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About this Manual

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the EZVIZ ™ website (http://www.ezviz.com).

Revision Record

New release – January, 2022

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Products Guide

- To see the instrustion contents of solar panel, please refer to page **3~ 5**, page **7~13**, page **16~18**.
- To see the instrustion contents of micro inverter, please refer to page **3~5**, page **7**, page **14~22**.
- To see the instrustion contents of CS-PCC, please refer to page **4**, page **6**, page **15~22**.

Important Safty Instructions

Maintenance

- If necessary, clean the glass surface of the solar panel should with water and a soft sponge or cloth. It is recommended to clean it when the sunlight is weaker in the morning or evening.
- Check the electrical and mechanical connections every six months to ensure that they are clean, secure and undamaged.
- Prevent leaves and other debris from accumulating on the solar panel.Partially blocking the solar panel not only affects power generation efficiency, but also easily causes large local current to burn out solar components.

Installation

- Only use electrical system components approved for use in damp locations.
- Installation of this device involves the danger of electrical shock. Typically, ground conductors may not be grounded and electrically charged in a ground fault.
- Do not connect this product to the utility grid or the AC circuit until all installation procedures described in the user manual are complete.
- This system can only be connected to the power grid after obtaining approval from the public utility company.
- Only qualified personnel can connect this system to the power grid.
- Solar panels can be installed on fixed tops outdoors.

WARNING

- WARNING: This word warns issues that may cause personal injury if ignored.
- Please read all the instructions before using the product.
- : Alternating current.
- : Direct current.
- : This symbol on the device indicates that the surface or component is overheating. Touching the surface may cause personal injury. To reduce the risk of personal injury caused by overheating components, do not touch the surface until it cools down.
- Risk of explosion if the battery is crushed or cut, or discarded in fire or hot stoves.
- Risk of explosion or leak of flammable liquids or gases if the battery is placed in extremely high temperature environments.
- Risk of explosion or leak of flammable liquids or gases if the battery is placed in extremely low-pressure environments
- Maintainaning of this system yourself is prohibited.
- Do not disconnect the DC wire connector under load. Before disconnecting the DC connector, please confirm that there is no current in the DC wiring. Before disconnecting the connection, you can use an opaque cover to cover the module.

General

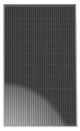
- Disconnecting the wire connected to the photovoltaic component exposed to sunlight may cause an arc. The arc may cause burns or fires, please operate with caution. Grounding protection should be done.
- When installing or troubleshooting the system, do not wear metal rings, wristbands, nose rings, lip rings, or other metal accessories. Use only insulation tools approved for electrical installation.
- The product can be used in moist outdoor environments.
- If you need to power off the device, please unplug the DC terminal connected to the adapter and the device.
- When the photovoltaic array is exposed to light, it provides direct current voltage to the micro-inverter.
- Please read this manual before installation. Any product damage caused by failure to follow this manual is not covered by the warranty.
- All installations should be performed by licensed electricians.
- All installations should adhere to local electrical regulations. Additional protection should be provided for AC wiring from the inverter according to local and national wiring regulations as much as possible. The protection may contain residual current devices, ground fault monitors and circuit breakers.
- Do not disconnect the photovoltaic module and the energy storage inverter without first isolating the AC power source. Do not disconnect all PV connectors and AC connectors under load, and then disconnect the circuit breaker on the AC side.
- This product is a grid-connected device. It may require approval from the local utility company before connected to the power grid.
- Do not apply substances that block the solar cell from receiving light to the light-receiving surface of the solar panel, such as paint or adhesives.
- Do not direct artificial concentrated sunlight onto the surface of the solar panel.
- When installing on vehicles or vessels, comply with relevant local and national regulations.
- During installation, it is recommended to fully cover the light-receiving surface of the solar panel with opaque material and keep the positive and negative poles disconnected to avoid issues caused by power generation.
- Under normal outdoor conditions, the solar panel will generate currents and voltages depending on meteorological conditions and environmental temperature. The data is different from the expected values listed on the nameplate under standard test conditions.

CAUTION

- CAUTION: This word warns situations that may cause property loss if ignored.
- During transportation and installation, pay attention to keep children away from the system and installation site.

Package Contents

1. Solar Panel



Solar Panel (x4)



Panel Mounting Brackets (x8)



Panel Aluminum Angle (x16)



Wall Aluminum Angle (x16)



Mounting Screws (x42)
(M6x16)



Expansion Screws (x17)
(M6x60)



Y-shaped Cables
(Positive to negative) (x1)



Y-shaped Cables
(Negative to Positive) (x1)

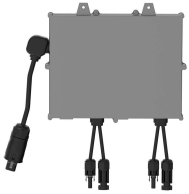


Tent stakes (x16)



Spanner (x1)

2. Micro Inverter



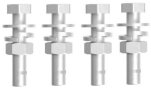
Micro Inverter (x1)



Cord Set (x1)
(5 m)



Inverter Mounting Brackets (x2)



Inverter Mounting Screws (x7)
(M6x30)



Water-proof Cover Kit (x1)



Quick Start Guide for Micro Inverter
(x1)

3. CS-PCC



Wi-Fi Smart Energy Data Logger (Abbreviated CS-PCC)（x1）



Quick Start Guide for CS-PCC (x1)

4. General



Quick Installation Guide (x1)



