

HXF300 Three Phase Smart CT/CTPT Meter



HXF300 | THREE PHASE SMART CT/CTPT METER

HXF300 is a smart three phase in direct connected meter with high accuracy. 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
- Indirect connection
- Import & Export & Total & Net kWh
- Import & Export kVAh
- Four quadrant kVAh
- Total Per tariff

Instantaneous Values

- Power, Voltage, Current
- Power Factor, Frequency

Events & Alarm

- Multiple kinds of events
- Up to 100 records for individual kind of 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 × 28mm
- Display digital size 8.4 mm × 4.5mm
- Backlight (optional)
- Configurable automatic & manual display list
- Test mode (optional)
- OBIS codes (according to IEC62056-64)

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MAIN FUNCTIONALITIES

Power Quality Monitoring

- Under & Over voltage
- Power down
- Reverse Energy Sense
- Low power factor, Low & High Frequency
- Harmonics/THD measuring(optional)

Billing Data

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

Local Access

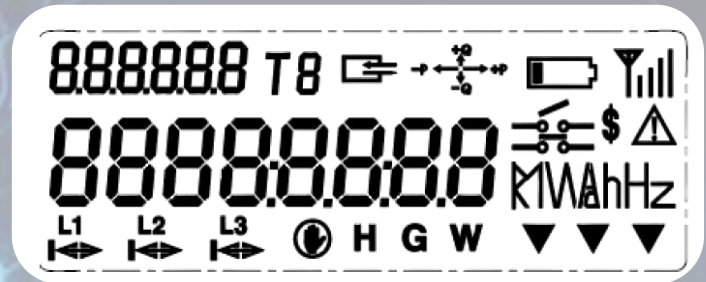
- PC software
- HHU
- 3 data access levels
- Data access management for all ports
- Metrology data protection

Load Profile

- Up to 1124k bytes of non-volatile memory
- Over 100 days storage (8 channel, 15 minutes)
- Up to 60 channels per profile
- Capture period (0, 1, 5, 15, 30, 60, ... 1440min)
- Energy, power, voltage, current, frequency, THD etc.

Communication

- Optical port IEC62056 21E or HDLC.
- RS485 port (RJ12 or two wired): IEC62056 21E or HDLC
- Hot plug module: GPRS, 3G, R F, 4G
- Up to 3 Independent communication ports
- HAN port: M-bus (optional)
- Data encryption schemes to ensure the data security in communication



RTC (Real Time Clock)

- Quartz crystal time resource
- Gregorian calendar
- DST (Daylight Saving Time, optional)
- Lithium battery (exchangeable/inner) or/ and super capacitor

Anti Tamper

- 7 sealing position (2 terminal cover, 2 main cover, 2 module cover and 1 Seal able button)
- Main & Terminal & Module cover removal detection
- Reverse current
- Strong magnetic field detection (optional)
- By-pass detection (optional)
- Phase reverse detection (optional)

Demand Monitoring (optional)

- Block/Slide mode
- Programmable integration period (1~ 60 minutes)
- Import & Export Active MD
- Import & Export Reactive MD
- Import & Export Apparent MD
- Pre-set time (automatic) MD reset
- Manual reset (button/ MD reset)

TOU (Tariff Of Use, optional)

- Up to 4 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

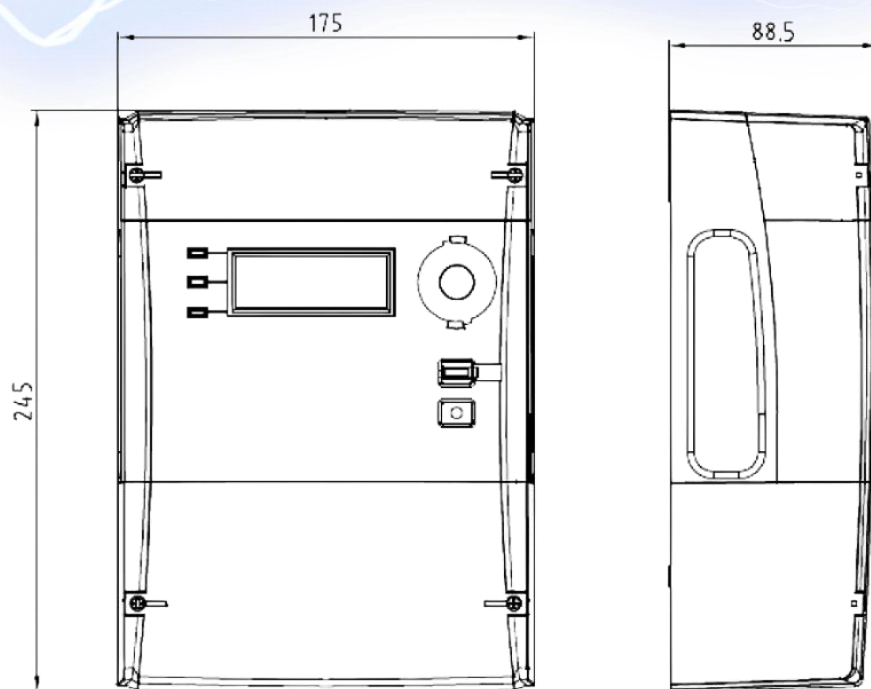
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Specifications

