



HEXE310

**Three Phase
Smart DC Meter**

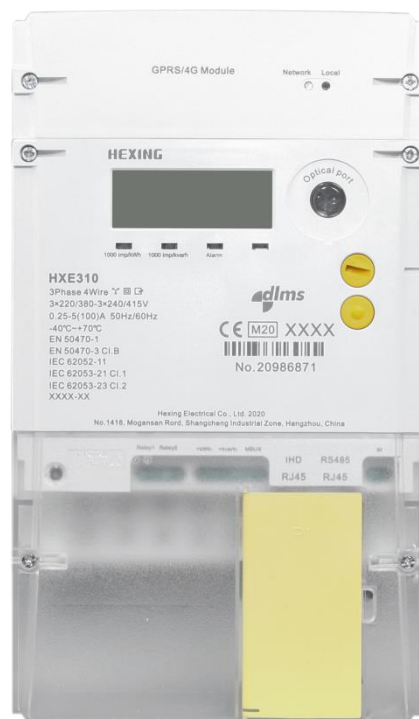
Focus on creating value for clients

HXE310

HXE310 is a smart three phase direct connected residential meter. Enable utilities to monitor all essential factors of power grid such as voltage, current, power factor and power quality items.

Hot plug module design enable utilities to deploy it in different environments with different communication requirements.

As multiple I/O extensible property is an important factor in smart meter to guarantee future smart grid application.



Main functionalities

Measurement

- 3P4W/3P3W connection
- Direct connection
- Import & Export & Total & Net kWh
- Import & Export kvarh
- Four-quadrant kvarh
- Total & Per tariff

Instantaneous Values

- Power, voltage, Current
- Power Factor, Frequency

Power Quality Monitoring

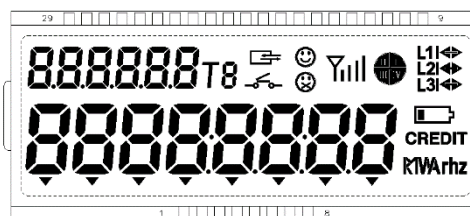
- Under & Over voltage
- Power down
- Reverse Energy Sense
- Low power factor, Low & High Frequency

Events & Alarm

- Multiple kinds of events
- Up to 500 records for event
- Pre-programmed Alarms for meter Self-check
- Alarms, tamper and power quality trigger event log
- Alarms indicator (LED/LCD)

LCD

- Display area size 64.5mm×23mm
- Display digital size 8.4mm×5mm
- Backlight
- Configurable automatic & manual display list
- Test mode
- OBIS codes (according to IEC62056-64)
- RWP (Read Without Power) (optional)



RTC (Real Time Clock)

- Quartz crystal time resource
- Gregorian calendar
- DST (Daylight Saving Time)
- Lithium battery(exchangeable/inner)

Billing Data

- 13 monthly billing periods
- 62 daily billing periods
- Automatic reset/ Manual reset

Local access

- PC software
- 3 data access levels
- Data access management for all ports
- Metrology data protection

Load Profile

- Up to 2M bytes of non-volatile memory
- Over 62 days storage (8 channel, 15 minutes)
- Up to 60 channels can configure in per profile
- Capture period (0,1,5,15, 30, 60, ...1440 min)
- Energy, power, voltage, current, frequency, etc.

Anti-Tamper

- 7 sealing position (2 terminal cover, 2 main cover, 2 module cover and 1 Sealable button)
- Main & Terminal & Module cover removal detection

Demand Monitoring

- Block/Slide mode
- Programmable integration period (1~60 minutes)
- Import & Export Active MD
- Import & Export Reactive MD
- Import & Export Apparent MD

TOU (Tariff Of Use, optional)

- Up to 8 tariffs
- Up to 8 day tables, Up to 8 divisions per day
- Up to 8 week tables
- Up to 6 season tables
- Up to 50 holiday & special days tables

