CBI electric
low voltage

a Reinert company

Intuitive

Three-Phase Multifunction CT Wi-Fi Meter

0.25 ~ 5(6)A Rated Meter

ISR 4321CT Instruction Manual

Intuitive

Three-Phase Multifunction CT Wi-Fi Meter

Features

- Four-quadrant multifunction meter
- 2.4 GHz Wi-Fi enabled
- Multi-tariff capability
- Monthly, daily and live consumption statistics
- Maximum demand values
- Custom automation and IoT
- Free CBI Home App and web portal
- https://astute.cbi.co.za

Table of Contents

Power Parameters

1. The meter can measure and display	
Instantaneous RMS Values	
Current	Per phase
Voltage	L-L, L-N Per phase
Frequency	50Hz
Active power	Total and per phase
Reactive power	Total and per phase
Apparent power	Total and per phase
Power factor	Total and per phase
Energy Values (include: import, export, import and export)	
Active energy	0 to 9999999.999 kWh
Reactive energy	0 to 9999999.999 kvarh
Multi-Tariff active energy (T1 - T4)	0 to 9999999.999 kWh
Maximum Demand Values	
Max. Demand of current	Per phase
Max. Demand of active power	Total
Max. Demand of reactive power	Total
Max. Demand of apparent power	Total
2. The meter can measure and store	
Energy Values	
Apparent Energy (total)	0 to 9999999.999 kVAh
Per phase energy	Active energy and reactive energy, include: import, export, import and export Range: 0 to 999999.999 kWh/kvarh
Multi-Tariff active energy (T1 - T4)	0 to 9999999.999 kvarh, include: import, export, import and export
Monthly electricity consumption for the last 12 months	Total active energy Range: 0 to 9999999.999 kWh
Daily energy consumption for the last 31days	Total active energy Range: 0 to 9999999.999 kWh
3. Meter configuration	
Current transformer (CT) class	Supported output signal types: 85mV/kA or 50mV/kA
Voltage transformer (PT) class	PT1 (Primary), range from 30 to 500000 PT2 (Secondary), range is 30 to 500

System configuration class	User password (HMI), Power system type: 3P4W (3CT) 3P4W (3PT +3CT) 3P3W (2CT) 3P3W (2PT + 2CT) 2P3W (L+L+N, 2CT) 1P2W (L+N, 1CT) 1P2W (L+L, 1CT) 1P2W (L+N, 3CT)
Demand class	Demand interval period, Slide time
Time class	Automatic scroll display time, Backlit time, System time (RTC), Tariff time

Technical Specification

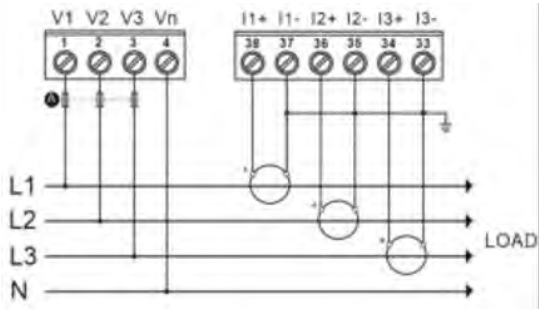
Electrical Characteristics		
Input-Voltage	Rate voltage (Un)	230 Vac (L-N) / 400 Vac (L-L)
	Measured range Direct connection)	30 to 300 Vac (L-N), 30 to 500 Vac (L-L)
	PT primary	30 to 500000
	Impedance	1MΩ
	Frequency	50 Hz
	Overload capacity	2*Un for 1 second
Current Rating	CT2 (Secondary)	1A or 5A
	CT1 (Primary)	1 to 9999 A
	Measured range	0.003 to 6 A, basic current (Ib) is 5A
	Impedance	<0.01 ohm
	Overload capacity	120A for 0.5 second
Data update rate		1 second
Mechanical Characteristics		
Degree of Protection		IP51 front display, IP30 meter body
Dimensions (W x H x D)		72 mm x 100 mm x 65 mm
Max. Cable Size	Terminal No. : 1- 8	1.5 mm^2
	Terminal No. : 33-44	1.5 mm^2
Torque Settings	Terminal No. 1- 8	0.5 - 0.6 Nm
	Terminal No. : 33-44	0.5 - 0.6 Nm
Environmental Characteristics		
Operating Temperature		-25℃ to +55℃
Humidity		< 90%, non-condensing
Vibration		10 Hz to 150Hz, IEC 60068-2-6

Installation and configuration

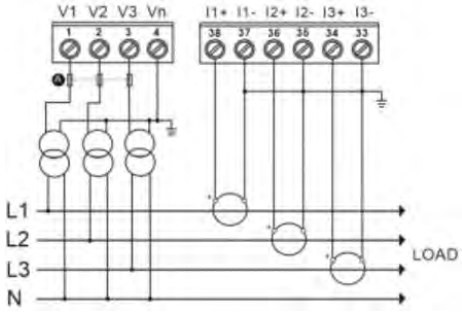
Installation - Intuitive Wi-Fi Meter

1. These meters must be installed by a qualified electrician.
2. Isolate supply before installing the meter.
3. Install the meter on DIN rail.
4. Connect the meter according to Figure 1.
   Observe markings for line and load terminals.
5. Download and install the CBI Home App from either the App Store or on Google Play