APPLICATION		Indirect connection		
ACCURACY	Active	Class0.5S 0.2S (IEC) / Class C (EN)		
	Reactive	Class 2/1.0S (IEC)		
VOLTAGE	Reference voltage	3P4W: 57.7V, 220V, 230V, 240V 3P3W: 100V, 110V		
	Operating voltage range	7 0% 120%Un		
CURRENT	Basic current	1A, 5A		
	Maximum current	6A, 10A		
	Starting current	≤0.1%In(active) ≤0. 2 %In (reactive)		
FREQUENCY		50Hz or 60Hz		
TEMPERATURE	Operation range	-40°C ~ 70°C		
	Limit range for storage and transport	-40°C ~ 70°C		
HUMIDITY		Up to 95% non-condensing		
POWER CONSUMPTION	Power consumption in voltage circuit (active)	≤2W		
	Power consumption in voltage circuit (apparent)	≤10 VA		
	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)		7.0 mm x 6.0 mm		
HOUSING	Protection degree	IP51 (indoor)		
	Meter cover	Polycarbonate + GF with a transparent window		
	Meter base	Polycarbonate + GF		
	Terminal cover	Polycarbonate + GF		
COMMUNICATION	Optical communication	IEC62056 21E or HDLC		
INTERFACE	RS485	IEC62056 21E or HDLC		
WEIGHT	Net weight	Approx. 1.28kg		
	Package	Approx. 0.1kg		
DIMENSION	With long terminal cover	219mm×175mm×88.5mm		
	With short terminal cover	245mm×175mm×88.5mm		
STANDARD		IEC62052-11,	IEC62053-22	IEC62053-23,
		IEC62053-24,	IEC62056-21	IEC62056 42,
		IEC62056-46,	IEC62056-47	IEC62056 53,
		IEC62056 61,	IEC62056-62,	
		EN50470-1,	EN50470-3	

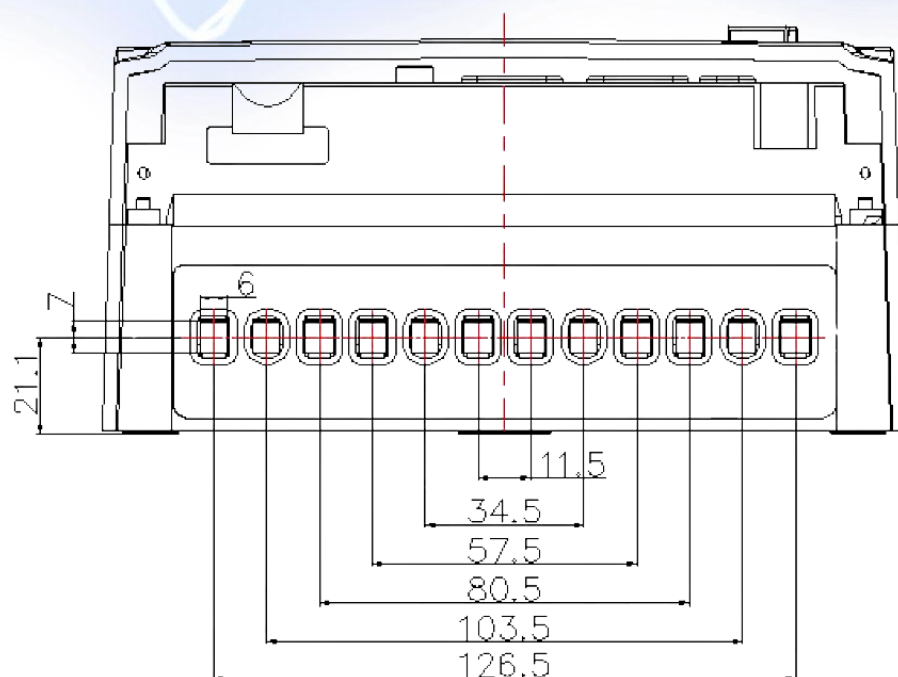
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Dimensions



