

Multi-Function Meters

EMS-01/EMS-01T / EMS-03 / EMS-09

Features

- On site programmable PT(Primary & Secondary)/CT(Primary & Secondary)Ratio
- High brightness alpha numeric LED display for parameters and numeric values.
- Password protection for program settings.
- Protection from dust and water as per IP51.
- Accuracy Class:1.0(as per IEC 62053-21) / 0.5(as per IEC 62053-22)
- KWH Meter with RS 485 Modbus communication facility.

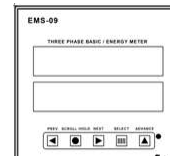
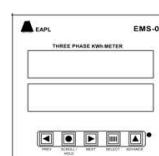
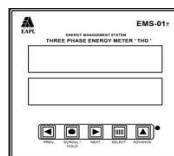
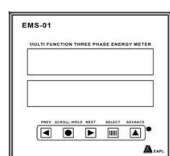


Ordering Information

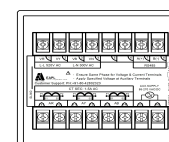
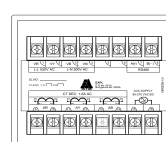
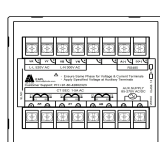
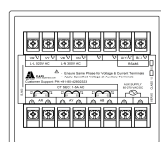
Models	Function	Source Voltage	Pages	Display Parameters
EMS-01	3 Phase Multi-function meter with RS 485 communication	85-270 V AC/DC	Page 1-Basic	V(R,Y,B),V(RY,YB,BR),A(R,Y,B),Hz,PF(R,Y,B,T),Phase Angle(R,Y,B),RPM,W(R,Y,B,T),VAr(R,Y,B,T),VA(R,Y,B,T),Device ID(communication status), Neutral current
			Page 2-Total	KWhT,KVrhCT,KVrhIT,KVAhT,LT(Load Hours Total)
			Page 3-Import	KWhI,KVrhCI,KVrhII,KVAhI,LI(Load Hours Import)
			Page 4-Export	KWhE,KVrhCE,KVrhIE,KVAhE,LE(Load Hours Export)
			Page 5-Old Total	KWhT,KVrhCT,KVrhIT,KVAhT,LT(Load Hours Total)
			Page 6-Old Import	KWhI,KVrhCI,KVrhII,KVAhI,LI(Load Hours Import)
			Page 7-Old Export	KWhE,KVrhCE,KVrhIE,KVAhE,LE(Load Hours Export)
EMS-01T	3 Phase Multi-function meter with THD	85-270 V AC/DC	Page 2-THD	V(R,Y,B), A(R,Y,B) IN % ONLY
EMS-03	KWH meter		-	W(T),PF(T),KWh,MWh,Device ID(Communication Status)
EMS-09	Basic/Energy Meter		-	V(R,Y,B),V(RY,YB,BR),A(R,Y,B),Hz,PF(R,Y,B,T),W(R,Y,B,T),KWh,MWh,LH,0KWh,0MWh,0L,Device ID(Communication Status)

Note: For EMS-01T all pages of EMS-01 remains same except Page 2

Front View EMS-01 EMS-01T EMS-03 EMS-09



Rear View EMS-01 EMS-01T EMS-03 EMS-09



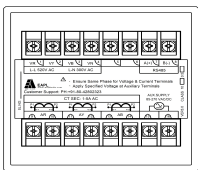
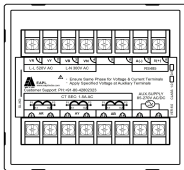
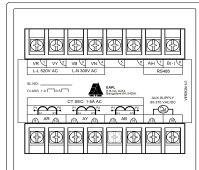
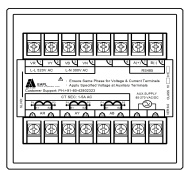
Over-all Dimension

Models	Dimension Details in mm			Cutout Dimension in mm	
	W	H	D	W	H
EMS-01/ EMS-03	96	96	82	92	92
EMS-01T/ EMS-09	96	96	95.5	92	92

■ Specifications

Parameters	Models	EMS-01	EMS-03	EMS-09	EMS-01T
Function		3 Phase Multi-function meter with RS 485 communication	KWH meter	Basic/Energy Meter	3 Phase Multi-function meter with THD
Rated supply Voltage		85-270V AC/ DC			
Rated Frequency		50 / 60Hz \pm 5% for AC only			
Power consumption		AC Approx. 6 VA DC Approx. 4W			
Burden		< 0.4 VA per Volts/Amps input			< 0.2 VA per Volts/Amps input
Input Current		Current input (AR,AY,AB) Basic upto 5A(Ib) Max 10A(200 % Ib)			
Current		Class 1 / Class 0.5 / Class 0.2			Class 1 / Class 0.5
Recovery Time		2sec minimum.			
CT Ratio Selectable		Primary: 1A to 5000A. Secondary:1A to 5A.			
PT Ratio Selectable		Primary: 110V to 999kV. Secondary:110V to 500V.			
Ambient Temperature		Operation : -10° C to + 55° C(14° F to 131° F) Storage : -25° C to + 80° C(-13° F to 176° F)			
Humidity		Up to 95% RH @ 40° C			
Dielectric Strength		2.5 KV AC, 50Hz for 1 minute (Between current carrying & non-current carrying parts)			
Insulation resistance		>100M ohms @ 500V DC			
Electrical connection		Screw type terminals with self lifting clamps			
Dimension (W x H x D)		96 X 96 X 82 mm		96 X 96 X 95.5 mm	
Cut-out Dimension(W x H)		92 x 92mm		92 x 92mm	

Connection and Terminal Details

	EMS-01	EMS-01T	EMS-03	EMS-09
Connection Details				
	EMS-01	EMS-01T	EMS-03	EMS-09
Terminal Details	1, 2,3,4 : R,Y,B,N 7,8 : A,B(RS 485 Communication port) 9,10: S1,S2 (R Phase) 11,12 : S1,S2 (Y Phase) 13,14 : S1,S2 (B Phase) 15,16: Auxiliary Supply(85-270V AC/DC)			