

ME96SS Power Meters

The ME96-SS meter uses an LCD display to combine the visual clarity of an analog meter with the accuracy and reliability of digital technology with no moving parts. ME96-SS is a stand-alone meter which can be connected to a network using native Modbus RTU or CC-Link communications.

Model Number		ME96SSHA-MB	ME96SSRA-MB	ME96SSEA-MB	
		High-Speed Module	Standard Module	Economy (Basic) Module	
Stocked Item		S	S	S	
Phase Wire		Three phase 4-wire, Three phase 3-wire (3CT, 2CT), Single phase 3-wire, Single phase 2-wire (common use)			
Rating	Current	5AAC, 1AAC (common use)			
	Voltage	Three phase 4-wire: 277/480VAC (max) Three phase 3-wire: Delta connections: 220VAC (max), Star connections: 440VAC (max) Single phase 3-wire: 220/440VAC (max) Single phase 2-wire: Delta connections: 220VAC (max), Star connections: 440VAC			
	Frequency	50-60Hz (common use)			
Measurement Items and Accuracy	Current (A)	A1, A2, A3, AN, A _{AVG} ; ±0.1%	A1, A2, A3, AN, A _{AVG} ; ±0.2%		
	Current Demand (DA)	DA1, DA2, DA3, DAN, DA _{AVG} ; ±0.1%	DA1, DA2, DA3, DAN, DA _{AVG} ; ±0.2%	-	
	Voltage (V)	V12, V23, V31, V _{AVG} (L-L); V1N, V2N, V3N, V _{AVG} (L-N); ±0.1%	V12, V23, V31, V _{AVG} (L-L) V1N, V2N, V3N, V _{AVG} (L-N); ±0.2%		
	Active Power (W)	W1, W2, W3, Σ W; ±0.2%	W1, W2, W3, Σ W; ±0.5%		
	Reactive Power (var)	var1, var2, var3, Σ var; ±0.2%	var1, var2, var3, Σ var; ±0.5%	-	
	Apparent Power (VA)	VA1, VA2, VA3, Σ VA; ±0.2%	VA1, VA2, VA3, Σ VA; ±0.5%	-	
	Power Factor (PF)	PF1, PF2, PF3, Σ PF; ±1.0%	PF1, PF2, PF3, Σ PF; ±2.0%		
	Frequency (Hz)	Hz; ±0.2%	Hz; ±0.5%		
	Active Energy (Wh)	Imported, Exported; class 0.5S (IEC62053-22)	Imported, Exported; class 1.0 (IEC62053-21)	Imported; class 1.0 (IEC62053-21)	
	Reactive Energy (varh)	Imported lead, lag, Exported lead, lag; class 2.0 (IEC62053-23)		-	
	Apparent Energy (Vah)	-; class 2.0	-	-	
	Harmonic Current (HI)	1st to 31st degree (odd number degree only); ±2.0%	1st to 13th degree (odd number degree only); ±2.0%	-	
	Harmonic Voltage (HV)			-	
	Rolling Demand (DW)	Rolling block, fixed block; ±0.2%	-		
	Periodic Active Energy (Wh)	Periodic active energy (*1, *2); class 0.5S (IEC62053-22)	Periodic active energy (*1, *2); class 1.0 (IEC62053-21)	-	
	Operating Time	Operating time (*1, *2); (Reference)			
Analog Output Response Time		2s or less (except HI, HV. HI, HV: 10s or less)		-	
Measuring Method	Instantaneous Value	A/V: RMS calculation, W/var/VA/Wh/varh/Vah: Digital multiplication, PF: Power ratio calculation, Hz: Zero-cross, HI/HV:FFT		A/V: RMS calculation, W: Digital multiplication, PF: Power ratio calculation, Hz: Zero-cross	
	Demand Value	DA: Thermal type calculation, DW: Rolling demand calculation	DA: Thermal type calculation	-	
Display	Type		LCD with backlight		
	No. of Display Digits and Segments	Digital Display	6 digits each at upper, middle, and lower line; A, DA, V, W, var, VA, PF: 4 digits DW, Hz: 3 digits; Wh, varh, VAH: 9 digits (6 or 12 possible); Harmonic distortion ratio, content ratio: 3 digits Harmonic RMS: 4 digits; Operating time: 6 digits Contact input/output: I/O	6 digits each at upper, middle, and lower line; A, DA, V, W, var, VA, PF: 4 digits Hz: 3 digits; Wh, varh: 9 digits (6 or 12 possible); Harmonic distortion ratio, content ratio: 3 digits Harmonic RMS: 4 digits; Operating time: 6 digits; Contact input/output: I/O	6 digits each at upper, middle, and lower line; A, V, W, PF: 4 digits Hz: 3 digits Wh: 9 digits (6 or 12 possible) Operating time: 6 digits
		Bar Graph	21 segment bar graph, 22 segment indicator		
	Display Updating Time Interval		0.5s or 1s (selectable)		
Communication		MODBUS [®] RTU communication			
Available Optional Plug-in Module		ME-4210-SS96; ME-0040C-SS96; ME-0052-SS96		-	
Power Failure Compensation		Non-volatile memory used (items: setting value, max/min value, active/reactive energy, apparent energy, periodic active energy, rolling demand, operating time)	Non-volatile memory used (items: setting value, max/min value, active/reactive energy, periodic active energy, operating time)	Non-volatile memory used (items: setting value, max/min value, active energy, operating time)	
Consumption (VA)	VT	Each phase 0.1VA (110VAC), 0.2VA (220VAC), 0.4VA (440VAC)			
	CT	Each phase 2VA (5AAC)			
	Auxiliary Power Circuit	7VA (at 110VAC), 8VA (at 220VAC), 5W (at 100VDC)			
Auxiliary Power		100-240VAC (±15%), 100-240VDC (-30 +15%)			
Weight (kg)		0.5			
Dimensions (H x W x D) mm		96 x 96 x 86			
Installation Method		Embedded			
Operating Temperature		-5 ~ +55°C (average operating temperature: 35 or less per day)			
Operating Humidity		0-85% RH (non condensing)			
Storage Temperature		-25 ~ +75°C (average temperature: 35 or less per day)			
Storage Humidity		0-85% RH (non condensing)			

Notes:

- Class values based on 100% of rated value.
- Harmonic measurements where distortion ratio (content rate) is 100% or more may exceed ±2.0%.
- Harmonic current cannot be measured without voltage input.

Optional Plug-In Modules

	Model Number	Analog Output	Pulse / Alarm Output	Contact Input	Contact Output	Transmission Function	Used With	Stocked Item
I/O Modules	ME-4210-SS96	4	2	1	-	-	-	S
	ME-0052-SS96	-	-	5	2	2	-	S
Communication Interface Modules	ME-0040C-SS96	-	-	4	-	-	CC-Link	S
	ME-0000BU-SS96	-	-	-	-	-	Data Logger	S
	ME-0000MT-SS96	-	-	-	-	-	Modbus/TCP	S