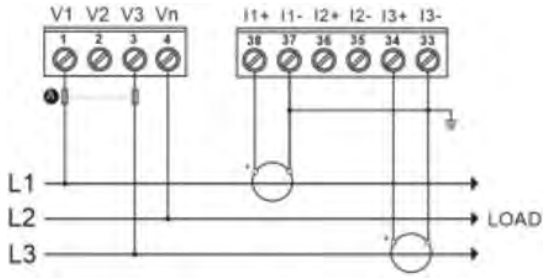
3-Phase 4-Wire 3CT Connection



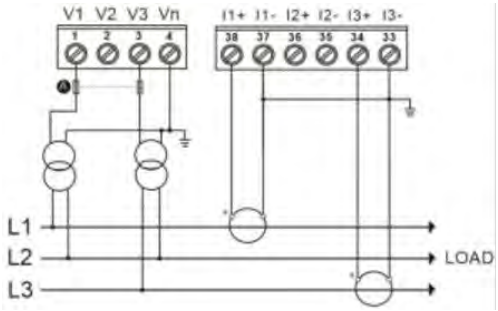
3-Phase 4-Wire 3PT and 3CT Connection



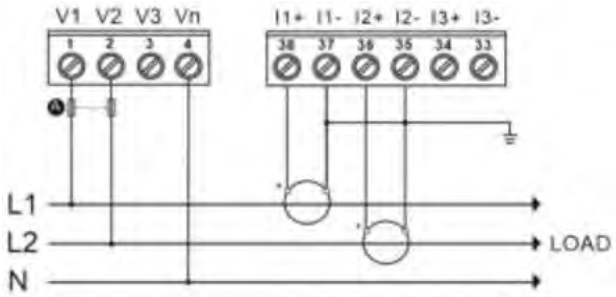
3-Phase 3-Wire 2CT Connection



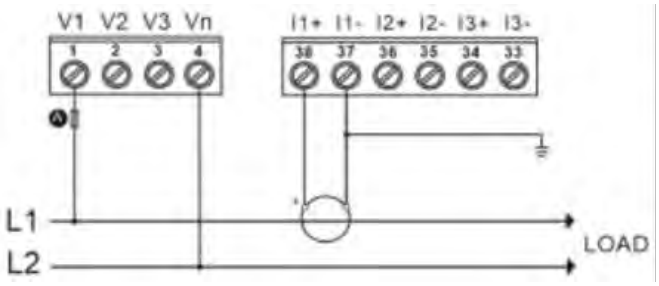
3-Phase 3-Wire 2PT and 2 CT Connection



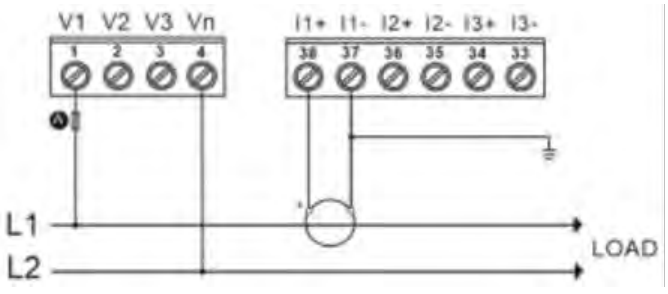
2-Phase 3-Wire L+L+N 2CT Connection



1-Phase 2-Wire L+N, 1CT Connection



1-Phase 2-Wire L+L 1CT Connection



1-Phase 2-Wire L+N, 3CT Connection

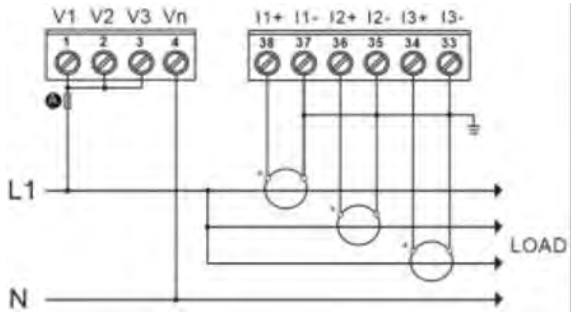


Figure 1: Wiring Diagrams

Step 1 - Download the App

Option 1: Search for CBI Home on the App Store or on Google Play and install.

See App icon below:

Available on the App Store or on Google Play:

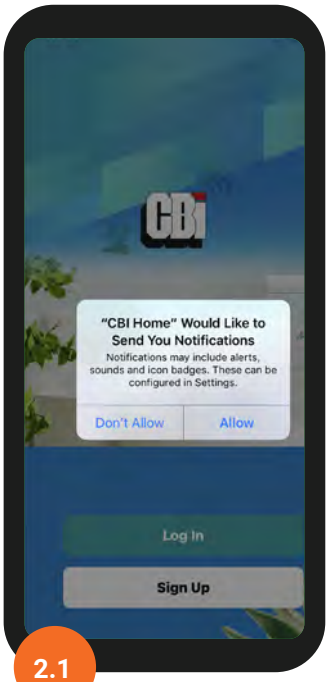
Download on the App Store

Step 1 - Download the App

Option 2: Scan the QR code below and select App Store or Google Play:

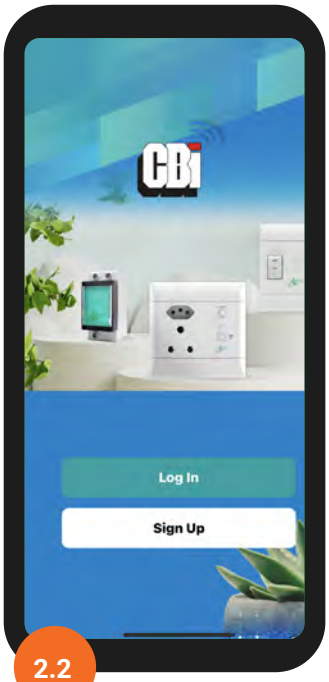
Installation and configuration

Step 2 - Register a new account



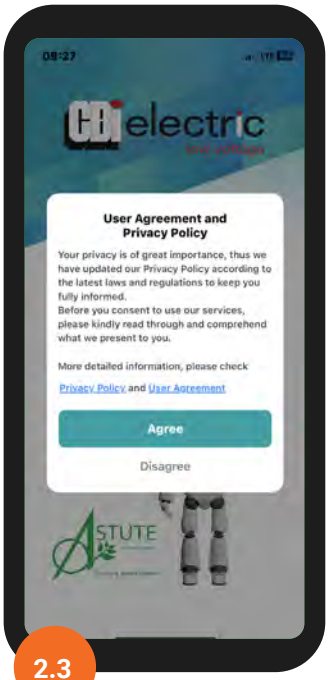
2.1

Once installed, open the CBI Home App, tap "**Allow**" on the pop-up message if you would like to receive notifications.



2.2

The following screen will appear, tap on **"Sign Up"**.



2.3

A privacy policy pop-up message will appear, read and tap "**Agree**" to proceed.

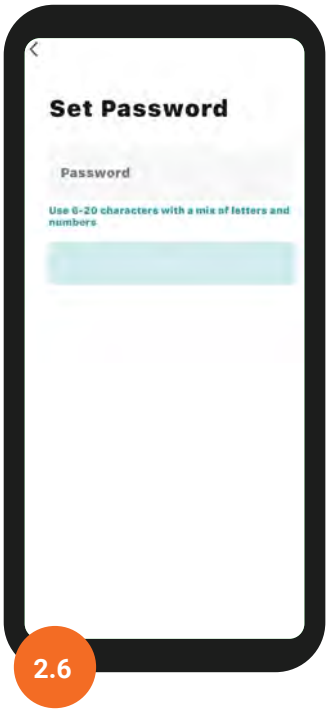
2.4

Register with an email address. Once the chosen email address has been entered, tick the **"I agree User Agreement and Privacy Policy"** box and tap on "**Get Verification Code**".

Step 2 - Register a new account

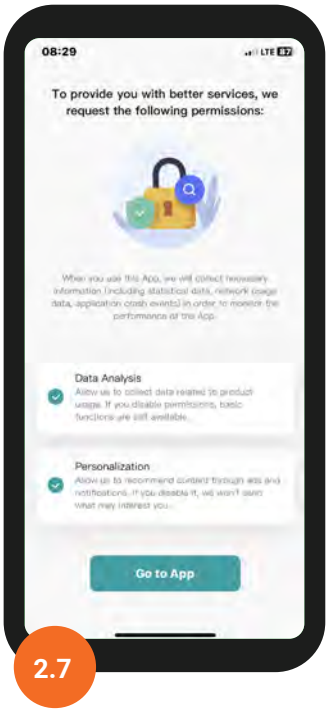
A six digit verification code will be sent to the email address provided.

Enter the 6 digit verification code to register a user profile.

