

# JOY-IT



JT-UM25C

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## 1. INTRODUCTION

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Dear customer,  
thank you very much for choosing our product. In the following we have listed what you have to consider during commissioning.

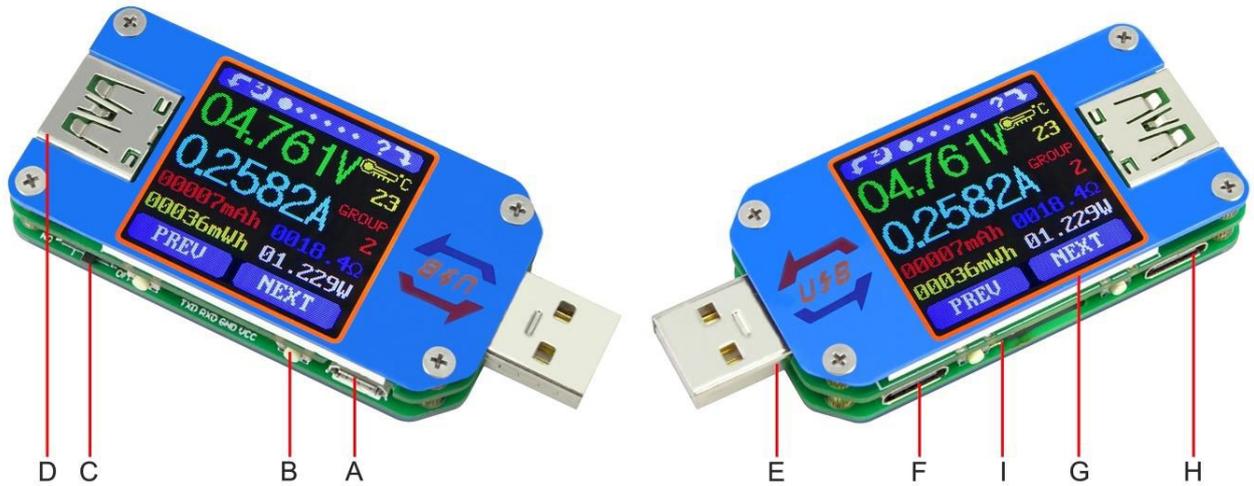
## 2. DEVICE OVERVIEW

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Today, USB ports are not only found in home PCs, but also on powerbanks, in cars and trains. But not all connections are of the best quality and deliver constant currents and voltages.

With the JT-UM25C you always have all values in view. The meter supports additional functions such as Quickcharge 2.0 and 3.0, as well as Apple 2.4A, 2.1A, 1A, 0.5A and Android DCP and also offers convenient evaluation via a radio interface. With a measuring range of up to 24V and 5A, the JT-UM25C is suitable for practically all applications. The integrated 1.44" LCD display can be adjusted in five brightness levels and always provides an overview of all measured values.

Voltage Measuring Range	4 - 24V
Current Measuring Range	0 -5 A
Refresh Rate	2 Hz
Measurement Accuracy	0,001V / 0,0001 A
Temperature Range	-10 - 100 °C
Display Size	1,44"
Supported QuickCharge-Modes	QC2.0, QC3.0, Apple 2.4A/2.1A/1A/0.5A, Android DCP, Samsung



A	Micro USB Port
B	4x Multifunctional Buttons
C	Bluetooth Switch
D	USB A Port (Female)
E	USB A Port (Male)
F	USB C Input (Only VBUS, GND, CC1, CC2)
G	1,44" Color Display
H	USB C Output (Only VBUS, GND, CC1, CC2)
I	Bluetooth Status (changes when connecting from a flashing light to a permanent light)

### 3. MENUS AND NAVIGATION

#### 3.1 GENERAL USE



Measurement Main Page



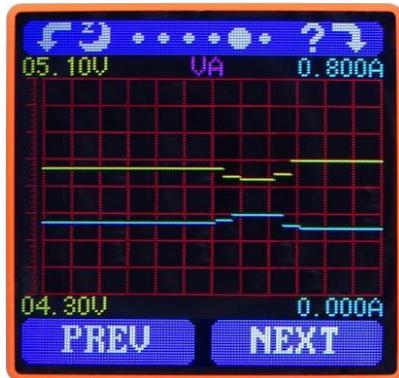
Quick Charge Recognition



Charging Record



Cable Impedance



Measurement Graph



System Settings

Use **PREV** and **NEXT** to switch between the menu pages.

