



# 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

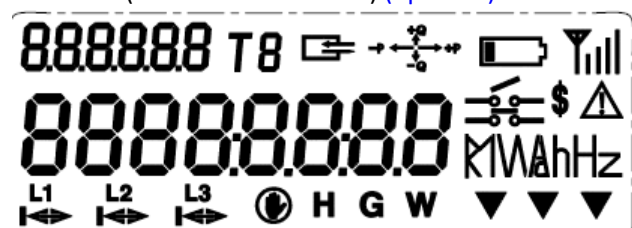
- Under & Over voltage
- Power down
- Reverse Energy Sense
- Low power factor, Low & High Frequency
- Harmonics/THD measuring(optional)

### 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

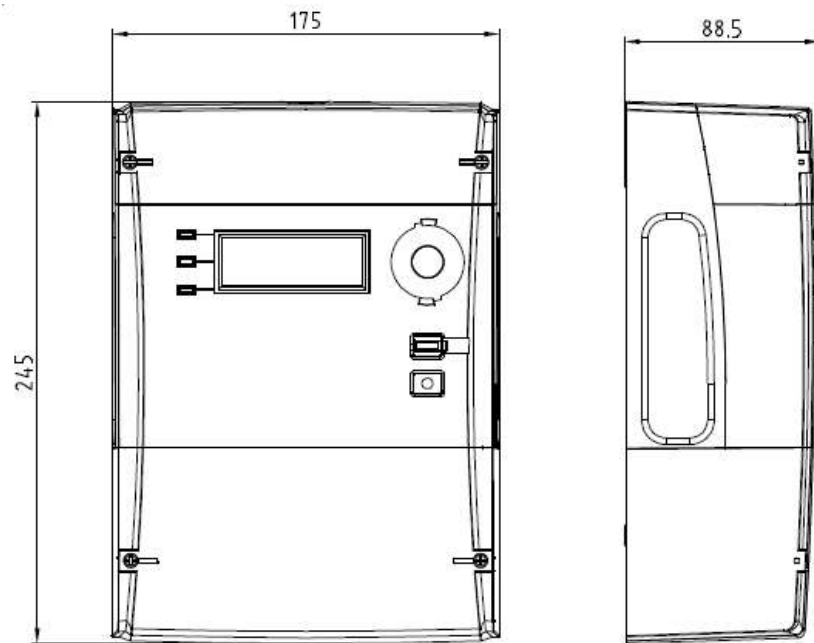
### **TOU (Tariff Of Use, optional)**

- 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

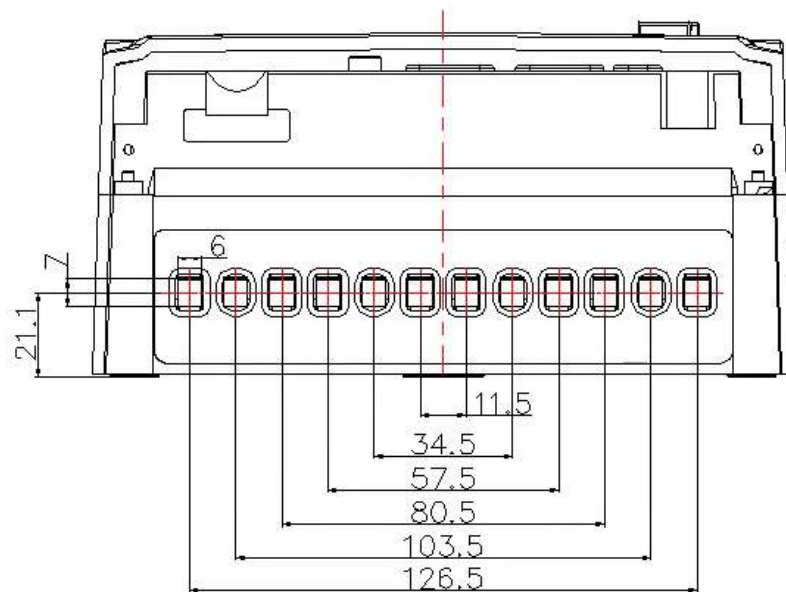
<b>Application</b>		Indirect connection
<b>Accuracy</b>	Active	Class 0.5S/0.2S(IEC) / Class C (EN)
	Reactive	Class 2/1.0S (IEC)
<b>Voltage</b>	Reference voltage	3P4W: 57.7V, 220V, 230V, 240V 3P3W: 100V, 110V
	Operating voltage range	70%-120%Un
<b>Current</b>	Basic current	1A, 5A
	Maximum current	6A, 10A
	Starting current	$\leq 0.1\%I_n(\text{active})$ $\leq 0.2\%I_n(\text{reactive})$
<b>Frequency</b>		50Hz or 60Hz
<b>Temperature</b>	Operation range	-40°C ~ 70°C
	Limit range for storage and transport	-40°C ~ 70°C
<b>Humidity</b>		Up to 95% non-condensing
<b>Power Consumption</b>	Power consumption in voltage circuit (active)	$\leq 2W$
	Power consumption in voltage circuit (apparent)	$\leq 10VA$
	Power consumption in current circuit	$\leq 2 VA$
<b>Insulation Strength</b>	AC voltage test	4kV during 1min
	Impulse voltage test	1.2/50 $\mu$ s mains connections 6kV
<b>EMC</b>	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)
<b>Connection Terminals</b> (diameter)		7.0mm x6.0mm
<b>Housing</b>	Protection degree	<b>IP51(indoor)</b>
	Meter cover	Polycarbonate + GF with a transparent window
	Meter base	Polycarbonate + GF
	Terminal cover	Polycarbonate + GF
<b>Communication Interface</b>	Optical communication	IEC62056-21E or HDLC
	RS485	IEC62056-21E or HDLC
<b>Weight</b>	Net weight	Approx.1.28kg
	Package	Approx.0.1kg
<b>Dimension</b>	With long terminal cover	219mm×175mm×88.5mm
	With short terminal cover	245mm×175mm×88.5mm
<b>Standard</b>		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

