

# PRODUCT BROCHURE

## EV Charger



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PLUG  
VERSION



SOCKET  
VERSION

# WHO WE ARE

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Founded in 2019, Fox ESS is specialized in the R&D, production and sales of energy storage inverters, battery systems and EV charger, provides advanced distributed energy, energy storage products, smart energy management solutions and excellent electric vehicle charging solution for residential, industrial and commercial enterprises.

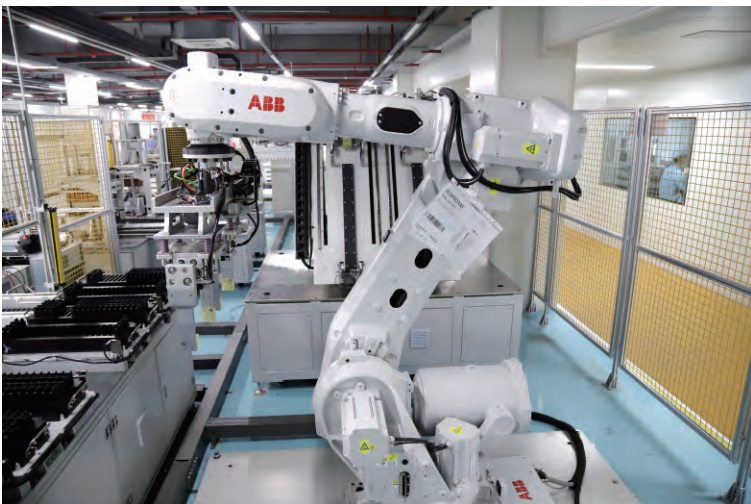






# RESEARCH & DEVELOPMENT

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The core of Fox ESS is a number of advanced R&D centers located in Wenzhou, Shanghai, Wuxi and Wuhan. In these R&D centers, hundreds of engineers and technicians are tirelessly improving the products to ensure that Fox ESS photovoltaic inverter, energy storage system, EV charger and other products always keep the leading position.

The R&D team of Fox ESS is mainly composed of experts in inverter, energy storage and EV charger technology, including a variety of senior technical experts with rich experience in well-known enterprises of the industry.

# THE PRODUCTS **QUALITY IS PRICELESS**

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Fox ESS EV charger are precision engineered to provide high performance, efficiency, reliability; and we source our components from the leading manufacturers.

Fox ESS EV charger incorporate a unique production process and quality control to ensure product stability and long life.



# GLOBAL MARKETS

Fox Around The World



# EV CHARGER

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- **A7300 SERIES**
- **A011K SERIES**
- **A022K SERIES**
- **AT022 SERIES**


Small, smart and simple to use

The Fox ESS EV charger is a versatile AC charger meant for homes, businesses, and charge point operators. It comes in 7kW 11kW and 22kW.

The Fox ESS EV charger creates smart charging systems that combine innovative technology with outstanding design.





| CERTIFICATE<br>of Conformity<br>EC Council Directive 2014/53/EU<br>of Radio Equipment  |   |
|--|---|
| Registration No.: AT 5058875-0001  |   |
| Report No.: CN23JPLX 001   |   |
| Holder:  | FOXESS CO., LTD.<br>No.339, Jinhai Third Road,<br>New Airport Industrial Area, Longwan District,<br>Wenzhou,<br>325026 Zhejiang<br>P.R. China   |
| Product:   | Radio equipment<br><i>(AC charger)</i>  |
| Identification:  | M22E01-W-2 M22E01T-W-2 AUL1A01-W-2 AUL1A01T-W-2<br>M22L01-W-2 M22L01T-W-2 BSM10-W-2<br>Bsmc10-W-2 L3-M22E01-W-2-L001 M22L01-W-2-L001<br>Z:000www.sundradia.com page 30082..                               |
| Tested acc. to:  | EN 62311-1 V2.2, 3.02029<br>ETSI EN 301 488-6 V1.2.1, 3.02023<br>EN 62311-2 V1.2, 4.12028<br>EN 62311-3 V1.2, 4.12028<br>EN 62311-4 V1.2, 4.12027<br>EN 62311-5 V1.1, 4.12024<br>EN 62311-6 V1.1, 4.12024 |
| <p>This certificate of conformity is based on an evaluation of all provisions of the above mentioned product.</p> <p>It is to certify that the tested article is in conformity with all provisions of Article 3 of Council Directive 2014/53/EU. This certificate does not imply assessment of the production and does not guarantee the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate as part of the technical documentation and in combination with the EC Declaration of Conformity.</p> |   |
| Date   | 07_06_2023  |
|   |   |
| Shawn Ping   |   |
| TÜV Rheinland Labo Products GmbH • Tillystraße 2 • 50431 Nürnberg<br>Phone (+4921) 8996-1371 Fax (+4921) 8996-3933 e-mail: conformance@tuev-rheinland.de http://www.tuev-rheinland.de  |   |



