



CHINT 正泰

让电尽其所能

CHINT Power PV Inverter guide

2023

智慧能源解决方案提供商

1

CHINT – Empower the world

1. PV Inverter
2. Power limit solution
3. Monitoring system

CHINT PV Inverter Portfolio For EU Market

CHINT

正泰电源

Single Phase String Inverter



2 / 3 kW



3 / 4 / 4.6 / 5 / 6 kW

Three Phase String Inverter



6 / 10 / 15 kW



20 / 25 / 30 kW



50 / 60 kW



110 / 120 kW 1100 Vdc



275 kW 1500 Vdc

Residential Hybrid Storage



4.6 / 5 / 6 kW
Single Phase



5 / 6 / 8 / 10 kW
Three Phase



5 / 10 / 15 / 20 kWh LV (48V) battery
5 / 10 / 15 / 20 kWh HV (100-400V) battery

2-15kW Inverter PV adaptability

CHNT

正泰电源

1 MPPT



CPS SCA 2KTL-S
CPS SCA 3KTL-S

2 MPPT



CPS SCA3KTL-SM
CPS SCA4KTL-SM
CPS SCA4.6KTL-SM
CPS SCA5KTL-SM
CPS SCA6KTL-SM

- 2-6kW single phase
- 6-16kW three phase
- Max. Input PV Current: 13A
- DC/AC Overload: 150%
- Local commissioning: Built in Bluetooth
- Cooling: Natural cooling
- IP65 waterproof and dustproof

6-15kW 2 MPPT



CPS SCA6KTL-T
CPS SCA10KTL-T
CPS SCA15KTL-T

20-30kW Inverter PV adaptability

CHNT

正泰电源

20-30kW 2 MPPT



CPS SCA20KTL-T

CPS SCA25KTL-T

CPS SCA30KTL-T1

- DC1000V
- Max. Input PV Current: 13A
- DC/AC Overload: 150%
- Local commissioning: Built in Bluetooth
- Cooling: Cooling fans
- IP65 waterproof and dustproof, C5 anti-corrosion

50/60/100/120 kW String inverter PV adaptability

CHNT

正泰电源

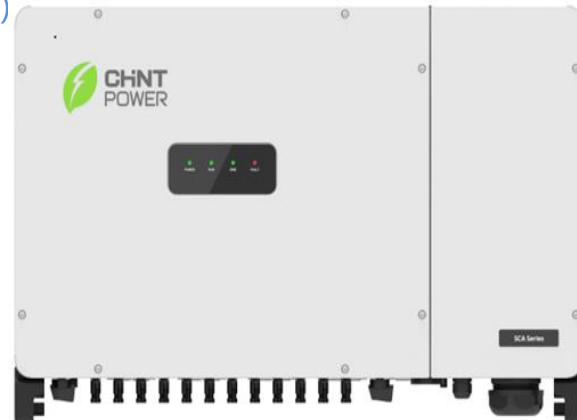
50/60kW-1100Vdc-400Vac-4MPPT



- Maximum efficiency: 99.0%
- Max. Input PV Current: 18A
- Protection: SPD (AC type2, DC type2)
- DC/AC ratio can be achieved 1.5;
- Support LVRT and HVRT
- Local commissioning: Built in Bluetooth
- Non LCD Design (Wifi+APP)
- Cooling: Smart Fan cooling

110kW-1100Vdc-400Vac-9MPPT

120kW-1100Vdc-400Vac-12MPPT



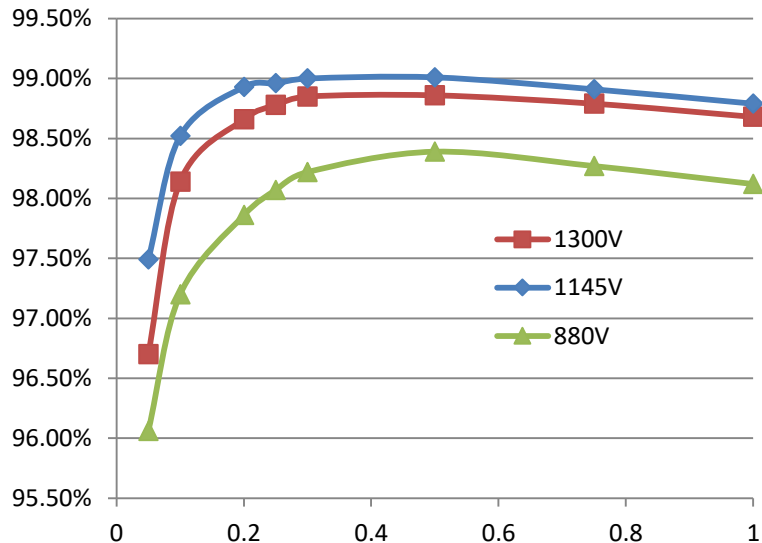
275kW String inverter

CHNT

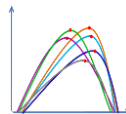
正泰电源



275kW-1500Vdc-800Vac-12MPPT



String monitor



12 MPPT



IP66&C5

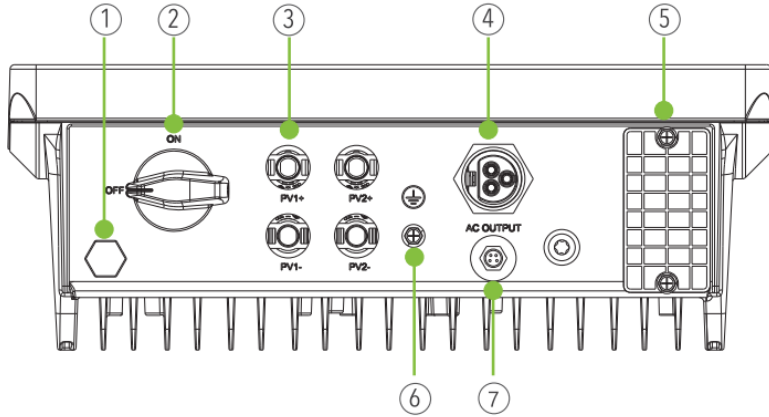


Class 2 SPD



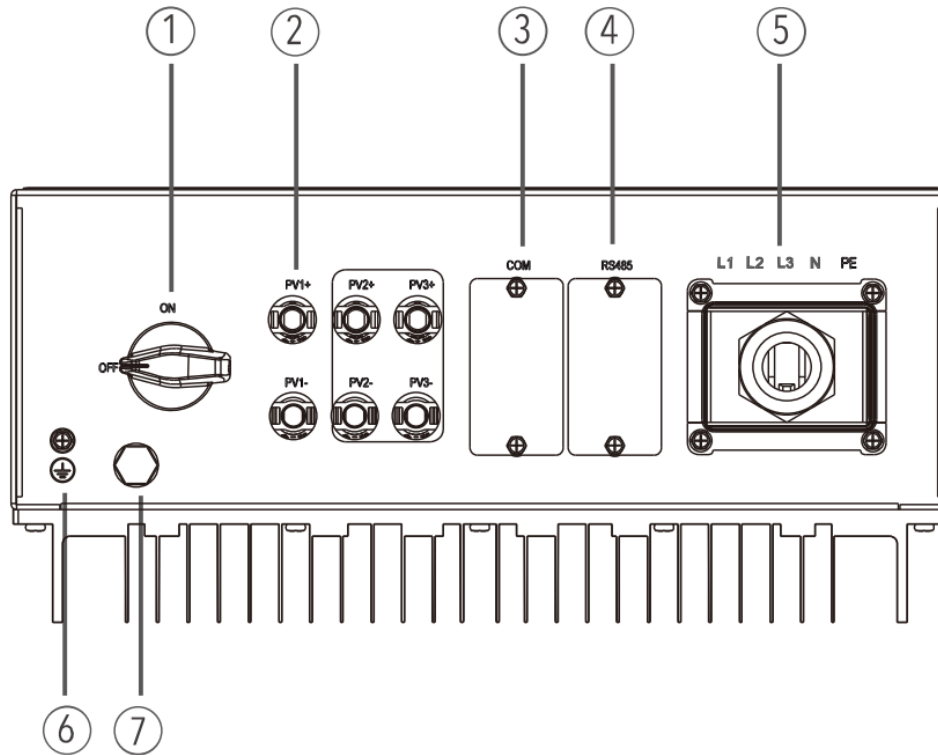
Max efficiency 99%

Single phase inverter external



1. Vent valve
2. DC isolation breaker
3. PV Strings connector
4. AC output connector
5. Communications interface
6. External Protection Ground interface
7. CT

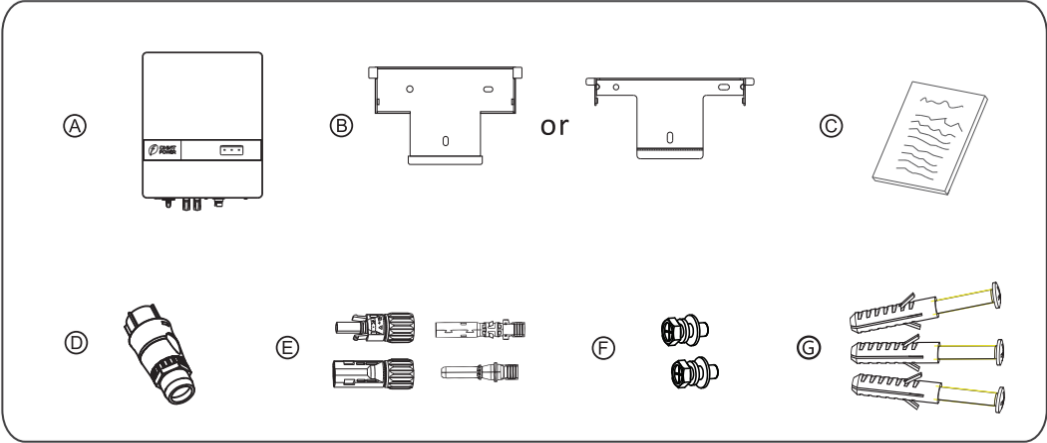
Three phase inverter external



1. DC isolation breaker
2. PV strings connectors
3. Communication interface
4. RS485
5. AC output connectors
6. External Protection Ground interface
7. Vent valve

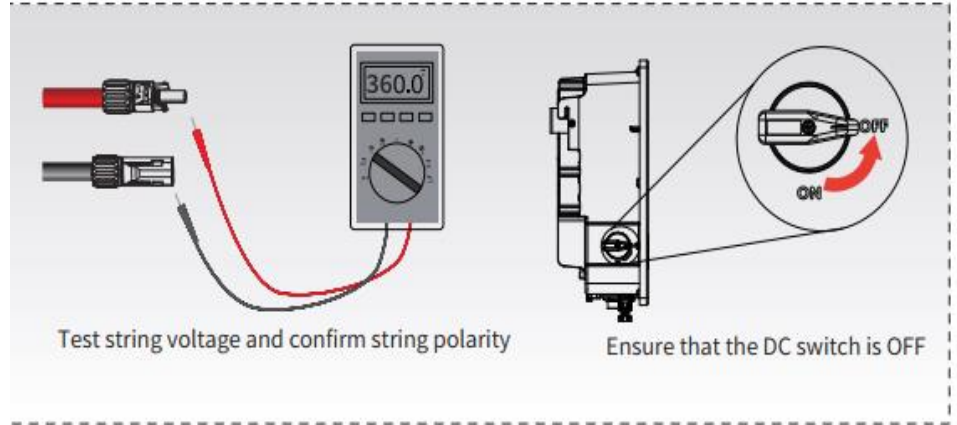
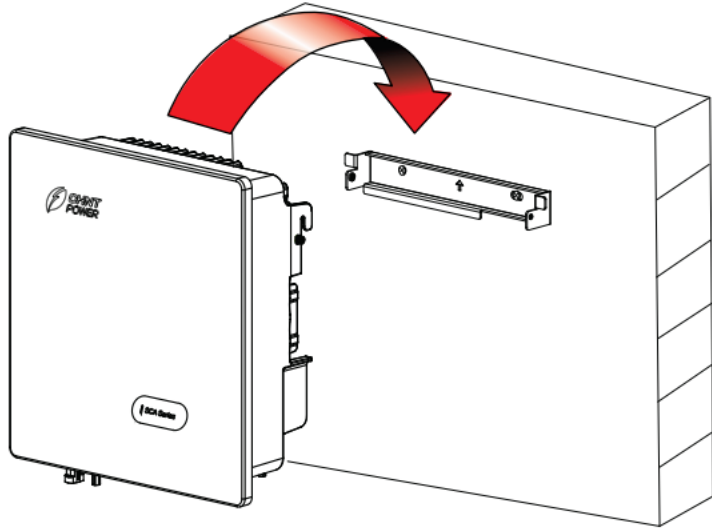
CPS Single phase inverter Package

