



DIN 35mm

Features :

- 100A Direct Connected
- High Definition white backlit LCD Display
- Import & Export Energy Measurement
- RS485 MODBUS or Mbus Module Available
- 2 Pulse Outputs
- 2 Module width DIN Rail Mounted
- LED Pulse Indication
- Auto & Manual Page Scrolling
- Max Demand Power

Display Specifications

Display Type	1 Rows, High Definition white back-light LCD	
Digits	7	
Digits Height	4mm (Displayed Value)	
Page Scrolling	Manual by Front Key / or Auto Scroll Mode	
Displayed Parameters and Accuracies	Voltage	0.5% of Max. Range
	Current	0.5% of Nominal
	Frequency	0.1% of Nominal Frequency
	Power Factor	1% of Unity (0.01)
	Active Power	1% of Range Maximum
	Reactive Power	1% of Range Maximum
	Apparent Power	1% of Range Maximum
	Active Energy	Class B (IEC / EN50470)
Reactive Eng,	Class 2 (IEC / EN62053-23)	
Energy Maximum Display	99999.99	
Resolution	10wh	

Input Specifications

Connection	1Ø -2 wire only
Rated Input Voltage (Un)	230V / 400V AC
Operating Voltage Range	176 to 276V AC (L - N)
Voltage Circuit Power Consumption (Max.)	<8VA
Current Rating (Imin-Ib)	0.5 to 10A
Max Current (Imax)	100A
Current Circuit Power Consumption (Max.)	0.5VA
Starting Current	20mA
Short Time Over-Current	30 x Imax to for one half cycle (IEC / EN 62053 - 21 and - 23)
Impulse Voltage with Stand	6kV 1.2µS
AC Voltage with Stand	4kV for 1 min.
CT Ratio Range	N/A Direct Connection
PT Ratio Range	N/A Direct Connection
Frequency	45 - 65Hz
Measuring Parameters	Phase to Neutral Voltage (V), Phase Current (A), Frequency (Hz), Power Factor (PF), Power Max. Demand (MDKW), Active Power (kW), Reactive Power (kVAR), Apparent Power (kVA), Import Active Energy (kWh), Export Active Energy, Total Active Energy (kWh), Import Reactive Energy (kVARh), Export Reactive Energy (kVARh), Total Reactive Energy (kVARh)

Output Specifications

Energy Pulses	
No. of Pulse Output	2
Pulse Output Function	1 x 1000 Imp / kWh 1 x User configurable pulse rate and energy type (kWh or kVARh)
Pulse Output Max. Current	100mA
Pulse Output Voltage Range	24V DC max
Pulse Duration	Selectable 0.05 to 2 sec
Selectable Pulse Weight	1 / 10 / 100 / 1000
Communication Interface and Protocol	RS485 and MODBUS RTU
Communication Address	1 to 255
No. of Bits	8 Bits
Parity	None, Odd, Even
Baud rate	9600, 19200 (in bps)
Response Time	≤100ms
No. of Meters Connected on the Bus	32 (up to 255 with RS485 Repeater)
Max Distance from Master Device	1200M
Communication - Mbus Version	
Communication Protocol	Mbus
Communication Standard	IEC / EN13757
Primary Address	1 to 250
Parity	Even
Baud Rate	9600

Auxiliary Supply Specifications

Voltage Range	Self Supplied from measuring Input
Operating Frequency	45 - 65Hz
Power Consumption	<8 VA

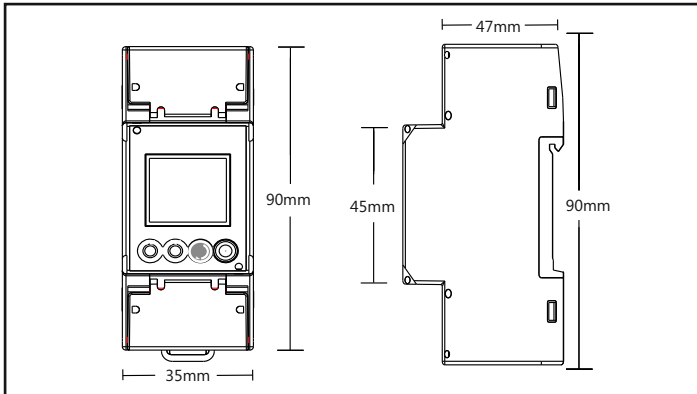
Insulation

Installation Category	III
Pollution Degree	2
Insulation Voltage Rating	300V (L - N)

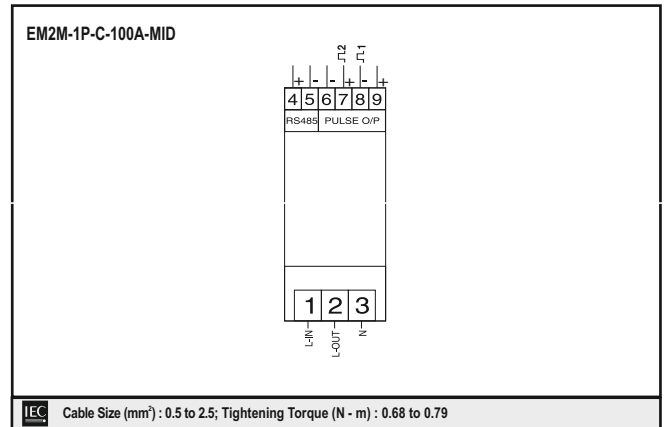
Mechanical Specifications

Housing	
Housing	2 Module DIN 43880
Mounting	Snap-on 35mm Rail
Tamper Sealing	Terminal Cover and Meter Housing (meter housing by means of a tamper sticker)
Housing Material	Self - Extinguishing Polycarbonate (UL94 V-0)
Protection Degree (IEC/ EN60529)	IP20 (Terminal), IP51 (Front of Housing)
Weight	150g
Termination	
Current Input Terminal Type	Screw Type - Rising Clamp
Max. Wire Size	35mm ²
Voltage Input Terminal Type	Combined with Current Circuit
Max. Wire Size	2.5 mm ²
Output Terminal Type	Screw Type - Rising Type
Max. Wire Size	2.5mm ²

Dimensions (All dimensions are in mm)



Terminal Connection



Conformity

Electromagnetic Compatibility	Emission and Immunity tests according to IEC / EN50470 Immunity test according to IEC / EN50470
Accuracy and Functionally	IEC / EN50470-1/3 IEC / EN62053-21 IEC / EN62053-23 Directive 2014/32/EU
Safety	IEC / EN50470-1:2006 - Electricity Metering Equipment (a.c.). Part 1 : General requirements, tests and test conditions metering equipments (class indexes A, B and C) IEC / EN50470-3:2006 - Electricity metering equipments (a.c.) Part 3 : Particular requirements static meters for active energy (class indexes A, B and c) EC directive 2014/32/EC

Model Selection Table

Communication	Model
Single - Modbus Output	EM2M-1P-C-100A-MID
Single - M - bus Output	EM2M-1P-100A-MB-MID