

# Three-Phase BS Type Prepayment Meter and UIU (PLC communication)

## Data sheet

2015-11-17

Holley

Overseas R&D Center



## 1. Specification

Items	Sub items	Specification
Basic parameter	Meter type	3P4W DT Meter
	Active Accuracy	Class 1 (IEC 62053-21)
	Voltage	3x 220/380V±10%
	Frequency	50Hz±5%
	Current range	10(100)A
	Starting current	0.004Ib
	Constant	1000imp/kWh
	Power consumption	Current circuit power consumption ≤ 1VA Voltage circuit power consumption ≤ 2W/8VA
	Operating Temperature	-25℃ ~ +70℃
	Limit Temperature	-30℃ ~ +75℃
	Storage Temperature	-5℃ ~ +80℃
	Hygrometry	≤95% normal relative humidity
Communication	Local Comm. Port	Optical: IEC62056-21
	Local Comm. Protocol	IEC62056-21 C mode
	UIU Comm. Port	PLC
	UIU Comm. Protocol	DL/T-645
Measurement	Energy measurement	Import active energy =  +A + -A  Export active energy =  -A
	Instantaneous value	<ul style="list-style-type: none"> <li>- Voltage (A/B/C)</li> <li>- Current (A/B/C)</li> <li>- Power factor (Total/ A/B/C)</li> <li>- Active power (Total/ A/B/C)</li> <li>- Reactive power (Total / A/B/C)</li> <li>- Apparent power (Total / A/B/C)</li> <li>- Angle between voltage and current</li> </ul>

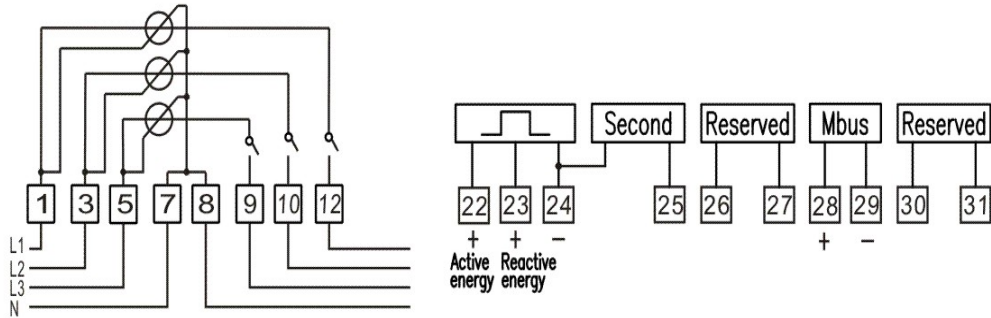
		(A/B/C) - Power grid currency
TOD	RTC	≤0.5Second/Day (23°C) , 10 years battery life.
	Battery	Can be change
LED and Display	LED	1 Active pulse output 1 Credit status indicate(two colors) 1 Alarm indicate
	Backlit	Available: When power on, press the keyboard and back light wake up. Back light shut-off without operation for next 20 seconds
	Power-off display	LCD off after 20s,can be wake up by button pressing
	LCD contents	Energy consumption Total user credit to date Meter status Supply group code Display maximum load occurrence Display instantaneous current Last 5 token entered Display test
Load Profile max Demand and Bill date	Load capture period Load profile	Interval: 15, 30, 60 minutes can be setting Storage: More than 35 days every 15 minutes Capture objects as follows (Configurable): Total Import active energy Total Import active demand
	Max demand	Interval: 15, 30, 60 minutes can be setting Total Import active energy Time and date
	Billing method	1) Billing by pressing the button: to press the programming button for more than 5 seconds, to execute manual billing and clear current max demand record. 2) Billing by programming: to send the billing order by PC software, and the meter would

