



HXE110-P

Single Phase
Residential Meter

Focus on creating value for clients



HXE110-P is a single phase residential meter used in a split prepayment metering system. It complies with STS standard and communicates with a CIU by MBUS or PLC for energy consumption monitoring and credit charging.

■ Highlights

- STS standard protocol ensures an open and secure operating system
- Optical Communication, Open Protocol: DLMS/COSEM Standard
- Internal switch relay for load demand control by configuration or remote communication
- Prepayment and post-payment mode switchable for users' convenience

■ Main Functionalities

➤ Measurement

- Unidirectional or Bi-directional Measurement
- Active energy, Active reverse energy Measurement
- Instantaneous value measurement

- Prepayment is made via a numeric token
- Balance display configurable
- Communication with CIU via PLC or MBUS, depending on the site

➤ LCD Display

- Large digit LCD display, easy for reading
- LCD backlights to increase readability in low light conditions(optional)
- Scrolling display configurable for instant information enquiry
- Display the latest 6 months active energy

consumption

- 12-month billing d and more frozen data for inquiry

- RS485 Communication with interface in accordance to DLMS standard (optional)
- Emergency Credit for a certain sum of energy supply depending on User's credit level
- User-friendly mode for energy supply for low credit during weekends or holidays (optional)
- **Tampering Proof:**
 - Meter Cover open detection and record
 - Meter terminal detection and record
 - Bypass (optional)
 - Large magnetic event(optional)
- Auxiliary Terminal for Energy Pulse Output(optional)

■ Specifications

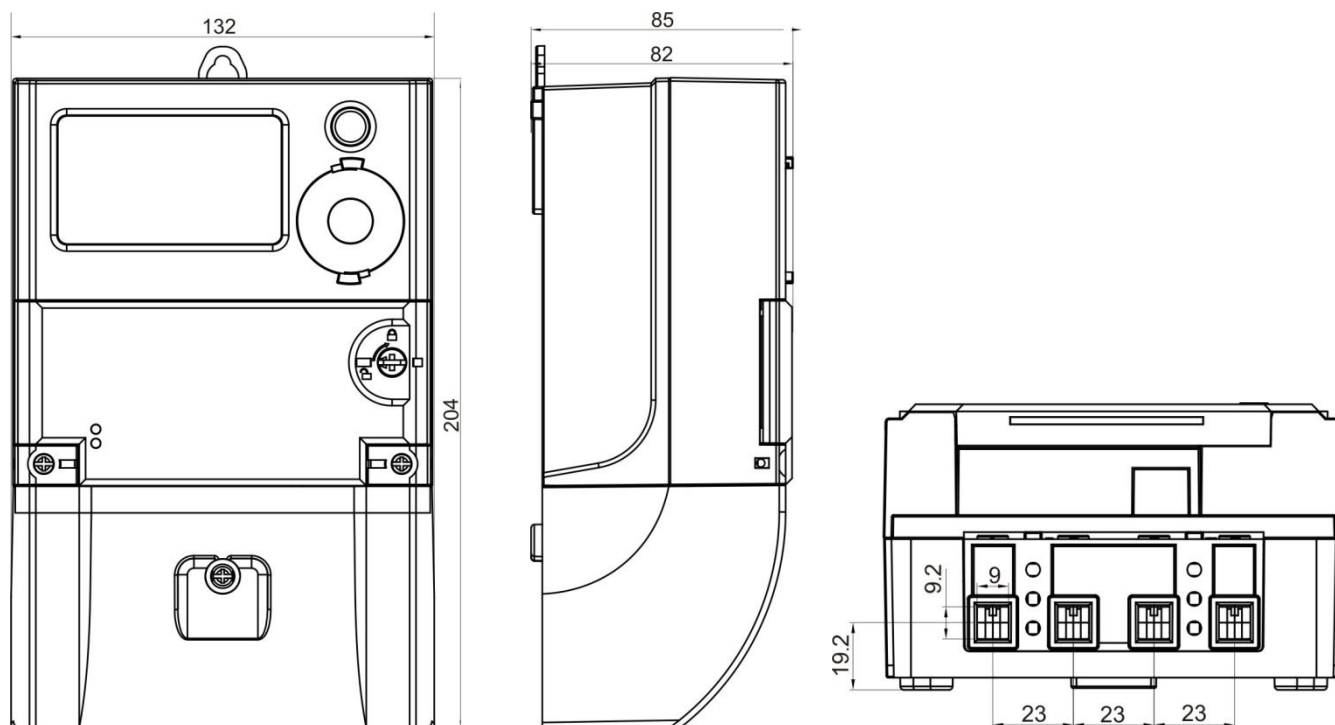
Description	Value
Accuracy	Class 1 or 2 (IEC), Class A or B (MID)
Voltage Reference voltage Operating voltage range	110-127V,220-240V 70%-120%Un
Current Basic current Maximum current Starting current	5A, 10A 60A, 80A, 100A $\leq 0.4\%I_b$
Frequency	50Hz or 60Hz
Temperature Operation range Limit range for storage and transport	-25℃ to +60℃ -40℃ to +75℃
Humidity	Up to 95% non-condensing
Power Consumption Power consumption in voltage circuit (active) Power consumption in voltage circuit (apparent) Power consumption in current circuit	≤ 2 W ≤ 10 VA ≤ 1 VA
Insulation Strength AC voltage test Impulse voltage test	4kV during 1min 1.2/50μs mains connections 6kV
EMC Electrostatic discharges(Contact discharges) Electrostatic discharges(Air discharges) Surge immunity test Fast transient burst test Electromagnetic RF fields (80MHz to 2000MHz)	8kV 15kV 4kV 4kV 10V/m(with current), 30V/m(without current)
Connection Terminals	∅ 8mm
Housing Protection degree Meter cove Meter base Terminal cover	IP54 (with long terminal cover) Opaque PC+ fiber glass with a transparent window Opaque PC + fiber glass Opaque PC+ fiber glass
Display Digit size Number of digits	8.8mm x 4.5mm 8
Communication Interface Optical communication PLC/MBUS alternative	DLMS/COSEM
Weight Net weight Package	Approx.0.93kg(extended terminal cover) Approx.0.89kg(short terminal cover) Approx.0.08kg(extended terminal cover), Approx.0.08kg(short terminal cover)