## A7300 SERIES

7.3kW

- Power: 7.3kW
- Output Current: Max.32A
- Output Voltage: 230V AC
- Type 2 cable charging connector
- Compliant with OCPP 1.6 (JSON)/2.0
- App operation or RFID authentication or plug, play & 4G
- Protection Grade: IP55
- -30 ~ 50°C wide Operating Temperature
- Warranty time: 3 years



PV ENERGY  
DIRECTING



A4 SIZE  
DESIGN



SMART  
CONTROL



FLEXIBLE  
INSTALLATION



SECURE  
AND SAFE



# A7300 SERIES

TECHNICAL  
SPECIFICATIONS

7.3kW

| MODEL                      | A7300P1-E  | A7300S1-E        |
|----------------------------|--|------------------|
| TYPE                       | CHARGING PLUG  | CHARGING SOCKET  |
| INPUT                      |  |                  |
| Wiring Scheme              | 1P+N+PE  |                  |
| Voltage                    | 230Vac, ±20%   |                  |
| Maximum Current            | 32A  |                  |
| Frequency                  | 50/60Hz  |                  |
| OUTPUT                     |  |                  |
| Voltage                    | 230Vac, ±20%   |                  |
| Maximum Current            | 32A  |                  |
| Rated Power                | 7.3kW  |                  |
| USER INTERFACE & CONTROL   |  |                  |
| Connector Type             | Type 2 cable   | Type 2 socket    |
| RFID Reader                | Mifare ISO/IEC 14443 A   |                  |
| Start Mode                 | Plug&Play/RFID card/App  |                  |
| COMMUNICATION              |  |                  |
| WiFi, Bluetooth            | Yes  |                  |
| 4G                         | Optional（coming soon）  |                  |
| OCPP                       | OCPP 1.6 JSON, OCPP 2.0 optional（coming soon）  |                  |
| ENVIRONMENT                |  |                  |
| Installation               | Wall-mount / Post-mount  |                  |
| Operating Temperature      | -30℃ ~ 50℃   |                  |
| Operating Humidity         | 5% ~ 95% No condensation   |                  |
| Operating Altitude         | ≤2000m   |                  |
| DIMENSION AND WEIGHT       |  |                  |
| Product Dimension          | 320*190*130 mm   | 320*190*144.5 mm |
| Product Weight             | 3.55kg   | 2.0kg            |
| SAFETY                     |  |                  |
| IP protection rating       | IP55   |                  |
| IK protection rating       | IK08   |                  |
| Residual Current Detection | AC 30mA / DC 6mA   |                  |
| Electrical Protection      | Over current protection, Residual current protection, Ground protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over/Under temperature protection |                  |
| EMC                        | Class B  |                  |
| Certification              | CE   |                  |
| Certification Standard     | EN/IEC 61851-1: 2019, EN/IEC 61851-21-2: 2021  |                  |





# A011K SERIES

11kW

- Power: 11kW
- Output Current: Max.16A
- Output Voltage: 400V AC
- Type 2 cable charging connector
- Compliant with OCPP 1.6 (JSON)/2.0
- App operation or RFID authentication or plug, play & 4G
- Protection Grade: IP55
- -30 ~ 50 °C wide Operating Temperature
- Warranty time: 3 years