The deliverables in the fittings of inverter

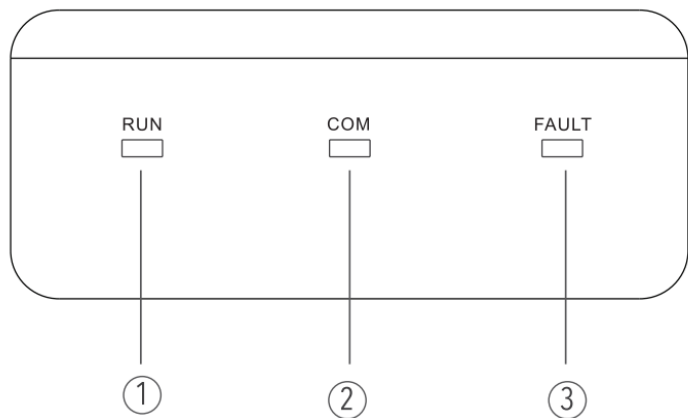


A	The inverter
B	Rear panel
C	File package
D	AC output connector
E	DC terminal connector group
F	Screws
G	Expansion screws (reserved for tightening the support and rear panel)

Install the inverter



Install the inverter



- ① Grid Indicator
- ② COM Indicator
- ③ Warning Indicator

LED Indicator	status	descriptions
Grid Indicator	blink	Power grid abnormal, and can't meet the requirements for inverter grid-connecting to generate power.
	on	When grid-on, the blink (every cycle last 30s) of Grid Indicator means loading amounts: quantity of blink means power size, and after that the Indicator keeps ON. When less than 20% rated power, blink one time; 20%~40%% rated power, blink twice every 30s; 40%~60% rated power, blink three times every 30s; 60%~80% rated power, blink four times every 30s; 80%~100%% rated power, blink five times every 30s.
COM Indicator	blink	Communications data transmission is underway.
	off	No external communications is connected or no communications data transmission.
Warning Indicator	on/blink	Refer LED status in warning table.
	off	No warning.

Inverter frequency problem due to installation

Description	Error Type
Non LED light up	DC reversed, Pull out the DC,check the plority of DC string.
Grid AC over voltage	Check AC voltage value, change the protect value
Grid AC under voltage	Check AC voltage value, change the protect value
Grid AC absent	Loss AC,check AC voltage
Grid AC over frequency	Check AC frequency value, change the protect value
Grid AC under frequency	Check AC frequency value, change the protect value
PV insulation abnormal	Cable damage,check the voltage to ground

2

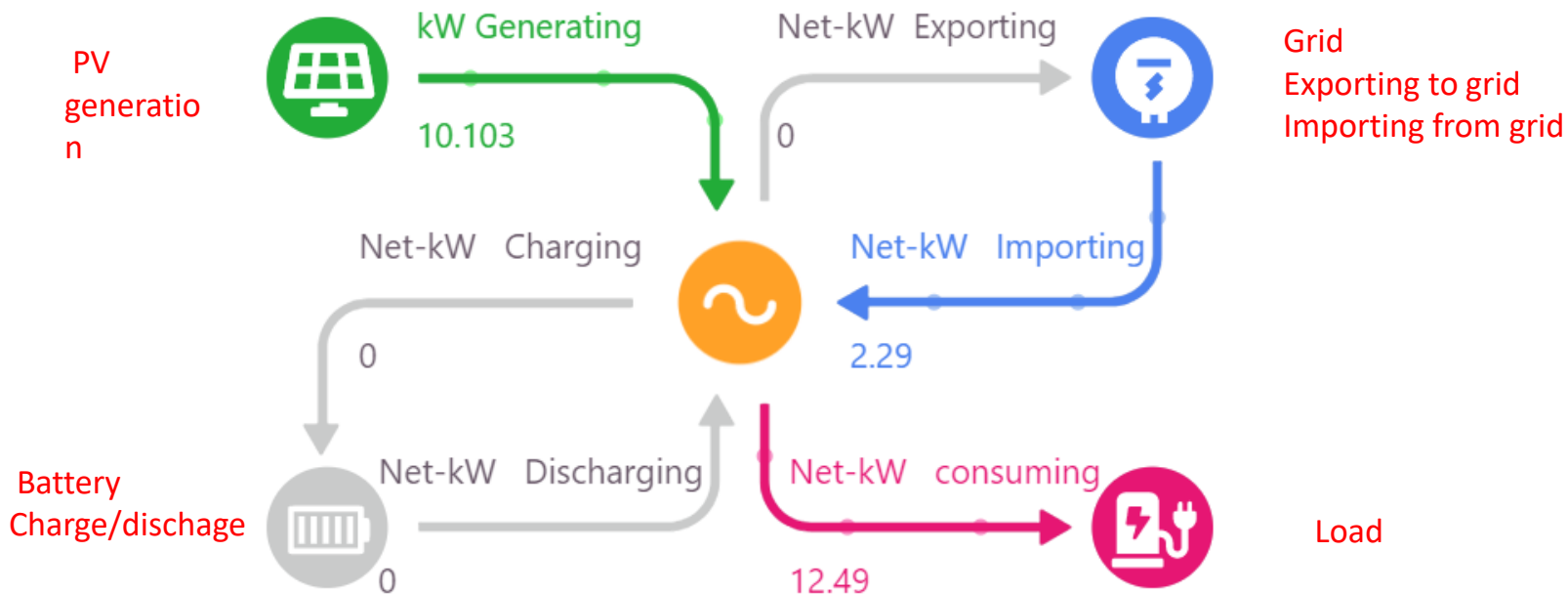
CHINT – Empower the world

1. PV Inverter and Residential ESS
- 2. Power limit solution**
3. Monitoring system

Power limit function

Application: 1、The utility grid do not allow power to feed into grid

2、Smart load monitor



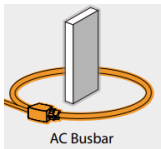
Accessories of power limit solution

Solution	Applicable model	Power limit product model	Picture	Qty
CT	CPS SCA1-6KTL-S(SM)/EU	CT24-B-100ML（50A/50mA）		1
Three phase smart meter	CPS SCA6-25KTL-T/EU CPS SCA30KTL-T1/EU	DTSU666 3*230/400V 5(80)A 4P		1
Three phase smart meter+CT	CPS SCA50-60KTL-T/EU	DTSU666 3*230/400V 1.5(6)A 4P		1
		300A/5A		3
One site with one inverter				

Accessories of power limit solution

CHNT 正泰

让电尽其所能

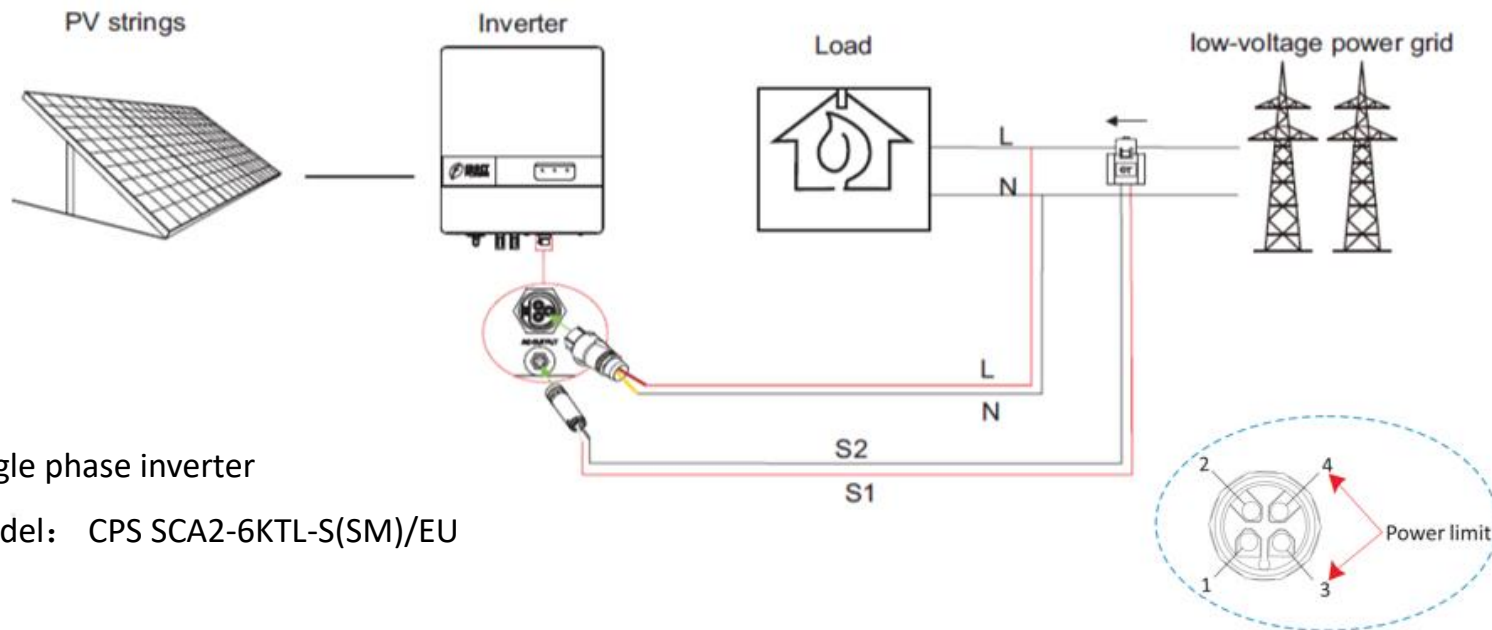
Solution	Applicable model	Power limit product model	Picture	Qty
SE-FC2 series	CPS SCA6-25KTL-T/EU CPS SCA30KTL-T1/EU CPS SCA50-60KTL-T/EU	SE-FC2 series box (Flex gateway ,meter,breaker)		1
		CT 5000A		3
Anti-reflux Box	CPS SCA110KTL-DO/EU	Anti-reflux Box(IP65 box Smart meter,controller)		1
		CT base on the site (xxA/5A)		3

One site with multiple inverter

Solution 1-CT

CHNT 正泰

让电尽其所能



Single phase inverter

Model: CPS SCA2-6KTL-S(SM)/EU

CT Provide by CPS 50A-50mA CT Ratio 1000:1

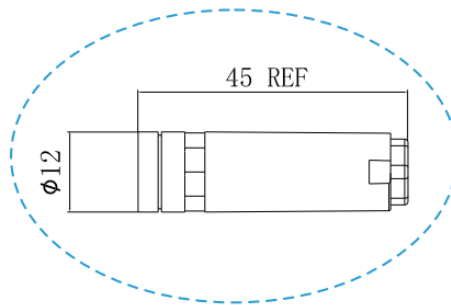


PIN	Description	Colour
3	CT-/GND	Black cable
4	CT+	White cable

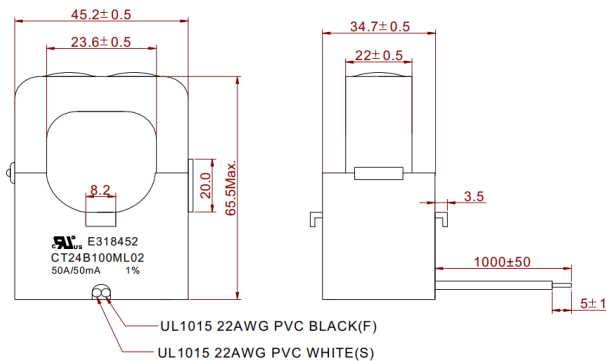
Solution 1-CT

CHNT 正泰

让电尽其所能

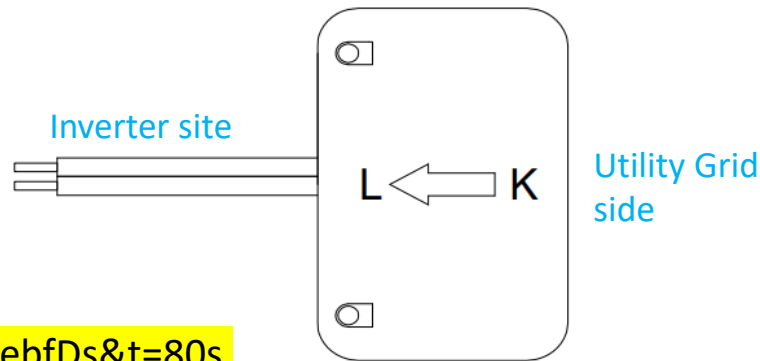


lateral view



UL1015 22AWG PVC BLACK(F)