Press and hold **PREV** to switch to the next data group.  
 Press and hold **NEXT** to reset the current data group.



1		Press and hold to rotate the display counterclockwise.
2		Press to turn off the display.
3		Press to open the help menu.
4		Press and hold to rotate the display clockwise.
5		Press for previous page
6		Press for next page

3.2 MAIN MENU (MEASUREMENT RESULTS)



7	Voltage
8	Current
9	Accumulated electric charge
10	Accumulated energy
11	Temperature
12	Data Group
13	Equivalent resistance
14	Power consumption

The values of the data groups 1-9 are stored when the power of the encoder is interrupted and are counted again after the encoder is switched on again.

The values in data group 0, on the other hand, flash when the meter is switched on again and are then reset to 0.

### 3.3 QUICKCHARGE-RECOGNITION



15	D+ (DP): Positive Data-Signal-Level
16	D- (DM): Negative Data-Signal-Level
17	Mode Display

The meter automatically detects devices with Quickcharge support. The following Quickcharge modes are currently supported: QC2.0, QC3.0, Apple 2.4 A/2.1 A/1 A/ 0.5 A, Android DCP, Samsung

### 3.4 CHARGING RECORD



18	Accumulated capacity
19	Accumulated energy
20	Total accumulation time
21	Capacity / energy statistics trigger current
22	recording indicator Red: Recording stopped Green: Recording in progress

After power-up, if the current is greater than the trigger value, the system automatically starts recording the accumulated capacity, energy and elapsed time. The "REC" indicator changes from red to green.

To set the current trigger value, press and hold **PREV** to highlight the value. Press the **NEXT** button to adjust the value. The value can be set between 0.01A and 0.30A.

### 3.5 CABLE IMPEDANCE



23	USB tester directly connected to power supply with display of voltage and current values
24	USB tester directly via a data connection connected with display of voltage and current values
25	Data connection cable resistance

**Measurement method:**

First connect the meter directly to the source and set the appropriate current load (recommended value: 1A). Press and **NEXT** hold to begin data recording.

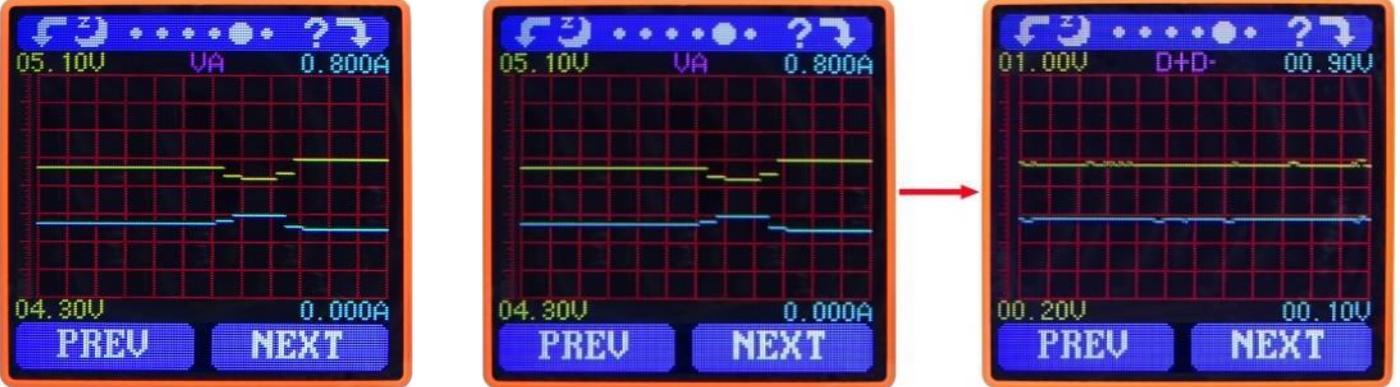
Now disconnect the meter and then connect it to the power source via the MicroUSB or Type-C data input connection and set the load current to the same value as in the first step. Press and hold **NEXT** to begin data recording.