PV ENERGY  
DIRECTING



A4 SIZE  
DESIGN



SMART  
CONTROL



FLEXIBLE  
INSTALLATION



SECURE  
AND SAFE



# A011K SERIES

## TECHNICAL SPECIFICATIONS

11kW

| MODEL                      | A011KP1-E-2  |  | A011KS1-E-2      |
|----------------------------|--|--|------------------|
| TYPE                       | CHARGING PLUG  |  | CHARGING SOCKET  |
| INPUT                      |  |  |                  |
| Wiring Scheme              | 3P+N+PE  |  |                  |
| Voltage                    | 400Vac, ±20%   |  |                  |
| Maximum Current            | 16A  |  |                  |
| Frequency                  | 50/60Hz  |  |                  |
| OUTPUT                     |  |  |                  |
| Voltage                    | 400Vac, ±20%   |  |                  |
| Maximum Current            | 16A  |  |                  |
| Rated Power                | 11kW   |  |                  |
| USER INTERFACE & CONTROL   |  |  |                  |
| Connector Type             | Type 2 cable   |  | Type 2 socket    |
| RFID Reader                | Mifare ISO/IEC 14443 A   |  |                  |
| Start Mode                 | Plug&Play/RFID card/App  |  |                  |
| COMMUNICATION              |  |  |                  |
| WiFi, Bluetooth            | Yes  |  |                  |
| 4G                         | Optional   |  |                  |
| OCPP                       | OCPP 1.6 JSON, OCPP 2.0 optional   |  |                  |
| ENVIRONMENT                |  |  |                  |
| Installation               | Wall-mount / Post-mount  |  |                  |
| Operating Temperature      | -30°C ~ 50°C   |  |                  |
| Operating Humidity         | 5% ~ 95% No condensation   |  |                  |
| Operating Altitude         | ≤2000m   |  |                  |
| DIMENSION AND WEIGHT       |  |  |                  |
| Product Dimension          | 320*190*130 mm   |  | 320*190*144.5 mm |
| Product Weight             | 3.55kg   |  | 2.0kg            |
| SAFETY                     |  |  |                  |
| IP protection rating       | IP55   |  |                  |
| IK protection rating       | IK08   |  |                  |
| Residual Current Detection | AC 30mA/DC 6mA   |  |                  |
| Electrical Protection      | Over current protection, Residual current protection, Ground protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over/Under temperature protection |  |                  |
| EMC                        | Class B  |  |                  |
| Certification              | CE   |  |                  |
| Certification Standard     | EN/IEC 61851-1: 2019, EN/IEC 61851-21-2: 2021  |  |                  |



# A022K SERIES

22kW

- Power: 22kW
- Output Current: Max.32A
- Output Voltage: 400V AC
- Type 2 cable charging connector
- Compliant with OCPP 1.6 (JSON)/2.0
- App operation or RFID authentication or plug, play & 4G
- Protection Grade: IP55
- -30 ~ 50 °C wide Operating Temperature
- Warranty time: 3 years



PV ENERGY  
DIRECTING



A4 SIZE  
DESIGN



SMART  
CONTROL



FLEXIBLE  
INSTALLATION



SECURE  
AND SAFE





# A022K SERIES

TECHNICAL  
SPECIFICATIONS

22kW

| MODEL                      | A022KP1-E-2  | A022KS1-E-2      |
|----------------------------|--|------------------|
| TYPE                       | CHARGING PLUG  | CHARGING SOCKET  |
| INPUT                      |  |                  |
| Wiring Scheme              | 3P+N+PE  |                  |
| Voltage                    | 400Vac, ±20%   |                  |
| Maximum Current            | 32A  |                  |
| Frequency                  | 50/60Hz  |                  |
| OUTPUT                     |  |                  |
| Voltage                    | 400Vac, ±20%   |                  |
| Maximum Current            | 32A  |                  |
| Rated Power                | 22kW   |                  |
| USER INTERFACE & CONTROL   |  |                  |
| Connector Type             | Type 2 cable   | Type 2 socket    |
| RFID Reader                | Mifare ISO/IEC 14443 A   |                  |
| Start Mode                 | Plug&Play/RFID card/App  |                  |
| COMMUNICATION              |  |                  |
| WiFi, Bluetooth            | Yes  |                  |
| 4G                         | Optional   |                  |
| OCPP                       | OCPP 1.6 JSON, OCPP 2.0 optional   |                  |
| ENVIRONMENT                |  |                  |
| Installation               | Wall-mount / Post-mount  |                  |
| Operating Temperature      | -30°C ~ 50°C   |                  |
| Operating Humidity         | 5% ~ 95% No condensation   |                  |
| Operating Altitude         | ≤2000m   |                  |
| DIMENSION AND WEIGHT       |  |                  |
| Product Dimension          | 320*190*130 mm   | 320*190*144.5 mm |
| Product Weight             | 3.55kg   | 2.0kg            |
| SAFETY                     |  |                  |
| IP protection rating       | IP55   |                  |
| IK protection rating       | IK08   |                  |
| Residual Current Detection | AC 30mA/DC 6mA   |                  |
| Electrical Protection      | Over current protection, Residual current protection, Ground protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over/Under temperature protection |                  |
| EMC                        | Class B  |                  |
| Certification              | CE   |                  |
| Certification Standard     | EN/IEC 61851-1: 2019, EN/IEC 61851-21-2: 2021  |                  |