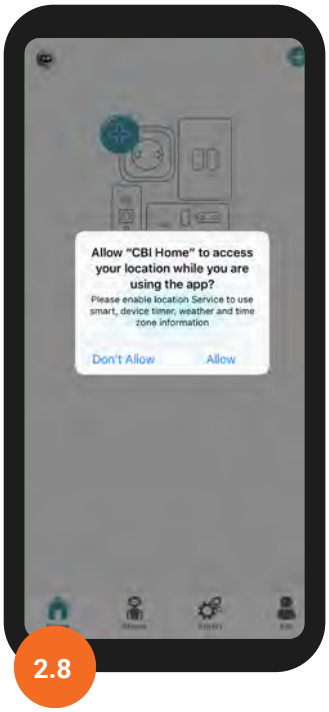


Once the verification code has been entered, create a personalised password and tap "**Done**".

The password must contain 6 to 20 letters and numbers, do not use special characters.



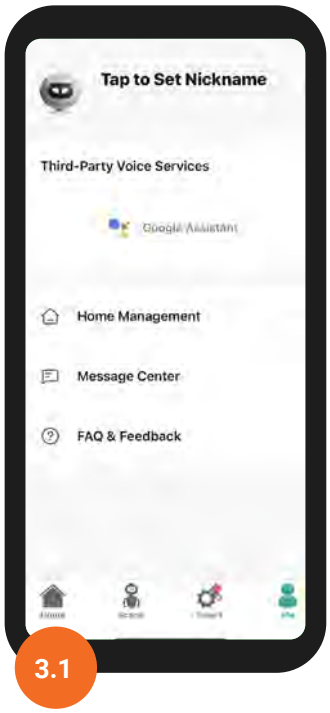
Allow the App the permissions required, tap "**Go to App**".



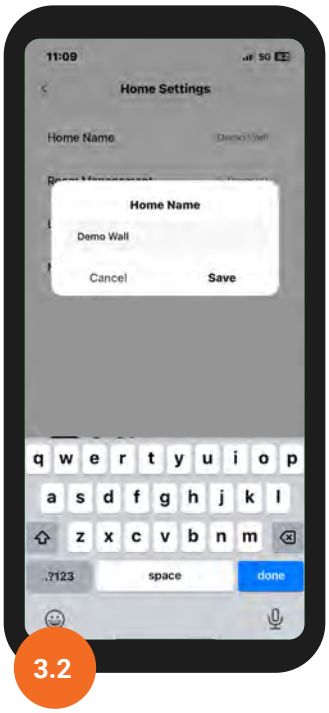
Allow the App to use your location, tap "**Allow**".

Installation and configuration

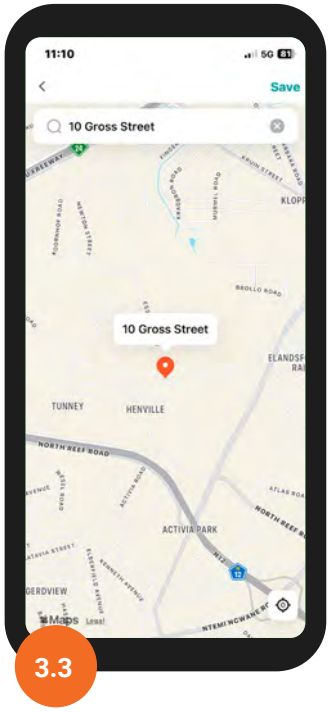
Step 3 - Home Setup



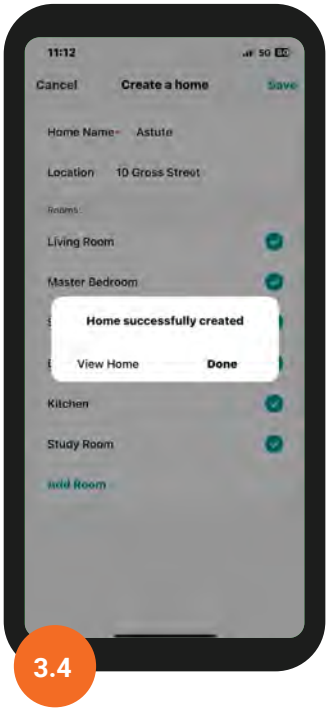
Click on the **'Me'** icon tap on **'Home Management'.**
Tap on **'My Home'.**



Tap next to **'Home Name'** and create a home name.
Tap next to **'Location'.**

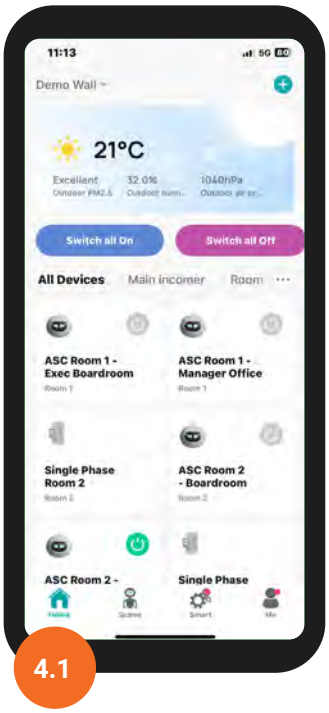


Select the home location on the map and tap **'Confirm'.**
Tap to select the relevant rooms and tap **'Save'**.



Tap on **'View Home'** or tap **'Done'. Home setup** is now complete.

Step 4 - Pair device to the App



After completing the wiring according to the wiring diagram of the meter, then power on the meter.

Note: During network configuration, you are advised to enable Bluetooth on your mobile phone to ensure an uninterrupted process.

Open the **CBI Home App**

Tap **'Add Device'** to add the meter to your App (smartphone/ tablet should be connected to the same 2.4 GHz Wi-Fi connection).

For adding additional devices tap the **'+'** in the right-hand corner and tap on **'Add Device'.**

Step 5 - Select the Meter (Wi-Fi)

Step 6 - Enter the Wi-Fi credentials

Select a 2.4 GHz Wi-Fi network and enter the W-Fi password and tap **'Next'**.

Ensure that the **Wi-Fi password** is entered correctly. If the password is entered incorrectly, you will not be notified, the device will simply fail to pair.

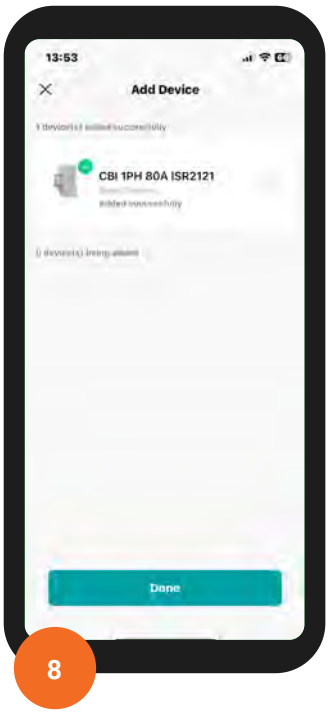
Installation and configuration

Step 7 - Pair device to the App

If connection attempt fails:

1. Repeat **Step 5 and 6**.
2. If the problem persists, repeat **Step 3 to 7** or see the **FAQs** on our website or contact CBI on the support email: **astute@cbi-electric.com**

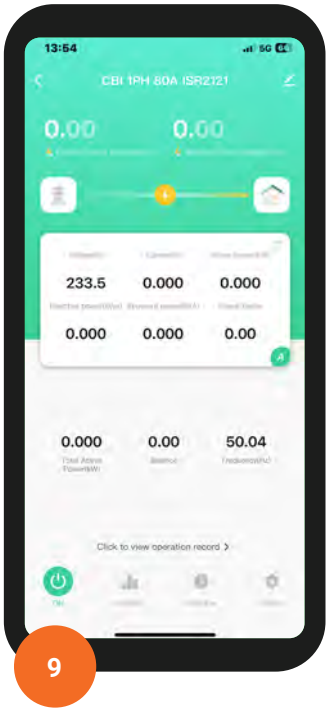
Step 8 - Enter the Wi-Fi credentials



The device has been added successfully. Tap on the edit button and change the device name if required.

