



for a greener tomorrow

ELECTRONIC MULTI-MEASURING INSTRUMENT

MODEL: EMMS7-96

Product Outline

Highly appreciated 'Electronic Multi-Measuring Instrument' have been launched with economical version with seven segment display.

New EMMS7-96 meter with improved measurement function and MODBUS® RTU communication support.

It allows more effective energy monitoring function with seven segment LED display, brilliant 3 Row, 4 digits per line LED display readable from larger distance having built-in MODBUS® RTU communication.



SALIENT FEATURES

- 7-segment bright red LED display; 3 rows of 4 digits
- Measurement of major electrical parameters and power quality
- User selectable phase wire system: 3-phase 4-wire, 3-phase 3-wire (3CT, 2CT), 1-phase 3-wire, 1-phase 2-wire
- User programmable CT/PT primary, CT/PT secondary
- Built-in RS-485 MODBUS® RTU communication
- Easy display navigation and settings

APPLICATION AREA

1. Control panels
2. Motor Control Centres (MCC)
3. Power distribution panels
4. Breaker panels
5. Original Equipment Manufacturers (OEMs)
6. Building Management Systems (BMS)
7. Genset panels

USER BENEFITS

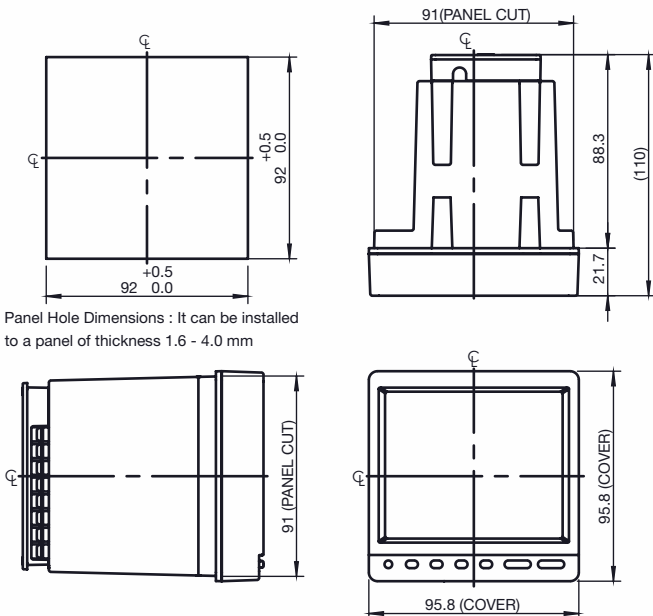
- Multiple parameters monitoring for network reliability and diagnosis
- Reduce energy cost by tracking Energy consumption
- Basic power quality analysis with THD
- MODBUS® RTU communication system optimizes computer monitoring operations
- Remote monitoring of parameters A, DA, V, W, var, VA, Wh, varh, VAh, PF, Hz, harmonic voltage and harmonic current (Total)

SPECIFICATIONS

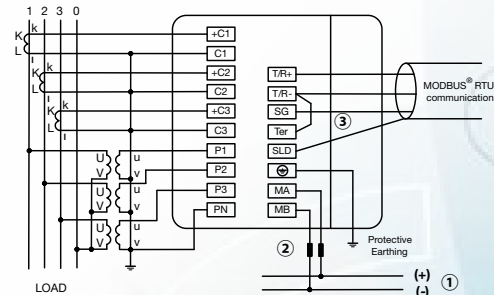
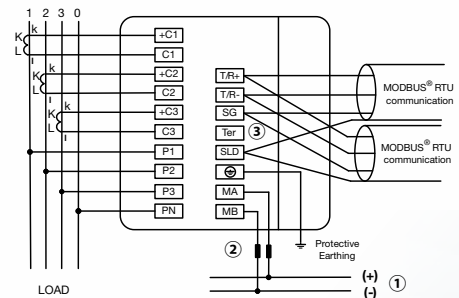
Type		EMMS7-96EA-MB		
Phase Wire System		3-PHASE 4-WIRE, 3-PHASE 3-WIRE (3CT, 2CT), 1-PHASE 3-WIRE, 1-PHASE 2-WIRE		
Rating	Current	5A AC, 1A AC		
	Voltage	3-PHASE 4-WIRE: max 277/480VAC 3-PHASE 3-WIRE: (DELTA) max 220VAC, (STAR) max 440VAC 1-PHASE 3-WIRE: max 220/440VAC 1-PHASE 2-WIRE: (DELTA) max 220VAC, (STAR) max 440VAC		
	Frequency	50-60Hz		
Item	Measurement Item	Measurement Accuracy		
Measurement Elements	Current (A)	A1, A2, A3, AN, A _{AVG}	±0.5%	
	Current Demand (DA)	DA1, DA2, DA3, DAN, DA _{AVG}	±0.5%	
	Voltage (V)	V12, V23, V31, V _{AVG} (L-L), V1N, V2N, V3N, V _{AVG} (L-N)	±0.5%	
	Active Power (W)	W1, W2, W3, $\sum W$	±0.5%	
	Reactive Power (var)	var1, var2, var3, $\sum var$	±0.5%	
	Apparent Power (VA)	VA1, VA2, VA3, $\sum VA$	±0.5%	
	Power Factor (PF)	PF1, PF2, PF3, $\sum PF$	±2.0%	
	Frequency (Hz)	Hz	±0.5%	
	Active Energy (Wh)	Imported, Exported	Class1 (IEC62053-21)	
	Reactive Energy (varh)	Imported Lag, Imported Lead, Exported Lag, Exported Lead	Class2 (IEC62053-23)	
	Apparent Energy (VAh)	Imported + Exported	± 2.0%	
	Harmonic Current (HI)	Total	± 2.0%	
	Harmonic Voltage (HV)	Total	± 2.0%	
	Operation Time (h)	Operation time 1, Operation time 2	---	
Communication Specification	MODBUS [®] RTU communication			
Auxiliary Power	100-240VAC (±15%) 50-60 Hz, 100-240VDC (-30%, +15%)			
Weight	0.5kg			
Dimensions	96 (H) X 96 (W) X 88 (D)			
Operating Temperature / humidity	-5 to +55°C (average temperature : 35°C or less per day), 0 to 85% RH, non condensing			
Storage Temperature / humidity	-25 to +75°C (average temperature : 35°C or less per day), 0 to 85% RH, non condensing			

DIMENSIONS AND WIRING DIAGRAMS

3P4W CIRCUIT / MODBUS[®] RTU COMMUNICATION



Panel Hole Dimensions : It can be installed to a panel of thickness 1.6 - 4.0 mm



- ① Auxiliary power supply : AC100 to 240V or DC100 to 240V.
 - ② Fuses 0.5A
 - ③ Some MODBUS[®] RTU equipment doesn't have SG. In this case, the wiring between SG is unnecessary.
- # 1: For low voltage circuits, grounding the secondary side of VT and CT is not necessary.

New publication, effective March 2018.
Specifications are subject to change without notice.