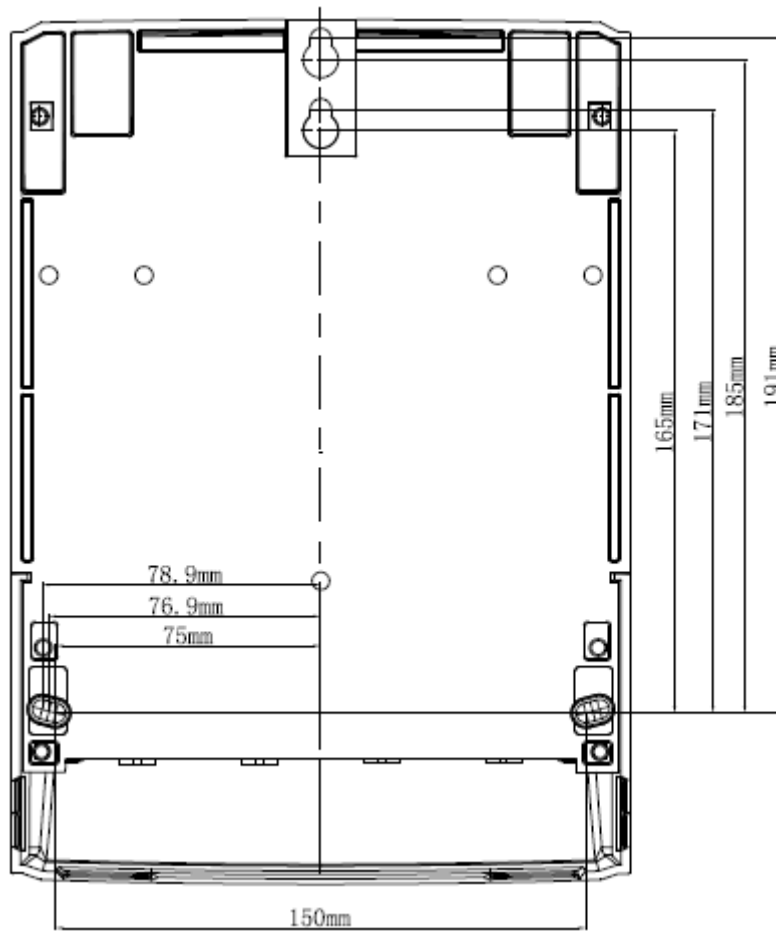


long terminal cover

## ● Terminal drawing

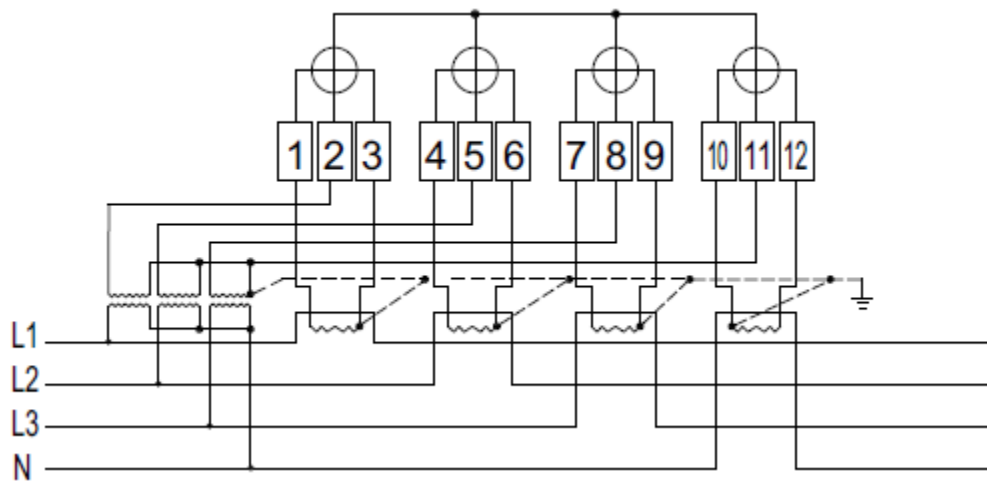


Terminal drawing

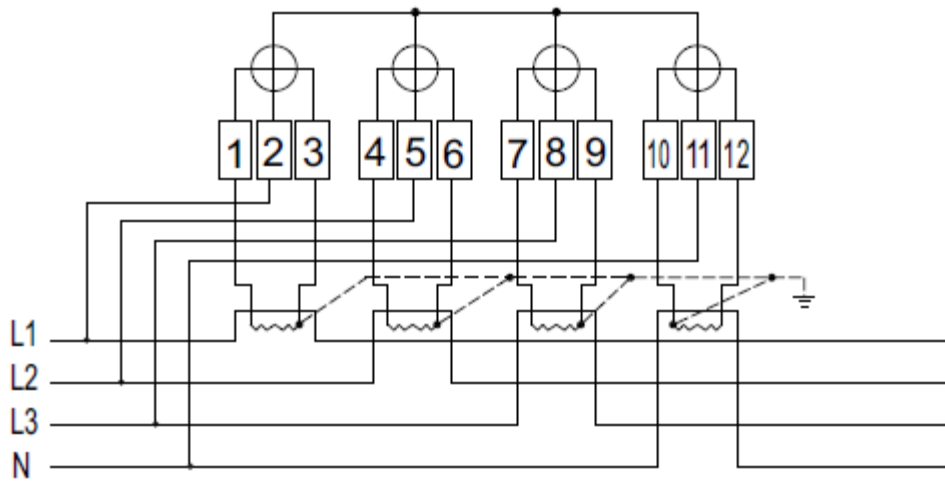


Installation Dimension

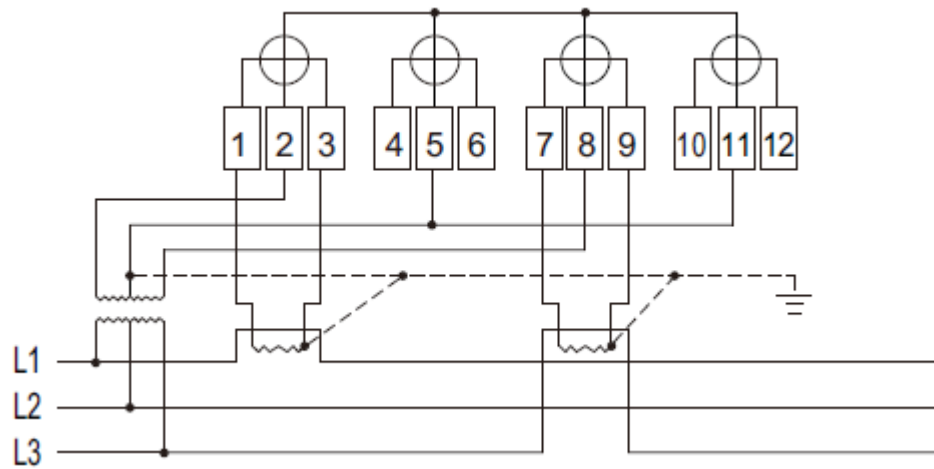
