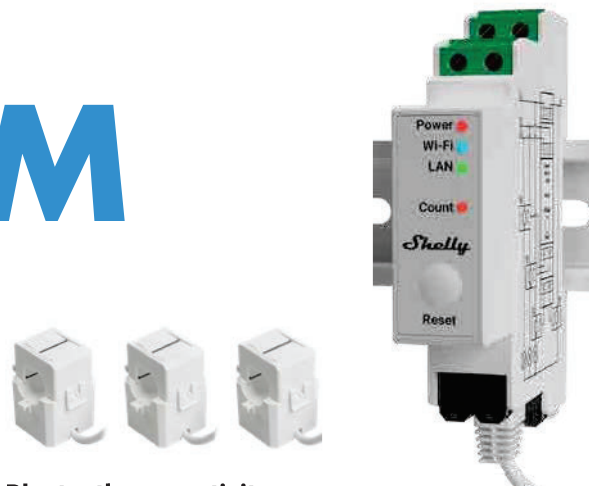# Shelly PRO 3EM

INDUSTRY-GRADE SECURITY

Shelly Pro 3EM supports mTLS for MQTT, HTTP, and secure outbound WebSockets, allowing for direct connections to your cloud infrastructure, reducing the cost of deploying complex networks and VPNs.

INDUSTRIAL INSTALLATIONS

Shelly Pro 3EM brings support for MODBUS for voltage, current, power, and energies. You can accurately sample your energy usage and instantaneous values of voltage, current, and power.

SOLAR PANELS MONITORING AND CONTROL

Save effortlessly by keeping track of how much energy your solar panels or wind turbines are generating. With Shelly Pro 3EM you can get real-time information about the efficiency of the solar and wind energy system.

Wi-Fi, LAN, and Bluetooth connectivity
Simultaneous Wi-Fi and LAN usage, add device fast and easily via Bluetooth connection

4-quadrant measurement
Measure capacitive and inductive load types of active imported and exported energies.

Accuracy class B (active energy)
Shelly Pro 3EM has a measurement accuracy of 1%.

MODBUS support
Allows for easy and fast deployment in existing industrial installations.

Power monitoring
Monitors mono-phase electrical systems with up to 3 points simultaneously. Fast notifications and at least 60 days of 1-minute records storage.

Scripting functionalities
Shelly Pro 3EM fully supports mjS scripting, allowing you to create further features and functionalities.

Enhanced safety
Flame retardant shell (V-0) with internal overtemperature, overpower and overvoltage protection.

Enhanced security
MQTT and WSS support, TLS and custom certificates support for a broad range of use cases.

No hub required
Control directly and without a hub through your smartphone with Shelly Smart Control App.
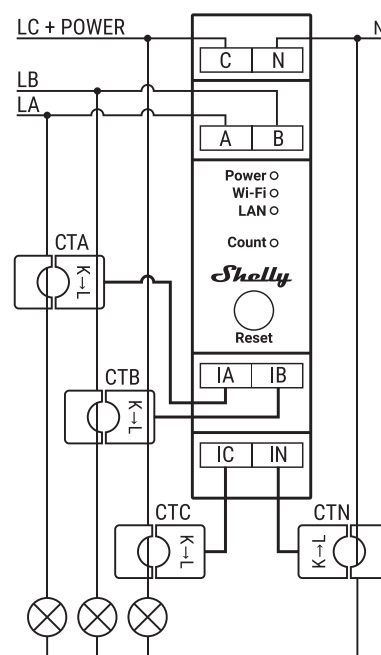
Highly compatible
Use with your preferred home automation platforms and voice assistants

NEXT-GENERATION DIN-MOUNTABLE 3-PHASE ENERGY METER

Shelly Pro 3EM is a DIN rail mountable three-phase energy meter. Enhanced with all the Gen 2 firmware flexibility and LAN connectivity, it provides professional integrators with additional options for end-customer solutions. Shelly Pro 3EM reports accumulated energy as well as instantaneous voltage, current, and power factor per phase in real time.

TECHNICAL SPECIFICATIONS

Power supply	110-240 VAC, 50/60 Hz
Voltmeters (RMS for each phase)	100 - 260 V
Voltmeters accuracy	±1 %
Ammeters (RMS via CT for each phase and the Neutral)	0 - 120 A
Complies with EU standards	• RED 2014/53/EU • LVD 2014/35/EU • EMC 2014/30/EU • RoHS2 2011/65/EU
Working temperature	-20°C to 40°C / -5°F to 105°F
Max RF power Wi-Fi	15 dBm
Wireless/Wi-Fi Protocol	802.11 b/g/n (2.4 GHz)
Frequency	2400 - 2495 MHz
Operational range Wi-Fi (depending on local conditions)	• Up to 30 m / 100 ft indoors • Up to 50 m / 160 ft outdoors
Dimensions (HxWxD)	94x19x69 mm / 3.70x0.75x2.71 in

Legend
Device terminals:
A: Phase A input
B: Phase B input
C: Phase C and Device power supply input
N: Neutral input
IA: Phase A current transformer (CTA) input
IB: Phase B current transformer (CTB) input
IC: Phase C current transformer (CTC) input
IN: Neutral current transformer (CTN) input
Cables:
LA: Phase A (110-240 VAC)
LB: Phase B (110-240 VAC)
LC: Phase C (110-240 VAC)
N: Neutral cable