Tap **'Done'**.

Step 9 - Select the Meter (Wi-Fi)



The device can now be accessed via the App.

Note: The device will be in pairing mode upon unboxing.

To enable manual pairing, press and hold **Button 1 for 3 seconds** and then press and hold **Button 2 for 3 seconds.**

The device will enter pairing mode.


Yes!
It's that easy!
ISR4321 CT
Wi-Fi enabled
(internet connection required)
Scheduled energy management
Energy monitoring
Automation and IoT
Device automation sharing
CBI Home App and more

Meter Operation

Meter startup instructions

After the meter is properly wired and connected to the power supply, the meter will first enter the self-test process, under which the LCD screen display sequence is shown as follows:

1

Display full screen characters

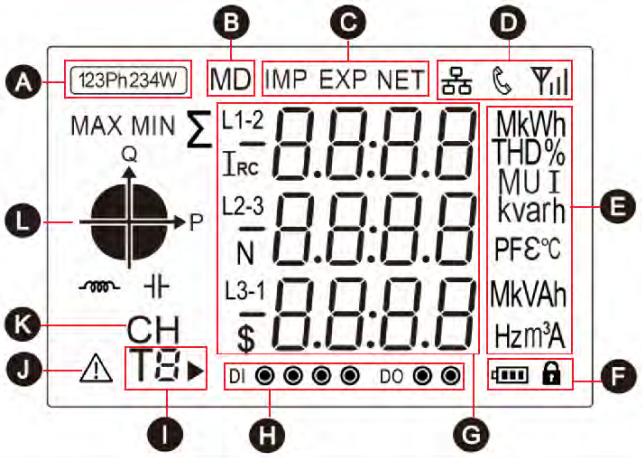
2

Displays the software version number of the meter

3

Displays the results of the self-test

LCD display area description



A The power grid type icon represents the current measurement type of the meter.

B Maximum demand icon.

C Direction icon for import and export energy.

D A status indicator icon for the meter.

E An icon of a unit of measurement data.

F Battery status icon and lock icon, displays the battery status and indicates if the device is locked.

G Measured values.

H An icon of digital I/O status for the meter.

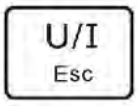
I Multi tariff icon indicating the tariff segment to which the current energy. ▶ Represents the tariff number displayed as the running tariff segment.

For example: T2▸ The figure on the left represents that the tariff 2 (T2) segment is running, and the accumulated energy will be counted into the corresponding energy area of tariff 2 (T2).

J Warning Status icon.

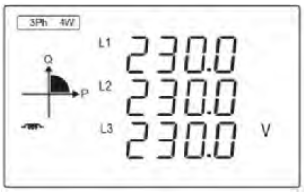
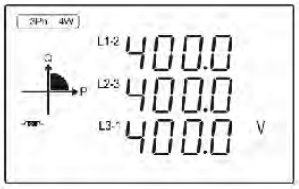
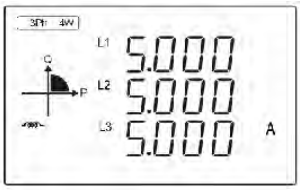
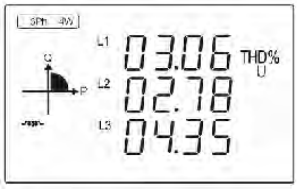
K Channel indicator icon for multiple measurement channels.

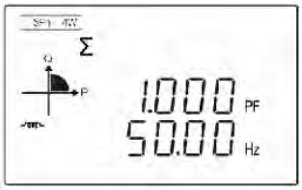
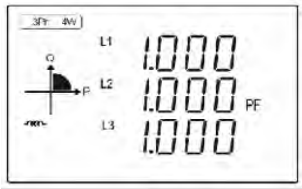
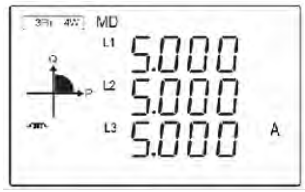
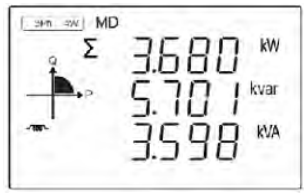
L Quadrant indicator icon indicating the quadrant of the current load.

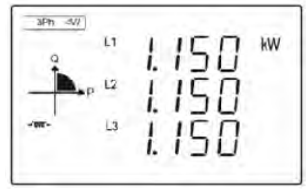
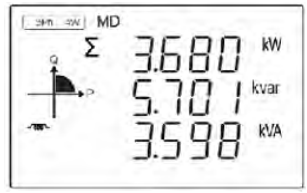
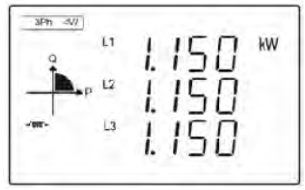
Button	Definition	Click	Press 3 seconds
	**Button 1: Down key (Esc)**	1. **In the setting screen or auxiliary screen:** exit or return to the previous screen. 2. **In the main display screen:** page scroll for parameters such as voltage and current.	**Under the main display screen:** enter the auxiliary display screen.
	**Button 2: Up key (Up)**	1. **In the main display screen:** view the power factor, maximum demand. 2. **In the setting screen or auxiliary screen:** scroll up to display the page or the increasing number.	**Null**
	**Button 3: Down key (Dn)**	1. **In the main display screen:** view the power information. 2. **In the setting screen or auxiliary screen:** scroll down to display the page or the decreasing number.	**Null**
	**Button 4: Enter key (Et)**	1. **In the main display screen:** view energy data and system time. 2. **In the setting screen:** right move the setting cursor.	1. **In the main display screen:** enter the setting mode. 2. **In the setting screen:** enter the setting state or carry out confirmation operation.

Description display screen

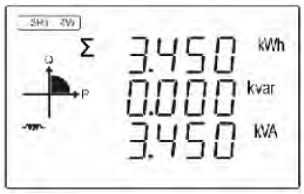
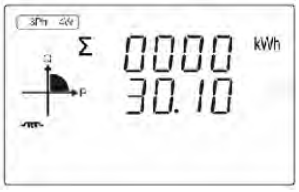
After the meter is powered on and passes the self-test process, the interface entered is defined as the 'Main display interface', which is used to display the main measurement parameters, electric quantity data, instrument information and other data of the meter. Users can scroll the display page by pressing the Button 1 to Button 4.