The display prompt stops flashing and the resistance measurement test of the data connection cable is complete and the value is displayed.

**Attention!** If the screen turns black in the second step, this means that the voltage difference is too high and the tester switches to the 4V switch-off state. The load current must be reduced. Then restart the measurement from the first step. After the resistance test of the data connection cable has been completed, the tester must be switched off and on again to continue the measurement.



3.6 MEASUREMENT GRAPH



This menu displays the voltage measurement over time in the range of 4-24V and the current measurement over time in the range of 0-5A, and automatically adjusts the displayed range in real time to account for voltage and current fluctuations.

Press and hold **NEXT** to switch to the D+ / D- graph. This interface displays the D+ / D- voltage measurement over time in the range of 0-3.3V and automatically adjusts the displayed range to D+ / D- voltage variations in real time.

3.7 SYSTEM SETTINGS



26	Time to automatic screen shutdown (default: 1 minute)
27	Screen brightness (default: level 4)
28	Display temperature (default: Centigrade)
29	Background color scheme (default: 2, blue)
30	Foreground color scheme (default: 6, white)

Press and hold the **NEXT** button to enter the setting mode, press the **NEXT** button to navigate through the options. Then press the **PREV** button to change the setting and press the **PREV** button again to cycle through the setting options. Press and hold the **NEXT** button at each setting state to exit the setting menu.

## 4. PC-SOFTWARE

### 4.1 CONNECTION

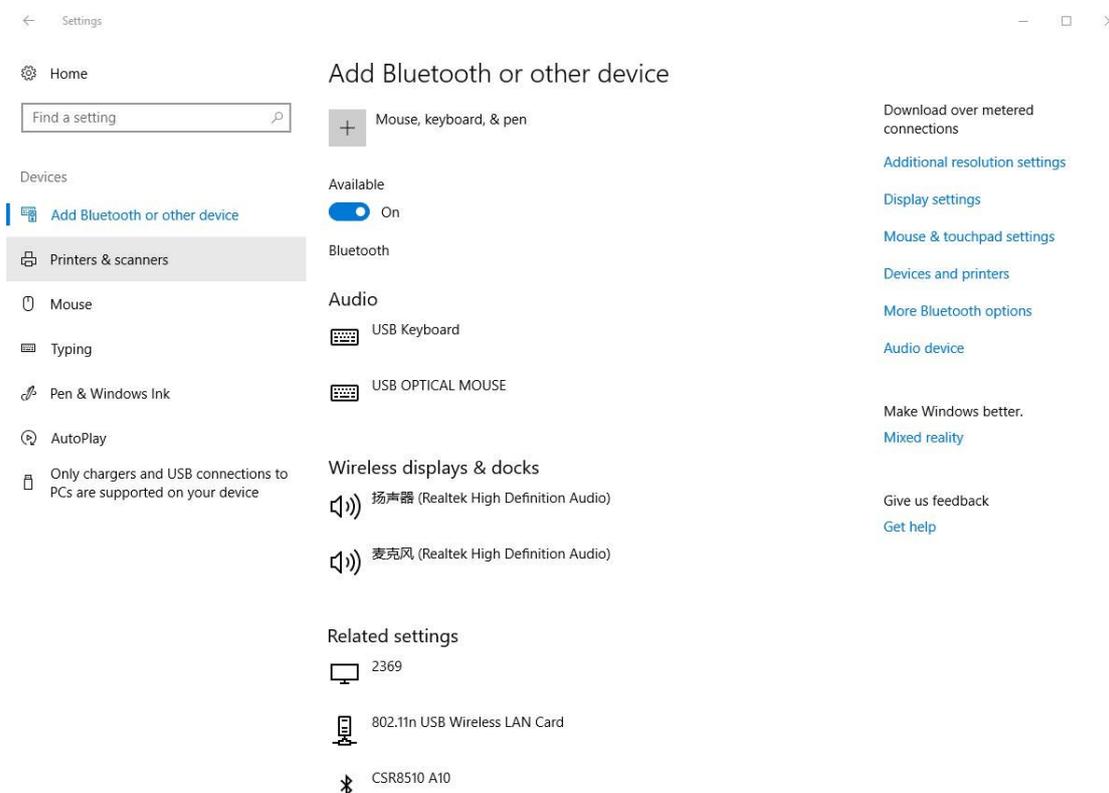
First download the software installation file [here](#).

