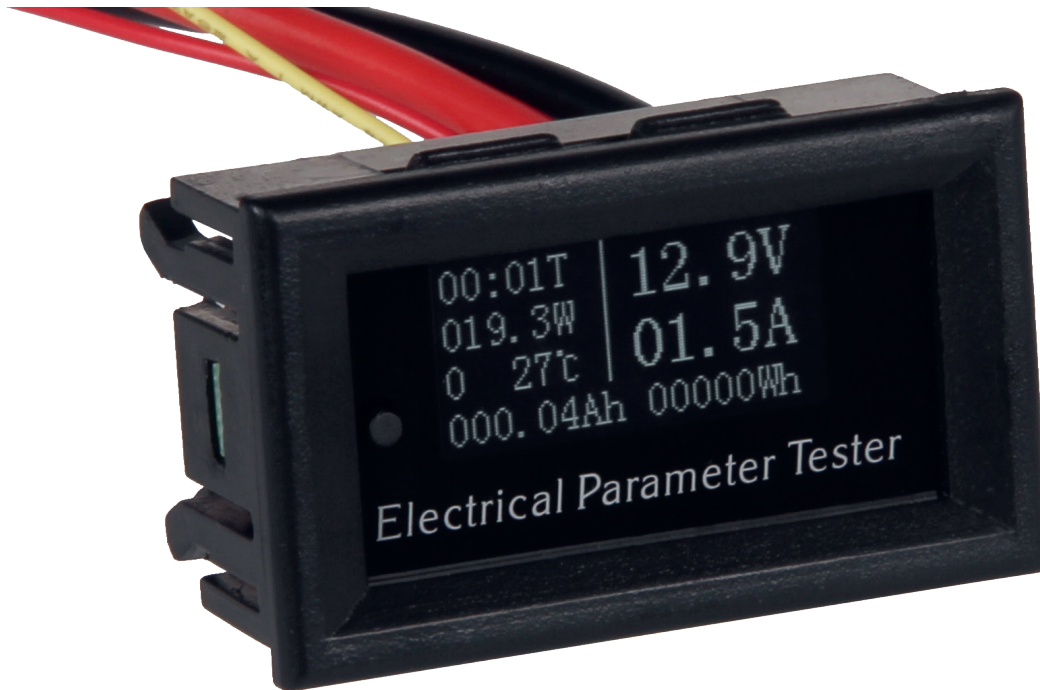


OLED MULTIFUNCTION METER

VAO10020



1. GENERAL INFORMATION

Dear customer,

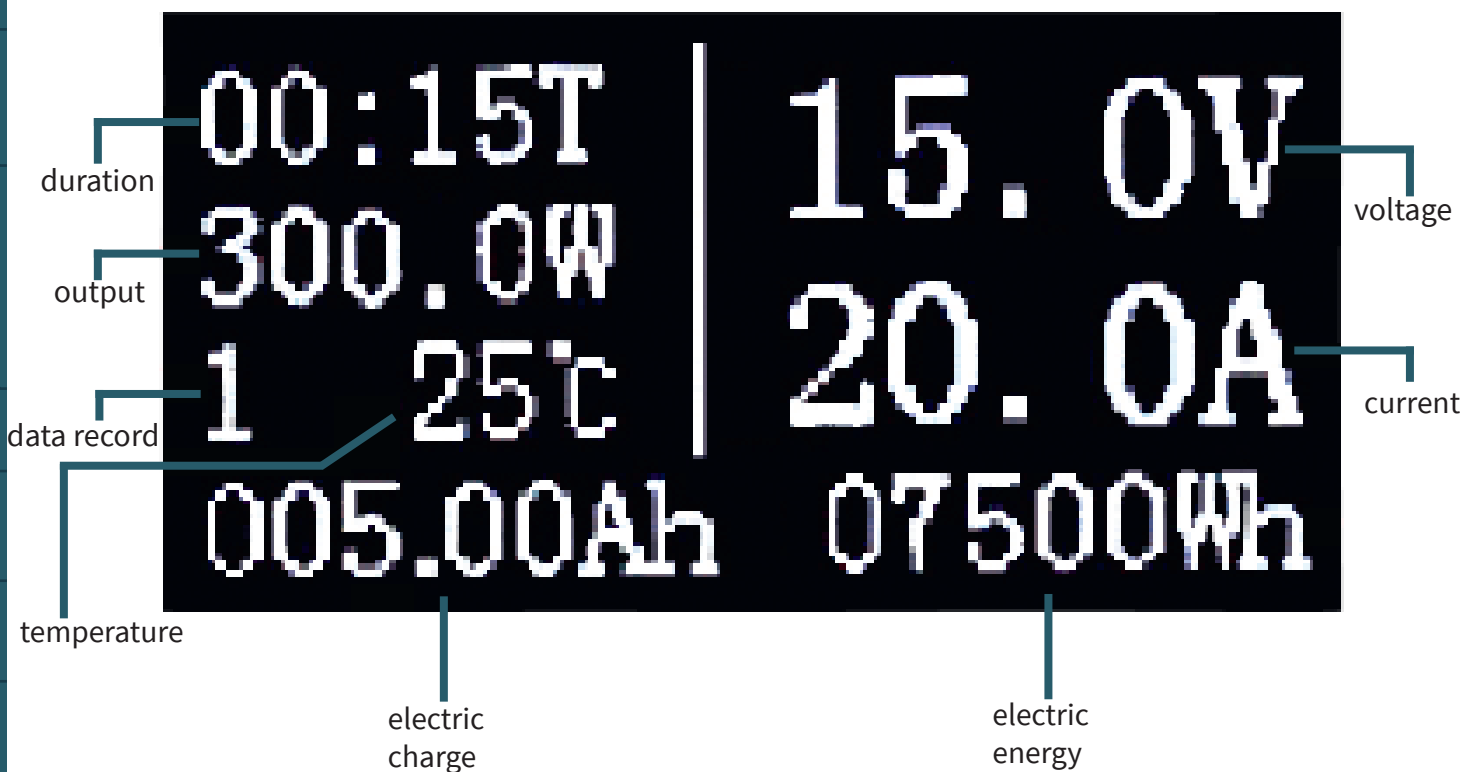
thank you for choosing our product. In the following, we will show you how to use this device.