Regulatory Information（x1）

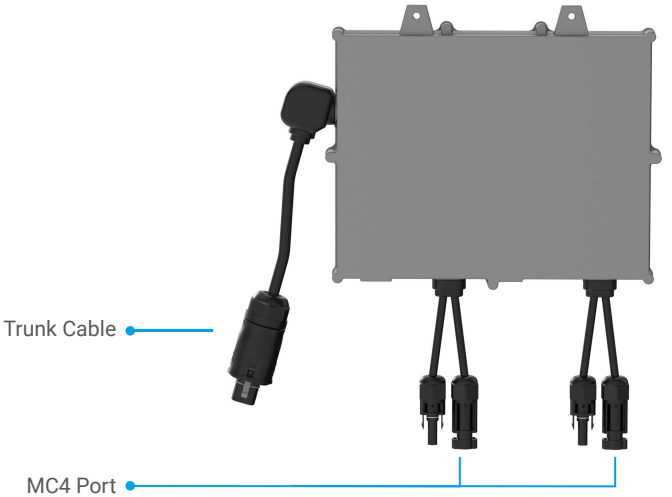
The package contents are subject to the actual products you have bought.

Overview

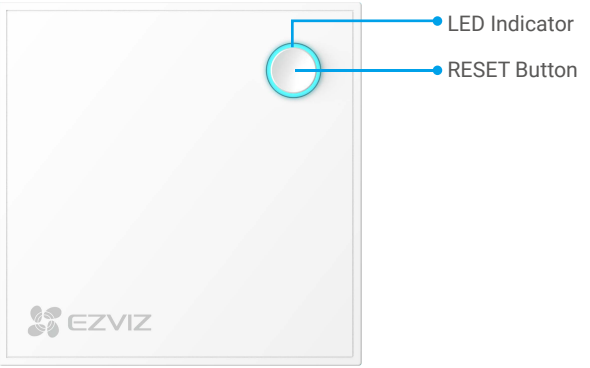
1. Solar Panel



2. Micro Inverter



3. CS-PCC



Name	Description	
LED Indicator	—	Solid Red: CS-PCC powering up.
	• •	Slow-flashing Red: CS-PCC disconnected from Wi-Fi.
	••••	Fast-flashing Blue:CS-PCC ready for Wi-Fi configuration.
	• •	Slow-flashing Blue: CS-PCC working normally.
RESET Button	After the CS-PCC is powered on, press and hold for about 4s and all parameters will be restored to default settings. The LED Indicator becoming solid red suggests restoring sucessfully.	

Installation

Tools you may need:



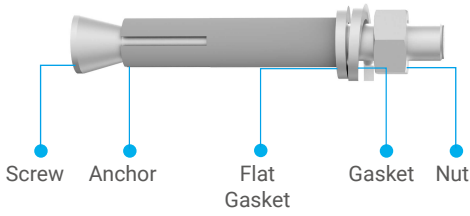
Electric drill with a φ10mm drill bit



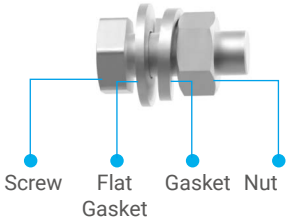
Tape Measure

Screw Structure

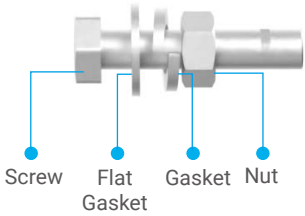
1. Expansion Screws (M6x60)



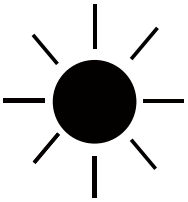
2. Mounting Screws (M6x16)



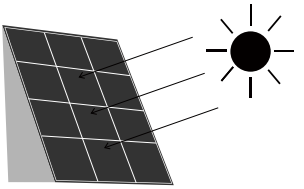
3. Inverter Mounting Screws (M6x30)



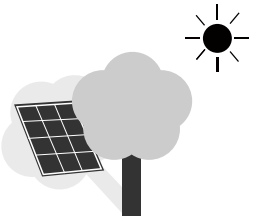
Installation Recommendation



Choose a sunny area during the day for your solar panel.

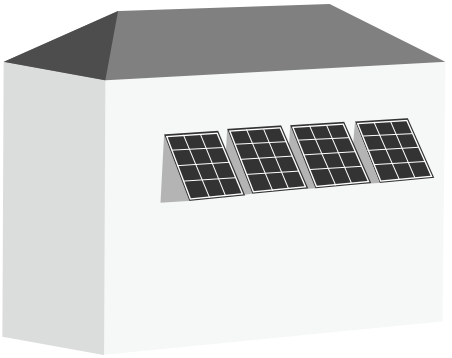


Select the angle of direct sunlight for your solar panel.

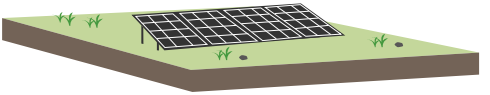


Avoid being cast by any shadow like trees. Shadow casting or partial covering will reduce the electricity generation amout.

