EM306 / EM306-C-D

Energy Meter

96 x 96mm

Features :

EM306 :

- 3Ø Active Energy meter
- SMPS supply (85 to 276V)
- Single pulse output

EM306-C-D :

- Dual Input Meter (Mains / D.G.)
- 3Ø Energy (kWh, kVArh, kVAh)
- 3Ø Power (kW, kVAr, kVA), PF
- RS485 Communication MODBUS RTU Protocol

Display specifications

Display	1 row, 7 segments LED Display
Digits	6
Digit height	0.56"
Resolution	For energy : 0.01k, 0.1k, 1k, 0.01M, 0.1M, 1M,10M (depending upon CT ratio x PT ratio) For Power : Auto resolution, For Power factor : 0.001 (for EM306-C-D)

Input specifications

Type of measurement	TRUE RMS
Sampling rate	100 Samples / Cycle
Electrical connections	3Ø - 3 wire, 3Ø - 4 wire, 2Ø - 3 wire, 1Ø - 2 wire
Data update rate	1 sec for all the parameters*
Input-voltage	
PT primary	100V to 500V AC (L - L) (Programmable for any value)
Voltage nominal	11 to 300V AC (L – N), 19 to 519V AC (L – L)
Impedance	≥0.8MOhm
Frequency range	45 - 65Hz
VA burden	0.5VA per phase
Input-current	
CT ratings primary	1 / 5A to 10kA (Programmable for any value)
Current nominal	5A
Withstand continuous	120A for 1sec
Frequency range	45 - 65Hz
VA burden	0.5VA per phase
Measurement accuracy	
Power factor	±0.01 Digit*
Power	1%*
Frequency	±0.1% For L - N Voltage >20V, For L - L Voltage >35V*
Active energy	Class 1
Reactive energy	Class 2*

NOTE - * = Only for EM306-C-D

Output specification

For EM306 :	
Pulse output	Voltage range : External 24V DC max Current capacity : 100mA max Pulse width : 100ms ±5ms

Output specification

For EM306-C-D :	
Device ID & Parity	1 to 255 & None, Odd, Even
Protocol & Interface	RS485 and MODBUS RTU
Baud rate	9600
Transmission mode	Half duplex
Transmission distance	500 meter maximum
Transmission speed	300, 600, 1200, 2400, 4800, 9600, 19200
Stop bits	1 or 2
Response time	100ms (max and independent of baud rate)
Isolation	Yes

Mechanical specifications

Weight	210gms
Material	MAKROLON 6557 SMOKE BLACK
IP degree of protection	IP54
Torque at terminals	0.68N-m to 0.79 N-m
Wire gauge at terminals	20 to 14AWG;75°C
Mounting position	Panel mount

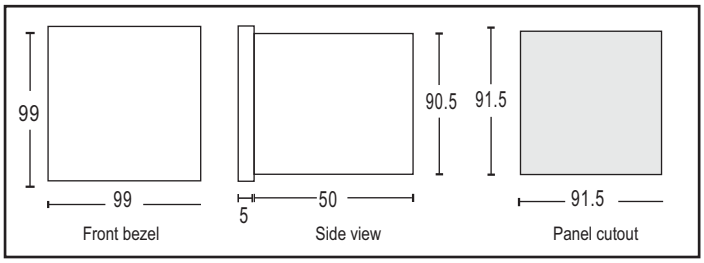
Auxiliary supply specifications

Supply voltage	85 to 276V AC, 50/60 Hz

Environmental specifications

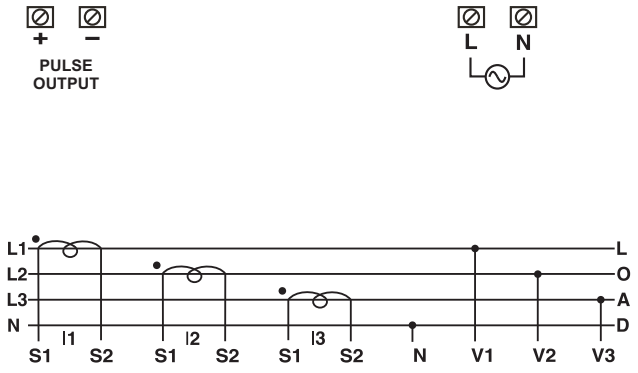
Operating temperature	-10°C to +55°C
Storage temperature	-20°C to 75°C
Humidity	85% (Non-Condensing)
Altitude	Up to 2000 meters
Measurement category	CAT III
Pollution degree	2

Dimensions (All are in mm)

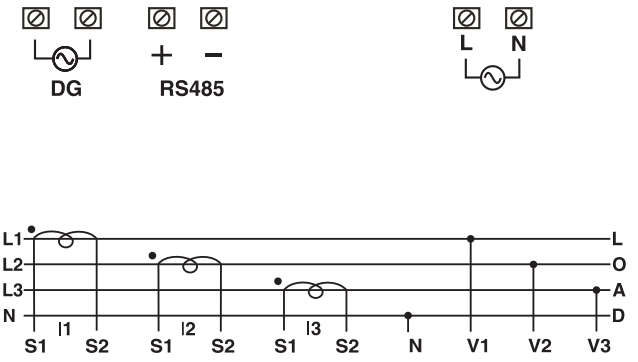


Terminal connection

EM306



EM306-C-D



IEC Cable Size (mm^2) : 0.5 to 2.5 ; Tightening Torque (N - m) : 0.68 to 0.79

Ordering information

Product code	Supply voltage	Output		Digital input
		Pulse output	Comm. (RS485)	
EM306	100 to 240V AC (-15% to 12%)	YES	---	---
EM306-C-D		---	YES	YES