### EM2M-1P-C-100A

# **Energy Meter**



DIN 35mm

#### **Display Specifications**

Display	1 row, LCD with Backlight	
Digits	7	
LED Indications	Integration of Energy	

### Input Specifications

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Electrical Connection	1Ø - 2 wire
Input Voltage Range	176 to 276V AC (L - N)
Input Current Range	5A AC (Min - 10mA, Max - 100A)
Frequency	45 to 65Hz
Display Scrolling	Automatic / Manual (Programmable)
Power Consumption	8VA max
Display Reset	Programmable (For energy)
Resolution	For energy : 0.01k, 0.1k, 1k For Power, Voltage, Current : Auto Resolution For Power Factor : 0.01
Accuracy	$ \begin{array}{l} \mbox{Voltage } (L - N ): \pm 0.5\% \mbox{ of F.S.} \\ \mbox{Current}: \pm 0.5\% \mbox{ of Nominal} \\ \mbox{Power Factor}: \pm 0.01 \mbox{ of F.S.} \\ \mbox{Frequency}: \pm 0.1\% \mbox{ of F.S.} \\ \mbox{Power (Active, Reactive, Apparent)}: 1\% \\ \mbox{Energy (Active, Reactive, Apparent)}: Class 1 \\ \end{array} $
Memory Retention	10 years (For energy)
Measuring Parameters	Voltage (L - N) Current I1, Frequency, Power Factor, Power (Active, Reactive & Apparent), Energy (Active, Reactive & Apparent) Active, Reactive (Import / Export) & Max Demand Power

### Features :

- 1Ø True RMS (Voltage, Current)
- 1Ø Power (Active, Reactive, Apparent)
- Self Powered, 100A Direct Connection
- Bi Directional Measurement IMP & EXP
- Max Demand Power
- Modbus RTU Communication (RS485)
- Two Pulse Outputs
- LED Pulse Indication
- LCD Display with Backlight

Certification :  $\textbf{C}\textbf{\in}$ 

#### **Output Specifications**

Pulse Output	Voltage Range : 5 to 24V DC@100mA Pulse Duration : 0.05 to 2.0 Sec. settable Pulse Width : 1 / 10 / 100 / 1000 (First Pulse Output is fixed 1000 pulses per kWh)
Communication Interface and Protocol	RS485 and MODBUS RTU
Communication Address	1 to 255
Transmission Mode	Half duplex
Transmission Distance	500 meter maximum
Transmission Speed	9600, 19200 (in bps)
Parity	None, Odd, Even
Stop Bits	1 or 2
Response Time	100ms (max and independent of baud rate)

### **Auxiliary Supply Specifications**

Supply Voltage	176 to 276V AC (Self - Powered)
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#### **Environmental Specifications**

Temperature	Operating Temperature : -10° to 55°C Storage Temperature : -20° to 75°C
Humidity (non - condensing)	Upto 85% RH

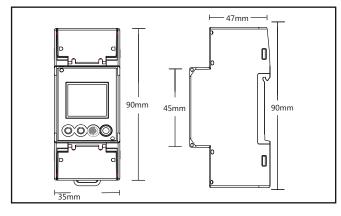
#### **Mechanical Specifications**

Mounting	Din Rail	
Weight	150gms	

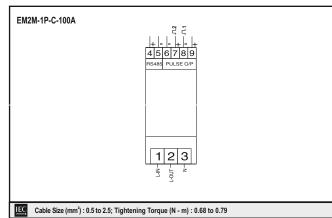
# EM2M-1P-C-100A

# **Energy Meter**

Dimensions (All dimensions are in mm)



**Terminal Connection** 



#### Compliance

Applicable EMI / EMC	Applicable EMI / EMC Standards				
Product Standard : IEC 61326 - 1					
Category		Standards Compliance			
ESD Immunity	IEC 61000 - 4 - 2	Level IV (Air discharge : 15kV), (Contact Discharge : -8kV)			
Surge Immunity	IEC 61000 - 4 - 5	+ / - 4kV common mode, (Line to Ground)			
Radiated Susceptibility	IEC 61000 - 4 - 3	Level III, 80 to 1000MHz (10V / m) Level II, 1.4GHz to 2GHz (3V / m) Level I, 2GHz to 2.7GHz (1V / m)			
Conducted Susceptibility	IEC 61000 - 4 - 6	Level II (3V / m)			
Voltage Dips and Interruptions	IEC 61000 - 4 - 11	Dips : 0% residual voltage / 1 cycle (Criteria B), 40% residual voltage / 10 cycles 50Hz / 12 cycles 60Hz (Criteria C) 70% residual voltage / 25 cycles 50Hz / 30 cycles 60Hz (Criteria C) Interruptions : 0% residual voltage / 250 cycles 50Hz / 300 cycles 60Hz (Criteria C)			
Conducted Emission	CISPR - 11				
Radiated Emission	CISPR - 11				
Electrical Fast Transient	IEC 61000 - 4 - 4	Level IV (4kV)			

### **Ordering Information**

Product Code	Supply Voltage	Output		Certification
EM2M-1P-C-100A	176 to 276V AC (Self - Powered)	Pulse Output	Comm. (RS485)	CE

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