Best Installation Location



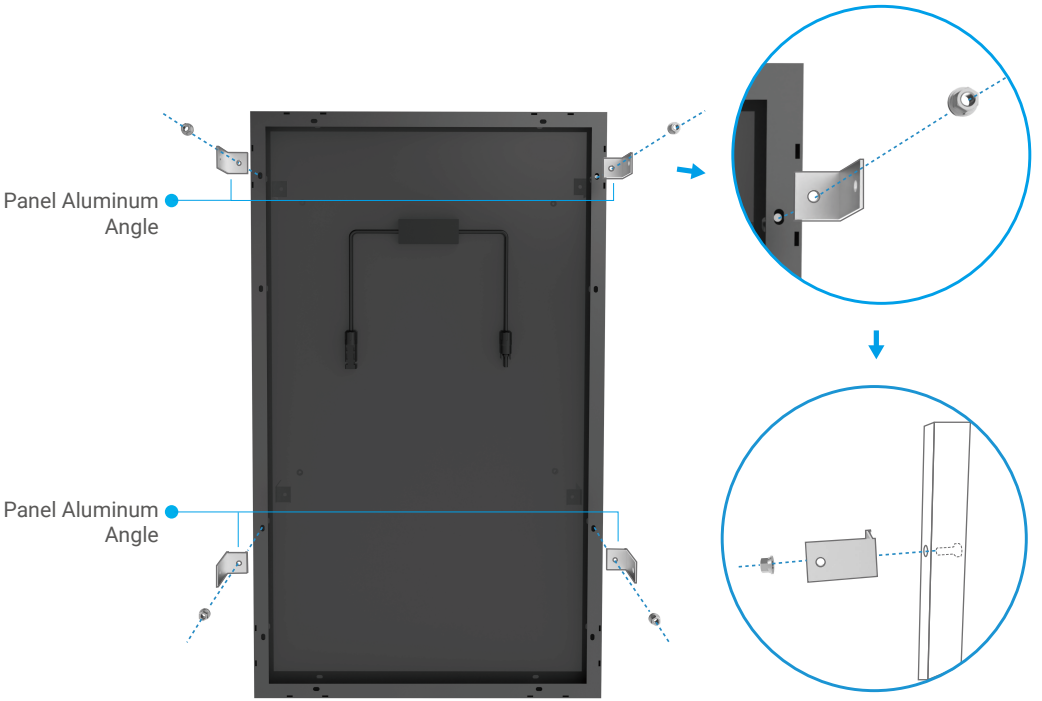
Arranged in a line on a vertical wall.



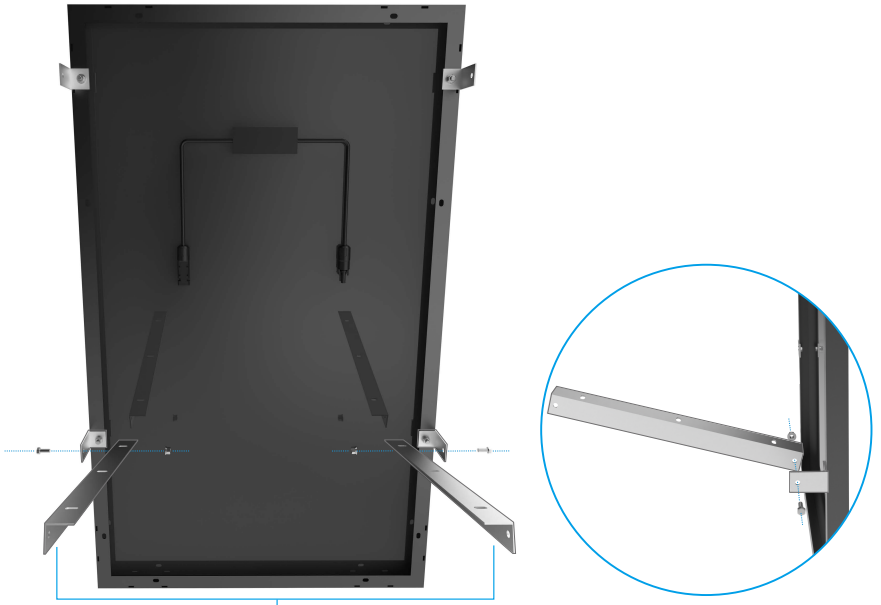
Arranged in a line on soft floor in a garden.

1. Install Solar Panel

1. Use mounting screws(M6x16) to fix the panel aluminum angles to the solar panel through the mounting holes.



2. Use mounting screws(M6x16) to fix the panel installation brackets to the panel aluminum angles for the lower hand of the solar panel.

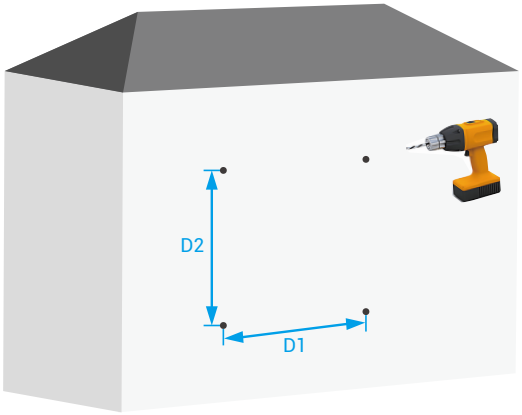


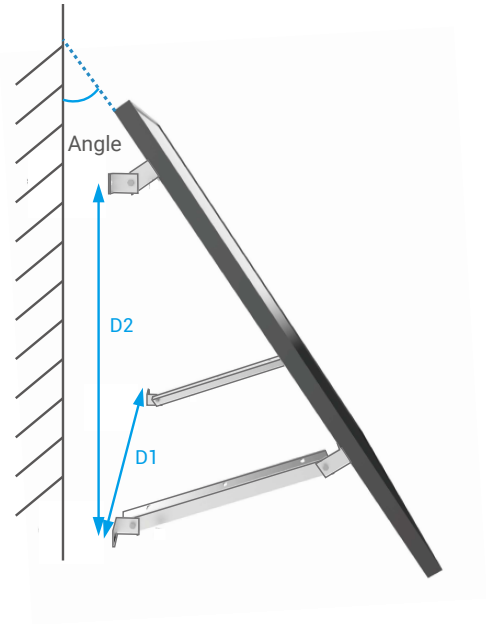
3. Use mounting screws(M6x16) to fix the wall aluminum angle to the panel aluminum angles for the upper hand of the solar panel, the wall aluminum angle to the panel mounting brackets for the lower hand of the solar panel.