UL1015 22AWG PVC WHITE(S)

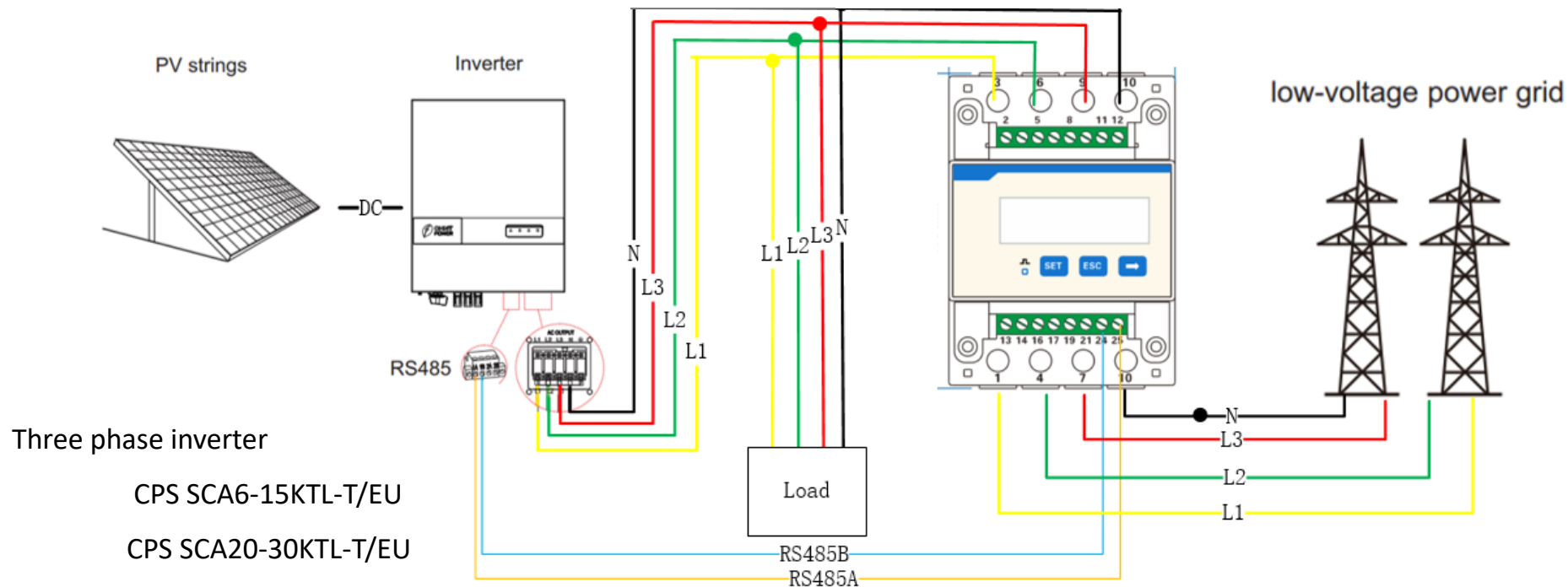


Setting Video: <https://www.youtube.com/watch?v=RRY81lebfDs&t=80s>

Solution 2-Three phase Smart meter

CHNT 正泰

让电尽其所能



Three phase inverter

CPS SCA6-15KTL-T/EU

CPS SCA20-30KTL-T/EU

Requirement: System current less than 80A (The meter is 80A)

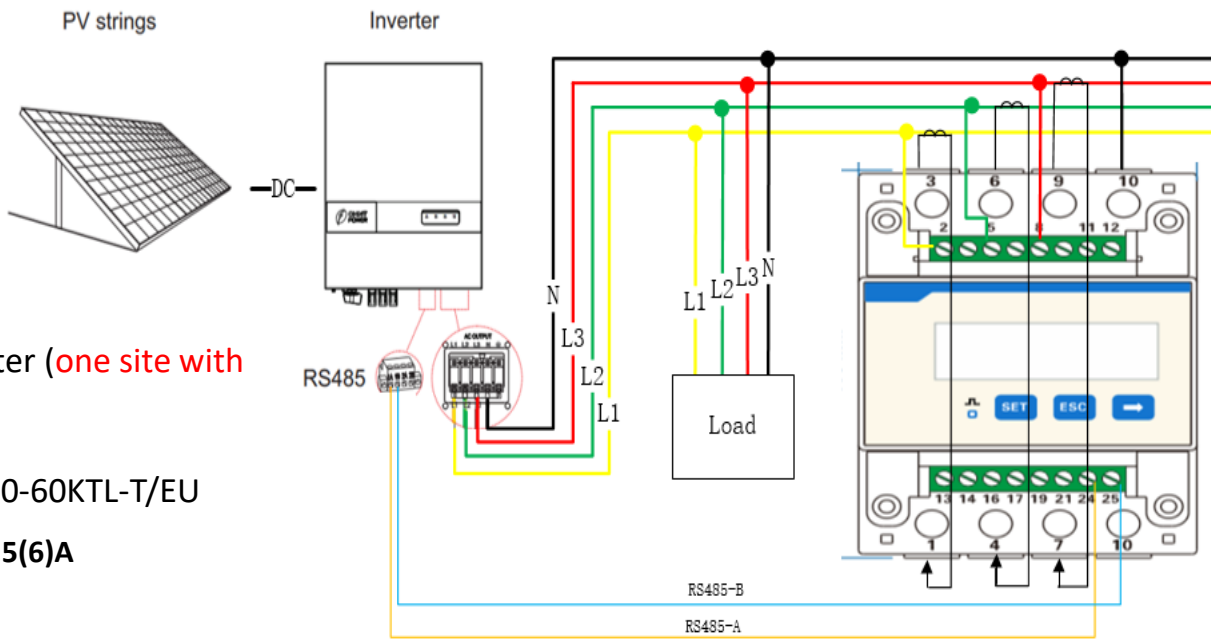
Three phase Meter:DTSU666-5(80)A

Solution3-Smart meter+CT - Three phase inverter

CHNT 正泰

让电尽其所能

low-voltage power grid



Three phase inverter (one site with
one inverter)

Model: CPS SCA50-60KTL-T/EU

Meter: DTSU666-1.5(6)A

CT : 300/5A

Portal

Website : <https://solar.chintpower.com>

CHNT

正泰电源



FlexOM Portal

 Email

 Password

[Forgot your password?](#)

Sign in



Chint Connect

让电尽其所能



Smart meter setting

Ct: actual ratio (keep it as 1 if no CT used)

Prot: N1 (if N1 is invalid, please set N2)

bRud: 9600

Addr: 1

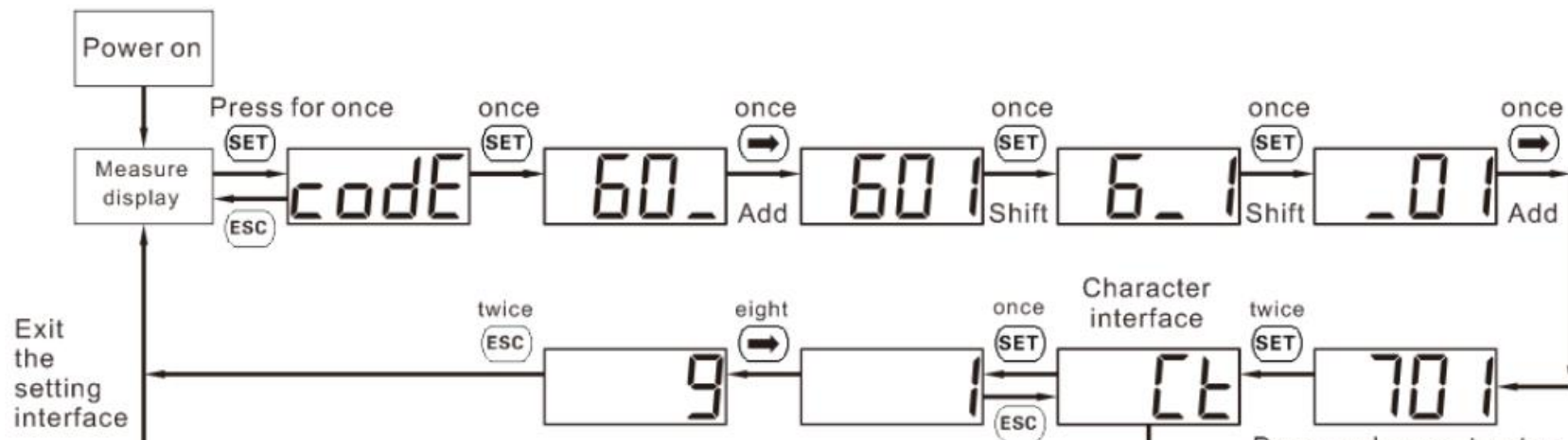
nEt: n.34(3 phase4 wire system)

Meter setting Video:

<https://www.youtube.com/watch?v=hnyjbwKzmjo&t=25s>

Smart meter setting step1: CT Ratio

Press and hold “SET” to “code”, modify the number to “701”, setting “CT”



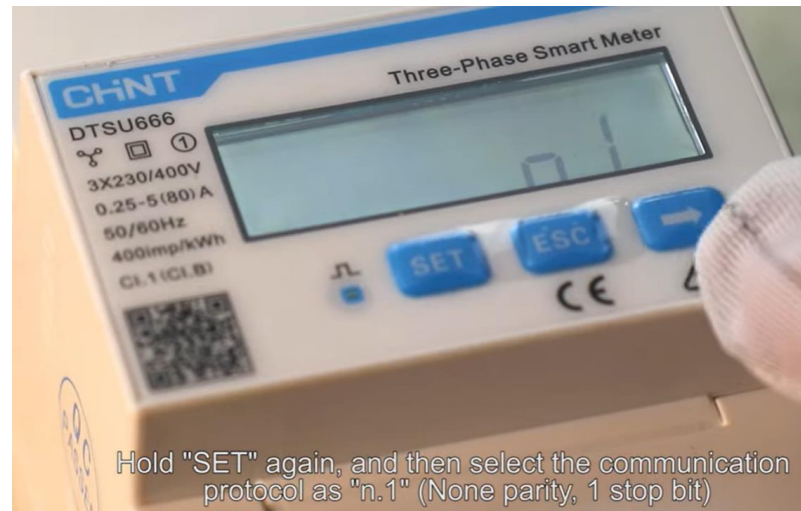
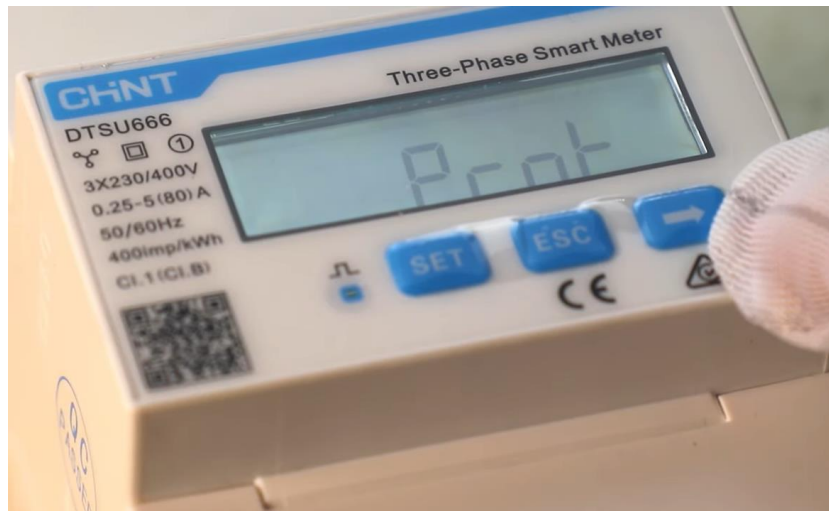
Smart meter setting step2: Setting protocol

