



HXF300

Three Phase Smart CT/CTPT Meter

Focus on creating value for clients

HXF300

HXF300 is a smart three phase indirect 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 kvarh
- Four-quadrant kvarh
- Total & Per tariff

Instantaneous Values

- Power, voltage, Current
- Power Factor, Frequency

Power Quality Monitoring

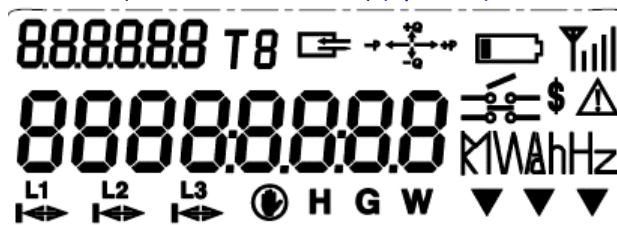
- Under & Over voltage
- Power down
- Reverse Energy Sense
- Low power factor, Low & High Frequency
- Harmonics/THD measuring(optional)

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 8.4mm × 4.5mm
- Backlight (optional)
- Configurable automatic & manual display list
- Test mode (optional)
- 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, optional)
- Lithium battery(exchangeable/inner) or/and super capacitor

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, ...1440 min)
- 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, RF,4G
- Up to 3 Independent communication ports
- HAN port: M-bus (optional)
- Data encryption schemes to ensure the data security in communication

Anti-Tamper

- 7 sealing position (2 terminal cover, 2 main cover, 2 module cover and 1 Sealable 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/ communication) MD reset

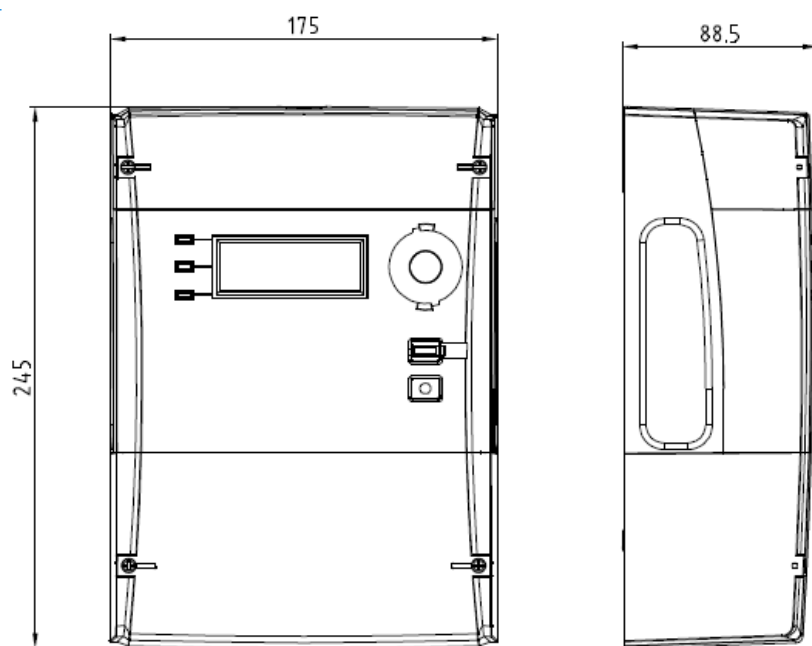
TOU (Tariff Of Use, optional)

- 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

Specifications

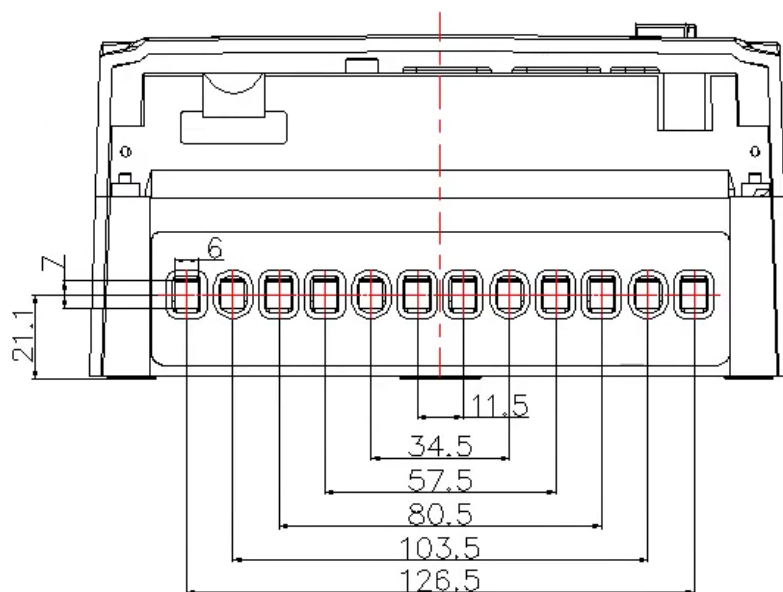
Application		Indirect connection
Accuracy	Active	Class 0.5S/0.2S(IEC) / Class C (EN)
	Reactive	Class 2/1.0S (IEC)
Voltage	Reference voltage	3P4W: 57.7V, 220V, 230V, 240V 3P3W: 100V, 110V
	Operating voltage range	70%-120%Un
Current	Basic current	1A, 5A
	Maximum current	6A, 10A
	Starting current	$\leq 0.1\%I_n(\text{active})$ $\leq 0.2\%I_n(\text{reactive})$
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)	$\leq 2W$
	Power consumption in voltage circuit (apparent)	$\leq 10VA$
	Power consumption in current circuit	$\leq 2 VA$
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)	7.0mm x6.0mm
Housing	Protection degree	IP51(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
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