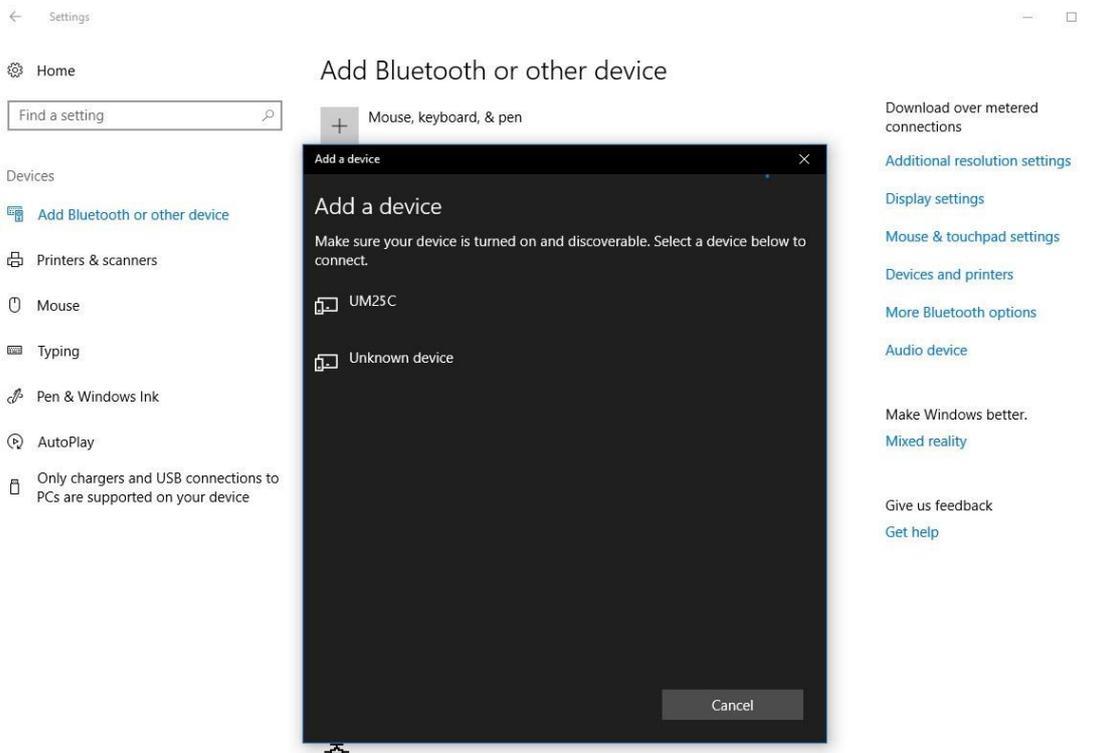
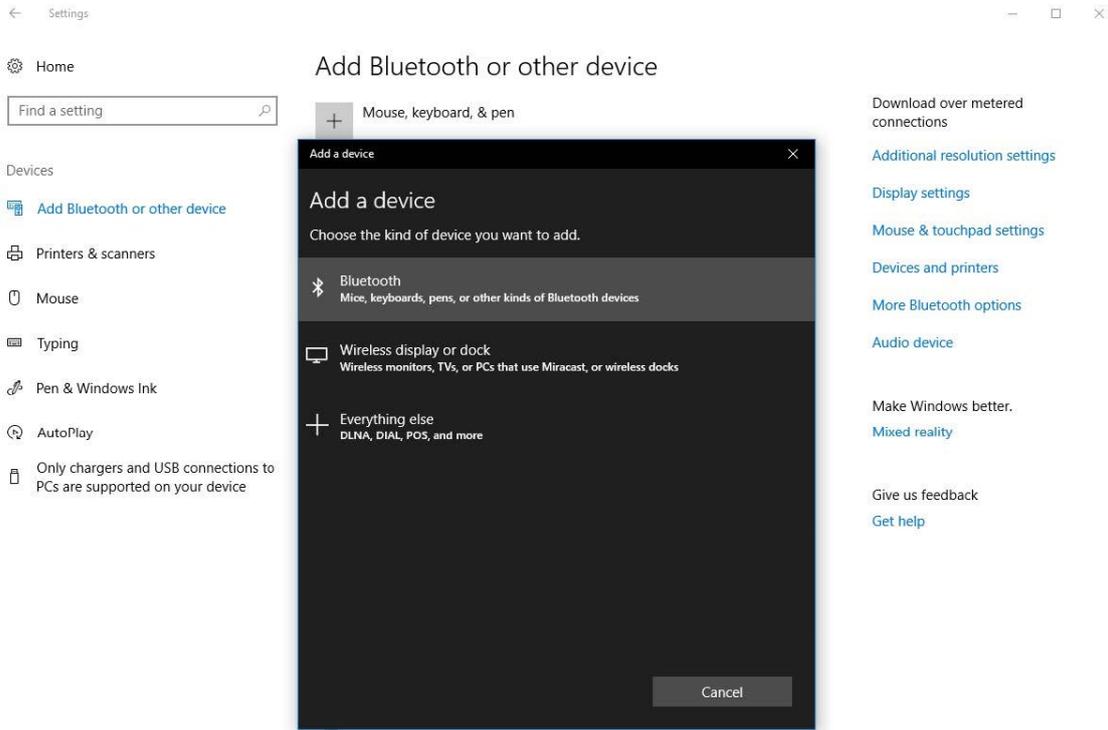
Additionally you need the font package "**Arial Unicode MS.ttf**", which you can download [here](#). Please install the font package before proceeding with the installation of the software.

