

# **INSTRUCTION**

# **KES01-01 Multifunction Power Meter**

Power meters measures energy use(and calculate running costs) of household appliances. This helps you lower your power bill and reduce carbon emissions, as you can discover which appliances are the worst energy offenders and then work out ways to limit their use.



Please read the following instructions carefully before connecting this meter to electrical appliances.

#### WARNING!

Do not plug two or more meters together!

Indoor use only!

Not position the energy meter so that it is difficult to disconnect it from the supply!

#### **IMPORTANT**

Don't plug in an appliance where the load exceeds 13 Amp. Always ensure the plug of any appliance is fully inserted into the meter outlet. If cleaning of the meter is required, remove from mains power and wipe meter with a dry cloth.

#### **KEYBOARD DEFINITION**

- 1. MASTER CLEAR: Clear all data in memory including current time and all programs.
- 2. **UP**: Set current time, price, price programs, max. overload current combined with buttons SET; exchange 12-24 hour mode during clock display state.
- 3. **SET**: Set current time, price, price programs, max. overload combined with buttons UP.
- 4. **FUNC**: Exchange display state.

## **GENERAL FEATURES**

- 1. Display current clock.
- 2. Display line voltage.
- 3. Display line current.
- 4. Display line power.
- 5. Display and memory peak line power.
- 6. Display and memory accumulative total electric quantity.
- 7. Display and memory total on time and total electric charge,.
- 8. Display and memory total on time and total electric charge of price1.
- 9. Display and memory total on time and total electric charge of price2.
- 10. Display line frequency.
- 11. Display power factor.
- 12. Adjustable max. overload current, max. overload warning.
- 13.Adjustable price / kWh
- 11 combinations of day or blocks of days available as follows:

# MO/ TU/ WE/ TH/ FR/ SA/ SU/ MO,TU,WE,TH,FR/ MO,TU,WE,TH,FR,SA/ SA,SU/ MO,TU,WE,TH,FR,SA,SU. BATTERY

Rechargeable battery

#### THE DATA DISPLAY

Press **FUNC** button the data displays as follows:

## VOLTac→AMP→WATT→MAX WATT→KWh→TOTAL PRICE;TOTAL ON TIME→PRICE1→PRICE2

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- 1.The meter will display current clock and line voltage, frequency, if plug in socket after insert battery without any operation.
- 2. Press **FUNC** button once and release, the meter will display current clock and line current, power factor.
- 3. Press **FUNC** button once again and release, the meter will display current clock and real power, power factor.

- 4. Press **FUNC** button once again and release, the meter will display max. line power and the appear time of max. line power, power factor. Press and hold **FUNC** button for 5 seconds will clear max. line power display during this state.
- 5. Press **FUNC** button once again and release, the meter will display current clock and accumulative power factor.
- 6. Press FUNC button once again and release, the meter will display total on time and total electric charge.
- 7. Press **FUNC** button once again and release, the meter will display total on time of price 1 and total electric charge of price 1.
- 8. Press **FUNC** button once again and release, the meter will display total on time of price 2 and total electric charge of price 2.
- 9. Press FUNC button once again and release, the meter will come back to display current time and line voltage. Press and hold

**FUNC** button for 5 seconds to clear accumulative total electric quantity and total electric charge during display state of total electric charge or total electric charge of price 1 or total electric charge of price 2.

10. LCD display ----when total electric quantity, total electric charge overflow, the **OVER** will flash at the same time.

#### **SETTING CURRENT CLOCK**

- 1. Press **FUNC** button until the **CLOCK** displays in LCD.
- 2. Press **SET** button once time, The "**WEEK DAY**" will flash at same time, the clock change to **SET** mode. you can set the current clock.
- 3. Press **UP** button to set the "**WEEK DAY**".
- 4. Press SET button once time again and release, The "HOUR" will flash the "WEEK DAY" will stop flashing and keep display.
- 5. Press **UP** button to set the "**HOUR**".
- 6. Press SET button once time again and release, The "MINUTE" will flash. the "HOUR" will stop flashing and keep display.
- 7. Press **UP** button to set the "**MINUTE**".
- 8. Press **SET** button once time again and release, the time come back to **CLOCK** display mode.
- 9. Press **UP** button during the **CLOCK** display state, change 12-24 hour mode. To reset incorrect time, repeat above steps. After finish setting, Plug the meter into a regular 230/240V power outlet, Plug in an appliance that you want to use and turn the mains power on. Now the meter begins to measure the consumption of the appliance and detect the equipment that uses too much electricity at once.

#### SETTING PRICE OF COST/kWh & OVER LOAD CURRENT

Press and hold **FUNC** button for 5 seconds during display state of voltage or current or power.

- 1. Setting **price 1**:
- a. Press SET button once and release, SET display, the first digital COST/kWh flash, press UP button to set it.
- b. Press **SET** button once again and release, the second digital **COST/kWh** flash, press **UP** button to set it.
- c. Press SET button once again and release, the third COST/kWh flash, press UP button to set it.
- d. Press SET button once again and release, the fourth COST/kWh flash, press UP button to set it.
- e. Press **SET** button once again and release, the radix point **COST/kWh** flash, press **UP** button to set it.
- f. Press **SET** button once again and release, the weekday flash, press **UP** button to set it.
- g. Press SET button once again and release, the hour of ON TIME flash, press UP button to set it.
- h. Press **SET** button once again and release, the minute of **ON TIME** flash, press **UP** button to set it.
- 2.Setting **price 2**:

Press **FUNC** button once and release after finish Setting price 1. Setting price 2, repeat above steps.

3.Setting **OVER LOAD** current data:

Press **FUNC** button once and release after finish Setting price 2.

- a. Press SET button once and release, SET and AMP display, the first digital MAX. LOAD flash, press UP button to set it.
- b. Press **SET** button once again and release, the second digital **MAX. LOAD** flash, press **UP** button to set it.
- c. Press **SET** button once again and release, the third **MAX. LOAD** flash, press **UP** button to set it.
- d. Press **SET** button once again and release, the fourth **MAX. LOAD** flash, press **UP** button to set it.

The **OVER LOAD WARNING** will flash when load overtop the setting data. The button function will failure. You must draw out the appliance or set the OVER LOAD data again.

#### **STAND BY MODE**

Display of LCD will disappear without any operation after AC power off for 10 seconds. Press any key come back to display.

### **SPECIFICATIONS**

Power supply 240V AC 50Hz

Measure voltage range 200-276V AC

Measure current range 0.001-13A

Measure power range 0.1-3120W

Accumulative electric quantity range 0 -9999.9kWh

Clock accuracy +/- 1 minute per month

Operating temperature -10 oC to +40 oC

Distributed By:

Solargy Holdings Pte Ltd www.solargy.com.sg

Max. load 13A, 3120W

Measure voltage accuracy +/-1.5%

Measure current accuracy +/-1.5%

Measure power accuracy +/-1.5%

Measure frequency range 45-65Hz

Power cost < 0.5W

Battery 3.6V NI-MH, Rechargeable battery

