

Qoltec®



USER MANUAL
PM0627 ELECTRICITY
CONSUMPTION METER
MODEL: 50627

Introduction

Thank you for your trust and for choosing the Qoltec electricity consumption meter.

We are confident that this product will meet your expectations.

This manual will guide you through the installation and use of the device. It contains important safety instructions regarding operation and correct installation. If you have any questions after reading the manual, please contact Customer Service.

The meter is a monitoring and testing device that determines the energy consumption of the connected appliance and the cost of the electricity used.

Description of functions

Plug the energy meter into a power socket. The device will start working. Then connect your electrical appliance to the energy meter. The power meter measures power in watts and electricity consumption in kWh.

The device displays the running costs of connected appliances and helps users reduce their electricity bills and carbon emissions by monitoring and controlling energy consumption.

With the meter, you can monitor how much energy appliances such as your TV, fridge, microwave, etc. consume. The device also features an advanced graphical history function showing consumption over the last few days, weeks and months.

First use

Tip: First, remove the plastic insulation from the batteries so that data can be saved when the meter is disconnected from the mains or during a power cut.

Press the “ENERGY” button several times and the LCD display will show, in sequence: voltage in volts, current in amps, power in watts, frequency and power factor.

Press the “HISTORY” button several times to display energy consumption in kWh (unit of electricity): daily, weekly and monthly.

Press the “COST” button repeatedly and the display will show:

power in watts in the top line, and in the second line: total cost, tariff or electricity rate, information on multiple tariffs (advanced function), information on carbon dioxide emissions, elapsed time and total kWh consumed.

RESET button (red)

Press the small red button inside the casing using a pencil or your fingernail to reset all historical data.

Setting the clock

To set the clock, press the “COST/-” button to display the time screen.

Then hold down the “SET/OK” button for 3 seconds – the value will start flashing.

Press the “HISTORY” button to select the digit position.

Press the “ENERGY/+” or “COST/-” button to change the value.

Finally, press the “OK” button to complete the setting.

If no action is taken for 10 seconds, the device will automatically exit the settings mode and save the current settings.

Figure 1 in the appendix

Changing the 12/24H mode: On the clock screen, press the “HISTORY” and “ENERGY/+” buttons simultaneously and hold them down for more than 3 seconds.

Figure 2 in the appendix

Setting the tariff (electricity rate, \$ per kWh)

Press the “COST/-” button to go to the tariff screen, then hold down “SET/OK” for 3 seconds.

When “TARIFF 1” starts flashing, press “ENERGY/+” or “COST/-” to select “TARIFF 1” or “DUAL TARIFF”, then press “HISTORY” to confirm.

Use the “HISTORY” button to move to the digit position, and “ENERGY/+” or “COST/-” to change the digit value.

Finally, press the “SET/OK” button to save the settings.

If the simple “TARIFF 1” tariff has been selected, only the rate for “TARIFF 1” needs to be set, then press the “SET/OK” button to save all parameters. The device will return to the initial LCD display mode.

The setting range starts at 0.00 COST/kWh. Once you have set the value, press “SET/OK” to confirm.

For example, you can set 0.14 as the rate of 0.14 PLN per kWh of electricity in your area.

Figure 3 in the appendix

If you have selected the “DUAL TARIFF” option, press the “HISTORY” button to navigate to the relevant item, then use the “ENERGY/+” or “COST/-” button to make the setting.

Setting the start time for Tariff 1: On the “TIME START” screen, press the “HISTORY” button to move to the relevant position, then use the “ENERGY/+” or “COST/-” button to set the time. Once you have finished setting the time, press the “OK” button to save the settings.

Figure 4 in the appendix

Setting the duration of Tariff 2:

Press the “HISTORY” button to select the flashing digit (second line of the LCD display), then use the “ENERGY/+” or “COST/-” button to set the value.

The setting range is 0.000–9999 COST/kWh.

Once you have selected the appropriate value, press the “OK” button to save the settings.

Figure 5 in the appendix

Setting the duration of Tariff 2:

Go to the “TIME START” screen, then press the “HISTORY” button to select the relevant digit position.

Use the “ENERGY/+” or “COST/-” button to set the time.

Once you have finished setting the time, press the “OK” button to save the settings.