CHNT 正泰

让电尽其所能

Press and hold "SET" to "code", modify the number to "701", setting "Prot" protocol to "n1"

Prot



Hold "SET" again, and then select the communication protocol as "n.1" (None parity, 1 stop bit)

Smart meter setting step3: Setting Address

Press and hold “SET” to “code”, modify the number to “701”, setting “Addr” address information, “Addr” to “1”, “bAud” to “9600”

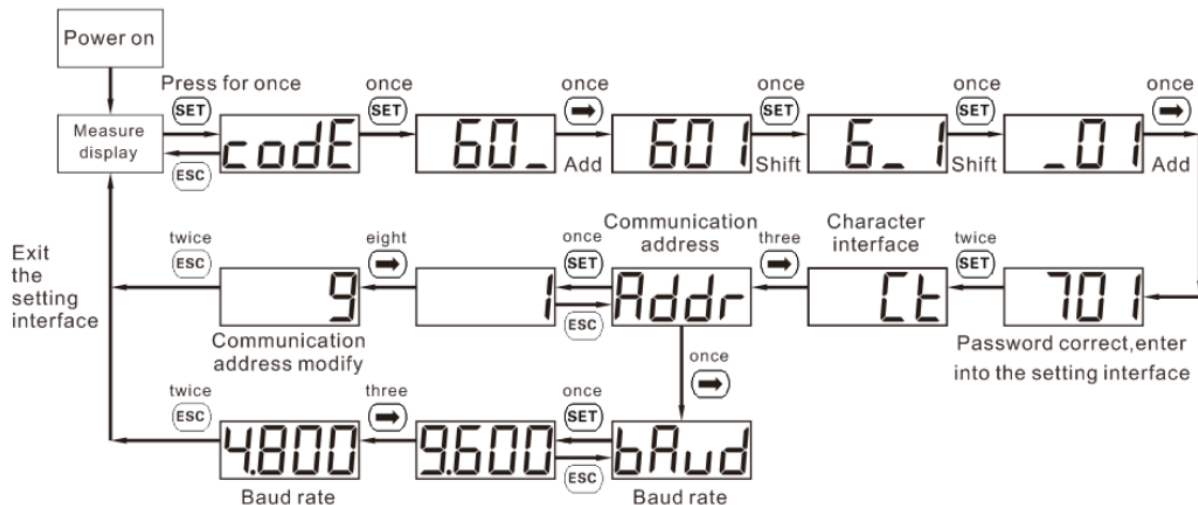


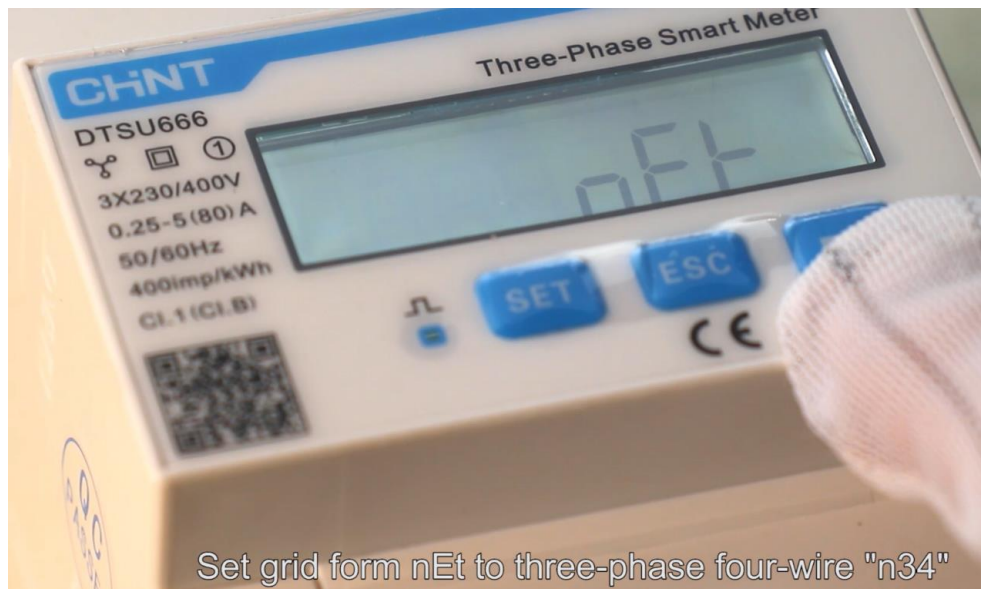
Figure 4 Setting examples for communication address and Baud Rate

Smart meter setting step4: Setting nET

CHNT 正泰

让电尽其所能

Press and hold "SET" to "code", modify the number to "701", setting "nET" to "n34"



Set grid form nEt to three-phase four-wire "n34"



3

CHINT – Empower the world

1. PV Inverter and Residential ESS
2. Power limit solution
3. **Monitoring system**

Monitoring solution

CHNT 正泰

让电尽其所能

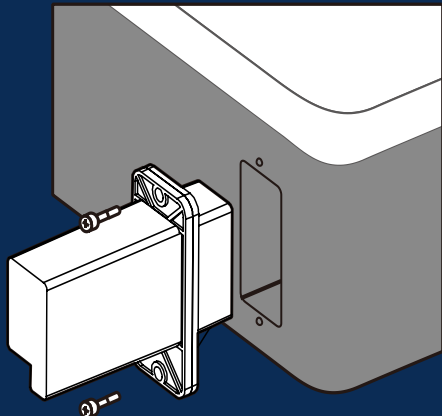


Solution	Applicable model	Application Scenario	Note
Wifi dongle	2-110kW inverter (Standard 110kW different dongle)	Standard in the inverter package There is Wifi signal on site 1 inverter with one dongle	Collecting all data into one site
4G dongle (Optional)	2-110kW inverter (110kW different dongle)	There is not Wifi signal, but 4G signal on site 1 inverter with one dongle	Collecting all data into one site
Wifi+Ethernet dongle	2-110kW inverter (110kW different dongle)	Ethernet cable connect to router	
Flex Gateway(Ethernet)	110-275kW inverter	Multiple Inverter connect by RS485 Ethernet cable connect to router	IP20, install in the inverter
Flex Gateway+4G	110-275kW inverter	Multiple Inverter connect by RS485 4G connect to cloud	IP20, install in the inverter
SE-FC2	2-6kW single phase inverter 5-275kW three phase inverter	Flex Gateway standard Flex Gateway+4G optional	IP65 outdoor
PLC communication		PLC+Ethernet+SmartLogger	AC220V power source

Monitor——Quick module

CHNT

正泰电源



WiFi Module, 4G optional



Support off line data store 5 days



Easy plug-in connection with the inverter for easy installation



Flexible configuration, optional 4G module



Data storage throughout the PV life cycle



APP or Web can monitor data

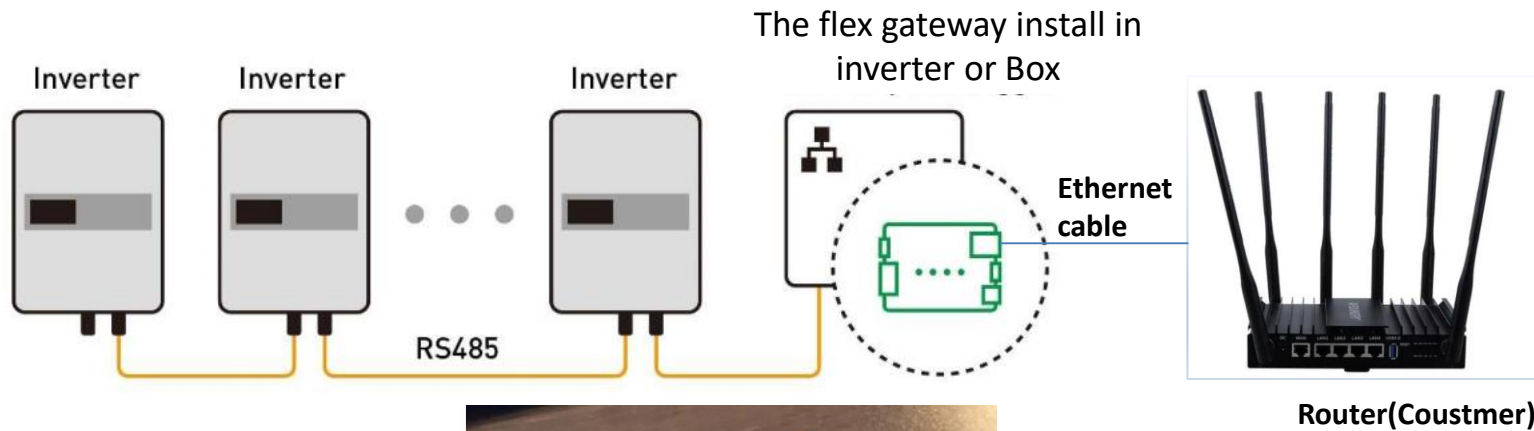


Remote parameter setting and software upgrade

Monitoring solution-Flex gateway

CHNT 正泰

让电尽其所能



Chint remote monitoring system

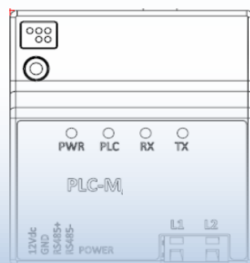
Communication box -- PLC+Flex gateway+datalogger

CHINT 正泰

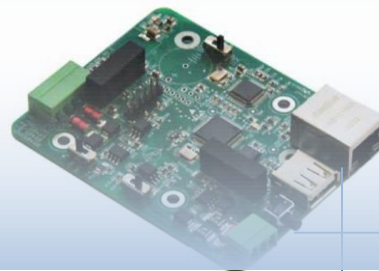
让电尽其所能



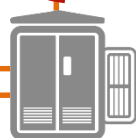
PLC-M module
Get the PLC
information Convert
to the 485 signal



Flex gateway (Ethnet card)
Connect to router
remote monitor inverter in
CHINT platform
Another channel RS485 to
datalogger



Data logger
Collect more data
Convert communication
protocol (TCP, IEC104)
Control multiple inverters



Router(C
oustmer)



Chint remote monitoring
system

Portal and APP

CHNT 正泰

让电尽其所能



Application

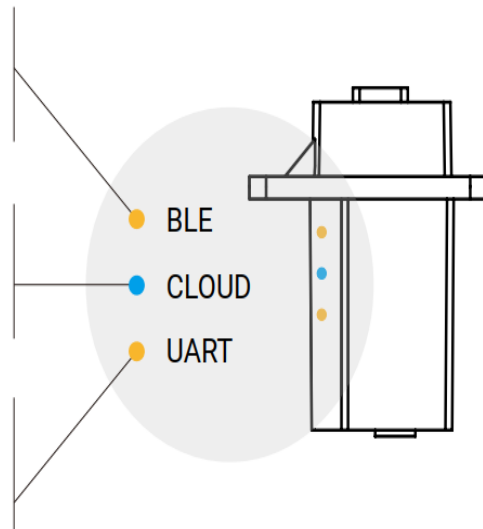
CHNT 正泰

让电尽其所能



Chint Connect

- | | | |
|-----------|--|---|
| Light on | | APP is connected to the gateway |
| Light off | | APP is disconnected from the gateway |
| Light on | | Gateway is connected to the server |
| Light off | | Gateway is disconnected from the server |
| Light on | | Inverter is connected to the gateway |
| Light off | | Inverter is disconnected from the gateway |



APP--different levels

Select user role
Any user can set up the hardware

⌵



End User

Can only be self-registered through the APP,
usually the end customer or owner of the site.

⌴

Next >

Select user role
Any user can set up the hardware

⌵



Distributor

A company account created manually by a
parent partner, usually a distribution partner.

