energenie

# Energy Meter
## Model No. EG-EM1

## Introduction
With the Energy Meter, you are now able to determine power costs of your power loads in the easiest way.

## Proper use
The measurement range of the Energy Meter extends from 5W to 3680W. If values fall below or exceed these limit values, exact measurement are no longer possible. Also the device could not be overloaded, otherwise will be destroyed. There will be alarm for the power overloading.

The Energy Meter has been developed for monitoring and measuring electrical loads.
- The Energy Meter is only certified for operation at 230V AC.
- Only power loads with a power supply of 230V AC 50/60Hz may be connected.
- The maximum power of any connected load may not exceed 3680W (max. current 16A).
- It is only suitable for electrical appliances with resistive load.
- Operation of the Energy Meter is only permitted in interior spaces and dry environments, Usage in the open air is strictly forbidden!

## Safety Instructions
- This device is not a toy and does not belong to the hands of children.
- Only connect the Energy Meter to certified protected contact outlets 230V AC 50/60Hz (10/16A) with a ground wire.
- The connected load may not exceed 3680W(16A).
- The recommended operating temperature is between +5 to +40℃. High temperature may lead to overheating and can thereby permanently destroy the Energy Meter.
- Avoid operating under adverse environmental temperatures or near flammable gases, vapour and dust.
- For reasons of safety, never allow the device to be operated when in wet or in a damp environment
- When cleaning or servicing, the device must be disconnected from every source of operating voltage. Condensers in the device may still be charged, even if the device was disconnected from all voltage sources.
- Do not insert needles, metals or any other objects into the device.

## Properties

● Display current time (24 hours type), week, load power and cost tariff.
● Display total used energy and accrued energy cost.
● Display total recorded time, total ON time and percentage .
● Dual programmable power tariffs.
● Displaying line of power Blinks (fig4,the second line) if the load power is over 3680W

## Connection, operation settings

Before you connect the Energy Meter to an outlet or power or power load, condensers in the device will be charged. Five minutes later, the condensers will have enough power to sustain the normal display of LCD then the current time and your desired power tariff must be set.

**Suggestion:** It is better to take 8-12 hours to charge the condensers fully for the first time, in order to make the rechargeable Li-batteries to achieve optimum performance.

The procedure for entering the time and power tariff is described as following:

### A. The setting of current time and week



fig1

1. Press"+" "-" buttons together to enter into system setting, first setting is the current time.
2. With "+" button to increase the value of the blinking position, while with "-" button to decrease the value of the blinking position.
3. Press "MODE" button to select next position.
4. After the setting of week, press "MODE" button, the system will enter into the setting of cost tariff 1.

### B. The setting of cost tariff 1



fig2

1. Set the effect time of cost tariff 1.
2. Set the value of tariff 1.(it is cent as unit, such as: 10cent)
3. With "+" button to increase the value of the blinking position, while with "-" button to decrease the value of the blinking position.
4. Press "MODE" button to select next position.
5. Press "MODE" button, the system will enter into the setting of cost tariff 2.

### C. The setting of cost tariff 2



fig3

1. Set the effect time of cost tariff 2.
2. Set the value of tariff 2. .(it is cent as unit, such as: 10cent)
3. With "+" button to increase the value of the blinking position from 0 to 9,while with "-" button to decrease the value of the blinking position.
4. Press "MODE" button to select next position.
5. Go on pressing the button "mode" until the display board of fig4 appears.

### D. Press "MODE", "+" "-" simultaneously to delete all data (the data of current time and the week will not be deleted) after 5 seconds.

## Introduction of display board

Three display boards are designed to display different figures, you can use "MODE" button to select which board you want to browse.