Now install the software and follow the instructions during the installation process.

After the installation process is complete, activate the Bluetooth function on the UM25C measuring device with the Bluetooth switch.

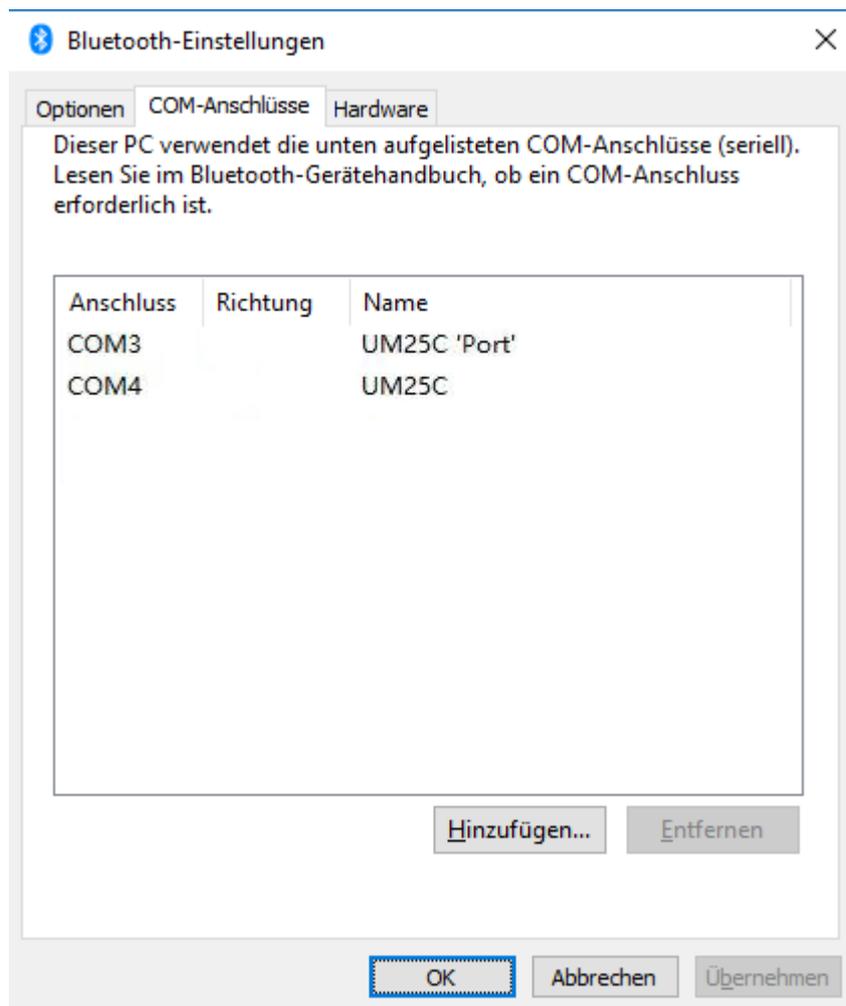
Then use the Bluetooth search in the settings of your computer to search for new Bluetooth devices. Add the **UM25C** device as soon as it is found. If you are asked for a PIN during connection setup, please use pin **1234** or **0000**.





