



MA304H3E Smart Poly Phase Meter

- Smart meter MA304H3E for smart energy data management
- Compliant with DLMS/COSEM and M-Bus
- Modular WAN/LAN capacity and HAN equipment's management
- Improve revenue and energy efficiency with advanced measurement with TOU
- Accurate clock and daylight saving time supported
- Disconnect/Reconnect
- Remote authenticated firmware upgrade
- Protect from fraud or tampering, alarm and events record
- Security, reliability
- Advanced design for operating costs reduction
- optional short terminal cover for convenient installation
- Ground fault detection with current balance



Main features

- **Measurement**
 - Total active and reactive energy
 - Import and Export active and reactive energy
 - Instantaneous voltage and current, PF, Vrms, Irms, active and reactive power
- **Billing data**
 - 175 days meter & M-Bus equipment's data available
 - Cumulative active and reactive energy
- **Profiles for energy and power quality**
 - 4 programmable channels for active and reactive energy and power quality profile
 - Programmable profiles capture period (typically 5, 10, 15, 30 or 60 minutes)
- **Real time clock**
 - Accuracy according to IEC 61038
 - Daylight saving time supported
 - Synchronization with Time zone available
- **Communication interface**
 - WAN communication to CS via RF between meter and gateway or via LTE M/ GPRS/ NB-IoT/ LTE
 - HAN communication with Wired M-Bus to smart water/ gas/ heat meter
 - Wired M-Bus supports up to 50mA power supply
 - Available interface to IHD or more applications
 - Optical local communication, IEC62056-21 mode E
- **Display**
 - LCD without backlit, With OBIS code and icons. Four programmable display mode
 - Two LED, for active and reactive energy pulse output
- **Anti-tamper features**
 - Main and terminal cover open detection (power on and power outage)
 - Access with incorrect key and reply
 - Magnetic field detection
- **Load control**
 - Disconnect / reconnect on request locally or remotely
 - 3-phase union relay
 - Automatically disconnect and reconnect with threshold
- **Event record**
 - Up to 40 kinds of event record with timestamp
 - Power failure long term / short term
 - Tampering events
 - Voltage related events
 - Relay control events
 - Firmware upgrade events
- **Privacy and security**
 - Support high level security 3, 4, 5 with encryption and authentication
 - Keys change wrapping
- **Advanced flexible platform design**
 - Support different communication channels GPRS / LTE / LTE M/ NB-IoT/ RF mesh/ PLC
 - Replace communication module without turning off
 - Support authenticated firmware upgrade remotely/locally
 - Compliant with DLMS/COSEM and M-Bus



Technical specifications

Reference standard

- EN 50470-1, EN 50470-3, IEC 62055-21, IEC 61008-1, IEC 62059-31/41, IEC 62052-11, IEC 62053-21/22/23
- IEC 62056-21/46/53/61/62 EN 13757-2/4 EN55022

Approval

- DLMS
- MID/IEC

Electrical

Accuracy	Active	Class B
	Reactive (optional)	Class 2
Voltage	Rated voltage	3*230;3*110V;3*127;3*220V;3*240V
	Voltage withstand	440V
	Operation voltage range	80% to 120% Un
Current	Rated current	5(100)A,10(100)A
	Starting current	20mA
	Frequency	50Hz(60Hz) ± 5%
Power consumption	Voltage circuit	≤1.4W, 10VA
	Current circuit	≤0.5VA
Pulse constant	2000 imp/kWh	
Switch relay	I _{max} =100A	

Reliability

Meter life	20 Years
Data retention	>20 Years

Mechanical

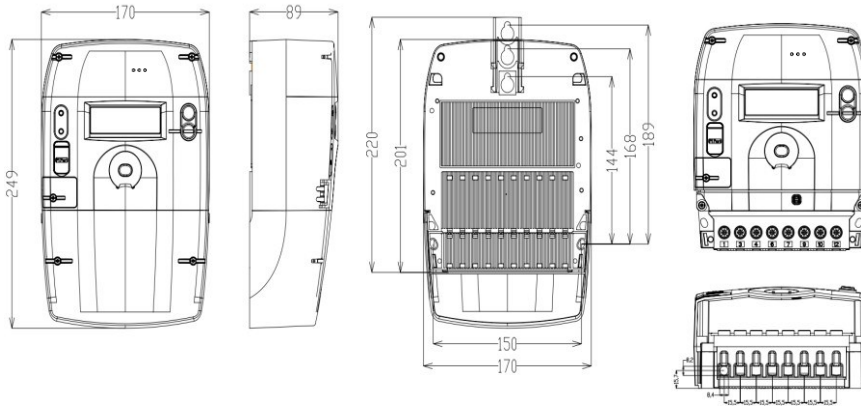
Dimensions (L x W x H)	249 x 170 x 89(mm)
Weight (Kg)	1.5
Enclosure material	PC+GF
Terminals	professional Lifting system with wrong connection prevention
Insulation protection	Class II

Environmental

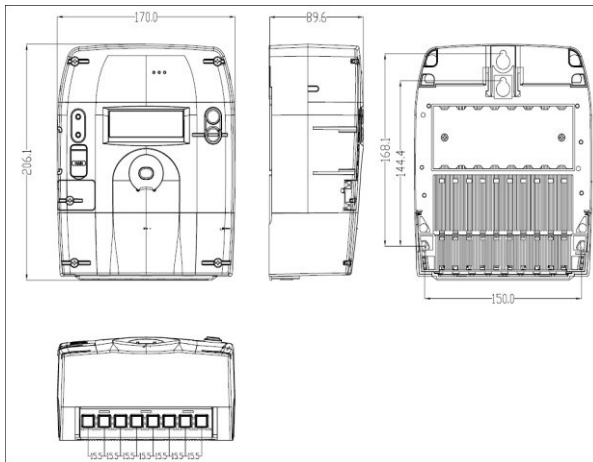
Operating temperature	-40℃ to 70℃
Storage temperature	-40℃ to 70℃
Operating humidity	Maximum 95% RH
Ingress protection	IP51

Overall dimensions

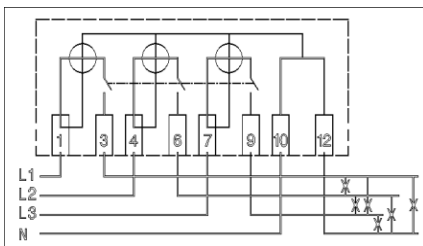
Long terminal cover



Short terminal cover



Wiring diagram



Display format