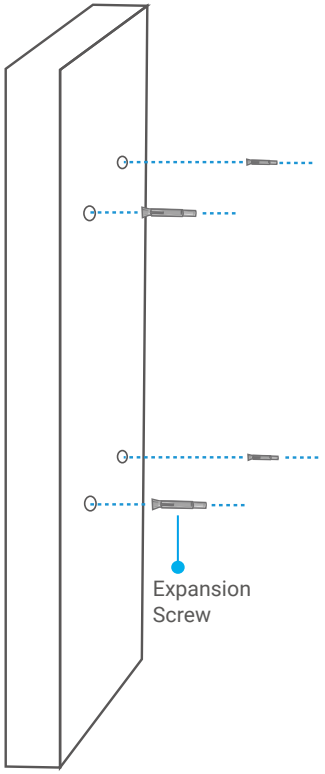


4. Drill screw holes based on the angle between the solar panel and the wall you want to choose, please refer to the table below. Then Insert anchors and expansion screws(M6x60) into the holes.

Angle	Parallel Distance D1	Vertical Distance D2
35°	630mm	600mm
30°	630mm	700mm
25°	630mm	780mm
20°	630mm	840mm
15°	630mm	880mm

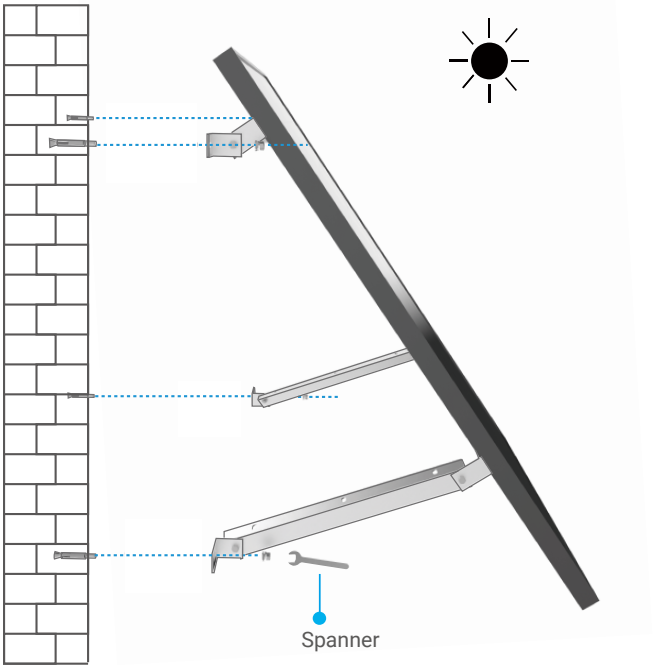




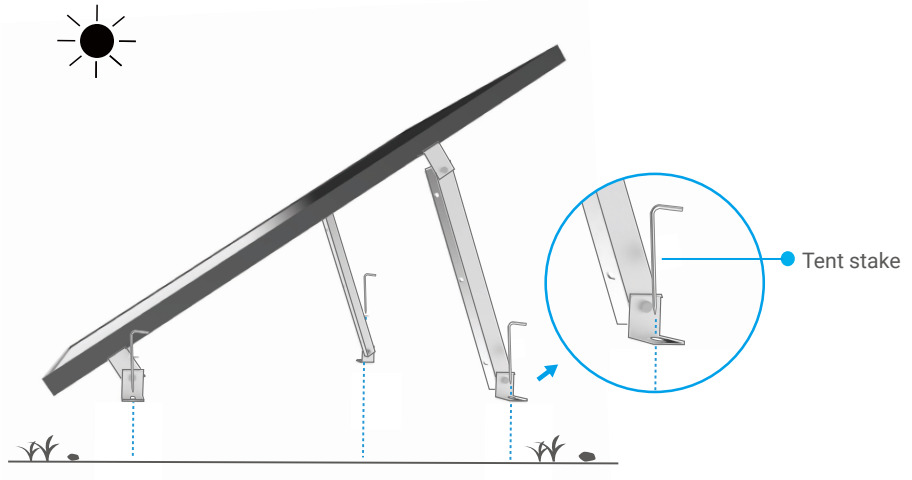


The electricity generation amout of solar panels varies according to the duration and intensity of sunlight, the angle of the solar panel and so on.