Long Terminal Cover

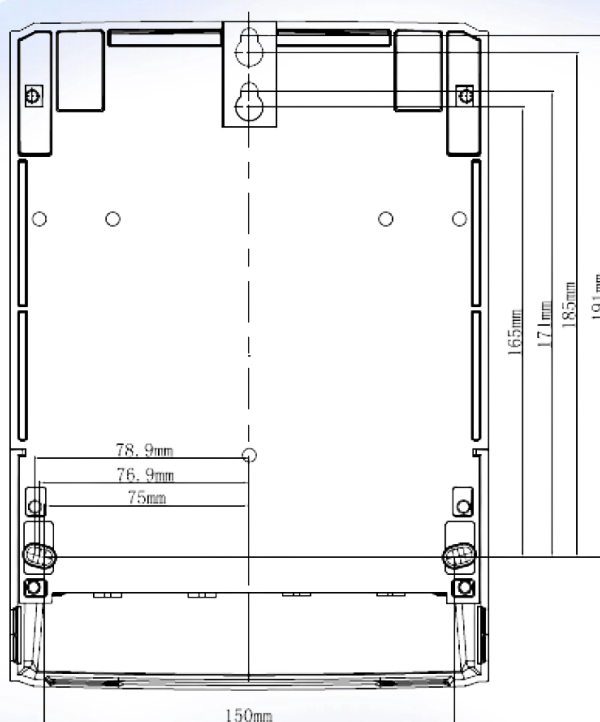
Terminal Drawing



Terminal drawing

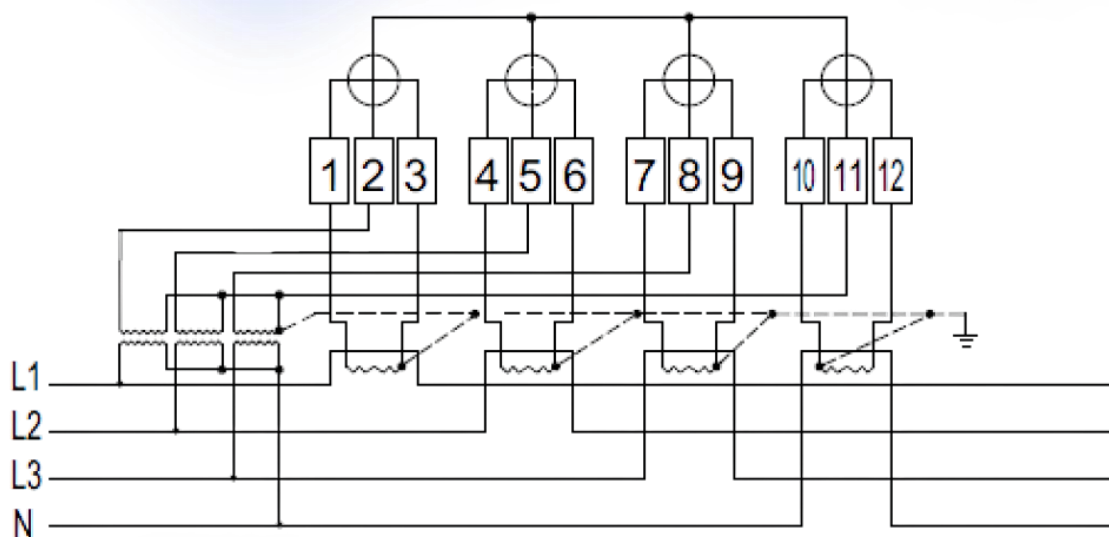
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Installation Dimension