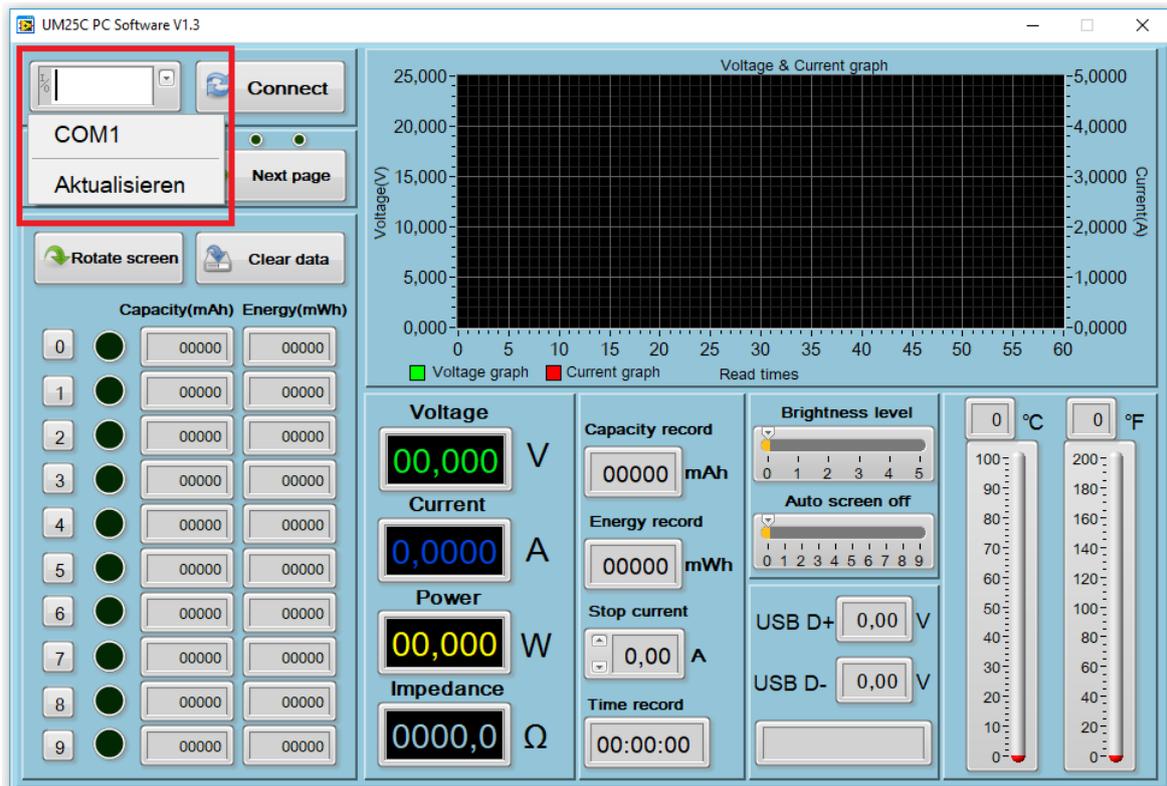
In order to be able to connect the software now installed with the measuring device, it is necessary to know which port the device is connected to your computer via. To do this, select the option "**Bluetooth settings**" in the Bluetooth connection overview.