Figure 6 in the appendix

Clock and LCD display

When the power is switched on, the LCD display shows the clock in the second row.

Press the “COST/-” button to display the set electricity rate.

Figure 7 in the appendix

Total time

When power consumption exceeds 2 W, the device will start tracking operating time and recording energy consumption data.

Figure 8 in the Annex

Total energy consumption

Measurement range for cumulative electricity consumption:

0.00 kWh – 9999 kWh

Figure 9 in the appendix

Total energy cost

Range of calculated electricity cost:

0.0 COST – 9999 COST

Figure 10 in the appendix

Tariff 1 cost

Range of rate settings for Tariff 1:

0.0 COST/kWh – 9999 COST/kWh

Figure 11 in the appendix

Tariff 1 validity period

The display shows the start time of Tariff 1.

Figure 12 in the appendix

Tariff 2 cost

Rate setting range for Tariff 2:

0.0 COST/kWh – 9999 COST/kWh

Figure 13 in the appendix

Tariff 2 validity period

The display shows the start time of Tariff 2.

Figure 14 in the appendix

CO₂ emissions

CO₂ emission factor setting range:

0.0 – 9999 kg CO₂/kWh

Figure 15 in the appendix

Total CO₂ emissions

The display shows the total amount of CO₂ emitted based on energy consumption.

Display range:

0.0 – 9999 kg CO₂

Figure 16 in the appendix

Overload setting

Press the “ENERGY/+” button to go to the “OVERLOAD” screen.

Then hold down the “SET/OK” button for more than 3 seconds to enter the overload (OVERLOAD) settings in watts.

When the “W” symbol starts flashing, press the “ENERGY/+” or “COST/-” button to select the unit “W” (watts) or “A” (amps).

NOTE

- If you press a button but do not perform any action, the device will automatically exit the “OVERLOAD” screen.
- If the current load power exceeds the previously set overload value, the “OVERLOAD” message will start flashing. This indicates that the safe load level has been exceeded.

The default value for the overload parameter is 3680 W.

Setting the CO₂ factor

Press the “COST/-” button to go to the CO₂ screen, then hold down the “SET/OK” button for 3 seconds to enter the settings.

Figure 17 in the appendix

Press the “HISTORY” button to select the digit position, then use the “ENERGY/+” or “COST/-” button to set the value.

Once you have finished setting the value, press the “SET/OK” button to save the settings.

Energy consumption history graph

(last 7 days / weeks / months)

Press the “HISTORY” button to change the screen and view the energy consumption history.

The display shows energy consumption as a bar chart for:

- a) the last 7 days,

Figure 18 in the appendix

b) the last 7 weeks,

Figure 19 in the appendix

c) the last 7 months.

Figure 20 in the appendix

Each bar on the chart represents energy consumption during a given period.

Chart scale:

By default, 1 bar = 1 kWh.

If actual energy consumption is too high to be represented on this scale, the device will automatically change the scale to 2 kWh or 3 kWh per bar to ensure the data is displayed correctly.

Figure 21 in the appendix

Energy consumption by day / week / month

- To view daily energy consumption for the last 7 days:

press the 'HISTORY' button for 3 seconds whilst the screen is in 'daily' mode. Then press 'ENERGY/+' or 'COST/-' to select a day. The energy consumption for the selected day will be displayed in the second row of the display.

- To view weekly energy consumption for the last 7 weeks:

press the "HISTORY" button for 3 seconds whilst the screen is in "weekly" mode. Then press "ENERGY/+" or "COST/-" to select a week. The energy consumption for the selected week will be shown in the second row of the display.

- To view monthly energy consumption for the last 7 months:

press the "HISTORY" button for 3 seconds whilst the screen is in "monthly" mode. Then press "ENERGY/+" or "COST/-" to select the month. The energy

consumption for the selected month will be displayed in the second row of the display.

How to quickly clear / delete data

Press the “ENERGY/+” and “COST/-” buttons simultaneously for 3 seconds until the screen starts flashing.

Then press the “SET/OK” button for 3 seconds.

All saved data will be deleted.

Backlight mode

(This function is only available on the backlit version)

When connected to the mains, the backlight will switch on automatically without the need to press any buttons. After 10 minutes, the backlight will switch off automatically.

Pressing any button will turn the backlight on again. The backlight only works when the device is connected to the mains.

