

## KW7M Eco-POWER METER DIN Type

All functions needed for  
power measurement now  
in a DIN type!



### 1 Save Space and Install More Easily

- ① Can be installed in control panels  
Supports DIN specification (22.5 mm) and is thinnest  
in industry with a display (Based on our investigation).  
Installable on DIN rail
- ② Can be used with compact dedicated Current  
Transformer (CT).

### 2 Power Measurement Function

- ① Instantaneous electrical power display
- ② Integrated electrical energy display
- ③ Each phase voltage and current display

### 3 Multiple Inputs

- ① Also supports 5 A CT of secondary current input.  
\* When inputting a 5 A secondary current, use 2-stage  
configuration by combining with a dedicated CT.
- ② Support for 400 V AC  
\* Use with external voltage transformer (VT)

### 4 Supports Networking

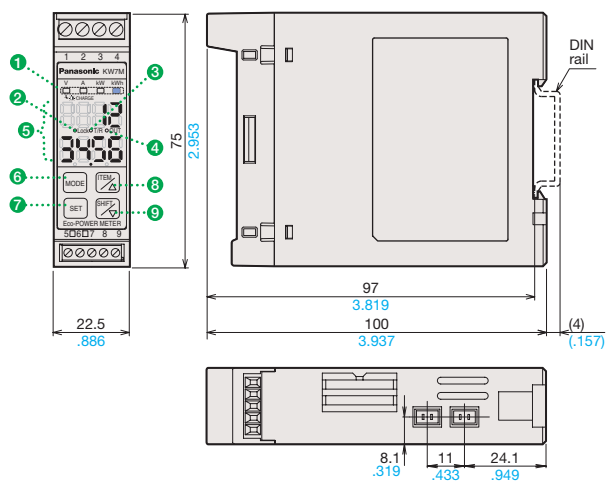
- ① An RS485 communications port comes standard
- ② Comes with MEWTOCOL/Modbus (RTU).  
\* Modbus Protocol is a communications protocol developed  
for PLCs by Modicon Inc.
- ③ Pulse output is standard function.

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ARCT1B281E '07.6

**New**

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## PART NAME AND DIMENSIONS



- 1 Display indicator ..... Lighting or Blinking according to the display
- 2 Lock indicator ..... Lighting while in lock mode.
- 3 T/R indicator ..... Blinking while communication
- 4 OUT indicator ..... Lighting when pulse output
- 5 Value display .....
  - Displays the instantaneous electrical power, integrated electrical energy, current, voltage and electricity charge.
  - Displays the all settings.
- 6 MODE key
- 7 SET key
- 8 ITEM/Δ key
- 9 SHIFT/▽ key



### Terminal layouts

No.	Type
1	R
2	S
3	T
4	No connection
5	Pulse output “+”
6	Pulse output “-”
7	RS485 “+”
8	RS485 “-”
9	RS485 “E”

## PRODUCT TYPES AND SPECIFICATIONS

### ● Main unit

Phase and wire system	Rated input	Current transformer	Part No.
Single-phase two-wire system	100 to 120/200 to 240 V AC	Dedicated CT type (5 A, 50 A (common)/ 100 A/250 A/400 A)	AKW7111
Single-phase three-wire system			
Three-phase three-wire system			

### ● Dedicated current transformer (CT)

Rated primary current	Part No.
5 A/50 A	AKW4801C
100 A	AKW4802C
250 A	AKW4803C
400 A	AKW4804C

### ● Measurement items

Item	Unit	Data range
Instantaneous electrical power	kW	0.00 to 999999.99
Integrated electrical energy	kWh	0.00 to 999999.99 to 1000000.0 to 9999999.9
Current	L1 (CT1) phase current	A
	L2 (CT2) phase current	A
Voltage	Voltage between 1-2	V
	Voltage between 2-3	V
Electricity charge*		0.00 to 999999.99 to 1000000.0 to 9999999.9 to 10000000 to 99999999

\*Eco-POWER METER is designed chiefly for managing energy saving. It is not intended to be used for billing.

### ● Main unit

Rated operating voltage	100 to 120/200 to 240V AC
Rated frequency	50/60 Hz common
Rated power consumption	6 VA
Allowable operating voltage range	85 to 132/170 to 264V AC (85% to 110% of rated operating voltage)
Allowable power off time	10 ms
Ambient temperature	-10°C to +50°C +14°F to +122°F (Storage temperature: -25°C to +70°C -13°F to +158°F)
Ambient humidity	30 to 85%RH (at 20°C non-condensing)
Display method	7-segment LED
Power failure memory method	EEP-ROM (Over 100,000 overwrites)

### ● Communication

Interface	Conforming to RS485
Protocol	MEWTOCOL/Modbus (RTU)
Number of connected units	Max. 99 units

### ● Input

Input voltage	Rating	Single-phase two-wire system: 100 to 120/200 to 240 V AC (common use) Single-phase three-wire system: 100 to 120 V AC Three-phase three-wire system: 200 to 240 V AC
	Allowable measuring voltage	85% to 110% of rated operating voltage
	VT ratio	1.00 to 99.99 [External voltage transformer (VT) is required.]
	Max. displayed voltage	9999 V
Input current	Rating of primary side	• 5 A/50 A/100 A/250 A/400 A (when using dedicated CT) • 1 to 4000 A (when using secondary 5A CT)
	CT ratio	1 to 4000/5 A (Can be set in setting mode.) (Supported when dedicated CT used in 2-step configuration.)
	Max. displayed current	6000 A (When 400 A or higher, use commercial CT with 5 A rated secondary current.)
Accuracy (Not including CT error) (Not including VT error)	Basic accuracy	Instantaneous electrical power, Integrated electrical energy, Voltage, Current and Electricity charge (±2.5% F.S. ±1 digit (at 20°C rated input, rated frequency, power factor: 1), Guarantee accuracy range: 10 to 100% of a rated current of each CT
	Temperature characteristics	±1.5% F.S./10°C ±1 digit (for -10 to 50°C range, rated input and power factor: 1)
	Frequency characteristics	±1.5% F.S. ±1 digit (for ±5% frequency change, rated input and power factor: 1)

- Please read “Installation instruction” before using to ensure correct usage.
- For details, specifications and handling, please read the KW7M Eco-POWER METER user's manual.
- You can download the user's manual from <http://www.mew.co.jp/ac/e/>.

These materials are printed on ECF pulp.  
These materials are printed with earth-friendly vegetable-based (soybean oil) ink.



## Matsushita Electric Works, Ltd. Automation Controls Business Unit

■ Head Office: 1048, Kadoma, Kadoma-shi, Osaka 571-8686, Japan  
 ■ Telephone: +81-6-6908-1050 ■ Facsimile: +81-6-6908-5781  
<http://www.mew.co.jp/ac/e/>

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