5. Hang the wall aluminum angle of soloar panel on the screws(M6x60) and fix the soloar panel on the wall.

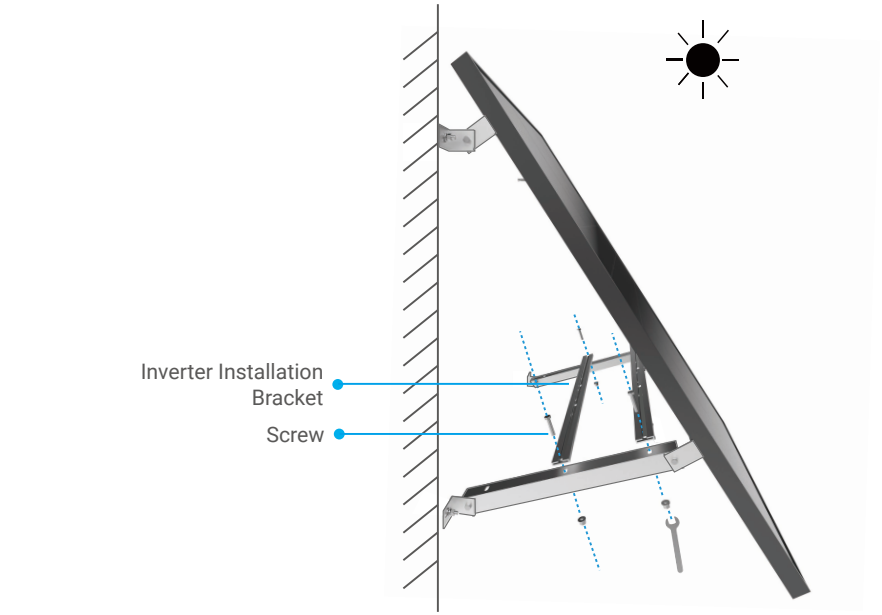


You may want to install the solar panel on soft ground in the garden, use tent stakes to fix the soloar panel into the ground.

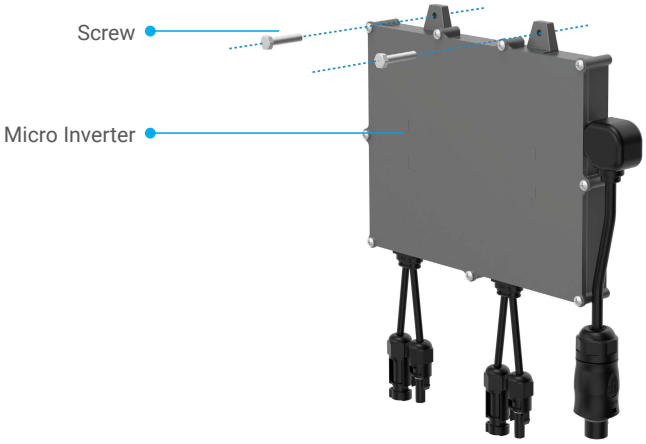


2. Install Micro Inverter

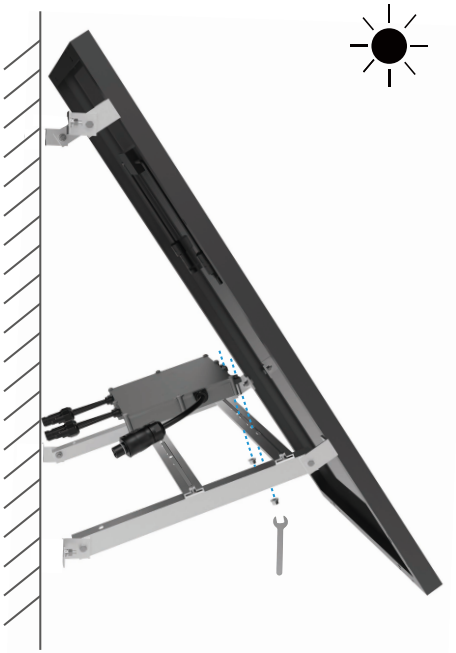
1. Use inverter mounting screws(M6x30) to fix the inverter mounting brackets to the solar panel brackets.



2. Tighten the inverter mounting screws(M6x30) to the micro inverter.



3. Fix the micro inverter to the inverter mounting brackets.



Get the EZVIZ App

1. Connect your mobile phone to Wi-Fi (suggested).
2. Download and install the EZVIZ app by searching for “EZVIZ” in the App Store or Google PlayTM.
3. Launch the app and register an EZVIZ user account.

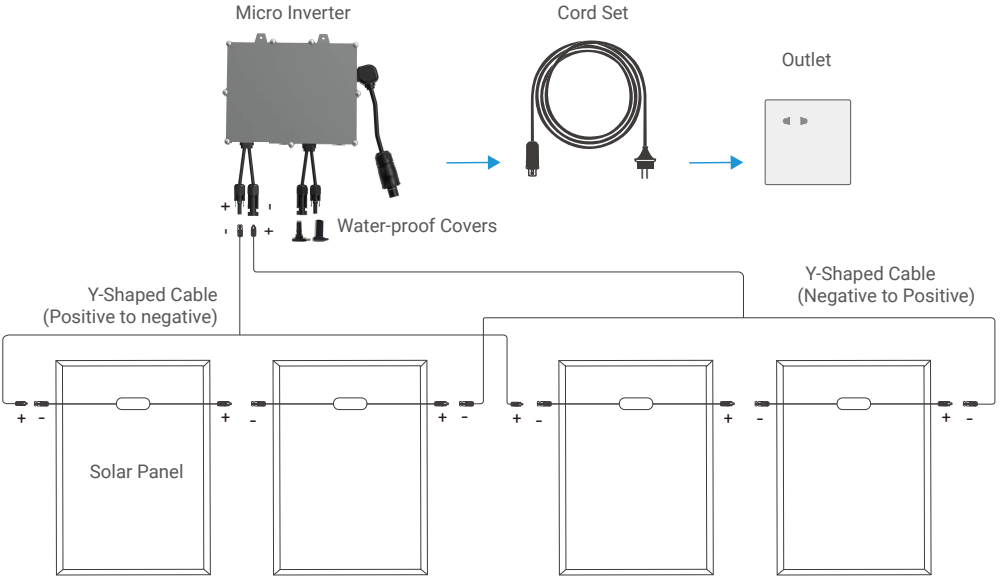
EZVIZ App	
Download on the App Store	GET IT ON Google Play

If you have already used the app, please make sure that it is the latest version. To find out if an update is available, go to the app store and search for "EZVIZ".

