










Eco-POWER METER® performance comparison

	Main unit		Expansion unit	Main unit		Expansion unit				
	KW2M-A	KW2M-X	KW2M-A/ KW2M-X	KW2G	KW2G-H	KW2G / KW2G-H				
	Standard type	Memory type		Standard type	SD memory card type	Power measurement	Power measurement and Pulse output	Pulse input	Analog input	
Appearance										
Model No.	AKW263100A	AKW264100A	AKW272100A	AKW2010G	AKW2020G	AKW2110G	AKW2160G	AKW2152G	AKW2182G	
Dimensions (mm in) (W × H × D)	85×140×65 3.346×5.512×2.559		85×70×65 3.346×2.756×2.559	50×95×65 1.97×3.74×2.56		25×95×65 0.98×3.74×2.56				
Mounting method*1	DIN rail									
Operating power supply	100-240V AC									
Input measured voltage (Select with setting mode)	0 to 690V AC *When UL standard is supported 0 to 300V AC			100 / 200V AC system				—	—	
Phase and wire system	Single-phase two-wire system	○		○	○	○	○	—	—	
	Single-phase three-wire system	○		○	○	○	○	—	—	
	Three-phase three-wire system	○		○	○	○	○	—	—	
	Three-phase four-wire system	○		—	—	—	—	—	—	
Load measurement for 400 V AC system*2	Transformer not required. Direct input possible			External voltage transformer (VT) required.				—	—	
Current transformer (CT)	Commercial current sensor *3 (1A or 5A CT)			Dedicated type: 5 A, 50 A, 100 A, 250 A, 400 A and 600 A				—	—	
Measuring items	Integrated electric power	○	○	○	○ (Active)		—	—		
	Instantaneous electric power	○	○	○	○ (Active, Reactive, Apparent, Regenerative)		—	—		
	Current	○	○	○	○ (R, N/S, and T)		—	—		
	Voltage	○	○	○	○ (RS, RT, and TS)		—	—		
	Electricity charge *4	○	○	Displayed on the main unit	○	○	Displayed on the main unit	Displayed on the main unit	—	—
	Conversion carbon dioxide value	○	○		○	○			—	—
	Power factor	○	○		○	○			—	—
	Frequency	○	○	○	○	○	—	—	—	—
	Hour meter	○	○	○	—	—	○*5	○*5	○*5	—
	Pulse count value	○	○	—	○	○	—	—	○*6	—
	Simultaneous power and pulse measurement	○	○	—	○	○	—	—	—	—
	Demand *7	○	○	—	—	—	—	—	—	—
Electric power quality	○*9	○*9	○*9	—	—	—	—	—	—	
Communication	RS485	Communication protocol*10	MEWTOCOL, MODBUS (RTU) switchover							
		Number of connected units	Up to 99 units							
	Ethernet	Communication protocol*10	MEWTOCOL,MODBUS(TCP)		—	—	—	—	—	—
		Number of connected units	TCP / IP , UDP / IP		—	—	—	—	—	—
Number of pulse input point *11	1 point		—	1 point	1 point	—	—	2 points	—	
Number of pulse output point	2 points		—	1 point	1 point	—	2 points	—	—	
Number of analog input point *12	—	—	—	—	—	—	—	—	2 points	
Excess alarm output	Instantaneous active electric power	○	○	—	○	○	—	○	—	—
	Current value	○	○	—	○	○	—	○	—	—
	Stand-by electric power	○	○	—	○	○	—	○	—	—
	Preset value	○	○	—	○	○	—	—	—	—
	Demand	○	○	—	—	—	—	—	—	—
Main unit memory	—	○	—	—	—	—	—	—	—	
External memory	—	—	—	—	○	—	—	—	—	
Calendar timer	—	○	—	—	○	—	—	—	—	
Simple measurement	○	○	○	○	○	○	○	—	—	
Web server	—	○	—	—	—	—	—	—	—	
Tool and software	KW Monitor	—	—	—	○	○	○	○	○	
	KW Watcher	○	○	○	○	○	○	○	○	
	KW View	—	—	—	—	○	○ When connected to AKW2020G			
Standard	CE,CTUVus			CE,S-MARK	CE	CE,S-MARK	CE	CE,S-MARK		

*1 DIN rail, mounting frame, and terminal socket are sold separately.