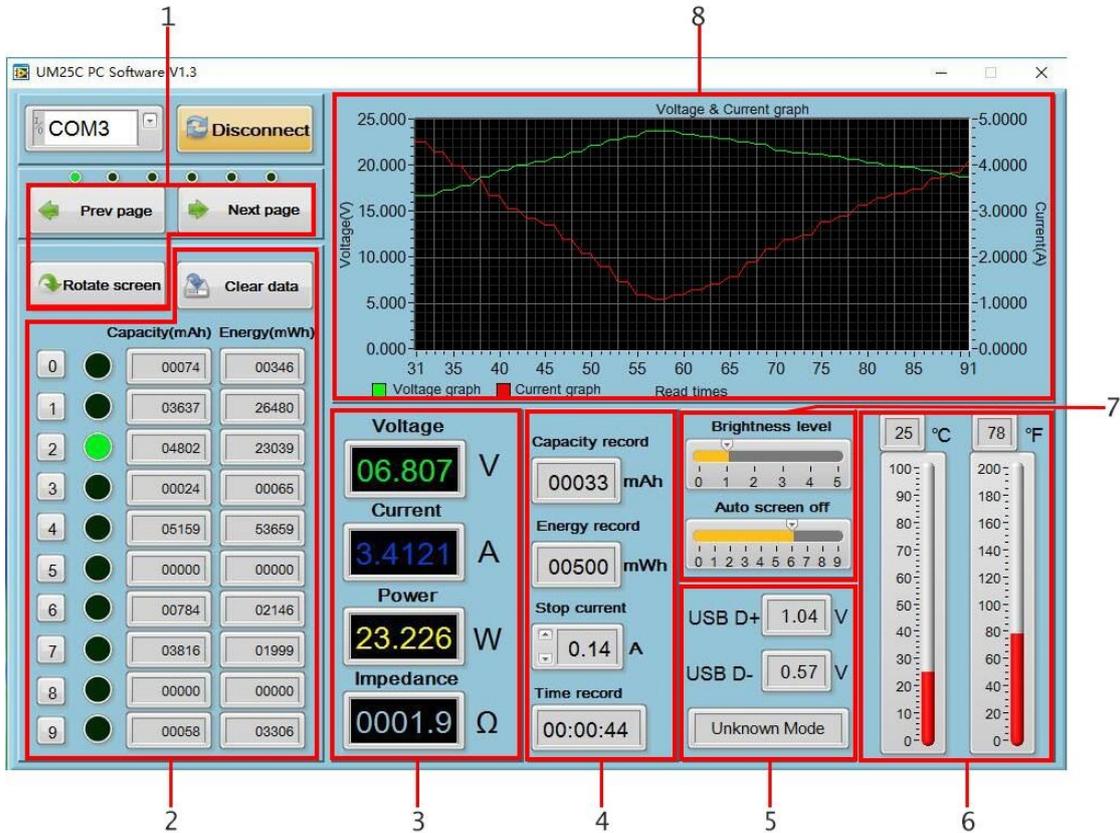
In the window that now opens, select the "**COM ports**" tab. The necessary interface in this case is "**UM25C'Port**".



## 4.2 USING THE SOFTWARE

Now open the "UM25C PC Software V1.3" which you have already installed on your computer. First set the corresponding COM port to which the measuring device is connected on your computer and start the connection with the "Connect" button.





1	Basic Functions (previous page, next page, rotate screen)
2	data sets (Click on the corresponding data group to jump directly to this group)
3	Main measuring interface
4	data recording interface
5	Quickcharge Interface
6	temperature overview
7	Screen brightness, time for automatic display shutdown
8	voltage-current diagram

With a right click within the voltage-current diagram further options are available to you. Here you can automatically scale the X-axis, copy the current data to the clipboard or export it as an Excel file, export the current graph as an image or delete the current diagram.