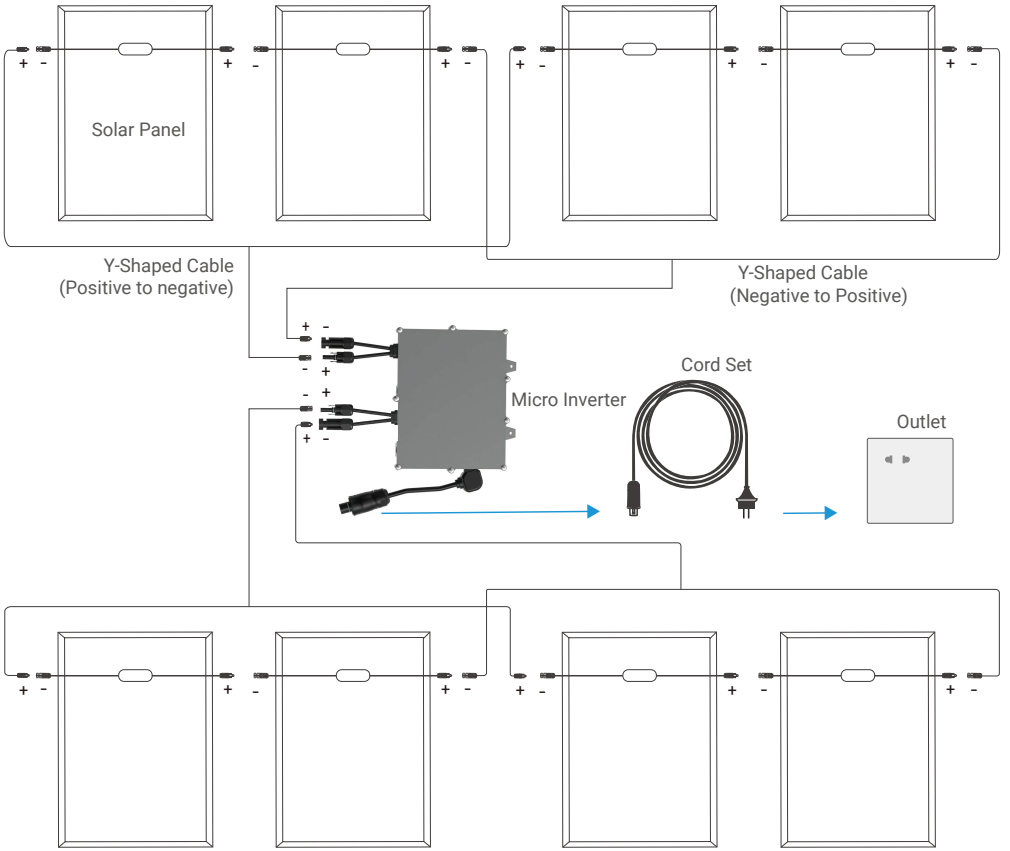
Connect the Cables

1. Connect two solar panels in series and another two solar panels in the same way.
2. Use two Y-Shaped cables to connect the four solar panels seperately.
3. Use two extended cables to connect two Y-Shaped cables to the micro inverter seperately.
4. Connect the power adaptor to the micro inverter and plug it into an electrical outlet.

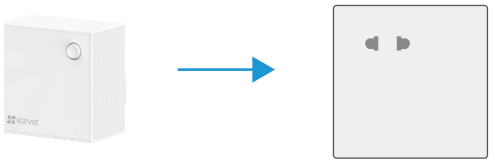
When taking one pair of MC4 ports into use, it is recommended to cover the left pair with water-proof covers.



5. The power of a single solar panel is 100W. By connecting four solar panels to one pair of MC4 ports of the inverter as described above, the power becomes 400W. If you want to form a total power of 800W using solar panels, please purchase an EZVIZ 4*100W Solar Panel Bundle seperately.

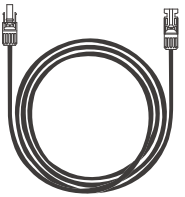


6. Plug the CS-PCC into an electrical outlet of your home to collect the related electrical data from micro inverter.

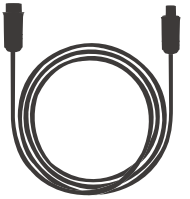


- **When a household uses three-phase power, the micro inverter and CS-PCC must be on the same phase to communicate successfully, and the micro inverter can transfer electricity information of the solar panel successfully. Only when the household electrical equipment connected to the same phase as the micro inverter can it use the clean energy generated by the solar panel.**
- **Be careful when you plug and unplug the cord set and MC4 ports. Make sure that all the cables are well connected before you plug the cord set into an electrical outlet.**

Cables Sold Seperately:



