Panasonic

ideas for life

KW8M Eco-POWER METER

Simple Wattmeter

Lineup with new energy saving and environmentally friendly features!

FEATURES

1. **Direct measurement of 400 V power loads**
2. **Three-phase, four-wire system compatibility**
3. **Improved measurement function**
   - Instantaneous electrical power
   - Integrated electrical power
   - Each phase voltage and current
   - Frequency
   - Power factor
4. **Simultaneous power and pulse measurement**
5. **Supports Networking**

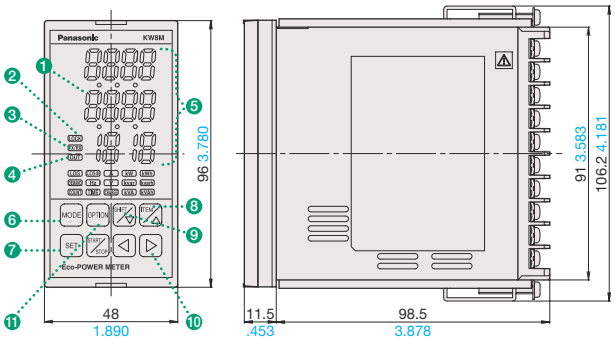
DIN96 × 48 size

KW8M Eco-POWER METER
ARCT1B290E '07.8

New

KW8M Eco-POWER METER

PART NAME AND DIMENSIONS



1. Display indicator ·····Lighting or Blinking according to the display
2. LOCK indicator ·····Lighting while in lock mode
3. TX/RX indicator ·····Blinking while communication
4. OUT indicator ·····Lighting when pulse output
5. Value display ·····Displays the each measurements and settings
6. MODE key
7. SET key
8. ITEM/△ key
9. SHIFT/▽ key
10. Left/Right (◁/▷) key
11. OPTION key

Terminal layouts

No.	Type	No.	Type	
1	GND	11	P1	Measured voltage input
2	Power supply (L)	12	P0	
3	Power supply (N)	13	P2	
4	Pulse input (+)	14	P3	
5	Pulse input (–)	15	CT1 (+)	CT input
6	Pulse output (+)	16	CT1 (–)	
7	Pulse output (–)	17	CT2 (+)	
8	RS485 (+)	18	CT2 (–)	
9	RS485 (–)	19	CT3 (+)	
10	RS485 (E)	20	CT3 (–)	

PRODUCT TYPES AND SPECIFICATIONS

Main unit

Phase and wire system	Operating power supply	Measured voltage input	Measured current input	Current transformer	Terminal type	Part No.
Single-phase two-wire system	100 to 240 V AC	• 400 V AC • 100/200 V AC	5 A, 100 A, 250 A, 400 A	Dedicated CT type [5 A, 50 A (common)/ 100 A/250 A/400 A]	Screw terminal	AKW8111
Single-phase three-wire system						
Three-phase three-wire system						
Three-phase four-wire system						

Dedicated current transformer (CT)

Rated primary current	Part No.
5 A	AKW4801
50 A	
100 A	AKW4802
250 A	AKW4803
400 A	AKW4804

Measurement items

Item		Unit	Data range
Integrated electrical power	Active power	kWh	0.00 to 9999999.9
	Reactive power	kvarh	0.00 to 9999999.9
	Apparent power	kVAh	0.00 to 9999999.9
Instantaneous electrical power	Active power	kW	0.00 to 999999.99
	Reactive power	kvar	0.00 to 999999.99
	Apparent power	kVA	0.00 to 999999.99
Current	CT1 phase current	A	0.0 to 6000
	CT2 phase current	A	0.0 to 6000
	CT3 phase current	A	0.0 to 6000
Voltage	Voltage between P1 and P0	V	0.0 to 9999
	Voltage between P2 and P0	V	0.0 to 9999
	Voltage between P3 and P0	V	0.0 to 9999
Electricity charge*		—	0.00 to 99999999
Power factor		—	0.00 to 1.00
Frequency		Hz	47.5 to 63.0
Pulse counter		—	0 to 99999999
Hour meter	ON time	h	0.0 to 99999.9
	OFF time		

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

Communication

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

Counter

Input mode	Addition (fixed)
Max. counting speed	2 kHz/30 Hz (selectable by mode)
Pulse input	Min. input signal width: 0.25 ms (when 2 kHz selected)/ 16.7 ms (when 30 Hz selected) ON : OFF ratio = 1 : 1
Input signal	Contact/No contact (open collector) • Impedance when shorted: 1 kΩ • Residual voltage when shorted: Max. 2 V • Impedance when open: 100 kΩ
Output mode	HOLD (over count)
Number of digits	8 digits display

Main unit

Rated operating voltage	100 to 240 V AC
Rated frequency	50/60 Hz common
Rated power consumption	8 VA
Allowable operating voltage range	85 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	8-digit, 7-segment LCD
Power failure memory method	EEP-ROM (Over 100,000 overwrites)
Mass	Approx. 235 g (without mounting bracket)

Input

Measured voltage input	Rating	Single-phase two-wire system: 0 to 440 V AC (phase voltage) Single-phase three-wire system: 0 to 220 V AC (line voltage) Three-phase three-wire system: 0 to 440 V AC (phase voltage) Three-phase four-wire system: 0 to 254 V AC (line voltage)
	Allowable	85% to 120% of rated input voltage
	Allowable measuring voltage	Single-phase two-wire system: 0 to 528 V AC (phase voltage) Single-phase three-wire system: 0 to 264 V AC (line voltage) Three-phase three-wire system: 0 to 528 V AC (phase voltage) Three-phase four-wire system: 0 to 300 V AC (line voltage)
	VT ratio	1.00 to 99.99 (selectable by mode) ***Use voltage transformer VT when measure 440 V or higher (secondary side: 440V/220 V or less).**
	Max. displayed voltage	9999 V
Measured current input	Rating of primary side	5 A/50 A/100 A/250 A/400 A (when using dedicated CT) (selectable by mode) 1 to 4000 A (selectable by mode) ***Use a commercial CT with secondary side rated current of 5 A when measure 400 A or higher.** ***Guarantee accuracy range: 10 to 100% of a rated current of each CT**
	Max. displayed current	6000 A (When 400 A or higher, use commercial CT with secondary side rated current of 5 A.)
Accuracy (Without CT error) (Without VT error)	Power (Active/Reactive/Apparent), Instantaneous electrical power (Active/Reactive/Apparent), Voltage, Current, 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)

These materials are printed on ECF pulp.
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PRINTED WITH SOY INK

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