■ Dimensions

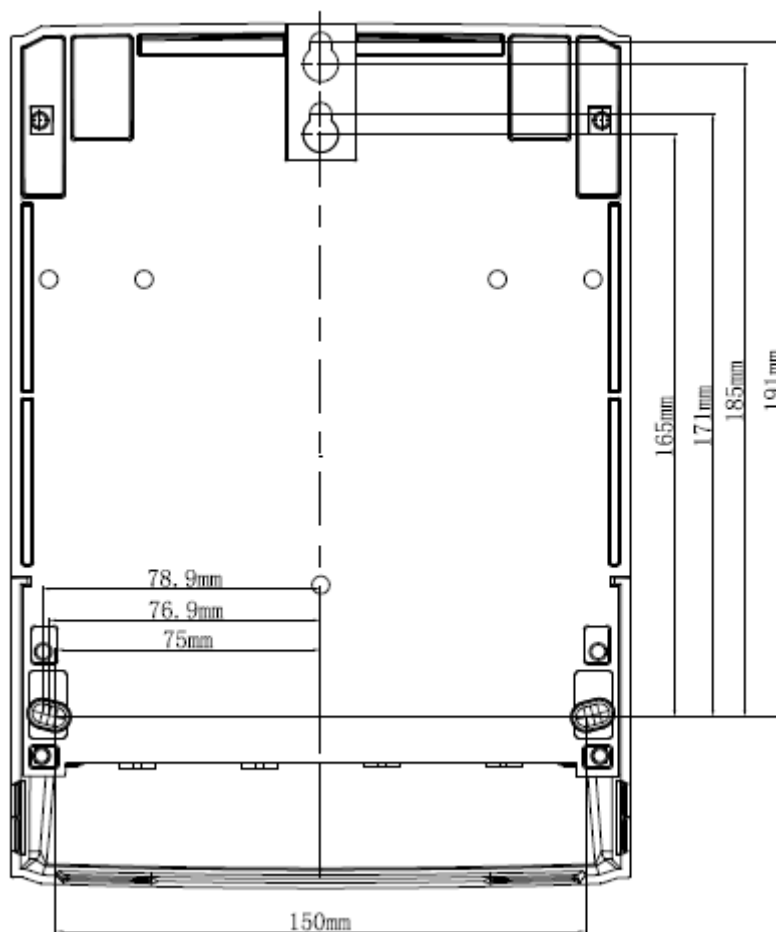


long terminal cover

● Terminal drawing

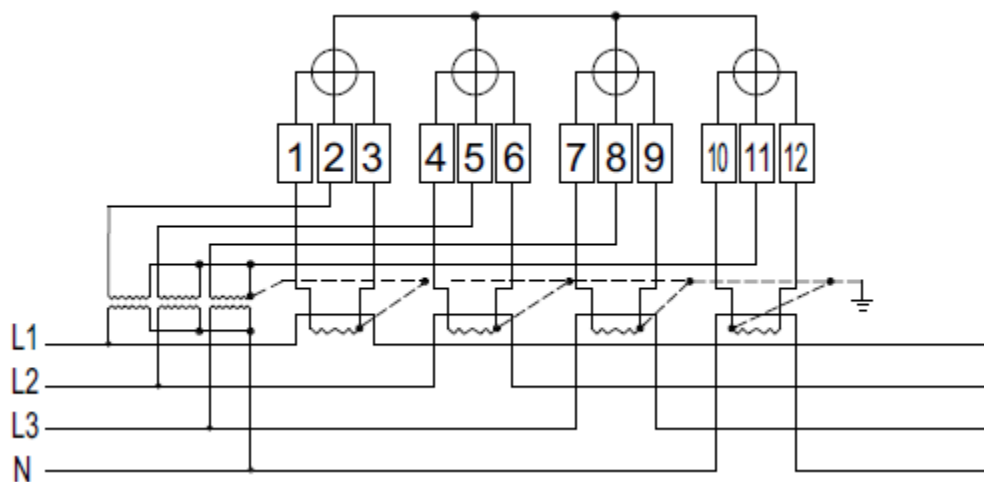


Terminal drawing

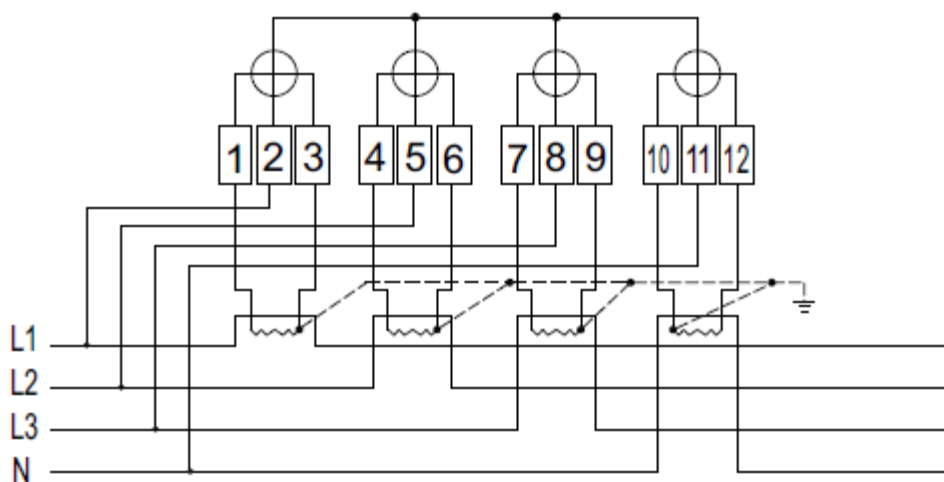


Installation Dimension

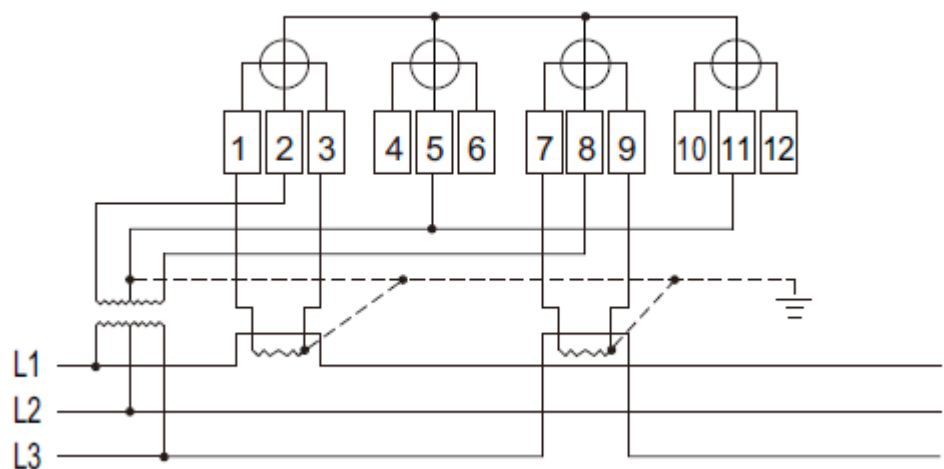
