80V $\pm 1\%$ + 0.5V
Current Measurement Range	0-20A/50A $\pm 1\%$ + 0.2A (depending on connector type)
Power Measurement Range	0-4000W $\pm 1\%$ + 2W
Energy Range	0-99999Wh
Amp-Hour Range	0-99999Ah
Timer Range	99 days 59 hours
Temperature	-20°C to 99°C $\pm 2\%$
Display	51*30mm color LCD
Power Failure Memory	Yes
Overvoltage Protection	Yes
Overcurrent Protection	Yes
Overtemperature Protection	Yes
Product Dimensions	3.94 x 3.15 x 1.57 inches
Item Weight	3.53 ounces

## WARRANTY AND SUPPORT

## Related Documents - KWS-DC26

<div data-bbox="130 454 306 468"> <p>Instruction manual of KWS-DC200 DC power meter</p> </div> <div data-bbox="130 477 306 591"> <p>1. Temperature 2. Voltage 3. Power 4. Current 5. Energy 6. Timing 7. Electricity 8. Electric quantity</p>  <p><b>Product Model</b> KWS-DC200 10A 400V internal shunt KWS-DC200 50A 400V external shunt KWS-DC200 100A 400V external shunt</p> <p><b>Product Functions</b> 1. Voltage, current, power, timing, Temperature, electricity, electric quantity 2. Electricity, electric quantity and timing can be reset. 3. Electricity, electric quantity and timing have power down memory function. 4. The direct power supply of this product can measure 0-1000V, and the external power supply can measure 0-1000V.</p> <p><b>Product Parameter</b></p> <table border="1"> <thead> <tr> <th>Model</th> <th>KWS-DC200 10A</th> <th>Model</th> <th>KWS-DC200 50A</th> <th>Model</th> <th>KWS-DC200 100A</th> </tr> </thead> <tbody> <tr> <td>Supply voltage</td> <td>0-1000V</td> <td>Supply voltage</td> <td>0-1000V</td> <td>Supply voltage</td> <td>0-1000V</td> </tr> <tr> <td>Test voltage</td> <td>0-1000V</td> <td>Test voltage</td> <td>0-1000V</td> <td>Test voltage</td> <td>0-1000V</td> </tr> <tr> <td>Current</td> <td>0-10A</td> <td>Current</td> <td>0-50A</td> <td>Current</td> <td>0-100A</td> </tr> <tr> <td>Power</td> <td>0-1000W</td> <td>Power</td> <td>0-10000W</td> <td>Power</td> <td>0-10000W</td> </tr> <tr> <td>Energy</td> <td>0-10000Wh</td> <td>Energy</td> <td>0-100000Wh</td> <td>Energy</td> <td>0-100000Wh</td> </tr> <tr> <td>Timing</td> <td>0-1000h</td> <td>Timing</td> <td>0-1000h</td> <td>Timing</td> <td>0-1000h</td> </tr> <tr> <td>Temperature</td> <td>0-100°C</td> <td>Temperature</td> <td>0-100°C</td> <td>Temperature</td> <td>0-100°C</td> </tr> </tbody> </table> <p><b>Operating Instructions</b> Click the MENU button to view the electricity and electric quantity. Hold the MENU button for 3 seconds to reset the timing, Ah and Wh. The direct power supply of this product can measure 0-1000V, and the external power supply can measure 0-1000V. The current and voltage can be calibrated manually. The calibration method is shown in the figure below. Please refer to the following wiring diagram for test parameters.</p> <div data-bbox="130 884 306 1500">  <p><b>Current measurement</b> Wiring diagram of current measurement for the range of 10A, 50A, and 100A.</p> <p><b>Voltage measurement</b> Wiring diagram of voltage measurement for the range of 0-1000V.</p> <p><b>Power measurement</b> Wiring diagram of power measurement for the range of 0-1000W, 0-10000W, and 0-100000W.</p> <p><b>Energy measurement</b> Wiring diagram of energy measurement for the range of 0-10000Wh, 0-100000Wh, and 0-1000000Wh.</p> <p><b>Timing measurement</b> Wiring diagram of timing measurement for the range of 0-1000h.</p> <p><b>Product size chart</b></p>  </div> </div>	Model	KWS-DC200 10A	Model	KWS-DC200 50A	Model	KWS-DC200 100A	Supply voltage	0-1000V	Supply voltage	0-1000V	Supply voltage	0-1000V	Test voltage	0-1000V	Test voltage	0-1000V	Test voltage	0-1000V	Current	0-10A	Current	0-50A	Current	0-100A	Power	0-1000W	Power	0-10000W	Power	0-10000W	Energy	0-10000Wh	Energy	0-100000Wh	Energy	0-100000Wh	Timing	0-1000h	Timing	0-1000h	Timing	0-1000h	Temperature	0-100°C	Temperature	0-100°C	Temperature	0-100°C	<div data-bbox="341 913 1276 943"> <h3>KWS-DC200 DC Power Meter: Voltage, Current, and Power Measurement Manual</h3> </div> <div data-bbox="341 956 1466 1064"> <p>Comprehensive instruction manual for the KWS-DC200 series DC power meter. Learn how to measure voltage, current, power, energy, and time. Includes wiring diagrams and specifications for 10A, 50A, and 100A models.</p> </div>