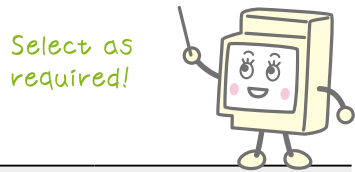
*2 VT (secondary side rated value 110V) is necessary for load measurement which exceeds the rated input voltage.

*3 KW2M, KW9M: Primary side 65,535A or less, AKW8115: Primary side 4,000A or less. A general-purpose CT with a secondary side current 1A or 5A.

*4 The eco-power series is for self-managed energy-savings and cannot be used for billing purposes.

*5 Hour meter function can be used only with main unit and one expansion unit. Refer to the product page for detail.

*6 Displayed at the main unit



KW9M		KW1M Standard type	KW1M-H SD memory card type	KW4M DIN□48		KW7M DIN rail	KW8M DIN48×96			
Standard type	Advanced type			MEWTOCOL type	MODBUS type		High performance type	1 A / 5 A CT input type		
AKW91110	AKW92112	AKW1110 AKW1111	AKW1121	AKW5111 AKW5211	AKW5112 AKW5212	AKW7111	AKW8111	AKW8111H	AKW8115	
96×96×68 3.78×3.78×2.68 (including terminal base)		75×90×50 2.95×3.54×1.97		Screw terminal type: 48×48×81.9 1.89×1.89×3.22 11-pin type: 48×48×87.5 1.89×1.89×3.44		22.5×75×100 0.89×2.95×3.94	48×96×98.5 1.89×3.78×3.88			
Panel mounting		DIN rail, Screw, Panel mounting(mounting frame is required)		DIN rail, Screw, Panel mounting (option parts are required for each method)		DIN rail	Panel mounting			
100-240V AC 100-300V DC		100-240V AC								
0 to 500V AC		100/200V AC system	100/200/400V AC system		100/200V AC system		100/200/400V AC system			
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Transformer not required. Direct input possible		External voltage transformer (VT) required.	Transformer not required Direct input possible		External voltage transformer (VT) required.		Transformer not required. Direct input possible.			
Commercial current sensor *3 (1A or 5A CT)		Dedicated type: 5 A, 50 A, 100 A, 250 A, 400 A and 600 A		Dedicated type: 5 A, 50 A, 100 A, 250 A and 400 A		Dedicated type: 5 A, 50 A, 100 A, 250 A, 400 A and 600 A			Commercial current sensor*3 (1A or 5A CT)	
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/> (R and T)	<input type="radio"/> (R, S, and T)	<input type="radio"/> (RS, RT, and TS)	<input type="radio"/> (between 1 and 2, between 2 and 3)	<input type="radio"/> (between 1 and 2, between 2 and 3)	<input type="radio"/> (between 1 and 2, between 2 and 3)	<input type="radio"/> (between 1 and 2, between 2 and 3)	<input type="radio"/> (between P1 and P0, between P2 and P0, between P3 and P0)	
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<input type="radio"/> THD only	<input type="radio"/> *9	—	—	—	—	—	—	—	—	
MEWTOCOL, MODBUS(RTU), DL / T645-2007 switchover		MEWTOCOL, MODBUS (RTU) switchover		MEWTOCOL	MODBUS(RTU)	MEWTOCOL, MODBUS (RTU) switchover				
Up to 99 units										
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	2 points	—	1 point	1 point	1 point	1 point	—	1 point	1 point	1 point
—	2 points	1 point	1 point	1 point	1 point	1 point	1 point	1 point	1 point	1 point
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CE,cTUVus		CE,S-MARK			CE, UL,S-MARK		CE,S-MARK			

*7 Only for the reference value. Please refer to the product manual for details.
 *8 IEC demand cannot be used. 30 minutes fixed demand only.
 *9 Higher harmonic wave, unbalance degree measurement, etc. Refer to the product page for details.
 *10 Switchover possible using setting mode. Refer to the communication specifications regarding restrictions.
 *11 Input method is contact / non-voltage contact (Open collector)
 *12 Input range of the analog input unit is selected using setting mode Voltage: 0 to 5V / 1 to 5V Current: 0 to 20mA / 4 to 20mA