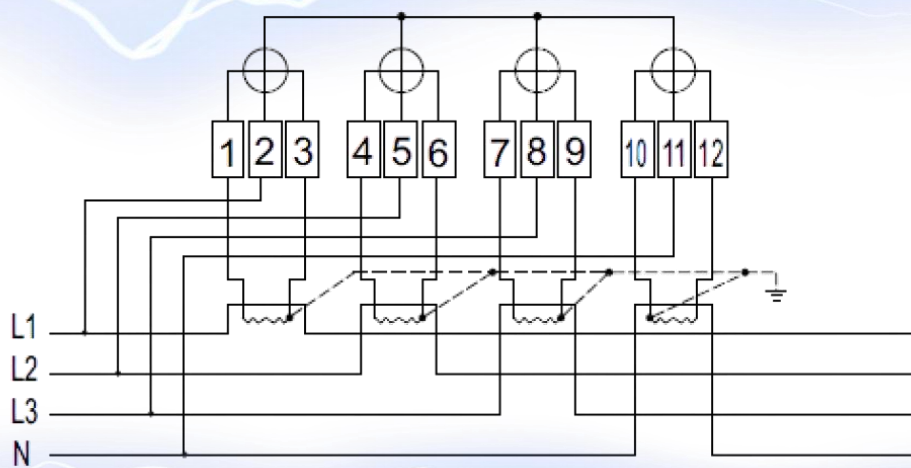
Installation Dimension

Connection Diagram

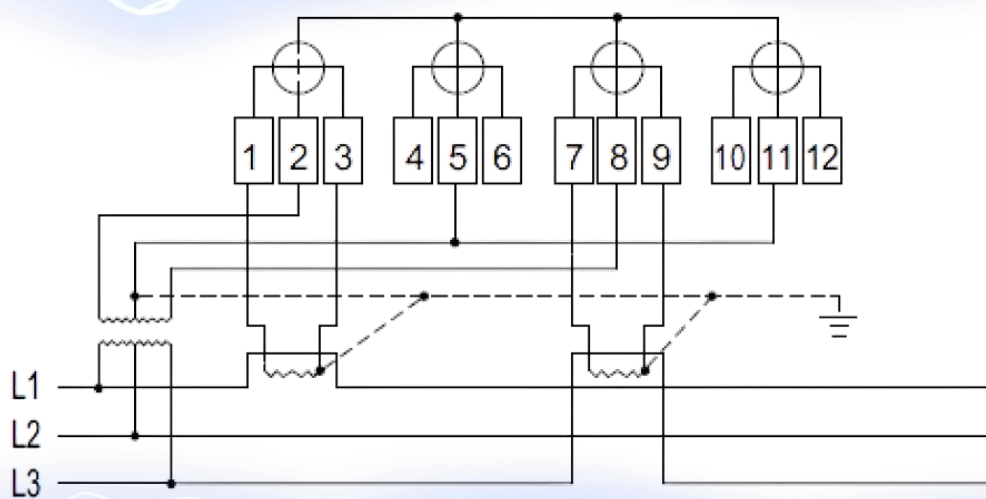


3P4W Asymmetric Connection with CTPT

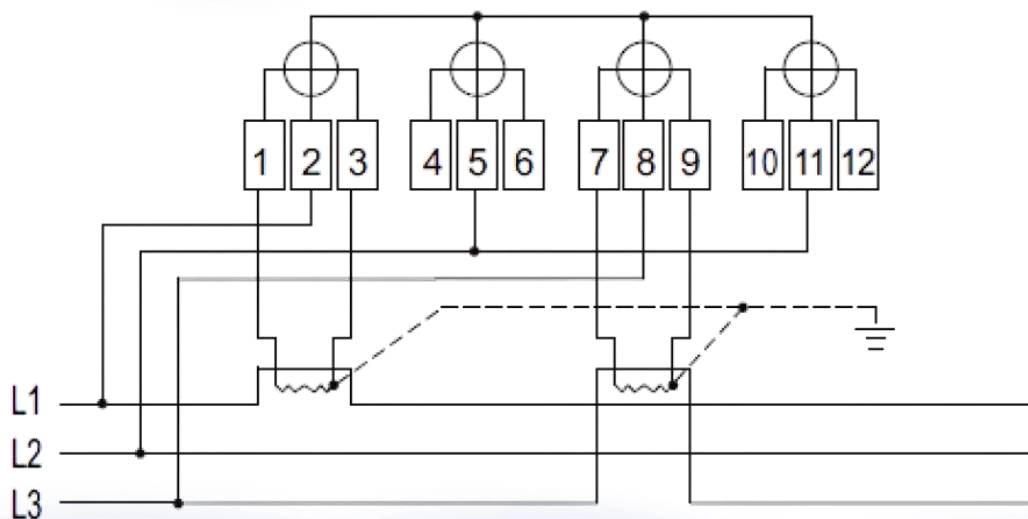
Connection Diagram



3P4W Asymmetric Connection with CT



3P3W Asymmetric Connection with CTPT



3P3W Asymmetric Connection with CT