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<div data-bbox="145 1579 277 1594"> <p>KWS-X1 Operating Instructions</p> </div> <div data-bbox="130 1601 306 1832">  <p><b>NOTE:</b> Please read the operating instructions carefully before using the product.</p> <p><b>Product Model</b> KWS-X1 1000mA 5V USB Power Meter</p> <p><b>Product Functions</b> 1. Voltage, current, power, timing, Temperature, electricity, electric quantity 2. Electricity, electric quantity and timing can be reset. 3. Electricity, electric quantity and timing have power down memory function. 4. The direct power supply of this product can measure 0-1000V, and the external power supply can measure 0-1000V.</p> <p><b>Product Parameter</b></p> <table border="1"> <thead> <tr> <th>Model</th> <th>KWS-X1 1000mA</th> <th>Model</th> <th>KWS-X1 500mA</th> <th>Model</th> <th>KWS-X1 250mA</th> </tr> </thead> <tbody> <tr> <td>Supply voltage</td> <td>0-1000V</td> <td>Supply voltage</td> <td>0-1000V</td> <td>Supply voltage</td> <td>0-1000V</td> </tr> <tr> <td>Test voltage</td> <td>0-1000V</td> <td>Test voltage</td> <td>0-1000V</td> <td>Test voltage</td> <td>0-1000V</td> </tr> <tr> <td>Current</td> <td>0-1000mA</td> <td>Current</td> <td>0-500mA</td> <td>Current</td> <td>0-250mA</td> </tr> <tr> <td>Power</td> <td>0-1000W</td> <td>Power</td> <td>0-1000W</td> <td>Power</td> <td>0-1000W</td> </tr> <tr> <td>Energy</td> <td>0-10000Wh</td> <td>Energy</td> <td>0-10000Wh</td> <td>Energy</td> <td>0-10000Wh</td> </tr> <tr> <td>Timing</td> <td>0-1000h</td> <td>Timing</td> <td>0-1000h</td> <td>Timing</td> <td>0-1000h</td> </tr> <tr> <td>Temperature</td> <td>0-100°C</td> <td>Temperature</td> <td>0-100°C</td> <td>Temperature</td> <td>0-100°C</td> </tr> </tbody> </table> <p><b>Operating Instructions</b> Click the MENU button to view the electricity and electric quantity. Hold the MENU button for 3 seconds to reset the timing, Ah and Wh. The direct power supply of this product can measure 0-1000V, and the external power supply can measure 0-1000V. The current and voltage can be calibrated manually. The calibration method is shown in the figure below. Please refer to the following wiring diagram for test parameters.</p> </div>	Model	KWS-X1 1000mA	Model	KWS-X1 500mA	Model	KWS-X1 250mA	Supply voltage	0-1000V	Supply voltage	0-1000V	Supply voltage	0-1000V	Test voltage	0-1000V	Test voltage	0-1000V	Test voltage	0-1000V	Current	0-1000mA	Current	0-500mA	Current	0-250mA	Power	0-1000W	Power	0-1000W	Power	0-1000W	Energy	0-10000Wh	Energy	0-10000Wh	Energy	0-10000Wh	Timing	0-1000h	Timing	0-1000h	Timing	0-1000h	Temperature	0-100°C	Temperature	0-100°C	Temperature	0-100°C	<div data-bbox="341 1630 1249 1659"> <h3>KWS-X1 USB Power Meter Operating Instructions and Technical Specifications</h3> </div> <div data-bbox="341 1673 1423 1780"> <p>Comprehensive operating instructions and technical specifications for the KWS-X1 USB Power Meter, detailing its features, menu navigation, protocol testing capabilities (PD, QC), and measurement parameters.</p> </div>
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 <p>The image shows two views of a KWS-306 series energy meter. The top view is a physical photograph of the blue and black meter. The bottom view is a screenshot of the meter's LCD display, which shows various electrical parameters in red and green digits, including voltage, current, power, and energy.</p>	<p><a href="#">KWS Series Energy Meters: User Manual and Specifications</a></p> <p>Comprehensive guide to KWS-306 series energy meters, detailing specifications, features, and operational settings for models KWS-306WF, KWS-306L, and KWS-306. Includes over-voltage, over-current, and other protection configurations.</p>
 <p>The image shows two views of a KWS-306 series smart energy meter. The top view is a physical photograph of the blue and black meter. The bottom view is a screenshot of the meter's LCD display, which shows various electrical parameters in red and green digits, including voltage, current, power, and energy.</p>	<p><a href="#">KWS-306 Series Smart Energy Meter User Manual and Specifications</a></p> <p>Comprehensive user manual and technical specifications for the KWS-306 series smart energy meters, including models KWS-306WF, KWS-306L, and KWS-306. This guide details device features, protection settings, operational procedures, and technical data for accurate installation and use.</p>
 <p>The image shows the cover of the USB Tester KWS-MX18 manual. The cover features a photograph of the USB tester device and a list of product parameters and features.</p>	<p><a href="#">Keweisi KWS-MX18 USB Tester User Manual and Instructions</a></p> <p>Comprehensive user manual for the Keweisi KWS-MX18 USB Tester, providing detailed product specifications, functional instructions, and calibration guidance for accurate electrical measurements.</p>
 <p>The image shows the cover of the Guide Rail Type Metering Switch instruction manual. The cover features a photograph of the metering switch device and a list of product parameters and features.</p>	<p><a href="#">Guide Rail Type Metering Switch Instruction Manual - KWS-303WF, KWS-303L, KWS-303</a></p> <p>Instruction manual for JUANJUAN Guide Rail Type Metering Switches (KWS-303WF, KWS-303L, KWS-303). Features include energy monitoring, WiFi connectivity, app control, and various protection functions.</p>