If the device is powered solely by the built-in batteries, the backlight will not work.

Operating parameters

Rated voltage: 230 V ~ 50 Hz

Maximum load: 16 A / 3680 W

Operating temperature: -10°C to +50°C

Replacing the batteries

Remove the battery cover on the back of the device and insert 2 LR44 / AG13 batteries.

The batteries are used to maintain the device's memory.

Troubleshooting

If you experience any problems with the device, please refer to the user manual again or contact Customer Service. Below is a list of tips that may help if you encounter problems with the meter.

1. Check that the energy meter is correctly connected to the power socket.
2. Check that the connected electrical appliance is correctly plugged into the energy meter.
3. Check that the voltage at the mains socket is correct.
4. Check that the battery in the energy meter is working.
5. If the display does not show any readings, ensure that the power consumption of the connected device exceeds 2 W. At lower loads, the meter may not record energy consumption.
6. If the message “OVERLOAD” appears on the display, this means that the set overload value or the maximum permissible load (3680 W / 16 A) has been exceeded. In this case, disconnect the device with excessive power consumption.
7. If the display is malfunctioning or the settings have been changed accidentally, press the “RESET” button to restore the default settings.

WARNING

1. This device is intended for indoor use only.
2. Use only in dry conditions.
3. Do not exceed the maximum permissible load.

Technical specifications

PARAMETER	VALUE
Operating voltage:	230 V AC
Maximum operating current:	16 A
Voltage range:	220 V AC – 240 V AC
Maximum load power:	3680 W
Time display range:	0 seconds – 999 days
Power measurement range:	0 W – 3680 W
Voltage measurement range:	0 V – 9999 V
Current measurement range:	0.0 A – 16.0 A
Operating frequency:	50 – 60 Hz
Energy price setting range:	0.00 COST/kWh – 99.99 COST/kWh
Total energy measurement range:	0.000 kWh – 9999 kWh
Total energy cost range:	0.00 COST – 9999 COST
Device power consumption:	0.5 W
Device dimensions:	72 × 155 × 42 mm

Maintenance

The housing should only be cleaned with a soft, dry or slightly damp cloth. Do not use chemicals, solvents or abrasive materials that could damage the surface of the device.

Disposal

Do not dispose of the end-of-life device with household waste. The product must be taken to an appropriate collection point for waste electrical and electronic equipment in accordance with applicable environmental regulations.

Warranty

The product is covered by the manufacturer's warranty. The warranty covers defects resulting from manufacturing or material faults that become apparent during normal use of the device. The warranty does not cover damage resulting from improper use, unauthorised modifications to the device, or mechanical damage.

Attachment

1



2



3



4



5



6



7



8



9



10



11



12



13



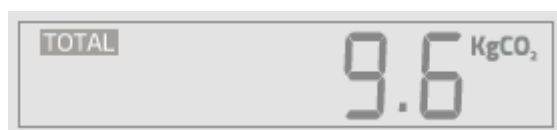
14



15



16



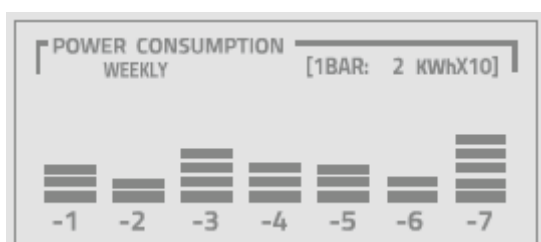
17



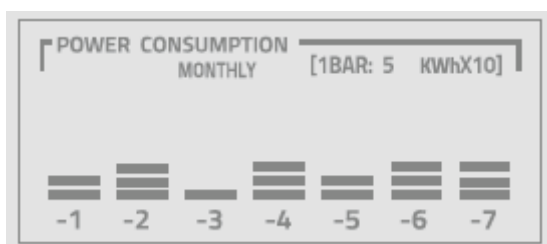
18



19



20



21

[1BAR=1523KWhX10]

- [1BAR=1 KWh]
- [1BAR= 2 KWh]
- [1BAR= 3KWh]
- [1BAR= 5 KWh]
- [1BAR=1 KWh X10]
- [1BAR=15 KWh]
- [1BAR= 2 KWh X10]
- [1BAR= 3KWh X10]
- [1BAR= 5 KWh X10]