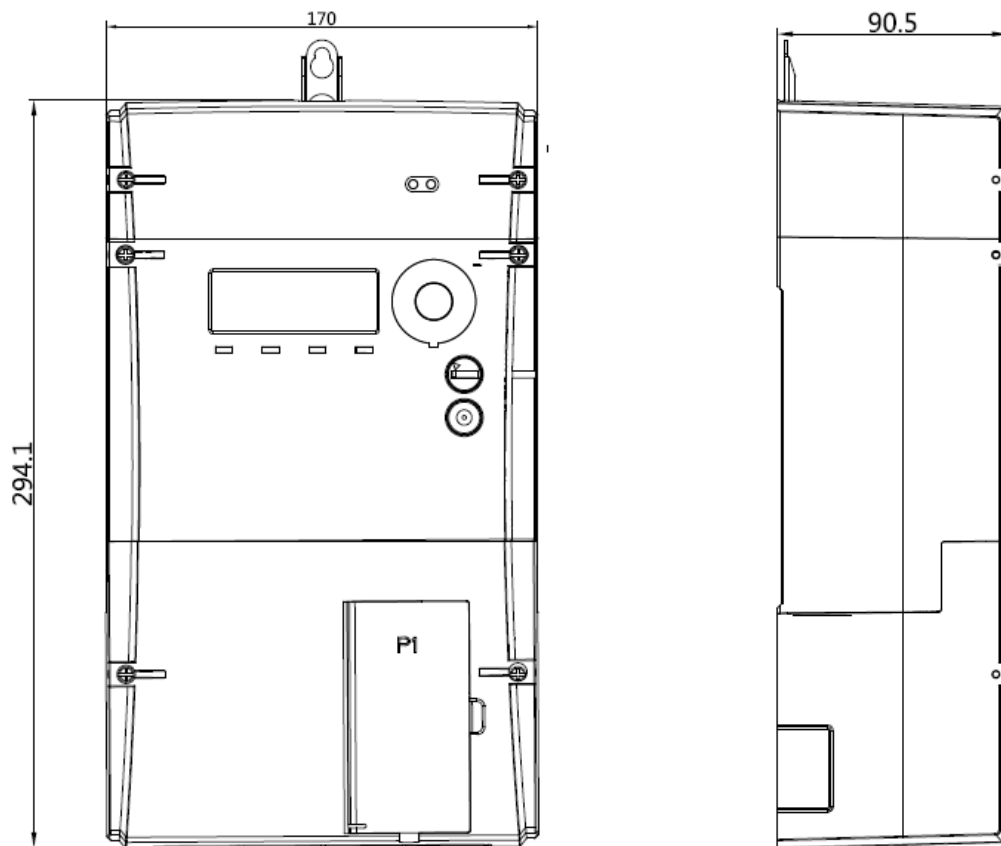
Communication

- Optical port: IEC62056-21E or HDLC
- RS485 port : HDLC
- Hot-plug module: GPRS/3G/4G/Wi-sun/ PLC and etc.
- P1 port: DSMR P1 5.0.2
- M-bus: EN 13757
- Data encryption schemes to ensure the data security in communication