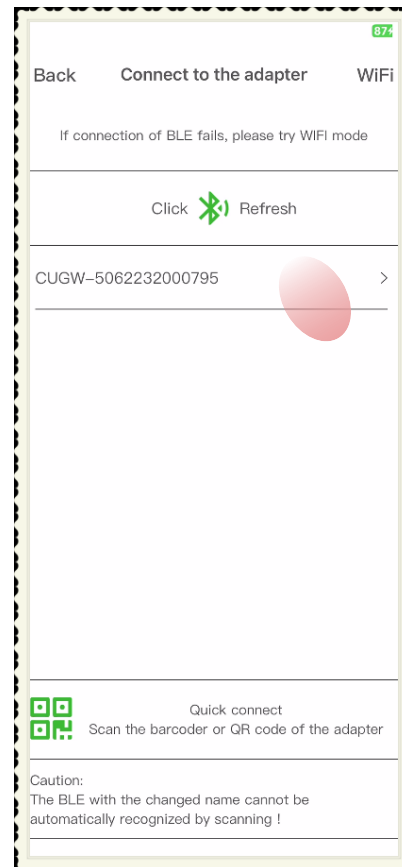
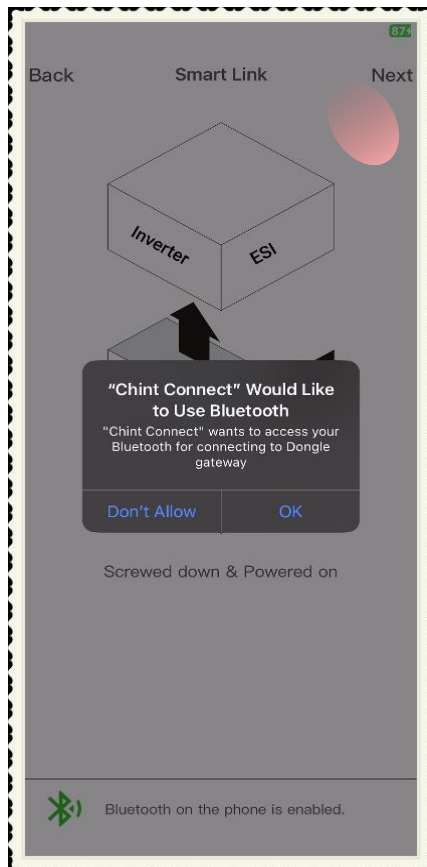
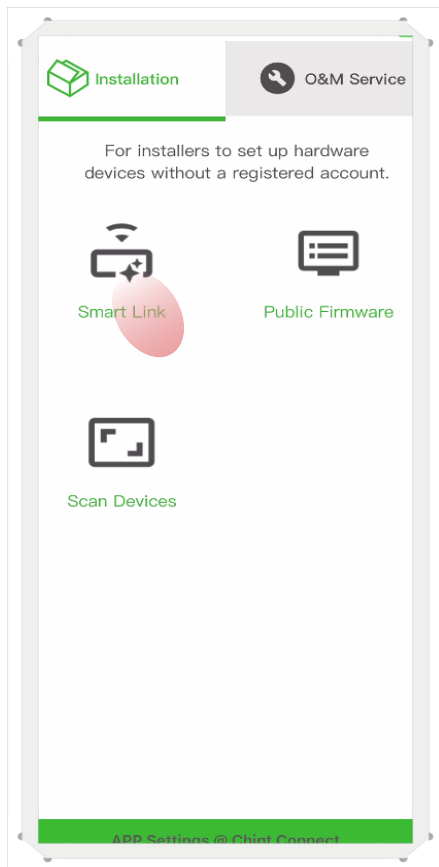
⌴

Next >

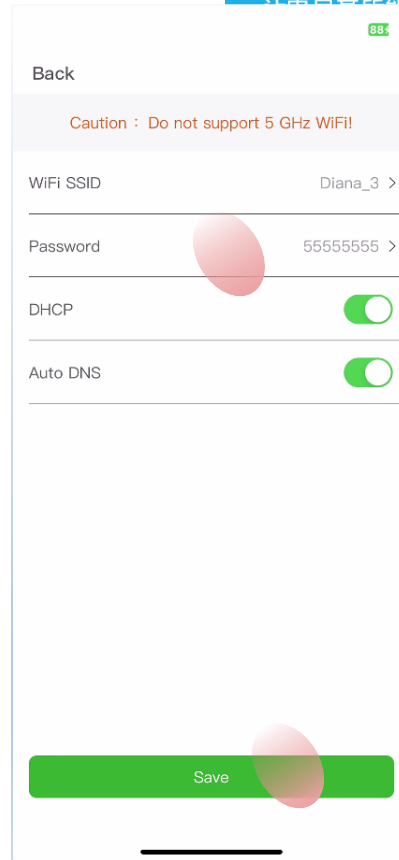
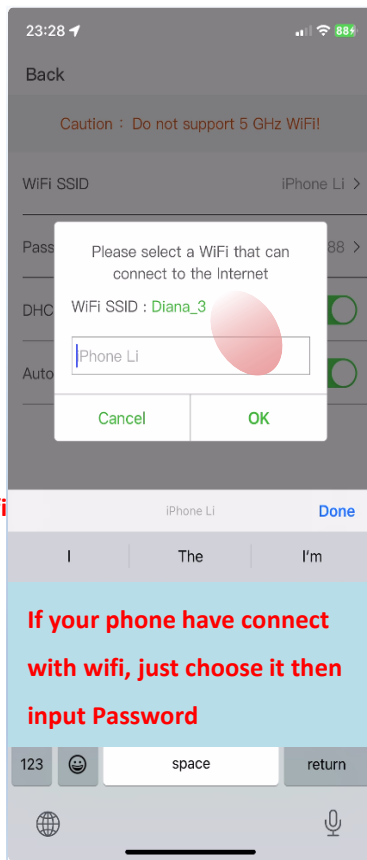
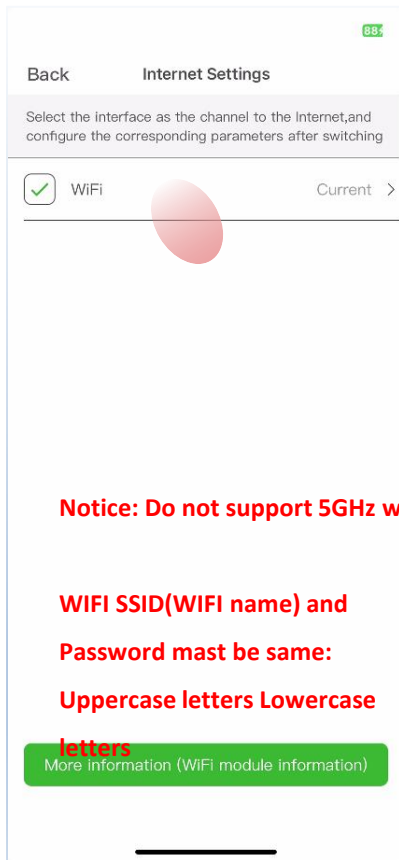
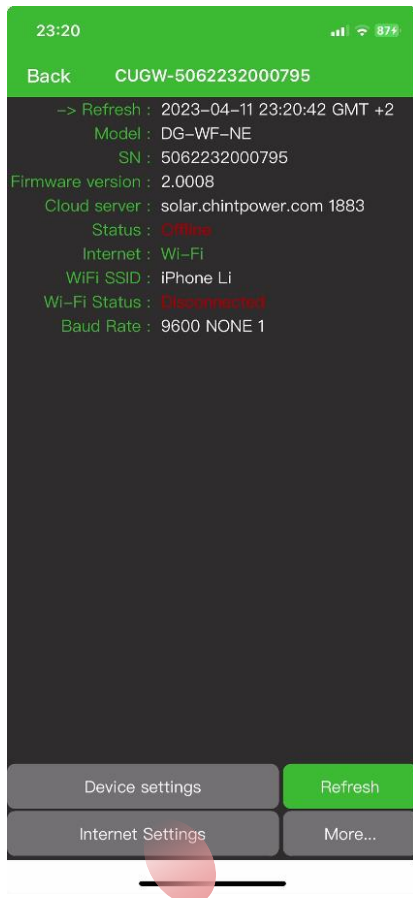
Application-Connect to inverter-bluetooth

CHNT 正泰

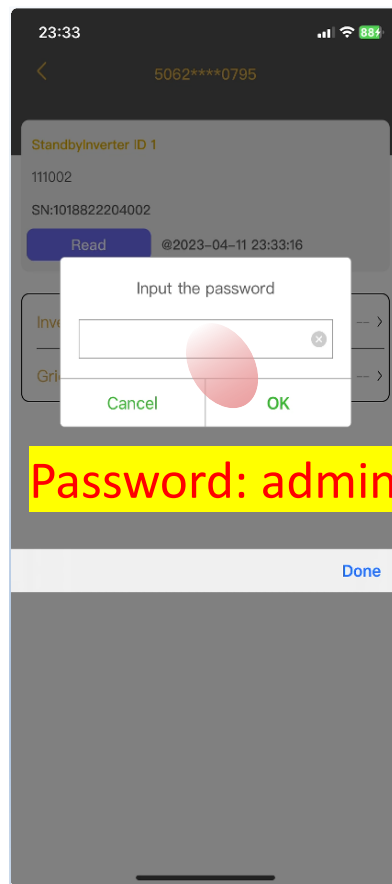
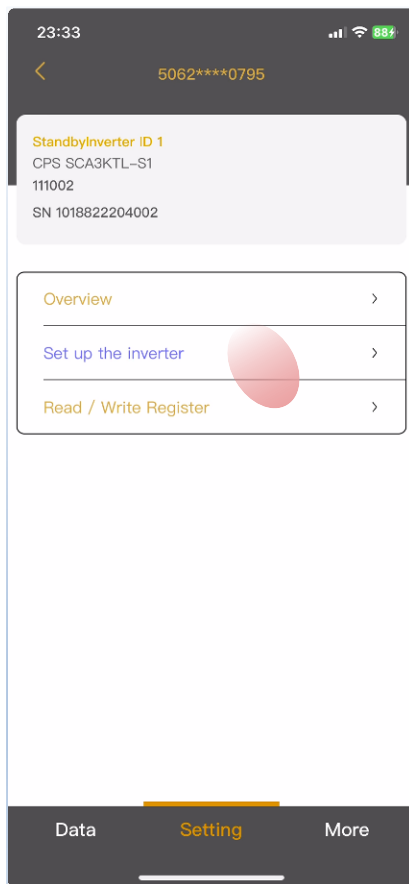
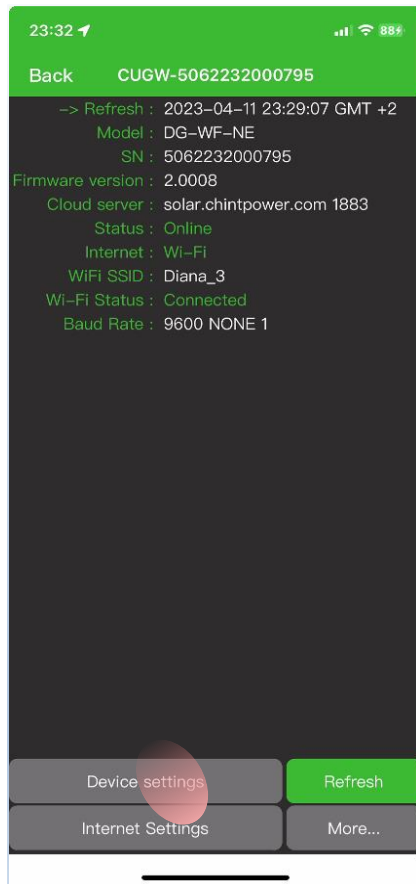
让电尽其所能