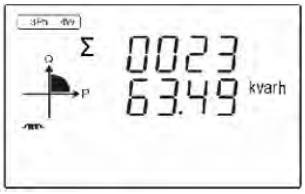
LCD display	Display screen under Button 1
	A display screen for three-phase L-N voltage. **Example:** L1-N voltage = 230.0V L2-N voltage = 230.0V L3-N voltage = 230.0V Note: In 3P3W mode, this screen is not displayed
	A display screen for three-phase L-L voltage. **Example:** L1-2 voltage = 400.0V L2-3 voltage = 400.0V L3-1 voltage = 400.0V Note: In 1P2W mode, this screen is not displayed
	A display screen for three-phase current. **Example:** L1 current = 5.000A L2 current = 5.000A L3 current = 5.000A
	A display screen for three-phase L-N voltage THD. **Example:** L1 voltage THD = 3.06% L2 voltage THD = 2.78% L3 voltage THD = 4.35%
	A display screen for three-phase L-L voltage THD. **Example:** L1-2 voltage THD = 2.74% L2-3 voltage THD = 3.80% L3-1 voltage THD = 0.00% Note: This screen is displayed only in 3P3W mode.
	A display screen for three-phase current THD. **Example:** L1 current THD = 3.56% L2 current THD = 2.45% L3 current THD = 1.87%

LCD display	Display screen under Button 2
	Total power factor and frequency display screen **Example:** Total power factor = 1.000 Frequency = 50.00Hz
	Three-phase power factor display screen **Example:** L1 power factor = 1.000 L2 power factor = 1.000 L3 power factor = 1.000
	Max. demand of three-phase display screen **Example:** Max. Demand of L1 current = 5.000A Max. Demand of L2 current = 5.000A Max. Demand of L3 current = 5.000A
	Max. demand of total active/ reactive/ apparent power display screen **Example:** Max. Demand of total active power = 3.680 kW Max. Demand of total reactive power = 5.701 kvar Max. Demand of total apparent power = 3.598 kVA

LCD display	Display screen under Button 3
	Per phase active power display screen **Example:** L1 active power = 1.150 kW L2 active power = 1.150 kW L3 active power = 1.150 kW
	Per phase reactive power display screen **Example:** L1 reactive power = 0 kvar L2 reactive power = 0 kvar L3 reactive power = 0 kvar
	Per phase apparent power display screen **Example:** L1 apparent power = 1.150 kVA L2 apparent power = 1.150 kVA L3 apparent power = 1.150 kVA

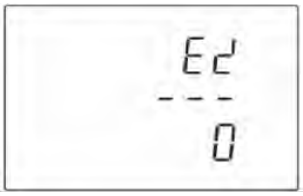
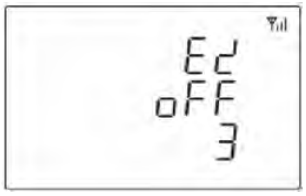
Description display screen

	Total active/reactive/apparent power display screen **Example:** Total active power = 3.450 kW Total reactive power = 0 kvar Total apparent power = 3.450 kVA
LCD display	**Display screen under Button 4**
	Total active energy **Example**: Total active energy = 30.10 kWh
	Export active energy **Example:** Total active energy = 15.05 kWh
	Export active energy **Example:** Total active energy = 15.05 kWh
	Tariff 1 active energy **Example:** Tariff 1 active energy = 63.42kWh Note: Only multi-tariff meter shows this page
	Tariff 2 active energy **Example:** Tariff 2 active energy = 28.63kWh Note: Only multi-tariff meter shows this page

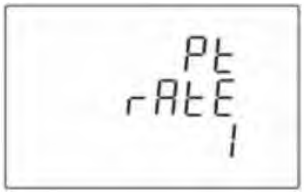
	Tariff 4 active energy **Example:** Tariff 4 active energy = 93.26kWh Note: Only multi-tariff meter shows this page
	Total reactive energy **Example:** Total reactive energy = 2363.49kvarh
	Import reactive energy **Example:** Import reactive energy = 2300.26kvarh
	Export reactive energy **Example:** Export reactive energy = 63.23kvarh
	Displaying the current date of the system real-time clock. **Example:** The current date is June 4, 2021 Note: Only multi-tariff meter shows this page
	Displaying the current time of the system real-time clock. **Example:** The current time is 14:32.38 Note: Only multi-tariff meter shows this page
Icon description of the load nature: is mean: The load is an inductive load, is mean: The load is a capacitive load.	

Auxiliary display screen

Under the main display screen, **press Button 1 for 3 seconds** to enter the screen of **'Auxiliary Display'. Click Button 2 or Button 3** to scroll the pages which needs to be viewed. Under the screen of **'Auxiliary Display', click Button 1** to return to the main display screen. If there is no button operation in more than **1-minute** under the screen of auxiliary display, the meter will automatically return to the main display screen.

1. Wi-Fi status indicator interface	
	Indicates that the current Wi-Fi is in configuration mode.
	Indicates that the current Wi-Fi is configured but not connected to the router.
	Indicates that the current Wi-Fi is configured and connected to the router, but not connected to the cloud.
	Wi-Fi connects to the router and connects to the cloud.
Note: On this screen, press Button 4 for 3 seconds, Wi-Fi will be reset, and the meter will enter the network configuration mode	

2. Wi-Fi signal strength interface	
	Wi-Fi signal strength indicator.

3. Serial number interface	
	Ratio of voltage transformer (CT)
	Ratio of voltage transformer (PT)
4. Serial number interface	
	The serial number of the meter. Example: The serial number is 21000110.
5. Software version interface	
	Software version number

Meter setup

Meter parameter setup menu

How to enter the **'Parameter Setting Menu' screen**

Step 1: In the main display screen, **press Button 2 for 3 seconds** to enter the user password input mode.

Note: The user password input screen is shown in the figure on the right.

Step 2: Enter the correct user password and **press Button 2 for 3 seconds** to **confirm.**

How to enter a password:

A: Click Button 1 to increase or decrease the number of flashing bits.

B: Click Button 2 to move the flashing position to the right.

C: After entering the correct password**, press Button 2 for 3 seconds** for confirmation.

If the password is verified correctly, the power meter will enter the screen of **'Parameter Setting Menu'.**

Note: Under the **'User password input screen', press Button 1 for 3 seconds** to return to the 'Main display screen'. If there is no button operation in more than 1-minute under this screen, the meter will automatically return to the **'Main display screen'.**

The logical diagram of the parameter setting menu is as follows:

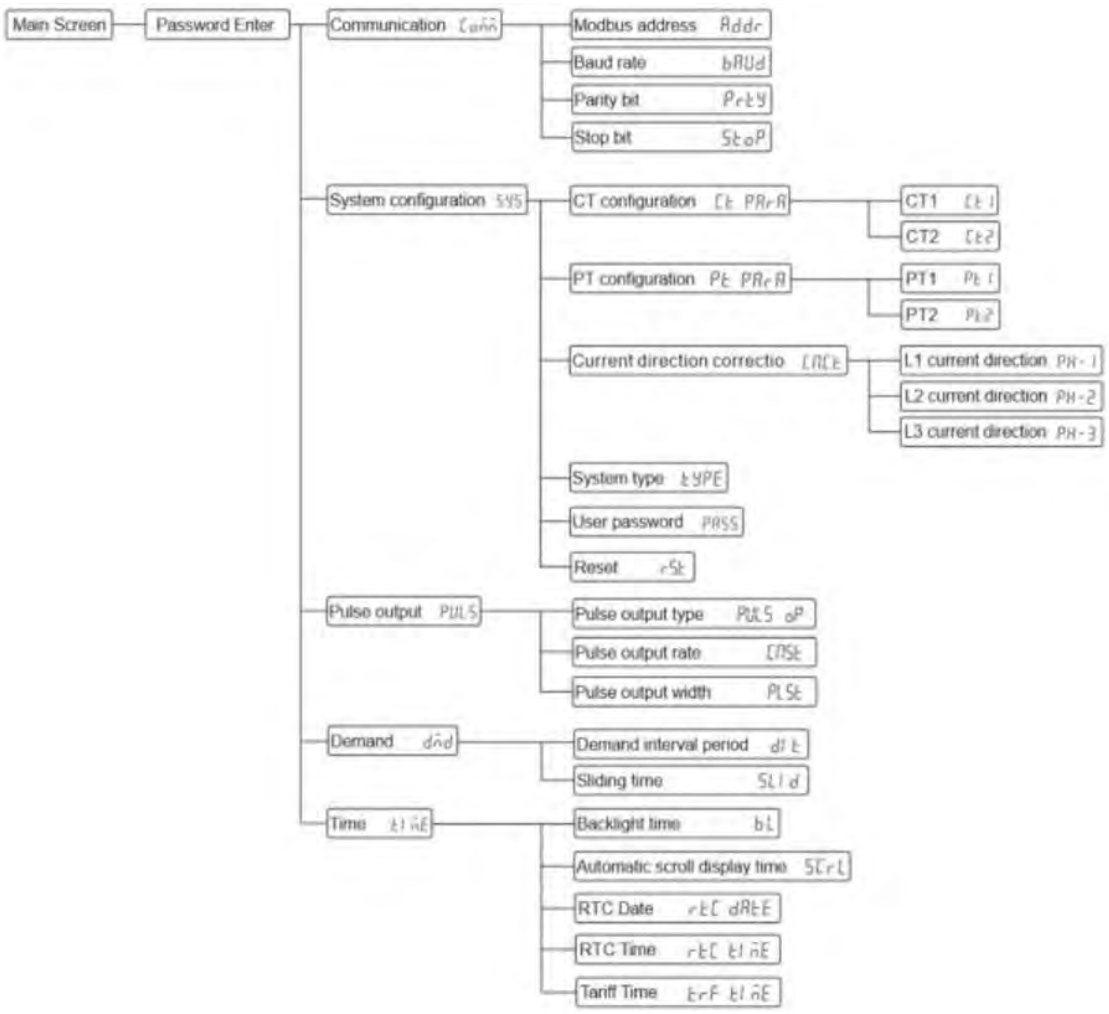
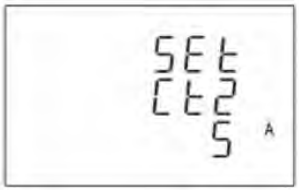


Figure 2: The logical diagram of the parameter setting menu

Set CT class parameters

CT parameters include: primary side value (CT1) and secondary side value (CT2) of the current transformer.

1. Parameter Setting Menu	
	After entering the **'Parameter Setting Menu' screen,** select the setting screen and then **press Button 4 for 3 seconds** to enter the system class parameter setting screen.
	Select the enter the CT setting screen and then **press Button 4 for 3 seconds** to enter class parameters setting screen**.**
2.1 Setting CT1	
	**CT1 setting range:** 1 to 9999A, default is 5A. **Press Button 4 for 3 seconds** to enter the setting state, and the digit of the setting becomes the flashing state. **Click Button 1** to return to the previous level setup menu.
	**Click Button 2** to increase **or Button 3** to decrease the number of set bits. **Click Button 4** to move the set bits to the right. **Press Button 4 for 3 seconds** to confirm the setting. The power meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters.
2.2 Setting CT2	
	CT2 can be set: 1A or 5A, default is 5A. **Press Button 4 for 3 seconds** to enter the setting state, and the digit of the setting becomes the flashing state. **Click Button 1** to return to the previous level setup menu.
	**Click Button 2 or 3** to select the CT2**.** **Press Button 4 for 3 seconds** to confirm the setting. The power meter will save the setting value and exit the setting state**.** **Click Button 1** to exit the setting state without saving the setting parameters.

Set PT class parameters

PT parameters include: primary side value (PT1) and secondary side value (PT2) of the voltage transformer.

1. Parameter Setting Menu	
	After entering the **'Parameter Setting Menu' screen,** select the setting screen and then **press Button 4 for 3 seconds** to enter the system class parameter setting screen.
	Select the enter the CT setting screen and then press Button 4 for 3 seconds to enter class parameters setting screen**.**
2.1 Setting PT1	
	**PT1 setting range:** 30 to 500000V, default is 230V. **Press Button 4 for 3 seconds** to enter the setting state, and the digit of the setting becomes the flashing state. **Click Button 1** to return to the previous level setup menu.
	**Click Button 2** to increase or **Button 3** to decrease the number of set bits. **Click Button 4** to move the set bits to the right. **Press Button 4 for 3 seconds** to confirm the setting. The power meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters.
2.2 Setting PT2	
	**PT2 setting range:** 30 to 500V, default is 230V. **Press Button 4 for 3 seconds** to enter the setting state, and the digit of the setting becomes the flashing state. **Click Button 1** to return to the previous level setup menu.
	**Click Button 2 to increase or Button 3** to decrease the number of set bits. **Click Button 4** to move the set bits to the right. **Press Button 4 for 3 seconds** to confirm the setting. The power meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters.

Set system class parameters

System class parameters include: system current direction correction, system type, user password, reset max. demand or historical electricity consumption log.

1. Parameter Setting Menu

After entering the **'Parameter Setting Menu'** screen, select the setting screen, and then **press Button 4 for 3 seconds** to enter the **'Demand class parameter'** setting screen.

2. Setting system current direction correction

Press Button 4 for 3 seconds to enter the next level setting menu.

Click Button 2 or Button 3 to scroll the page and select the next setting interface.

Click Button 1 to return to the previous level setup menu.

2.1. Set L1 current direction correction

L1 current direction correction can be set:
forward or reverse, default is forward.

Click Button 3 to scroll down to the Settings screen of L2 current direction correction.

Press Button 4 for 3 seconds to enter the setting state, and the character of the setting becomes the flashing state.

Click Button 1 to return to the previous level setup menu.

Click Button 2 or Button 3 to select the current direction.

Press Button 4 for 3 seconds to confirm the setting. The power meter will save the setting value and exit the setting state.

Click Button 1 to exit the setting state without saving the setting parameters.

Note: Frd represents forward, rEU represents reverse.

2.2. Set L2 current direction correction

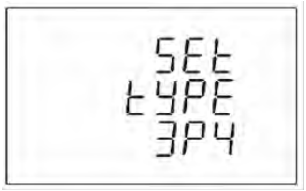
L2 current direction correction can be set:
forward or reverse, default is forward.

Click Button 3 to scroll down to the Settings screen of L3 current direction correction.
Press Button 4 for 3 seconds to enter the setting state, and the character of the setting becomes the flashing state.