Specifications

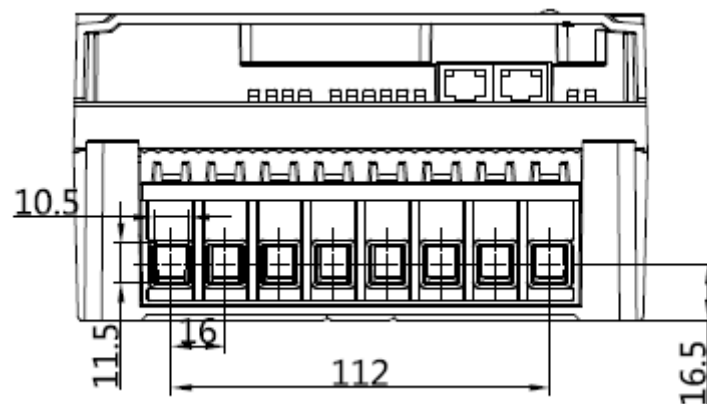
Application		Direct connection
Accuracy	Active	Class 1 (IEC) / Class B (EN)
	Reactive	Class 2 (IEC)
Voltage	Reference voltage	3P4W: 3×220/380V, 3×230/400V, 3×240/415V 3P3W: 3×220V, 3×230V, 3×240V
	Operating voltage range	70%-120%Un
Current	Basic current	5A/10A
	Maximum current	80A,100A
	Starting current	≤0.4%Ib(active) ≤0.5%Ib(reactive)
Frequency		50Hz or 60Hz
Temperature	Operation range	-40℃～70℃
	Limit range for storage and transport	-40℃～70℃
Humidity		Up to 95% non-condensing
Power Consumption	Power consumption in voltage circuit (active)	≤2W
	Power consumption in voltage circuit (apparent)	≤10VA
	Power consumption in current circuit	≤2 VA
Insulation Strength	AC voltage test	4kV during 1min
	Impulse voltage test	1.2/50μs mains connections 6kV
EMC	Electrostatic discharges(Contact discharges)	8kV
	Electrostatic discharges(Air discharges)	15kV
	Surge immunity test	4kV
	Fast transient burst test	4kV
	Electromagnetic RF fields (80MHz to 2000MHz)	10V/m(with current), 30V/m(without current)
Connection Terminals (diameter)		9.5mm x 9.0mm
Housing	Protection degree	IP54(indoor)
	Meter cover	Polycarbonate + GF with a transparent window
	Meter base	Polycarbonate + GF
	Terminal cover	Polycarbonate + GF
Communication Interface	Optical communication	IEC62056-21E or HDLC
	RS485	IEC62056-21E or HDLC
	P1	DSMR 5.0.2
Weight	Net weight	Approx.2.04kg
	Package	Approx.0.1kg
Dimension (H x W x D)	With long terminal cover	294.1mm×170mm×90.5mm
	Short terminal cover (optional)	234.0mm×170mm×90.5mm
Standard		IEC62052-11, IEC62053-21, IEC62053-23, IEC62056-21, IEC62056-42, IEC62056-46, IEC62056-47, IEC62056-53, IEC62056-61, IEC62056-62, EN50470-1, EN50470-3