## ■ Connection Diagram



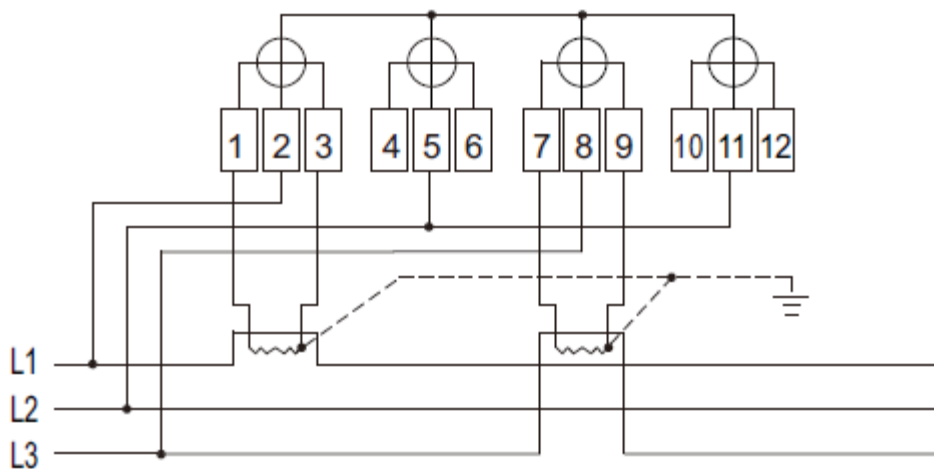
3P4W Asymmetric Connection with CTPT



**3P4W Asymmetric Connection with CT**



**3P3W Asymmetric Connection with CTPT**



**3P3W Asymmetric Connection with CT**

**COMPANY HEADQUARTERS**

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