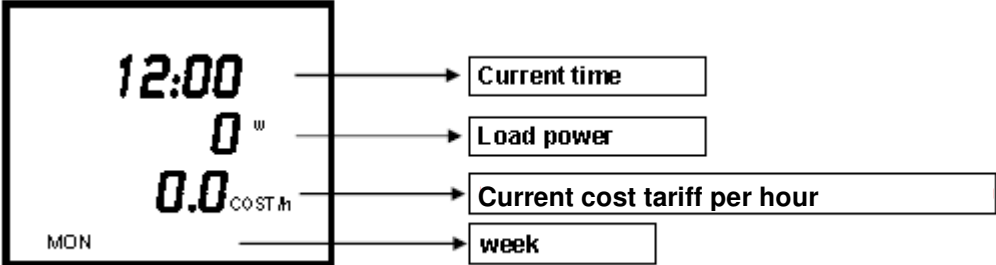**1. Display of current time (24 hours type), week, load power and current cost tariff**



```
12:00          → Current time
    0 w        → Load power
 0.0 COST/h    → Current cost tariff per hour
MON            → week
```

fig4

**2. Display of total record time, total used energy and accrued energy cost.**



```
TOTAL   COST
3:40  RECh     → Total record time
0.0 Kwh        → Total used energy
0.0 COST       → Accrued energy cost
```
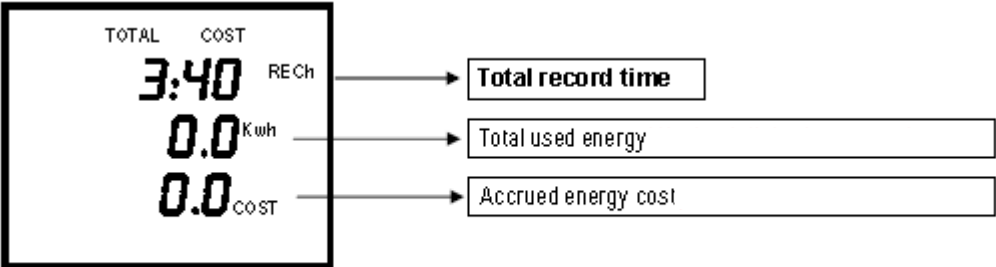
fig5

**3. Display of total record time, total on time and percentage**



```
TOTAL   TIME
3:40  RECh     → Total record time
0:00  ONh      → Total measuring time with load
0.0    %       → Percentage (ONh/RECh)
```
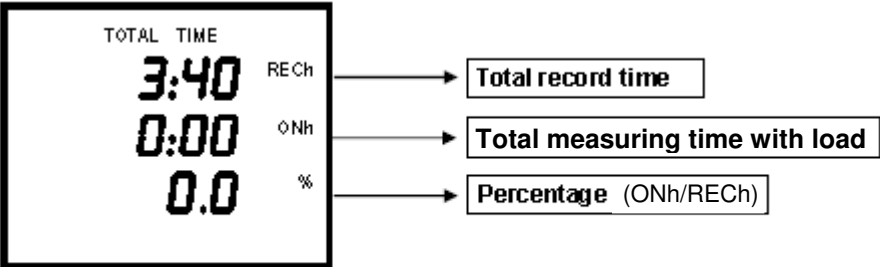
fig6

## Technical data

- Rating voltage: 230VAC, 50/60Hz.
- Max load current: 16A.
- Power measure range: 5VA-3680VA.
- Energy display: 0.0kwh-999.9kwh.
- Max recorded time: 999.9 hours.
- Using indoor only, altitude under 2000m
- Working temperature: + 5 to +4℃0.℃
- Working humidity: 80% under 31℃  (from 31℃ to 40℃, this figure decreases to 50% linearly).

**Note:** Only one Energy Meter can be used at the same time, plugging one socket into another one is not permitted.

## Maintenance
- Regularly inspect the Energy Meter for damages
- For cleaning the device and LCD, only use a dry, soft cloth. Do not use any cleaning solutions.
- Never immerse the device in water
- Maintenance or repairs may only be performed by a technician familiar with associated regulations.