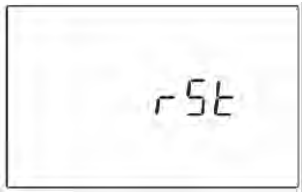
Click Button 1 to return to the previous level setup menu

Set system class parameters

2.2. Set L2 current direction correction	
	**Click Button 2 or Button 3** to select the current direction. **Press Button 4 for 3 seconds** to confirm the setting. The power meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters. **Note:** Frd represents forward, rEU represents reverse.
2.3. Set L3 current direction correction	
	**L3 current direction correction can be set:** forward or reverse, default is forward. **Click Button 2** to scroll down to the Settings screen of L2 current direction correction. **Press Button 4 for 3 seconds** to enter the setting state, and the character of the setting becomes the flashing state. **Click Button 1** to return to the previous level setup menu.
	**Click Button 2 or Button 3** to select the current direction. **Press Button 4 for 3 seconds** to confirm the setting. The power meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters. **Note:** Frd represents forward, rEU represents reverse.

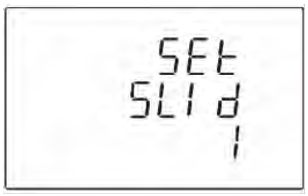
2. Set system type	
	The system type supported by the meter includes the four types: 1P2W, 2P3W, 3P3W, 3P4W, default is 3P4W. **Press Button 4 for 3 seconds** to enter the setting state, the character of the setting becomes the flashing state. **Click Button 2 or Button 3** to scroll the page and select the next setting interface. **Click Button 1** to exit the **'Setting menu'** and return to the previous setting screen.
	**Click Button 2 or Button 3** to select the system type. **Press Button 4 for 3 seconds** to confirm the setting. The meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters.
3. Setting user password	
	User password setting range:0000 to 9999, default is 0000. **Press Button 4 for 3 seconds** to enter the setting state, and the digit of the setting becomes the flashing state. **Click Button 2 or Button 3** to scroll the page and select the next setting interface. **Click Button 1** to exit the **'Setting menu'** and return to the previous setting screen.
	**Click Button 2** to increase or **Button 3** to decrease the number of set bits. **Click Button 4** to move the set bits to the right. **Press Button 4 for 3 seconds** to confirm the setting. The meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters.

Set demand class parameters

4. Reset Max. demand or historical electricity consumption log	
	**Press Button 4 for 3 seconds** to enter the reset state. **Click Button 2 or Button 3** to scroll the page and select the next setting interface. **Click Button 1** to exit the setting menu and return to the previous setting screen.
	**Click Button 2 or Button 3** to select the reset options. **Press Button 4 for 3 seconds** to confirm the reset. The meter will reset the selected option and exit the reset state. **Click Button 1** to exit the reset state without resetting the selected option.
Note: LEG is mean: Historical monthly and historical daily consumption of energy (this option is supported only for the multi-tariff meter). dnd is mean: Max. demand.	

Demand class parameters include: **'Demand interval period'** and **'sliding time'.**

1. Demand class parameters menu	
	After entering the **'Parameter Setting Menu'** screen, select the setting screen, and then **press Button 4 for 3 seconds** to enter the **'Demand class parameter'** setting screen.
2. Setting demand interval	
	Demand interval period can be set: 0 to 60, unit is minute, default is 60 minutes. **Press Button 4 for 3 seconds** to enter the setting state, and the digit of the setting becomes the flashing state. **Click Button 2 or Button 3** to scroll the page and select the next setting interface. **Click Button 1** to return to the previous level setup menu. Note: If the demand interval period is set to 0 minutes, then the demand is updated every second.

	**Click Button 2** to increase or **Button 3** to decrease the number of set bits. **Click Button 4** can be moved the set bits to the right. **Press Button 4 for 3 seconds** to confirm the setting. The meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters.
3. Setting sliding time	
	**Sliding time setting range:** 1 to (demand interval period), unit is minutes, default is 1 minute. **Press Button 4 for 3 seconds** to enter the setting state, and the digit of the setting becomes the flashing state. **Click Button 2 or Button 3** to scroll the page and select the next setting interface. **Click Button 1** to return to the previous level setup menu. **Note:** The slide time has no effect when the demand interval period is set to 0.
	**Click Button 2** to increase or **Button 3** to decrease the number of set bits. **Click Button 4** can be moved the set bits to the right. **Press Button 4 for 3 seconds** to confirm the setting. The meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters.

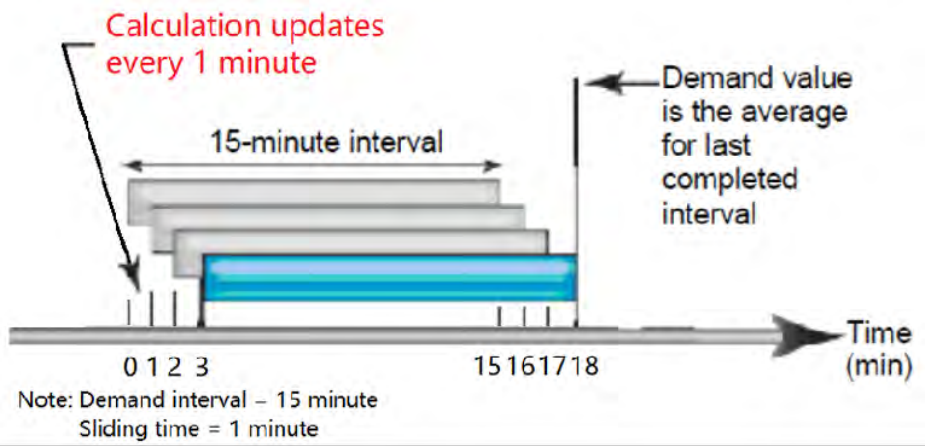


Figure 3: Diagram of sliding block interval calculation method

Set daily and monthly freeze

The meter can monitor time in real time, when the time reaches the set daily and monthly freezing time and date, the meter will automatically freeze the daily and monthly electricity consumption. Setting daily and monthly freeze allows electricity consumption to be viewed for the **'Billing Cycle'**.

How to set daily freeze time and monthly freeze date

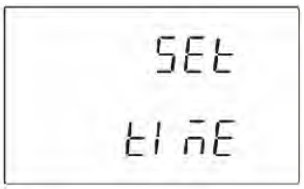
Open the **CBi Home App**, to find the meter to be set up, click on the meter to enter the **'Meter interface'**, click the **'Setting'** button in the bottom right corner of the screen to enter the setup interface, click **'Frozen Set'** on the setting interface, select the **'Month freezing date'** and 'Day freezing time' to be set, click the **'Confirm'** button to set up.

Note:

1. The default month freezing date of the meter is 1st and the day freezing time is 00:00.
2. After setting the freeze date and time, the meter automatically sets data on monthly and daily consumption and then reaccumulates.

Time class parameters include: backlight time, automatic scroll display time, System time (RTC) and Tariff time.

1. Parameter Setting Menu



After entering the **'Parameter Setting Menu**' screen, select the setting screen and then **press Button 4 for 3 seconds** to enter the time class parameter setting screen.

2. Setting backlight time

Backlight time can be set: on, off, 5, 10, 30, 60, 120 minutes, default is 60 minutes.

Press Button 4 for 3 seconds to enter the setting state, the character flashing is in setting state.

Click Button 2 or Button 3 to scroll the page and select the next setting interface.