Dimension	204mm×132mm×85mm(extended terminal cover) 164mm×132mm×85mm (short terminal cover)
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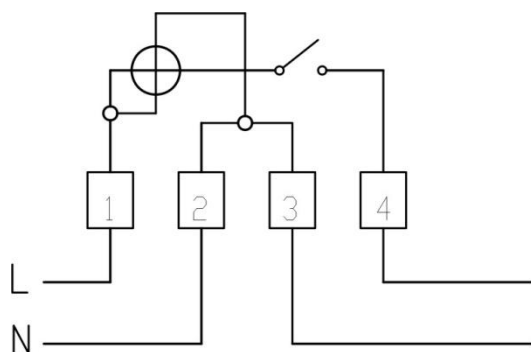
■ Standard

IEC62052-11	Electricity metering equipment (a.c.) General requirements, tests and test conditions – Part 11: Metering equipment
IEC62053-21	Electricity metering equipment (a.c.) Particular requirements –Part 21:Static meters for active energy(classes 1 and 2)
IEC62055-41	Electricity metering - Payment systems - Part 41: Standard transfer specification (STS) - Application layer protocol for one-way token carrier systems
IEC62055-51	Electricity metering - Payment systems - Part 51: Standard transfer specification (STS) - Physical layer protocol for one-way numeric and magnetic card token carriers
IEC62056-46	Electricity metering – Data exchange for meter reading, tariff and load control – Part 46: Data link layer using HDLC protocol
IEC62056-53	Electricity metering – Data exchange for meter reading, tariff and load control – Part 53:COSEM Application layer
IEC62056-61	Electricity metering – Data exchange for meter reading, tariff and load control – Part 61:OBIS Object identification system
IEC62056-62	Electricity metering – Data exchange for meter reading, tariff and load control – Part 62:Interface classes
EN50470-1	Electricity metering equipment (a.c.) —Part 1: General requirements, tests and test conditions — Metering equipment(class indexes A, B and C)
EN50470-3	Electricity metering equipment (a.c.) —Part 3: Particular requirements —Static meters for active energy (class indexes A, B and C)
IEC62056-21	Electricity metering – Data exchange for meter reading, tariff and load control – Part 21:Direct local data exchange

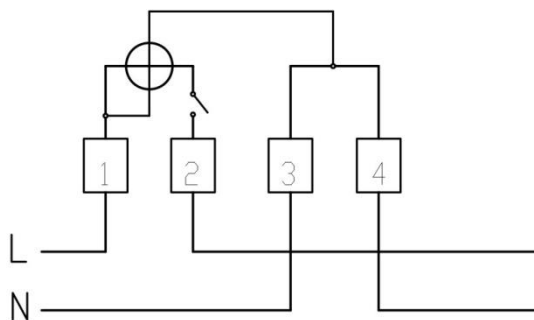
■ Dimensions



■ Connection Diagram



Symmetric Connection



Asymmetric Connection

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