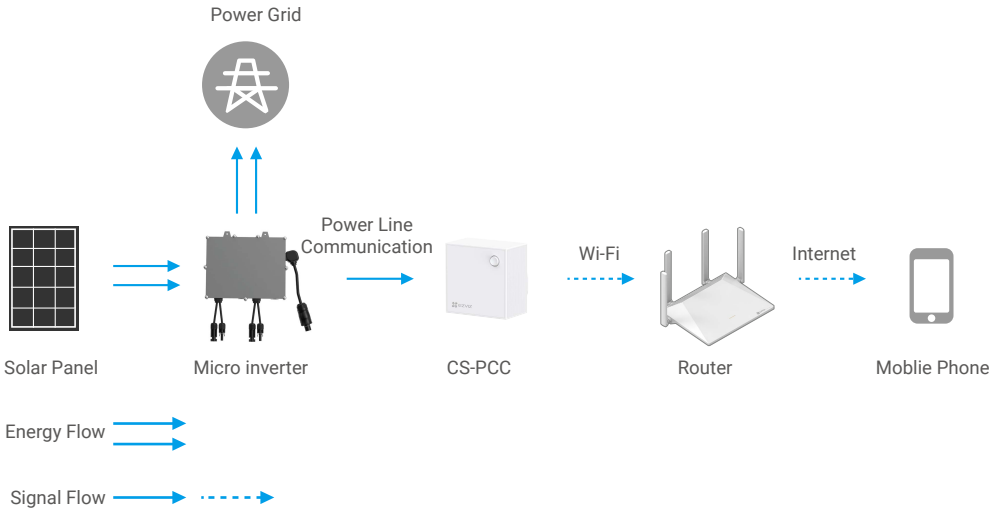
Solar panel extended cable(3m) for connecting Y-shaped cable and micro inverter.



AC extended cable(5m) for connecting micro inverter and cord set.

In practical use, if the Y-shaped cable is not long enough to connect the micro inverter with solar panel, the cord set is not long enough to connect the micro inverter to outlet, please purchase them seperately.

Commuication Diagram



Please make sure your Wi-Fi is at a good status when using the CS-PCC. In this premise, if the CS-PCC communication is abnormal, get it close to the micro inverter.

Add CS-PCC to EZVIZ App

1. Log in to your account using the EZVIZ app.
2. On the Home screen, tap “+” on the upper-right corner to go to the Scan QR Code interface.
3. Scan the QR code on the Quick Start Guide cover or on the body of the CS-PCC.



4. Follow the EZVIZ app wizard to add the CS-PCC to EZVIZ app account.
5. Follow the EZVIZ app wizard, scan the QR code on the Quick Start Guide cover or on the body of the micro inverter to associate the micro inverter with CS-PCC.



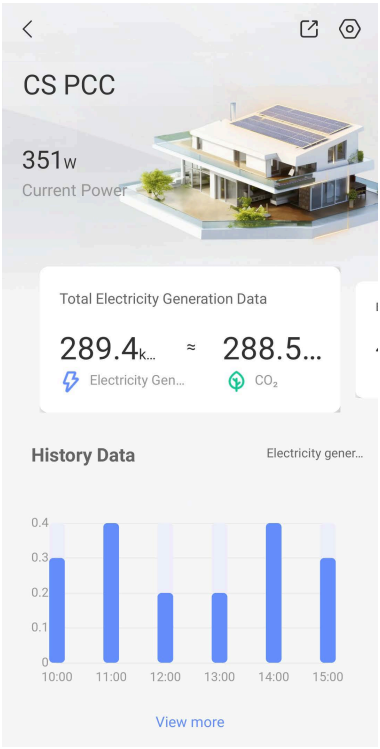
The apperance of the device is subject to the actual one you have bought.

Operations on the EZVIZ App

The app interface may be different due to version update, and the interface of the app you installed on your phone shall prevail.

1. CS-PCC Page

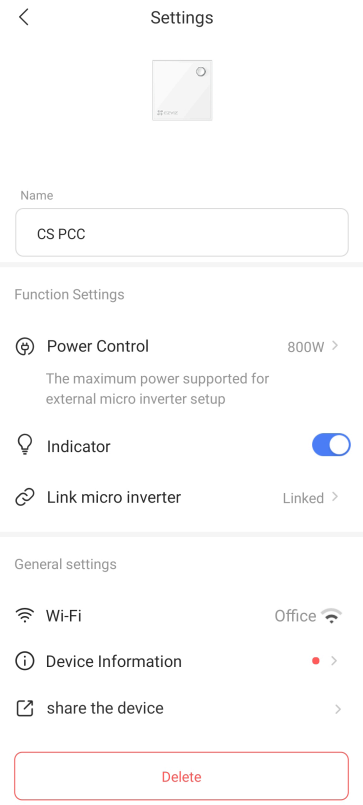
When you launch the EZVIZ app, you can manage your device as needed.



Swipe left and right across the screen to see more information.

Icon	Description
	Share. Share your device with anyone you want.
	Settings. View or change the device settings.
	Electricity generation amout.
	Carbon emission.

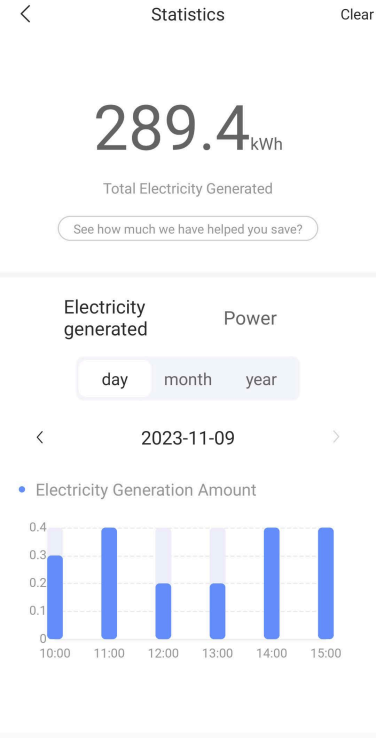
2. Settings



Parameter	Description
Name	Customize the name of your device.
Power Control	Tap to choose the maximum power supported for external micro inverter setup
Indicator	Indicator switch for CS-PCC.
Link micro inverter	You can link the micro inverter with the CS-PCC here.
Wi-Fi	View the Wi-Fi your device connected.
Device Information	You can see the device information here.
Share the Device	Share your device with anyone you want.
Delete	Tap to delete the CS-PCC from EZVIZ App.