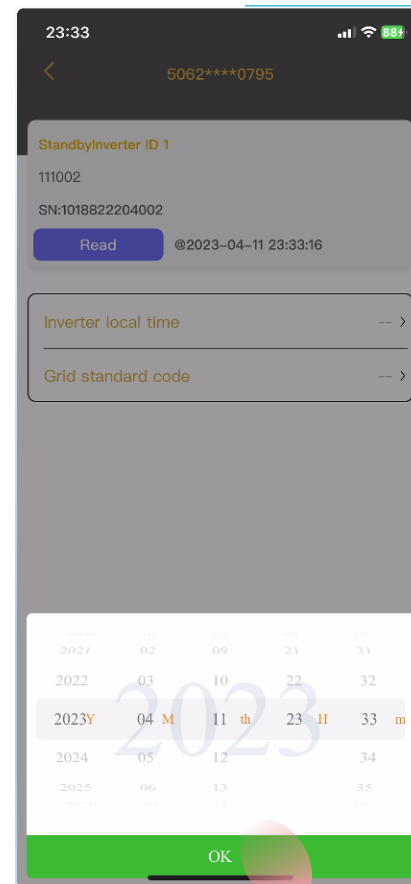
Application--setting the WiFi



Application--Setting the time



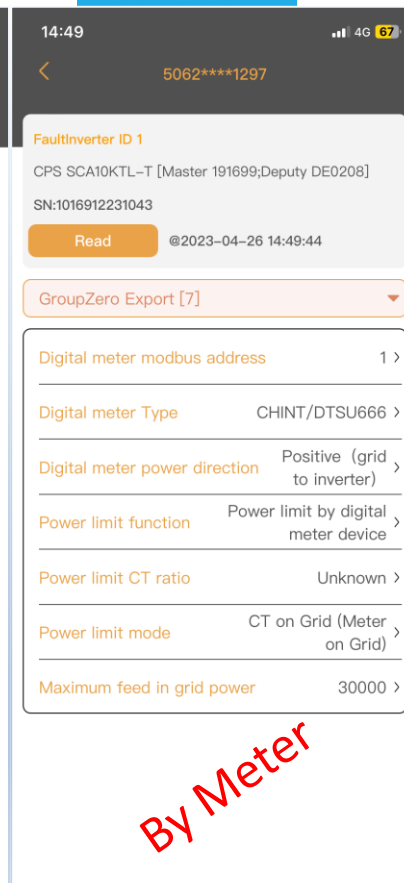
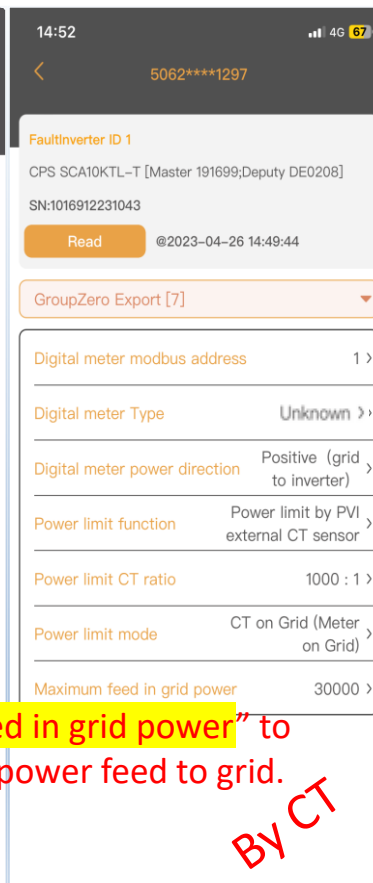
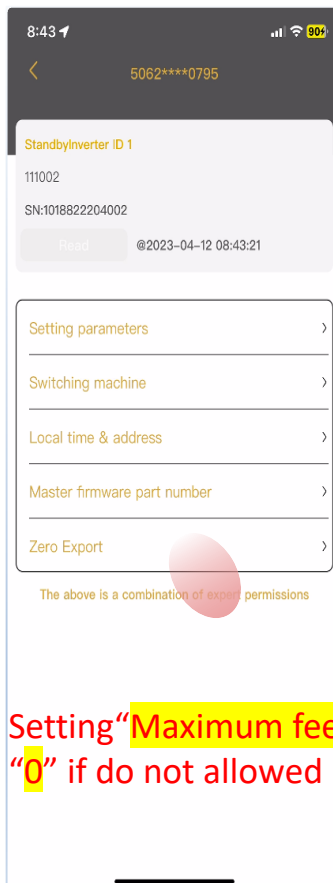
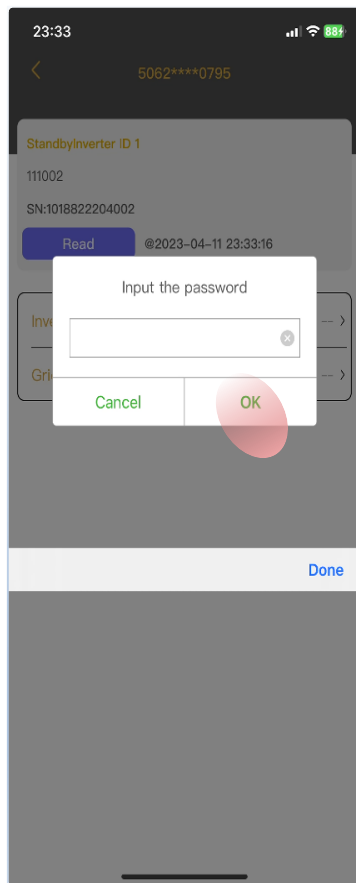
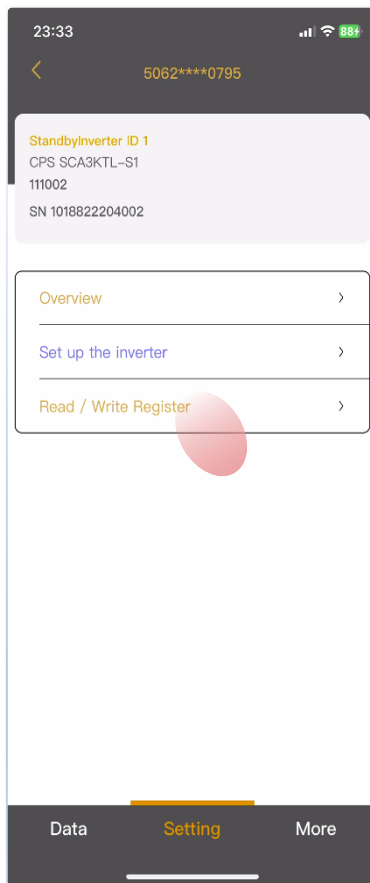
Password: admin



Application--Setting the power limit (If required)

CHNT 正泰

让电尽其所能



Setting "Maximum feed in grid power" to "0" if do not allowed power feed to grid.

BY CT

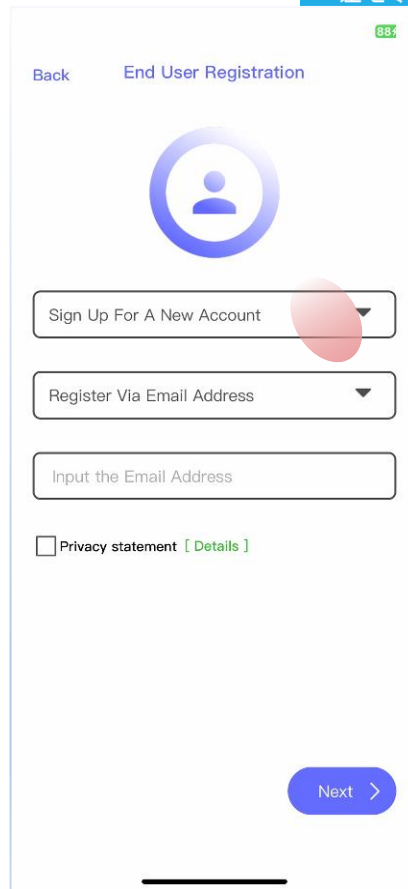
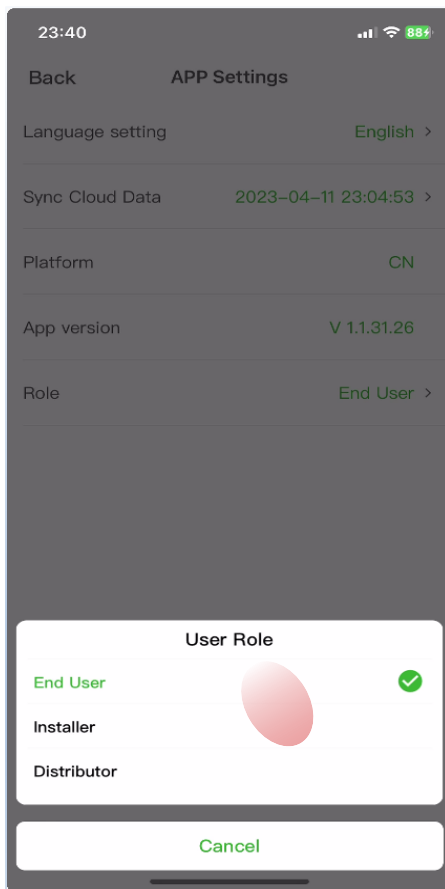
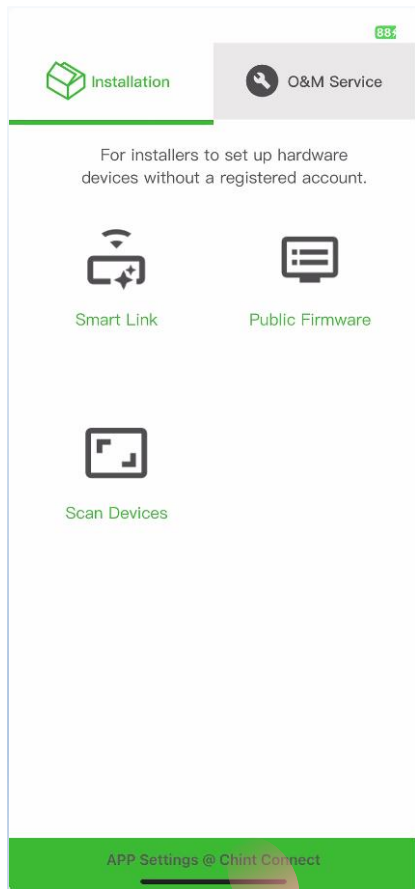
By Meter

Application-- O&M Service (Remote monitoring)

CHNT 正泰

让电尽其所能

Set up a monitoring
account for the user



Application-- O&M Service (Bind site to end user)

CHNT 正泰

让电尽其所能

68%

Back End User Login



Already Have An Account And Log In ▾

☒ Privacy statement [Details]

Via Email Address ▾

805551471@qq.com

Forgot Password ?

Next >

88%

 Installation

 O&M Service

Logout

 My Portfolio

 Add site

 Firmware

Registered users remotely operate and maintain assets

APP Settings @ Chint Connect

88%

Back Add new site

 Scan

Input the SN of gateway +

Add site

83%

Back Add new site

 Scan

Input the SN of gateway +

Fail (0) ?