Click Button 1 to return to the previous level setup menu.

Note:
1. The character **'on'** means the backlight is always on, and **'off'** means the backlight is always off.

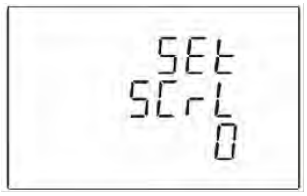
Click Button 2 or Button 3 to select the backlight time.

Press Button 4 for 3 seconds to confirm the setting.
The meter will save the setting value and exit the setting state.

Click Button 1 to exit the setting state without saving the setting parameters.

Note: that means is on. that means is off.

3. Setting automatic scroll display time



Automatic scroll display time set range: 0 to 60 seconds, default is 0 second.

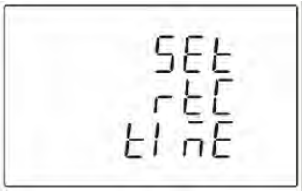
Press Button 4 for 3 seconds to enter the setting state, and the digit of the setting becomes the flashing state.

Click Button 2 or Button 3 to scroll the page and select the next setting interface.

Click Button 1 to return to the previous level setup menu.

Note:
Automatic scroll display time is 0, means no automatic scrolling display.

Description display screen

	**Click Button 2** to increase or **Button 3** to decrease the number of set bits. **Click Button 4** can be moved the set bits to the right. **Press Button 4 for 3 seconds** to confirm the setting. The power meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters.
4. Setting date of RTC (Only multi-tariff meter support this menu)	
	**Press Button 4 for 3 seconds** to enter the setting state, and the digit of the setting becomes the flashing state. **Click Button 2 or Button 3** to scroll the page and select the next setting interface. **Click Button 1** to return to the previous level setup menu.
	**Click Button 2** to increase or **Button 3** to decrease the number of set bits. **Click Button 4** can be moved the set bits to the right. **Press Button 4 for 3 seconds** to confirm the setting. The meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters.
5. Setting system time (RTC) (Only multi-tariff meter support this menu)	
	**Press Button 4 for 3 seconds** to enter the setting state, and the digit of the setting becomes the flashing state. **Click Button 2 or Button 3** to scroll the page and select the next setting interface. **Click Button 1** to return to the previous level setup menu.
	**Click Button 2** to increase or **Button 3** to decrease the number of set bits. **Click Button 4** can be moved the set bits to the right. **Press Button 4 for 3 seconds** to confirm the setting. The meter will save the setting value and exit the setting state. **Click Button 1** to exit the setting state without saving the setting parameters.

6. View tariff time (Only multi-tariff meter support this menu)	
	View menu for tariff information. **Press Button 4 for 3 seconds** to enter the screen to view tariff information. **Click Button 2 or Button 3** to scroll the page and select the next setting interface. **Click Button 1** to return to the previous level setup menu. Note: This menu cannot be set as it is 'view only.'
	The screen for displaying the tariff information. The number displayed in the first line of the screen represents the sequence number of the selected starting time point. The meter supports 8 starting time points and 4 tariff segments. The character displayed in the second line of the screen represents the current tariff is T1. The meter supports 4 tariff segments. (T1 to T4). The character displayed in the third line of the screen represents the starting time of the tariff segment (format is hours: minutes). FEE1 That means tariff segment is tariff 1 (T1). FEE2 That means tariff segment is tariff 2 (T2). FEE3 That means tariff segment is tariff 3 (T3). FEE4 That means tariff segment is tariff 4 (T4).
	Click Button 1 scroll the page and select the next screen. **Press Button 1 for 3 seconds** to exit the setting state without saving the setting parameters. Note: If FEE0 is displayed, the time segment is invalid and does not belong to any tariff.

Appendix A – Failure code reference table

Appendix A – Failure code reference table

No.	Fault code	Fault description
1	**Err-01**	The battery voltage is too low
2	**Err-02**	The Wi-Fi module fault
3	**Err-03**	1. The battery voltage is too low 2. The Wi-Fi module fault

Appendix B – Alarm prompt comparison table

No.	The action of the meter	Alarm definition
1	LCD display alarm icon 	Occurs over voltage, over current or power exceeds the limit

Cannot discover the meter on the App?

1. **Ensure that the Wi-Fi router is 2.4 GHz and connected to the internet; and that the smartphone and meter connects to the same Wi-Fi.**

   Ensure that the Wi-Fi password is correct.

2. **Refer to the FAQs on the website for further troubleshooting:**
   www.cbi-lowvoltage.co.za/faqs

3. **Join our CBI Forum for further throubleshooting and support:**
   https://forum.cbi.co.za/

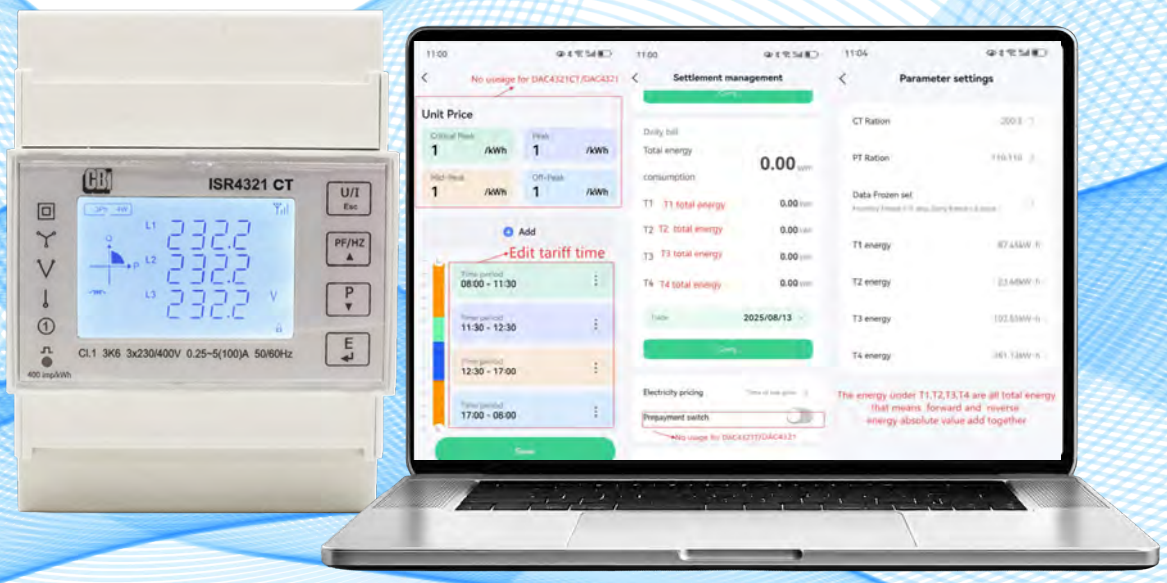
4. **Subscribe to CBI's YouTube channel for instruction videos:**
   CBI-electric: low voltage

5. **Ask our chatbot CBI-e for assistance on the Intuitive Range:**
   www.cbi-lowvoltage.co.za

Intuitive

Three-Phase Multifunction CT Wi-Fi meter

Your next step to Wi-Fi automation



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Intuitive

Three-Phase Multifunction CT Wi-Fi Meter
0.25 ~ 5(6)A Rated Meter

Instruction Manual