		<p>excute billing immediately.</p> <p>3) Monthly billing: the meter would conduct billing automatically on billing date, which is configurable from 1 to 28 of each month,</p>
	<p>Billing Date of Month</p>	<p>The billing time is configurable, and the recent 12 times of data would be stored.</p> <p>The content of billing is as follows:</p> <ul style="list-style-type: none"> <li>- Billing time</li> <li>- Active total energy</li> <li>- Active reverse energy</li> <li>- Consumed net nergy for current month</li> </ul>
	<p>Billing Daily</p>	<p>Store the energy of zero o'clock each day and the account balance for 35 days.</p> <p>Data: total active energy, remaining energy</p>
<p>Tampering&amp; Event</p>	<p>Alarm record</p>	<p>Support the last 100 items alarm records and happen time:</p> <p>Maximum support recent 100 events:</p> <ul style="list-style-type: none"> <li>- Terminal cover open</li> <li>- Magnetic effects</li> <li>- Meter cover open</li> <li>- Reverse phase sequence</li> <li>- Power outage</li> <li>- Power on</li> <li>- Overvoltage</li> <li>- Reverse phase A power flow</li> <li>- Reverse phase B power flow</li> <li>- Reverse phase C power flow</li> <li>- Phase A voltage loss</li> <li>- Phase B voltage loss</li> <li>- Phase C voltage loss</li> <li>- Phase A over voltage</li> <li>- Phase B over voltage</li> <li>- Phase C over voltage</li> <li>- Phase A loss</li> </ul>

		<ul style="list-style-type: none"> <li>- Phase B loss</li> <li>- Phase C loss</li> <li>- Bypass</li> <li>- Bettery removal</li> <li>- Event clearance</li> </ul>
	Relay disconnection	<ul style="list-style-type: none"> <li>- Meter cover open</li> <li>- Terminal cover open</li> <li>- Overvoltage or lowvoltage</li> <li>- Reverse phase power flow</li> </ul>
Prepayment function	Credit way	STS From UIU credit token
	Friendly credit	<p>Friendly credit: can be setted to enable or disable</p> <p>In Friendly happy hours:</p> <p>No disconnections on public holidays and week ends</p> <p>No disconnections during night hours</p> <p>No disconnections on festival days (as programmed)</p>
	Negative Credit	The meter can decrement the credit register into negative values if the load could not be successfully disconnected when the credit has been consumed. The debit will subtracted in the next transaction.
	Emergency Credit	The meter can capable of giving an emergency credit and be disconnected after the emergency credit had been consumed.
Type Testing	According Standard	IEC 62052-11 IEC 62053-21
Structure	Terminal cover	BS standard
	Protection class	Indoor IP54
	Lead sealing	Sealing screw
	Material	Meter cover: PC Meter cover: PC

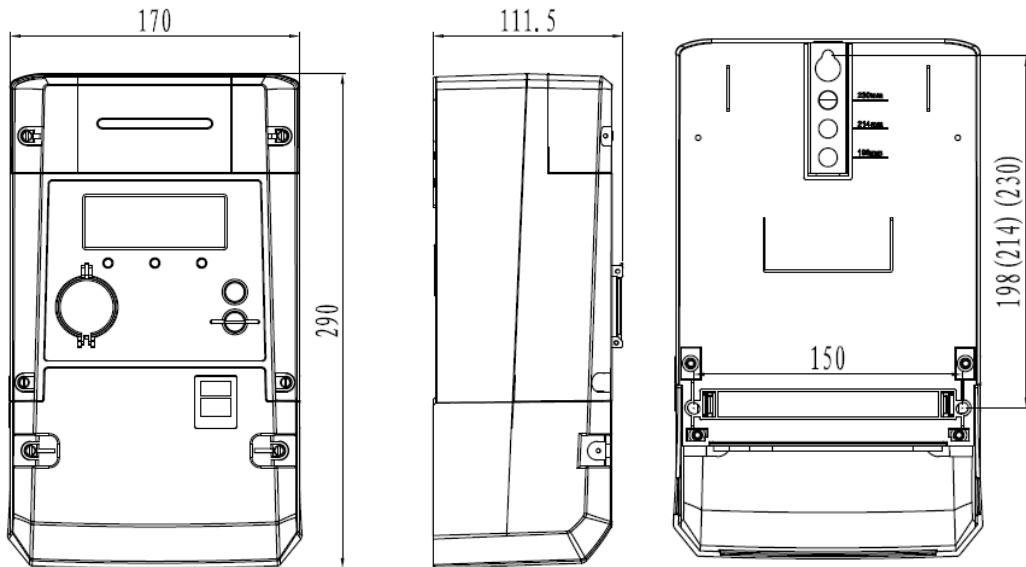
	Terminal cover: 90% PC+10% fiberglass
Dimension	290mm*170mm*111.5mm