Should you encounter any unexpected problems during use, please do not hesitate to contact us.

2. TECHNICAL SPECIFICATIONS

Operating voltage	5 - 60 V
Current at 5 V	approx. 15 mA
Current at 12 V	approx. 7 mA
Measuring ranges	0 - 99,9 V / 0 - 20 A / 0 - 2000 W / 0 - 9999 kWh / 0 - 9999,9 Ah / 0 - 99 h 59 min / -10° - 65 °C
Measurement accuracy	Volt: $\pm 0,5\%$ Ampere: $\pm 1\%$
Dimensions	48 x 29 x 22 mm
Weight	33 g

3. DISPLAY








4. OPERATION

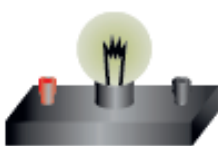
This measuring instrument is capable of saving 2 data records (record 0, record 1). Through a short press on the button which is on the left side from the display, it is possible to retrieve the next record.

In case of a failure of the power supply, data record 1 saves the last saved value and continues from this value after the restoring of the power supply. In case of a failure of the power supply, data record 0 shows the last values through blinking. These values will be reset if they reach the 0.01 Ah.

To delete each data record, the button must be pressed more than 3 seconds. Temperature changes and / or ageing of the components can lead to measurement errors. In such cases, you can make a zero calibration. For this purpose, you must disconnect the device from the power supply. To perform the zero calibration, the button needs to be pressed and simultaneously the power supply have to be restored. At a successful calibration, the display shows "AAA".

5. CIRCUITS

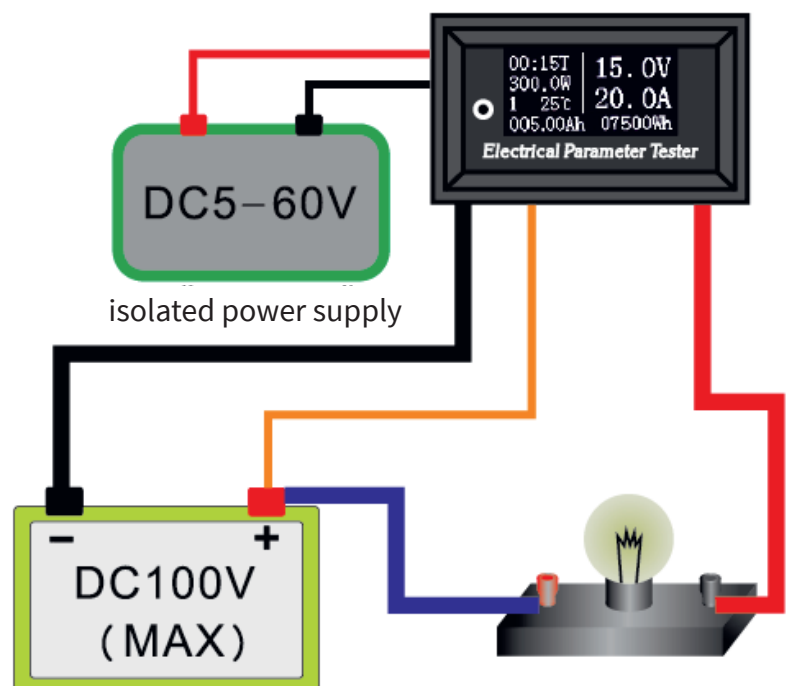
-  5 - 60 V for device
-  ground for device
-  measuring line (0 - 99,9 V)
-  input current measurement
-  output current measurement