Success (1)

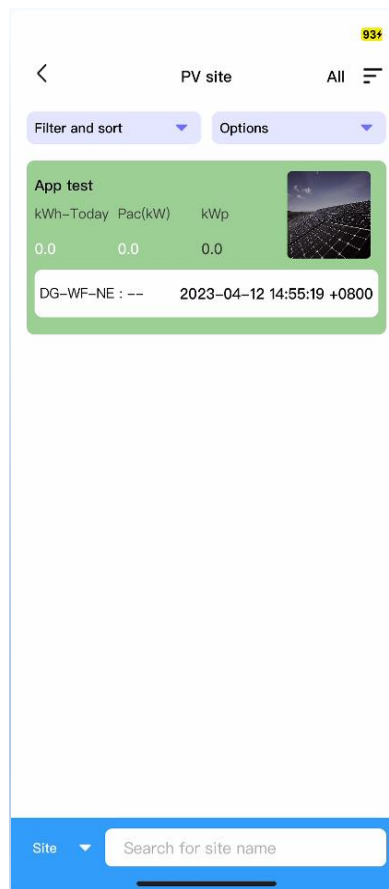
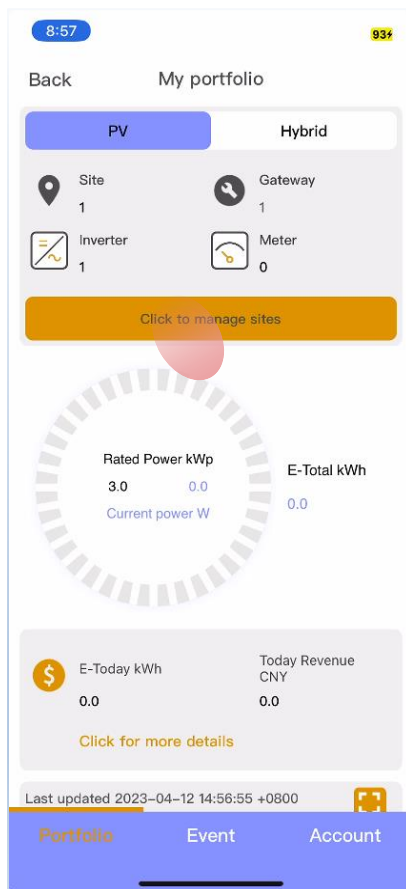
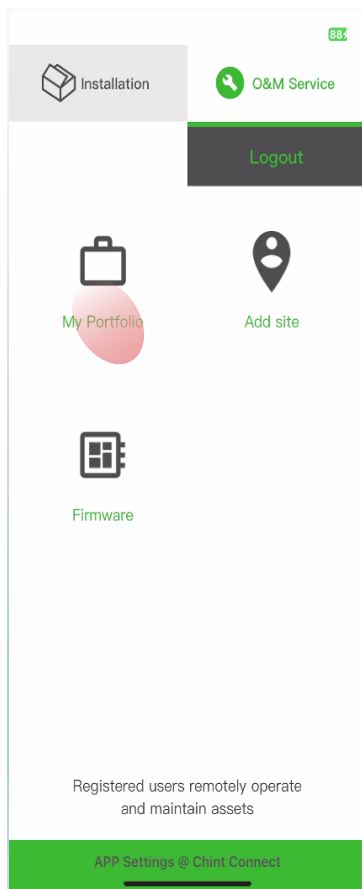
1 5062232000795

Add site

Application-- O&M Service (Remote information check)

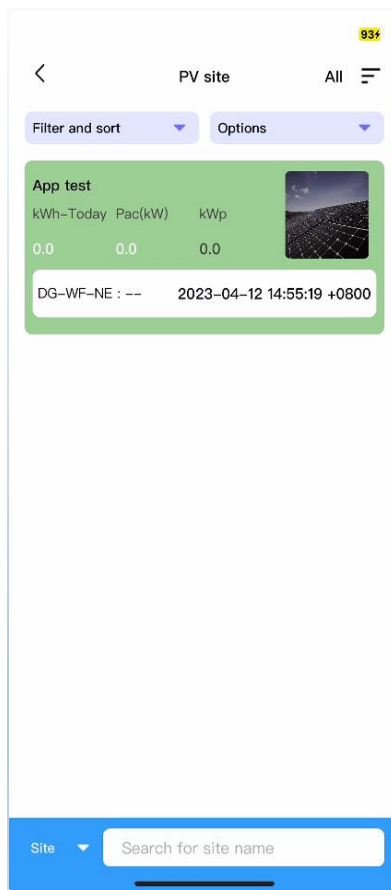
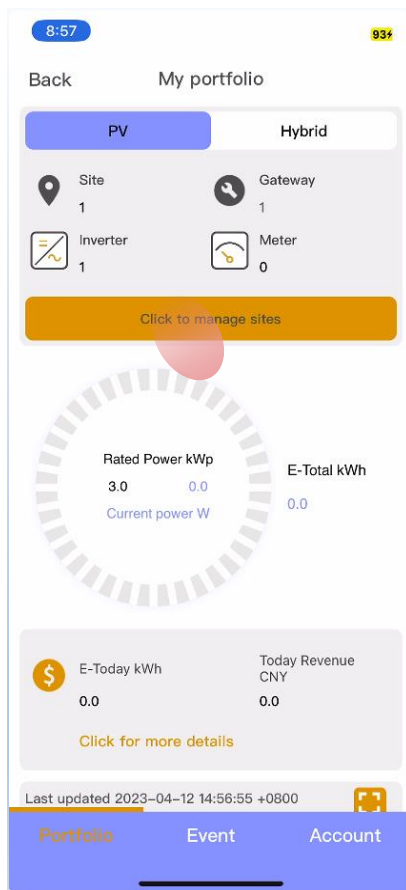
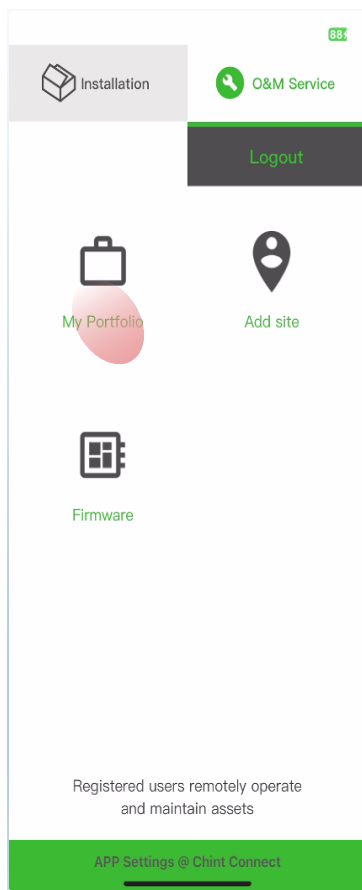
CHNT 正泰

其所能



Application-- (Local information check)

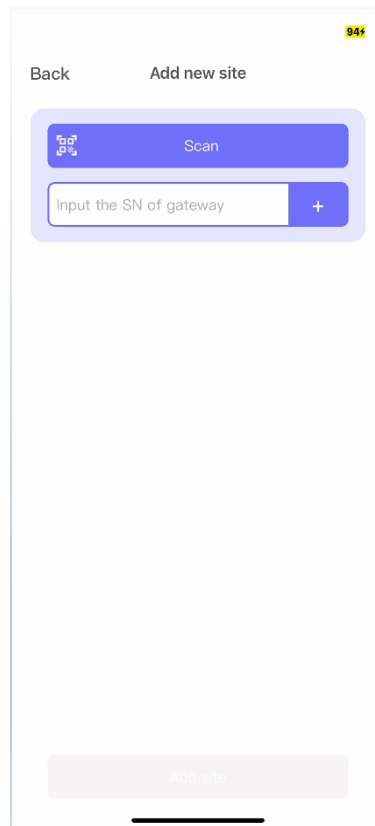
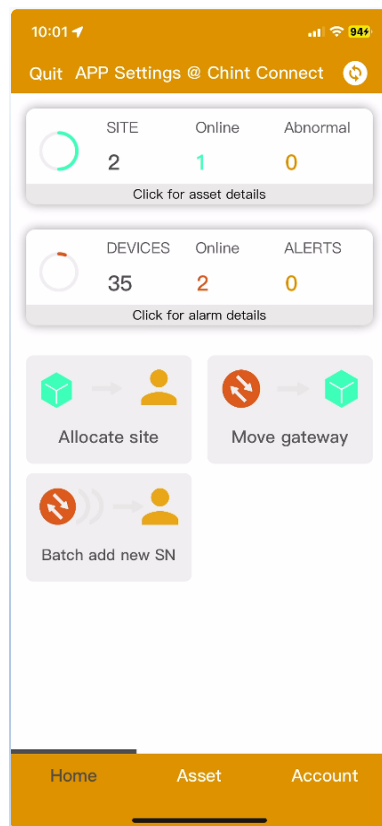
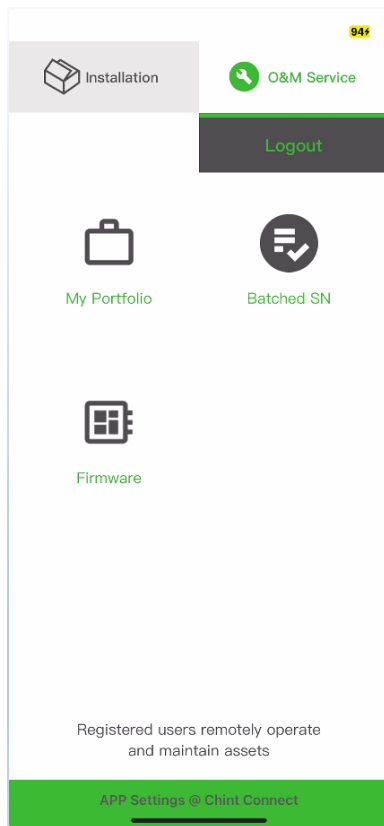
CHNT 正泰



Application-- Distributor

CHNT 正泰

让电尽其所能



Portal

Website : <https://solar.chintpower.com>

CHNT

正泰电源



FlexOM Portal

 Email

 Password

[Forgot your password?](#)

Sign in



Chint Connect



Search for Site Name, Gateway SN, Inverter SN



historical devices



Language ▾



Martin.Lechev

Dashboard**Generation**

Consumption

Storage

Alarm

**Martin.Lechev**
customer Admin

Main Navigation

Dashboard

Account ▾

Portfolio ▾

Product ▾

Service ▾

Expert Tools ▾

Inverter**2023 Annual Income****11.011** MWh**2022 Annual Income****1.113** MWh**2021 Income****0** KWh**Meter****749.358** USD**0.000** USD**0** USD**Monthly Statistics**

March (Inverter)

March (Meter)

Protocol —Account

CHNT 正泰

让电尽其所能

CPS AMERICA Back Search for Site Name, Gateway SN, Inverter SN

Martin.Lechev
customer Admin

Main Navigation

- Dashboard
- Account
- Customer
- End User
- Installer
- Associate A...
- Portfolio
- Product
- Service
- Expert Tools

Dashboard

Generation Consumption Storage Alarm

Inverter	Meter
2023 Annual Income	
22.837 MWh	981.072 USD
2022 Annual Income	
1.113 MWh	0.000 USD
2021 Income	
0 KWh	0 USD

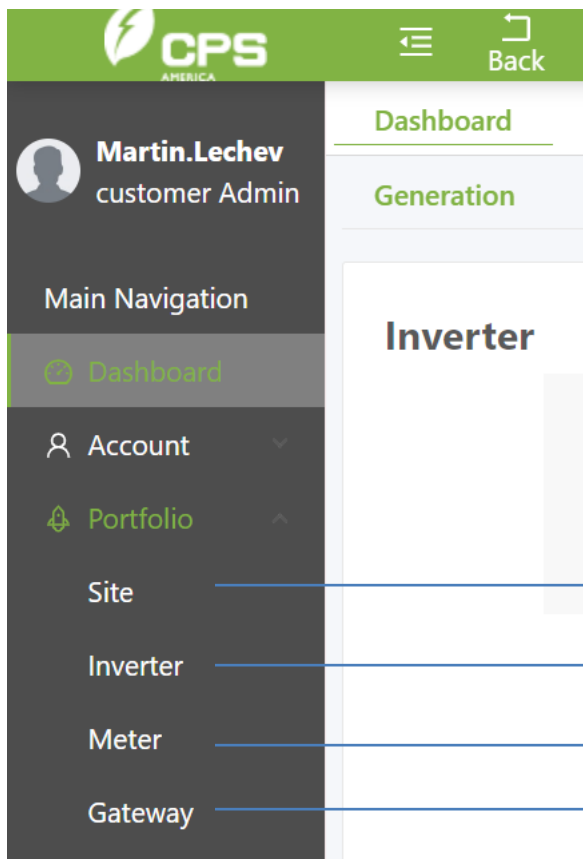
Installer (Create by your account)

Associate account (Copy an account)

Protocol —Portfolio

CHNT 正泰

让电尽其所能



PV Site

Inverter (Activated)

This meter is independent (Not the smart meter)

Gateway: Dongle and Ethenet card (Activated)

Protocol--Assign the SN to your customer

CHNT 正泰

让电尽其所能



Search for Site Name, Gateway SN, Inverter SN

historical devices

Language  Martin.Lechev

 **Martin.Lechev**
customer Admin

Main Navigation

- Dashboard
- Account
- Portfolio
- Product**
 - Hardware SN**
 - Firmware
- Service
- Expert Tools

Dashboard

Hardware SN

	Product Name	Group Type	Total	Activated	Inactive	Last Updated
☐	Default	Default	1206	10	1196	2023-02-17 18:24:10 GMT+8