■ Dimensions

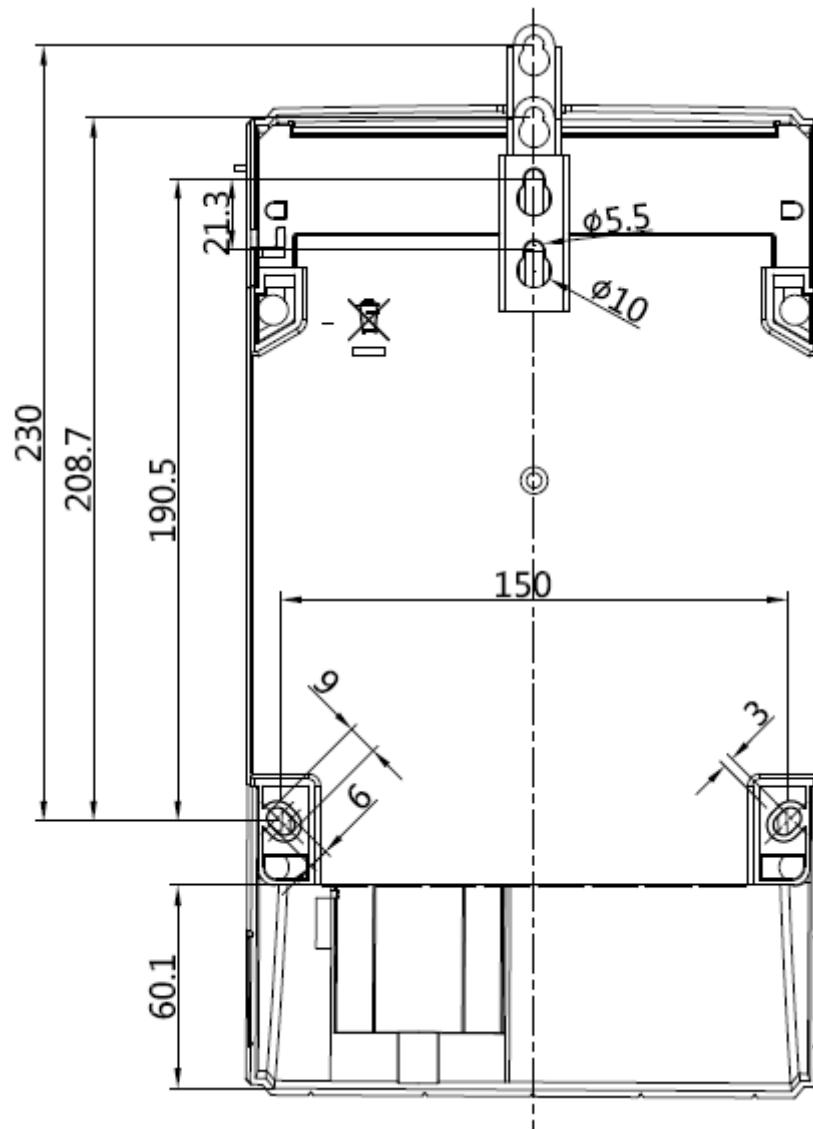


Long terminal cover

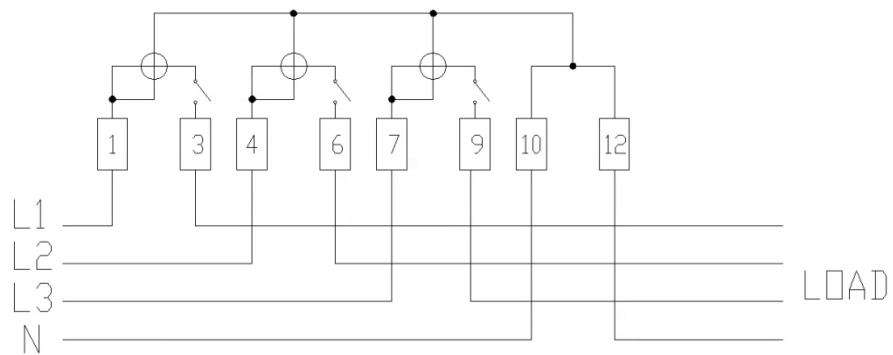
■ Terminal drawing



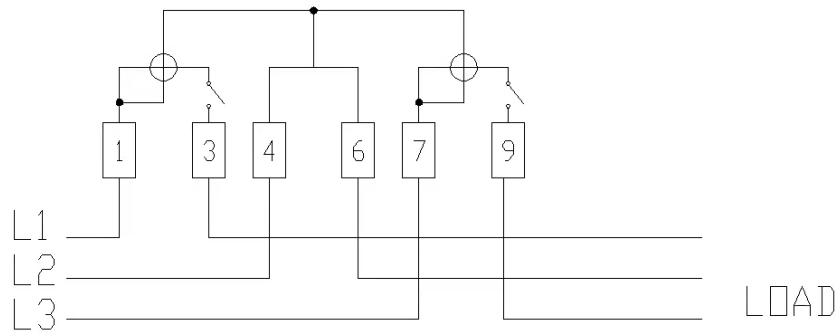
■ Installation Dimension



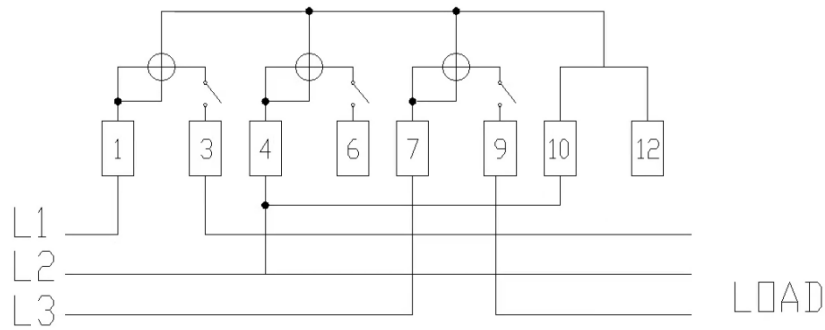
■ Connection Diagram



3P4W Asymmetric Connection



3P3W Asymmetric Connection



3P3W Asymmetric Connection

COMPANY HEADQUARTERS

Add: 1418-5 Moganshan Road,
Shangcheng Industrial Zone, 310011,
Hangzhou City, China

Tel: 86 571 28029898

Fax: 86 571 28029258

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