## 2. Connection(PLC Solution)



3P4W DT Type

## 3. Meter Dimension



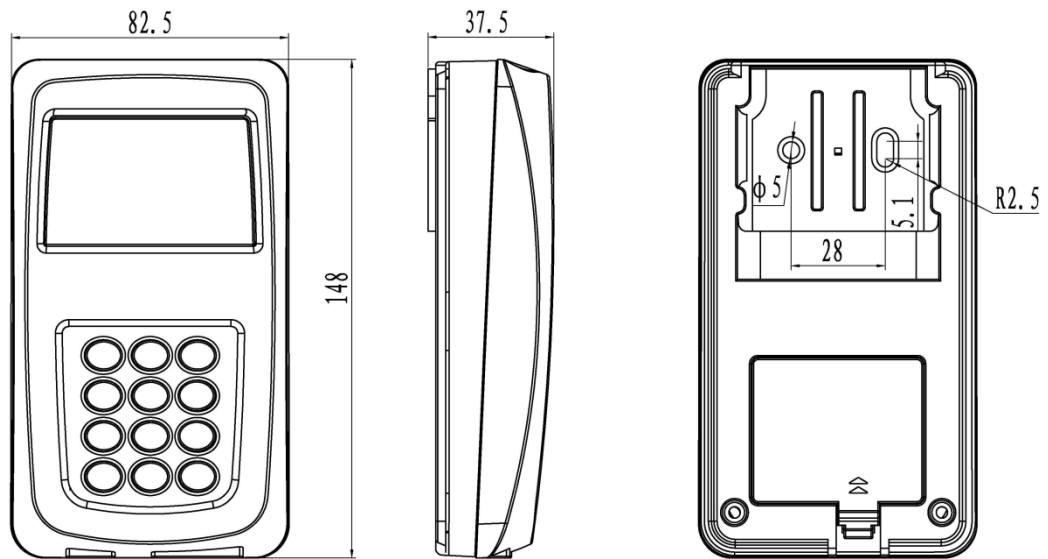
Meter Dimension

## 4. UIU Specification(PLC connection)

Item	Sub-item	Parameter
Basic	Keypad	3X4 Membrane keypad
	LCD	Back Light
	Prepayment Function	Compatible IEC62055-51, STS Standard
	Operating temperature range	-25°C ~ +70°C
	Storage temperature	-40°C ~ +85°C

<b>LED&amp;Display</b>	LED	1 Credit status indicate(two colors)
	Backlit(Optional)	Available
	Energy	Active: 6+2 display
	Display	Fixed Symbol: <ul style="list-style-type: none"> <li>• Status of Relay;</li> <li>• Reverse energy;</li> <li>• Operation success/failure symbol;</li> <li>• Tamper symbol;</li> </ul> Circle Display: <ul style="list-style-type: none"> <li>• energy values;</li> <li>• Credit balance;</li> <li>• Friendly credit;</li> <li>• Voltage;</li> <li>• Current;</li> <li>• Power Factor;</li> <li>• Serial number</li> </ul>
<b>Battery</b>	AAA*4	Can be change
<b>Mechanical</b>	Dimensions(LxWxH)	148mmx82.5mmx37.5mm
	Weight	Approx. 0.2kg

### 5. UIU(dimension)



UIU dimension