3. Statistics

Tap View more on CS-PCC Page to enter Statistics.



Parameter	Description
Clear	Tap to clear history data.
See how much we have helped you save?	Tap to see how much electricity has been saved.
Day/Month/Year	Tap to see the electricity generation amout by day/month/year.
Power	Tap to see the power of your micro inverter.

Specifications

1. Solar Panel

@STC：AM1.5 1000W/m^2 25℃

Rated Power	100W
Rated Power Voltage	17.2V
Rated Power Current	5.8A
Open Circuit Voltage	20.4V
Short Circuit Current	6.2A
Weight	6.2Kg
Dimension(D-W-H)	980x586x30mm
Operating Temperature	-40°C~+85°C

2. Micro Inverter

INPUT(DC)

Max Recommended PV Power	600W x2
Max DC Open Circuit Voltage	60V
Max DC Input Current	17A x2
MPPT Tracking Accuracy	>99.5%
MPPT Tracking Range	22V~55V
IscPV(absolute maximum)	25A x2
Startup Voltage	24V
Maximum Backfeed Current	0A

OUTPUT(AC)

Rated AC Apparent Power	800VA
Rated AC Output Power	800W
Rated AC Output Current	3.48A
Rated Output Voltage	230V
Max Continuous Output Current	3.48A
Nominal Power Grid Frequency	50Hz/60Hz
Inverter Topology	Isolated(transformer w/basic insulation)
THD	<5%(at rated power)
Power Factor	>0.99(at full load)
Active Anti-islanding Method	Frequency Shift
Inrush Current(Peak and Duration)	9.6A 15us
Maximum Output Overcurrent Protection	10A
Maximum Output Fault Current	9.6 Apeak

SYSTEM EFFICIENCY

CEC Efficiency	96.3%
Night Time Tire Loss	0.11W

PROTECTION FUNCTIONS

Over/Under Voltage Protection	Yes
Over/Under Frequency Protection	Yes
Over Current Protection	Yes
Reverse DC Polarity Protection	Yes
Overload Protection	Yes
Ground Fault Detection	Integrated
IP Rating	IP67
Protective Class	I
Overvoltage Category Mains	OVCIII
Overvoltage Category PV	OVCII
Environment Temperature	-40℃ ~+65℃

OTHER PARAMETERS

Model	CS-PIM800
Environmental Categories	Outdoor. Wet location.
Pollution Degree	External PD3, Internal PD2.
Display	LEDLIGHT
Altitude	Up to 2000m
Weight	3.0Kg
Dimension(D-W-H)	235x184x30.5mm
Communication	Power Line Communication
Software Version	8A

3. CS-PCC

Input	110- 240V AC 50/60Hz Max 0.02A
Communication	2.4G WIFI & Power Line Communication

Norms

Micro Inverter

France	EN 50549-1:2019 France
Poland	EN 50549-1:2019 RfG Poland
Italy	CEI 0-21:2022
Germany	VDE-AR-N 4105:2018, DIN VDE V 0124-100 (VDE V 0124-100):2020

INFORMATION FOR PRIVATE HOUSEHOLDS

1. Separate collection of waste equipment: Electrical and electronic equipment that has become waste is referred to as waste equipment. Owners of waste equipment must dispose of it separately from unsorted municipal waste. In particular, waste equipment does not belong in household waste, but in special collection and return systems.
2. Batteries and rechargeable batteries as well as lamps: Owners of waste equipment shall, as a rule, separate waste batteries and rechargeable batteries that are not enclosed in the waste equipment, which can be removed from the waste equipment without being destroyed, from the waste equipment before handing them in at a collection point. This does not apply if waste equipment is prepared for reuse with the participation of a public waste management authority.
3. Options for returning waste equipment: Owners of waste equipment from private households can return it free of charge to the collection points of the public waste management authorities or to the take-back points set up by manufacturers or distributors within the meaning of the Electrical and Electronics Equipment Law. Stores with a sales area of at least 400 m² for electrical and electronic equipment and those grocery stores with a total sales area of at least 800 m² that offer electrical and electronic equipment several times a year or on a permanent basis and make it available in the market are required to take it back. This also applies in the case of distribution using means of distance communication, if the storage and shipping areas for electrical and electronic equipment are at least 400 m² or the total storage and shipping areas are at least 800 m². Distributors shall, in principle, ensure take-back by providing suitable return facilities at a reasonable distance from the respective end user. The possibility of returning waste equipment free of charge exists for distributors who are obliged to take it back, among other things, if a new similar device that essentially fulfills the same functions is delivered to an end user.
4. Privacy Notice: Waste equipment often contains sensitive personal data. This applies in particular to devices of information and telecommunications technology such as computers and smartphones. In your own interest, please note that each end user is responsible for deleting the data on the waste equipment to be disposed of.
5. Meaning of the icon “crossed-out wheelie bin”: The icon of a crossed-out wheelie bin regularly depicted on electrical and electronic equipment indicates that the respective device is to be collected separately from unsorted municipal waste at the end of its service life.