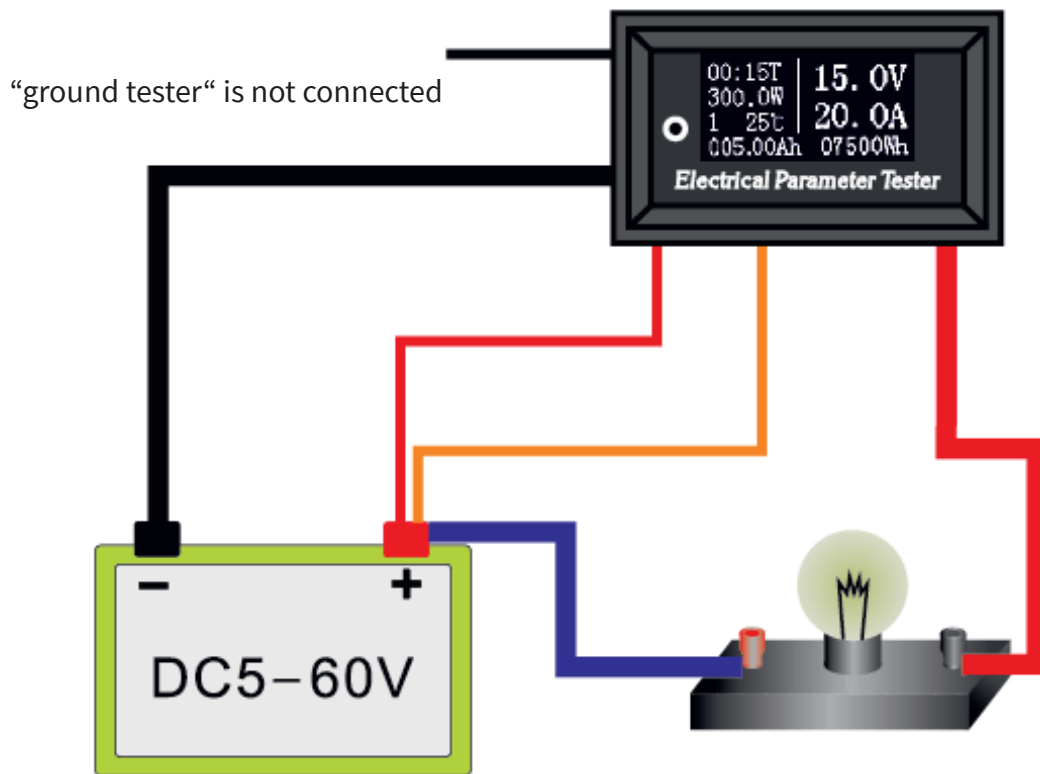
load

Isolated power supply

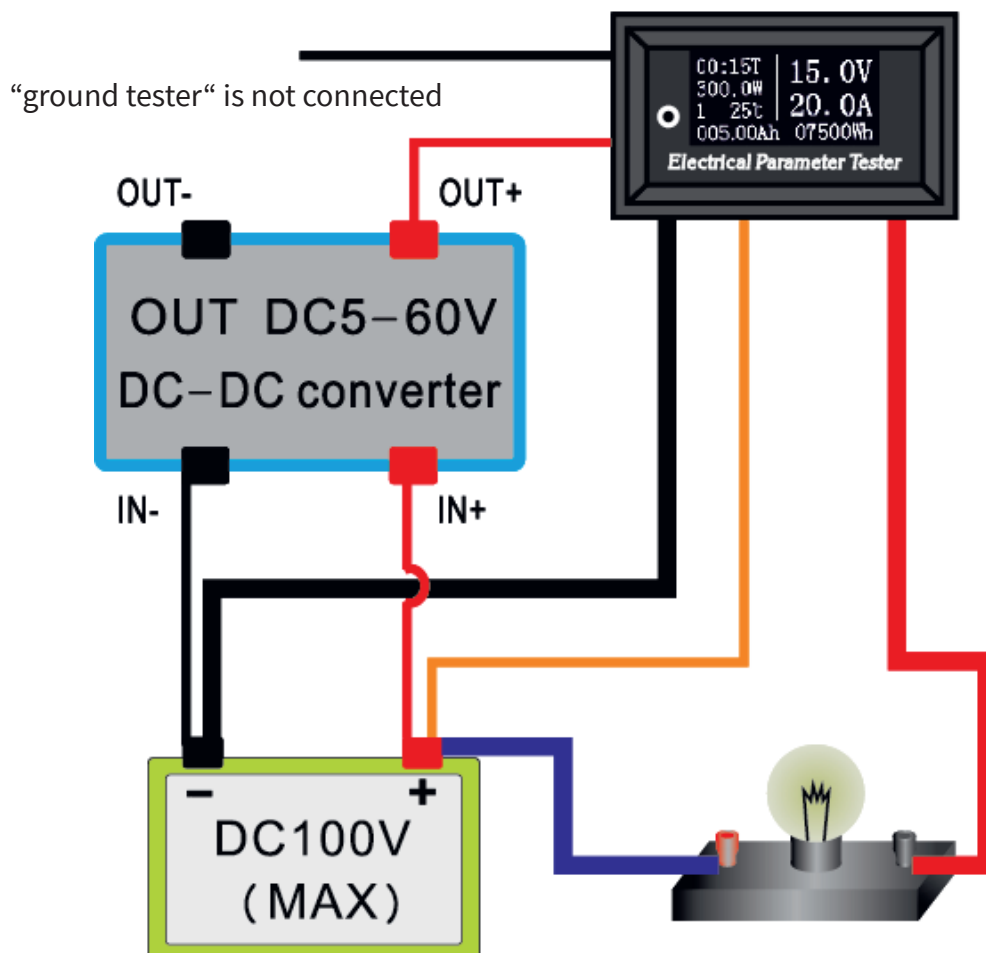
The current sources must be isolated. It must not be a connection between both circuits.



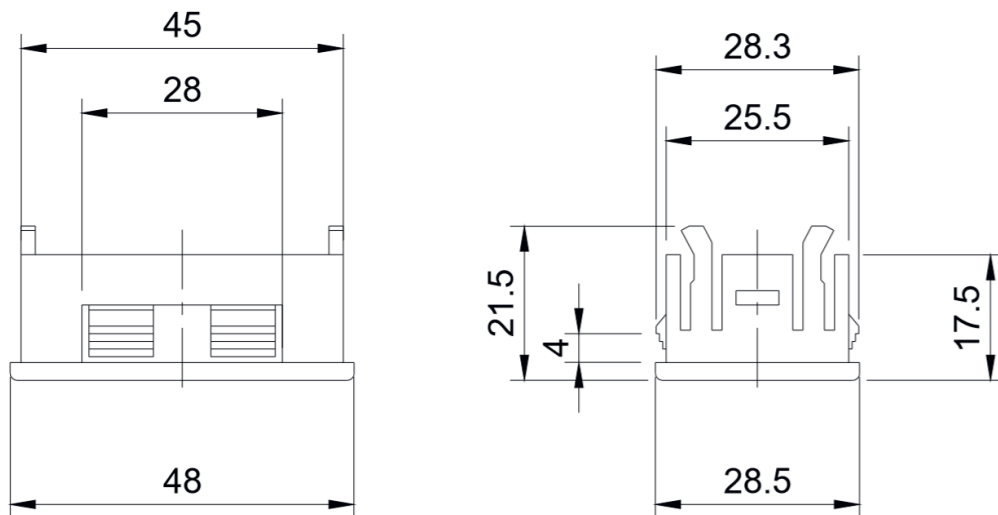
Usage of the voltage being measured



Usage with a DC - DC converter



6. TECHNICAL DRAWING



7. SUPPORT

If any questions remained open or problems may arise after your purchase, we are available by e-mail, telephone and ticket support system to answer these.

E-Mail: service@joy-it.net

Ticket-System: <http://support.joy-it.net>

Telephone: +49 (0)2845 98469 – 66 (10 - 17 o'clock)

For further information visit our website:

www.joy-it.net