■ Connection Diagram



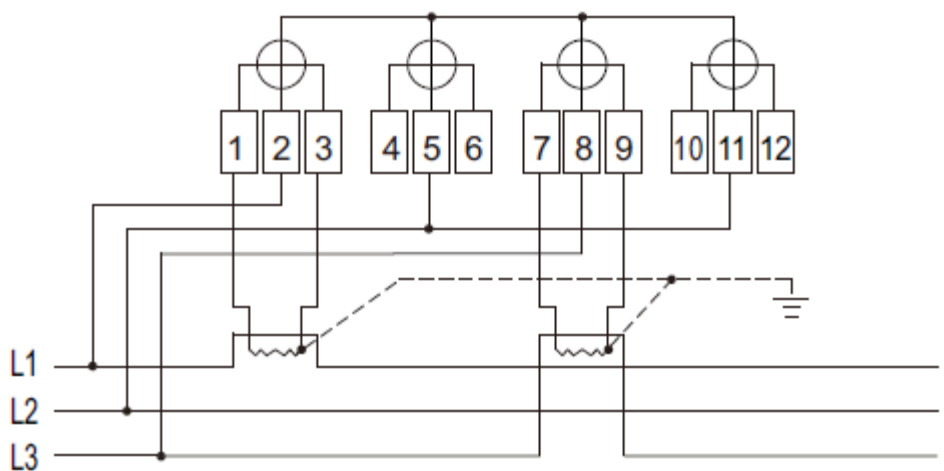
3P4W Asymmetric Connection with CTPT



3P4W Asymmetric Connection with CT



3P3W Asymmetric Connection with CTPT



3P3W Asymmetric Connection with CT

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