Total: 1 < 1 > 10 / page

→ All the SN (Dongle) assigned to your account

Protocol — Global Task

CHNT 正泰

让电尽其所能



Back

Search for Site Name, Gateway SN, Inverter SN

historical devices



Language



Martin.Lechev
customer Admin

Main Navigation

Dashboard

Account

Portfolio

Product

Service

Open API

Webhooks

Global Task

Ticket

Expert Tools

Global Task

Audit Log

Chart

Event

Notifications

Info Search

Information record

	Timestamp		Site	Content
☐	2023-04-24 14:27:25 GMT+8		--	Customer Admin 'Martin.Lechev' signIn
☐	2023-04-24 13:39:06 GMT+8		--	Customer Admin 'Martin.Lechev' signIn
☐	2023-04-23 23:03:54 GMT+8		casa samy	Customer 'samuel.stetco' write inverter : 1016912231043 re local time' to value: '2023-04-23 18:01:00'success
☐	2023-04-23 23:03:35 GMT+8		casa samy	Customer 'samuel.stetco' write inverter : 1016912231043 re standard code' to value: 'DE (德国 VDE-AR-N 4105:2018)'su
☐	2023-04-23 22:59:12 GMT+8		casa samy	Customer 'samuel.stetco' write inverter : 1016912231043 re local time' to value: '2023-04-23 17:54:00'success
☐	2023-04-23 22:44:39 GMT+8		casa samy	Customer 'samuel.stetco@maxbau.ro' read device: casa sam register group: 'keys' success
☐	2023-04-23 22:18:01 GMT+8		--	Customer 'samuel.stetco' signIn
☐	2023-04-23 18:57:47 GMT+8	oo.com	--	End User 'samy_stetco@yahoo.com' signIn
☐	2023-04-23 18:57:46 GMT+8	oo.com	--	End User 'samy_stetco@yahoo.com' signIn
☐	2023-04-23 18:57:46 GMT+8	oo.com	--	End User 'samy_stetco@yahoo.com' signIn

Protocol —Info Search

CHNT 正泰

让电尽其所能

Backhistorical devicesLanguageSSOMartin.Lech

**Martin.Lech**
customer Admin

Main Navigation

- Dashboard
- Account
- Portfolio
- Product
- Service
 - Open API
 - Webhooks
 - Global Task
 - Ticket
- Expert Tools

Global TaskSite

Audit LogChartEventNotificationsInfo Search

SN5062214001823Search

Query results will contain objects and related relationships

Account(Email)SiteSN

Virtual Portal Manager		Main Channel Partner		Regional Distributor		End Customer	
Portal Admin(P)	Associate Account	Customer Admin(P)	Associate Account	Customer(P)	Associate Account	End User(P)	Associate Account
cps@chint.com	--	Martin.Lechev@astronergy.nl	--	--	--	blagoylaskov@2gmail.com	--

Site Name : 5062214001823

Brief

Allocate To Another Site

Rename The Gateway

Site : Enter the site name which you belo...

After the mobile station is empty, the power station will be deleted automatically.

Confirm

Protocol--Create your customer account

CHNT 正泰

让电尽其所能



Search for Site Name, Gateway SN, Inverter SN

 historical devices





 Language ▾

 Martin.Lechev

 **Martin.Lechev**
customer Admin

Main Navigation

- Dashboard
- Account ▾
 - Customer
 - End User
 - Associate A...
- Portfolio ▾
- Product ▾
- Service ▾
- Expert Tools ▾

DashboardHardware SNDefault**Customer**

AccountAssociate AccountLog

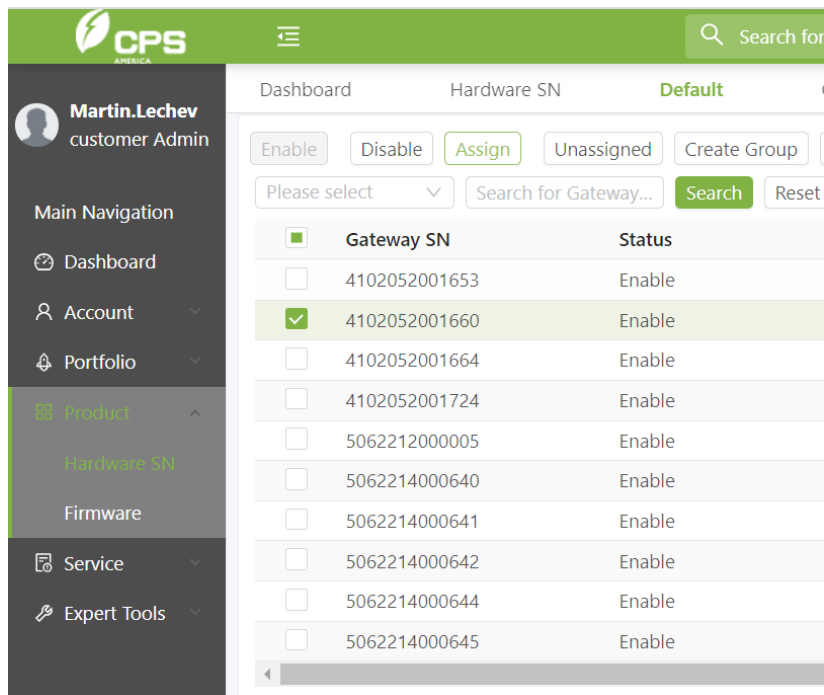
CreateDelete

Search for Company NameSearchReset

	Email	Company Name	Created	Last login	Action
☐	hebarsolar@gmail.com	HEBAR SOLAR	2023-02-07 15:44:42 GMT+8	2023-02-15 06:52:34 GMT+8 IP: 195.214.248.49	LoginEdit
☐	horatiu.vermesanu@kpim.eu	KP IMMOBILIEN	2023-02-07 15:06:07 GMT+8	2023-02-14 16:01:12 GMT+8 IP: 84.117.45.165	LoginEdit

Total: 2 < 1 > 10 / page ▾

Protocol--Assign the SN to your customer or enduser



CPS AMERICA

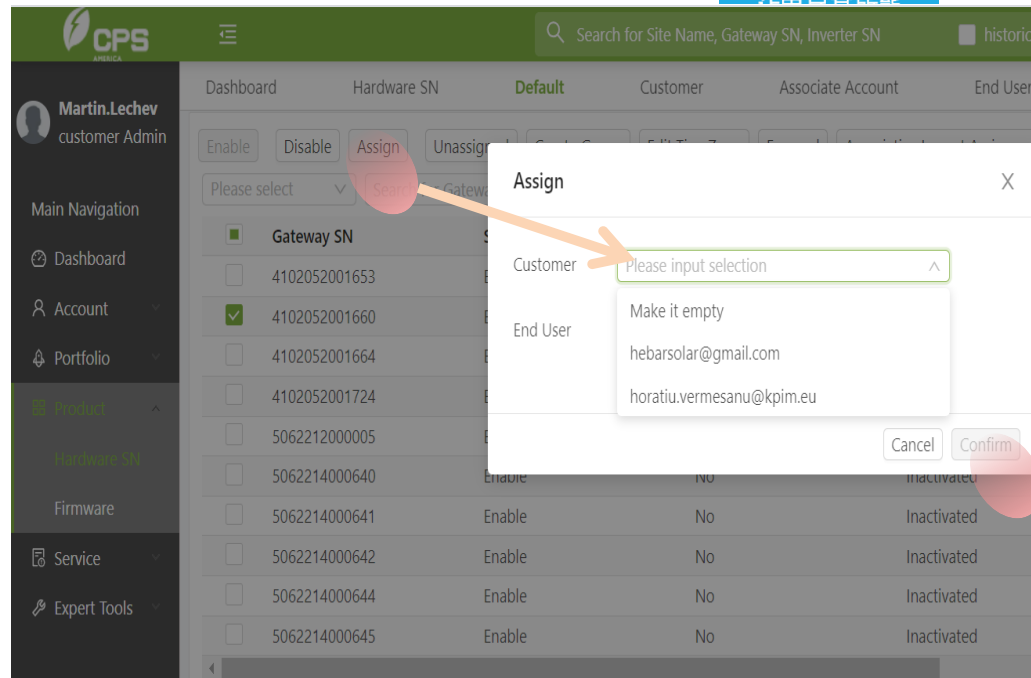
Martin.Lechev
customer Admin

Dashboard Hardware SN **Default**

Enable Disable **Assign** Unassigned Create Group

Please select Search for Gateway... Search Reset

☐	Gateway SN	Status
☐	4102052001653	Enable
☒	4102052001660	Enable
☐	4102052001664	Enable
☐	4102052001724	Enable
☐	5062212000005	Enable
☐	5062214000640	Enable
☐	5062214000641	Enable
☐	5062214000642	Enable
☐	5062214000644	Enable
☐	5062214000645	Enable



CPS AMERICA

Martin.Lechev
customer Admin

Dashboard Hardware SN **Default** Customer Associate Account End User

Enable Disable **Assign** Unassigned

Please select Search for Gateway... Search Reset

Assign

Customer Please input selection

End User

- Make it empty
- hebarsolar@gmail.com
- horatiu.vermesanu@kpim.eu

Cancel Confirm

Choose or input the **SN** for the Wifi module

Protocol--setting the parameters

CHNT 正泰

让电尽其所能



Search for Site Name, Gateway SN, Inverter SN

historical devices



Language 

Martin.Lechev

**Martin.Lechev**
customer Admin

Main Navigation

- Dashboard
- Account
- Portfolio
 - Site
 - Inverter
 - Meter
 - Weather se...
 - Gateway
- Product
- Service
- Expert Tools

Default Dashboard Customer Site **5062214001823**

Overview Production Revenue Event Notifications **Settings** Firmware Commissioning Kiosk View

All Models

Only support to R/W same model at a time!!

DG-WF-NE: 5062214001823

☒ 1:1 CPS SCA3KTL-SM Offline

< 1 >

Expert Group ^

LCD Mode

Expert Group

Limited Setting

Register Name

Search for Register Name

Search

Read

Command Read

Command Write

Switching machine

Local time & address

Master firmware part nu >

Register Name	Unit	Value	Action
Boot soft start time	Secs	Current Value: -- Edit Value: --	Edit Write
Grid failure recovery grid time	Secs	Current Value: -- Edit Value: --	Edit Write
Grid level 1 overfrequency protection point	Hz	Current Value: -- Edit Value: --	Edit Write
Grid level 1 underfrequency protection point	Hz	Current Value: -- Edit Value: --	Edit Write

Protocol--show the energy diagram

CHNT 正泰

让电尽其所能

Dashboard Search Result 4102037001789 Site Global Task Faran OFER - Patish - Hilel Magribi

Time Zone:
(UTC + 02: 00) Jerusalem

Upload Interval:
60 Second

Check Kiosk View

E-Today Generated

25.45kWh

E-Today Imported

104.3kWh

E-Today Exported

0kWh



kW Generating

9.796

Net-kW Exporting

0

Net-kW Charging

0

Net-kW Discharging

0

Net-kW Importing

1.3

Net-kW consuming

11.31

E-Today Charged

0kWh

E-Today Discharged

0kWh

E-Today Consumption

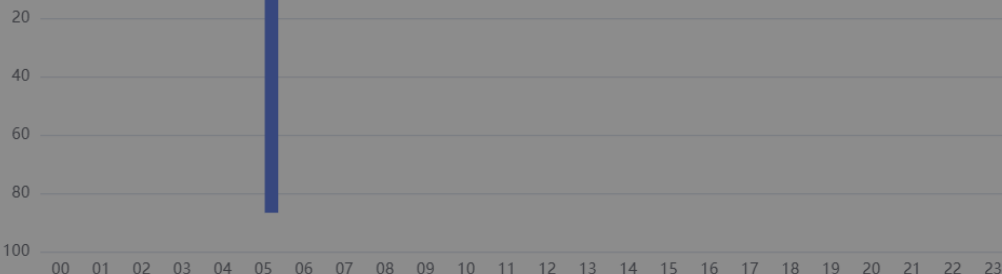
0kWh

Widget Settings

- ☒ Site profile
- ☒ Site Photo
- ☒ Site location
- ☒ Energy flow
- ☒ Device list

Cancel

Confirm



THANKS