EMN 20 .. 100 - W0 (3 x Single Phase)

The EMN (Energy Meter Node) series is an AC energy submeter with a wireless mesh network communications output. The W0 is designed for single phase networks (up to three circuits) with a line-to-neutral voltage up to 300V rms. This module is compatible with the MeshGate L or XL.

### Electrical data

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<th>Primary nominal current rms (A)</th>
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### Measurement Values

- **Frequency measured in phase 1 (L1)**

### Features

- Wide range of electrical parameters measurement
- Wireless communication on license free 2.4 GHz-transmit RF power maximum
- EIRP: 10 dBm(10mW)
- Class 1 accuracy active energy.

### Advantages

- Fast & easy mounting:
  - Wireless communication
  - Split core CT
  - Self powered from voltage line
- Compact
- Gateway interface: RS 232/485 Modbus RTU
- Ideal for retrofit applications.

### Applications

- Energy sub-metering
- Network condition monitoring
- Energy audit & diagnostic
- Building energy management.

### Application domain

- Energy & Automation.

### Notes:

1) See connection diagram
2) Series available Q2 2009
3) RF Certification: CE, FCC, IC, Japan (pending)
4) Class 1 guaranteed for Power Factor $\geq 0.65$. 

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EMN 20 .. 100 - W0 (3 x Single Phase)

Isolation characteristics

- Isolation class II
- IEC 61010-1 CAT III 300 V rms
- Pollution degree: PD2

Safety

CB test Certificate N° FR 583050 IEC System for mutual recognition of test certificates for electrical equipment (IECEE) CB Scheme.

⚠️
This transducer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the manufacturer’s operating instructions.

⚠️
Caution, risk of electrical shock: do not remove any parts of the EMN - W0

🚫
For current transformer (CT) mounting:
make sure that the power cable on which the CT will be attached is powered off.
Dimensions EMN 20 .. 100 - W0 (3 x Single Phase) (in mm. 1mm = 0.0394 inch)

Mechanical characteristics

- General tolerance ± 1 mm
- Primary through-hole hole Ø 16 mm
- Current transformer output cable length: 1 m
- Module fixing DIN rail rear box
- Module fastening 2 slots Ø 4.2 mm
- Recommended fastening torque 2.8 Nm or 2.07 Lb.Ft.
- Voltage terminal block 4 M3
- Recommended fastening torque 0.5 Nm or 0.37 Lb.-Ft.
- Input voltage terminal use cable max cross section 2.5 mm²

Remarks

- Temperature of the primary conductor should not exceed 65°C.
- EMN module must be installed vertically as shown on the diagram above.

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