Shelly

Pro 3EM-3CT63

ELECTRIC VEHICLE (EV) CHARGING MONITORING

Monitor the energy consumption of your electric vehicle charger in real-time. Shelly Pro 3EM with the 3-phase current transformer (3CT63) can track how much power your EV charger uses, helping you manage and optimize energy consumption, ensuring that your home stays within its energy budget.

SOLAR POWER MANAGEMENT

If your home is equipped with solar panels, Shelly Pro 3EM can measure the energy generated by your solar system, as well as the energy consumed from the grid. This helps in optimizing energy usage, ensuring that you maximize the use of solar energy and reduce dependency on grid power.

LAN, Wi-Fi, and Bluetooth connectivity

LAN connection for high security and reliability. Simultaneous Wi-Fi and LAN usage, as back up when needed.

4-quadrant measurement

Measure capacitive and inductive load types of active imported and exported energies.

Accuracy class B (active energy)

Shelly Pro 3EM - 3CT63 has a measurement accuracy of 1%.

MODBUS support

Allows for easy and fast deployment in existing industrial installations.

Energy measurement

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 - 3CT63 fully supports mjS scripting, allowing you to create further features and functionalities.

WHOLE-HOME ENERGY MONITORING

Use Shelly Pro 3EM to monitor the energy usage across your entire home. By tracking consumption across all three phases, you can identify which appliances or systems are using the most power, allowing you to make informed decisions to reduce energy costs and improve efficiency.

FACTORY ENERGY MONITORING AND OPTIMIZATION

In a manufacturing plant, Shelly Pro 3EM can be used to monitor the energy consumption of heavy machinery across different phases. By tracking real-time usage, you can identify inefficiencies and reduce operational costs by optimizing energy usage during peak and off-peak hours.

## COMMERCIAL BUILDING ENERGY MANAGEMENT

For large commercial buildings, Shelly Pro 3EM can monitor energy usage across various floors or departments. This allows facility managers to allocate energy costs more accurately, identify energy wastage, and implement strategies to improve overall energy efficiency.

NEXT-GENERATION DIN-MOUNTABLE SINGLE OR 3-PHASE ENERGY METER

Shelly Pro 3EM -3CT63 reports accumulated energy as well as instantaneous voltage, current, active, and apparent power per phase/channel in real time. It stores data in non-volatile memory that can be retrieved for a period of up to 60 days in 1-minute intervals. It has a real-time clock to keep the correct time if the connection to an SNTP server is lost.

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 - 63 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 Shelly Pro 3EM-3CT63 (HxWxD)	94x19x69 mm / 3.70x0.75x2.71 in
Dimensions Shelly 3CT63 (HxWxD)	14x54x26 mm / 0.55x2.12x1.02 in
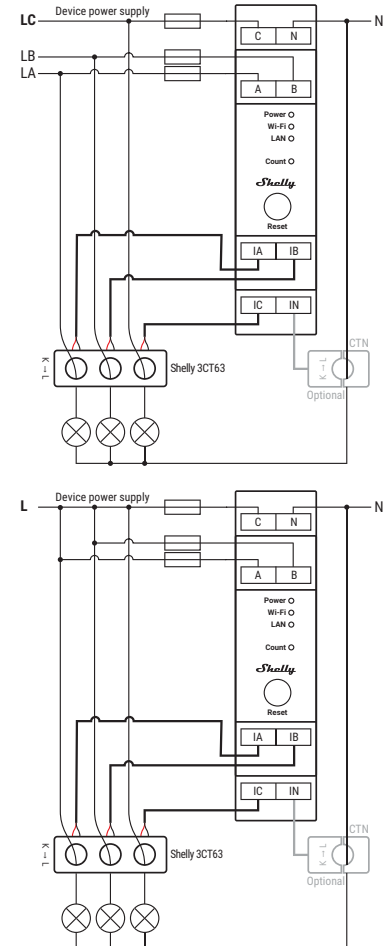
Legend
Device terminals
A: Phase A terminal
B: Phase B terminal
C: Phase C terminal
N: Neutral terminal
IA: Phase A current transformer input
IB: Phase B current transformer input
IC: Phase C current transformer input
IN: Neutral current transformer input
Wires
LA: Phase A live (110-240 V~) wire
LB: Phase B live (110-240 V~) wire
LC: Phase C live (110-240 V~) wire
N: Neutral wire
Current transformers
3CT63: 3-phase current transformer/63A
CTN: Neutral current transformer (optional, not included)
K->L: Direction of the measured energy flow