AC Digital display Multifunction Meter

Product Type: PZEM-002(V4.0)

A. Function

1. Electrical parameter measurement function (voltage, current, active power, energy)

2. Running time function (records the load accumulated operating time).

3. Overload alarm function (over power alarm threshold backlight flashing to alarm).

4. Power alarm threshold preset function (can set power alarm threshold).

5. The reset function of energy and running time keys.

6. Backlight function.

7. Store data when power off (store the accumulated energy, running time, display items, the state of backlight on or off).

8. Large-screen LCD (display voltage, current, energy, active power, the accumulated running time)

B. Appearance and Key function description

Figure 1   Appearance

The description of keys/LCD function

Key	function
UP	1. In normal display state, short press **UP** key will reversed circularly display time, power, energy, current, voltage. 2. In power alarm threshold setting state, press the **UP** key will +1. 3. Short press the **UP** key will exit the reset state when energy and time are in the reset state.
DOWN	1. In normal display state, short press **DOWN** key will sequential circularly display voltage, current, energy, power, time. 2. In power alarm threshold setting state, press the **DOWN** key will -1. 3. Short press the **DOWN** key will exit the reset state when energy and time are in the reset state.
SET	1. In power display state, long press 3 seconds will enter into the power alarm threshold setting state 2. In energy or time display state, long press 3 seconds will enter into the energy or time reset state.
OK	1. In normal display state, short press **OK** key will turn on or off the backlight. 2. In power alarm threshold setting state, press **OK** key to switch the setting digits 3. In energy or time reset state, press **OK** key will clear the energy or time and quit the reset state

C. Function setting

I. Overload power threshold setting

1. In normal display state, press **UP** or **DOWN** key to switch to the power display menu.

2. Press **SET** key for 3 seconds until the flashing screen appears, then release the key.

3. The first digit on the left(the kilobit)flash acquiescently, short press **UP** or **DOWN** key to change this number (the **DOWN** key diminish the number and the **UP** key increase the number), short press the **OK** key to confirm the completion of this digit setting and enter the next digit setting; From left to right is kilobit→ hundred→ ten →units digit, after the units digit setting finished, press **OK** button to complete overload threshold setting, then the LCD screen will return to "power" display item.

4. The maximum power of the overload threshold is 9999W, if you set the overload threshold beyond this limit value, LCD screen will display "Err" to prompt for 3 seconds, then it will return to the overload threshold setting screen and re-start the setup.

II. Reset cumulative time, energy setting

1. In normal display state, press **UP** or **DOWN** key to switch to the cumulative time or energy display menu.

2. Long press the **SET** key for 3 seconds until flashing screen appears, then release the key

3. Press **OK** key, the cumulative time or energy data will be cleared, and LCD screen returns to the cumulative time or energy display items, if you don't want to clear, then press **UP** or **DOWN** key to exit the reset state and return to the menu display.

D. Function and display

I. Backlight function

1. After power on, the backlight automatically turns on, in the normal display state, press OK key will turn on or off the backlight. Backlight has a memory function that is after re-power on it will restore the turn on or off state before power off.

2. When load power is greater than the overload power threshold, backlight flickering to alarm; when load power is less than the threshold, backlight stop flicker and return to the turn on or off state before.

II. Menu display

1. After power-on, shows power acquiescently, short press UP key to reverse circularly display time, power, energy, current, voltage; short press DOWN key to sequential circularly display voltage, current, energy, power, time.

2. When load power is greater than the alarm threshold, no matter the current parameter display state it is , will return to power display menu immediately and flicker to alarm.