## 5. ANDROID APP

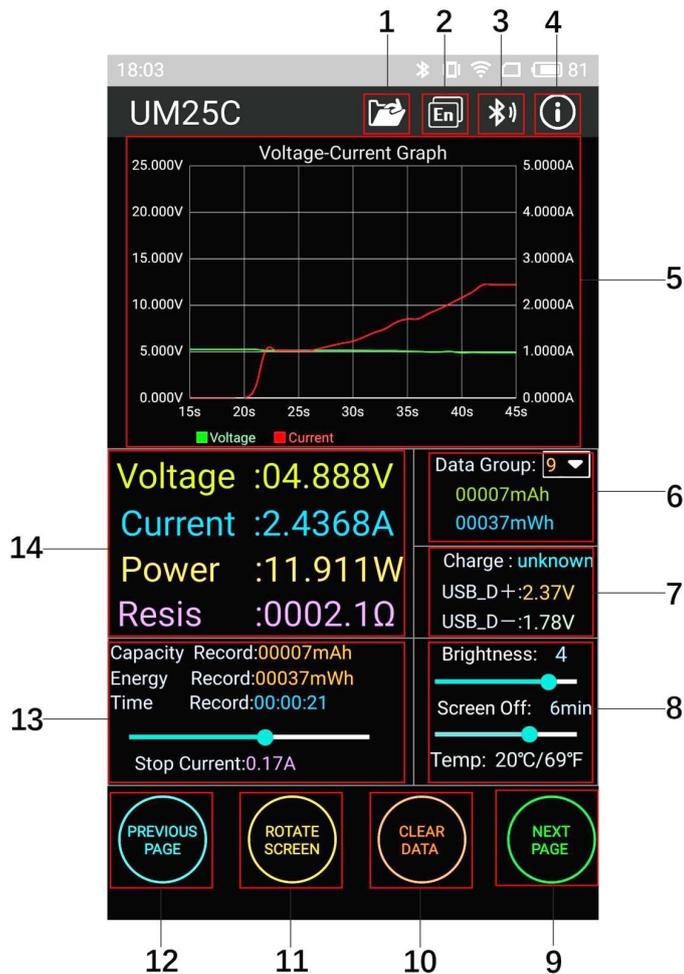
First download the app installation file [here](#) to your Android device and install the application.



**Attention!** The application can only be used with Android 5.0 or higher.

Activate Bluetooth with the Bluetooth button on the meter and then connect to the meter using the Bluetooth settings on your device. Use either **0000** or **1234** as PIN during connection setup.

After the installation and the connection have been completed, you can start the application.



1	Export data
2	Language settings
3	Bluetooth connectivity
4	General Information
5	Voltage-current graph
6	Accumulated mAh and mWh
7	QuickCharge detection, D+ and D- data voltage signal
8	Screen brightness adjustment and temperature adjustment
9	Go to next page
10	Reset current data group
11	Display rotation
12	Go to previous page
13	Charging record
14	Main measurements

## 6. ADDITIONAL INFORMATIONS

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Our information and take-back obligations according to the Electrical and Electronic Equipment Act (ElektroG)

**Symbol on electrical and electronic equipment:**



This crossed-out dustbin means that electrical and electronic appliances do not belong in the household waste. You must return the old appliances to a collection point.

Before handing over waste batteries and accumulators that are not enclosed by waste equipment must be separated from it.

**Return options:**

As an end user, you can return your old device (which essentially performs the same function as the new device purchased from us) for disposal free of charge when you purchase a new device.

Small appliances with no external dimensions greater than 25 cm can be disposed of in normal household quantities independently of the purchase of a new appliance.

**Possibility of return at our company location during opening hours:**

Simac GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn, Germany

**Possibility of return in your area:**

We will send you a parcel stamp with which you can return the device to us free of charge. Please contact us by e-mail at [Service@joy-it.net](mailto:Service@joy-it.net) or by telephone.

**Information on packaging:**

If you do not have suitable packaging material or do not wish to use your own, please contact us and we will send you suitable packaging.

## 7. SUPPORT

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We also support you after the purchase. If you still have questions or problems, we are also available by e-mail, telephone and ticket support system.

E-Mail: [service@joy-it.net](mailto:service@joy-it.net)

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

Phone: +49 (0)2845 98469 – 66 (9:30 - 17:00 o'clock)

For further information please visit our website:

[www.joy-it.net](http://www.joy-it.net)