3. Menu display has a memory function that is after re-power on it will restore the display item before power off.

E. Precautions

1. This module is suitable for indoor, please do not use outdoor.

2. Applied load should not exceed the rated power.

3. Wiring order can't be wrong.

F. Specification parameters

1. Working voltage: 80 ~ 270VAC

2. Test voltage: 80 ~ 270VAC

3. Rated power: 20A/4400W

4. Operating frequency: 45-65Hz

5. Measurement accuracy: 1.0 grade
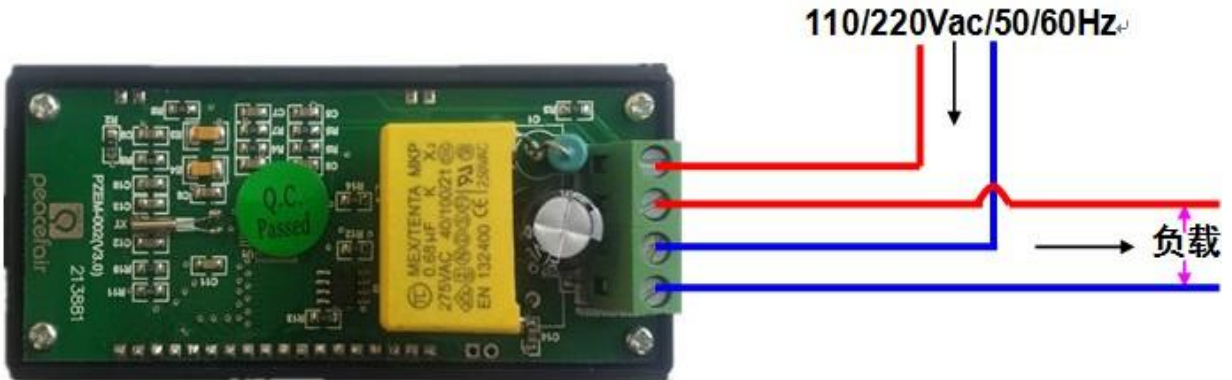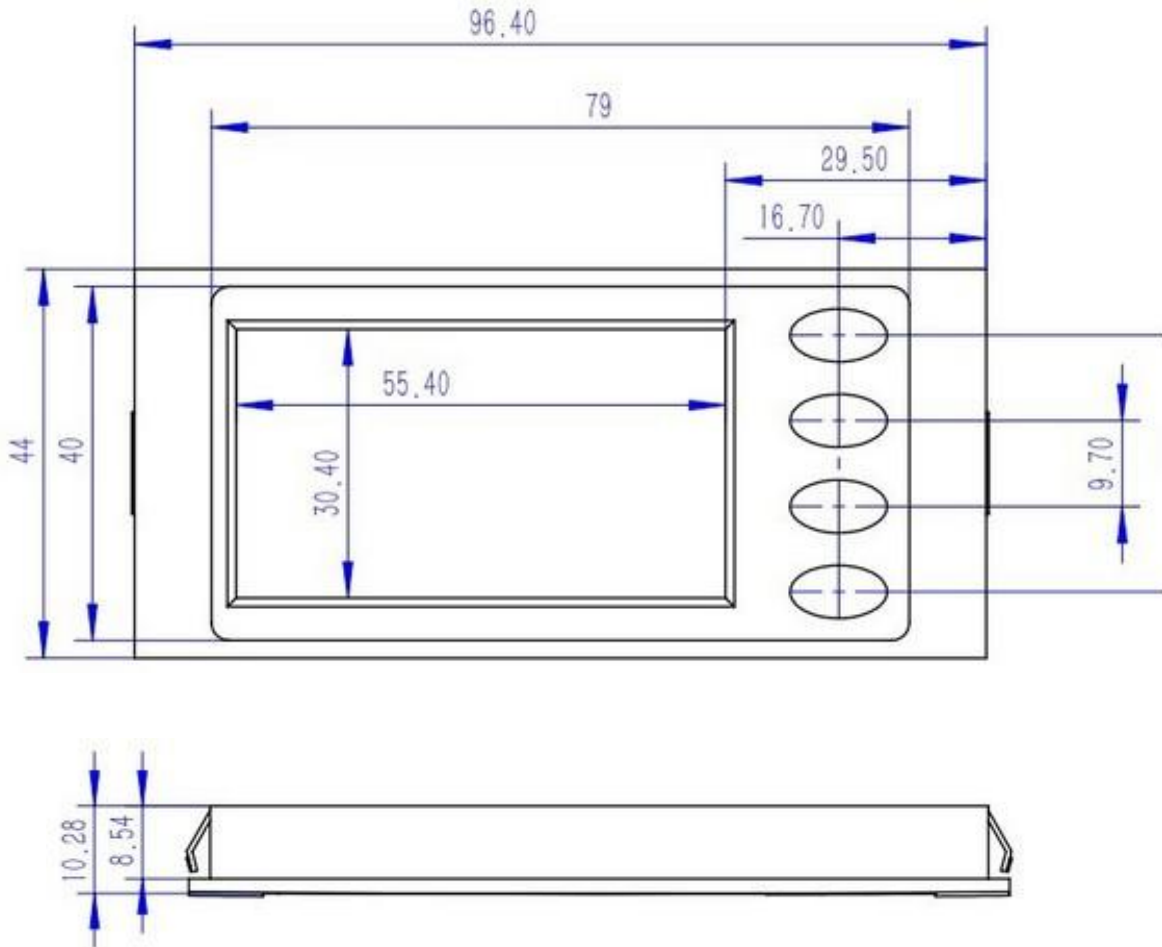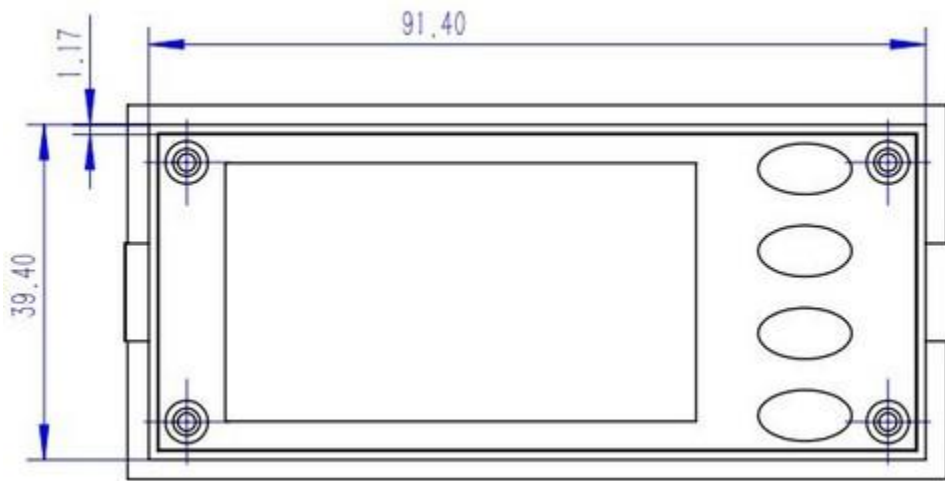
G. Wiring diagram

Figure2   Wiring diagram

H. Dimension diagram

Figure3   Dimension diagram (mm)