Dual output design  
Space saving, dual charging

## AT022 SERIES

22kW

- Power: 22kW or 11kW\*2
- Output Current: Max.32A or 16A\*2
- Output Voltage: 400V AC
- Type 2 cable charging connector
- Compliant with OCPP 1.6 (JSON)/2.0
- App operation or RFID authentication or plug, play & 4G
- Protection Grade: IP55
- -30 ~ 50°C wide Operating Temperature
- Warranty time: 3 years



PV ENERGY  
DIRECTING



SINGLE & DOUBLE  
COMPATIBLE DESIGN



SMART  
CONTROL



FLEXIBLE  
INSTALLATION



SECURE  
AND SAFE



# AT022 SERIES

TECHNICAL  
SPECIFICATIONS

22kW

| MODEL                      | AT022-DP   |  | AT022-DS        |
|----------------------------|--|--|-----------------|
| TYPE                       | CHARGING PLUG  |  | CHARGING SOCKET |
| INPUT                      |  |  |                 |
| Wiring Scheme              | 3P+N+PE  |  |                 |
| Voltage                    | 400Vac, ±20%   |  |                 |
| Maximum Current            | 32A  |  |                 |
| Frequency                  | 50/60Hz  |  |                 |
| OUTPUT                     |  |  |                 |
| Voltage                    | 400Vac, ±20%   |  |                 |
| Maximum Current            | 32A or 16A   |  |                 |
| Rated Power                | 22kW or 11kW*2   |  |                 |
| USER INTERFACE & CONTROL   |  |  |                 |
| Connector Type             | Type 2 cable   |  | Type 2 socket   |
| RFID Reader                | Mifare ISO/IEC 14443 A   |  |                 |
| Start Mode                 | Plug&Play/RFID card/App  |  |                 |
| COMMUNICATION              |  |  |                 |
| WiFi, Bluetooth            | Yes  |  |                 |
| 4G, Ethernet               | Optional   |  |                 |
| OCPP                       | OCPP 1.6 JSON, OCPP 2.0 optional   |  |                 |
| ENVIRONMENT                |  |  |                 |
| Installation               | Wall-mount / Post-mount  |  |                 |
| Operating Temperature      | -30°C ~ 50°C   |  |                 |
| Operating Humidity         | 5% ~ 95% No condensation   |  |                 |
| Operating Altitude         | ≤2000m   |  |                 |
| DIMENSION AND WEIGHT       |  |  |                 |
| Product Dimension          | 500*350*155 mm   |  |                 |
| Product Weight             | 18kg   |  | 14kg            |
| SAFETY                     |  |  |                 |
| IP protection rating       | IP55   |  |                 |
| IK protection rating       | IK08   |  |                 |
| Residual Current Detection | AC 30mA/DC 6mA   |  |                 |
| Electrical Protection      | Over current protection, Residual current protection, Ground protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over/Under temperature protection |  |                 |
| EMC                        | Class B  |  |                 |
| Certification              | CE   |  |                 |
| Certification Standard     | EN/IEC 61851-1: 2019, EN/IEC 61851-21-2: 2021  |  |                 |





## AC TYPE2 CHARGING CABLE

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European Standard AC Type2 Double Connectors Charging Cable is a reliable connection device used between electric vehicles and EV charger.

High strength ABS material, which has better quality and can be used for longer; IP55 waterproof could be safer during charging.

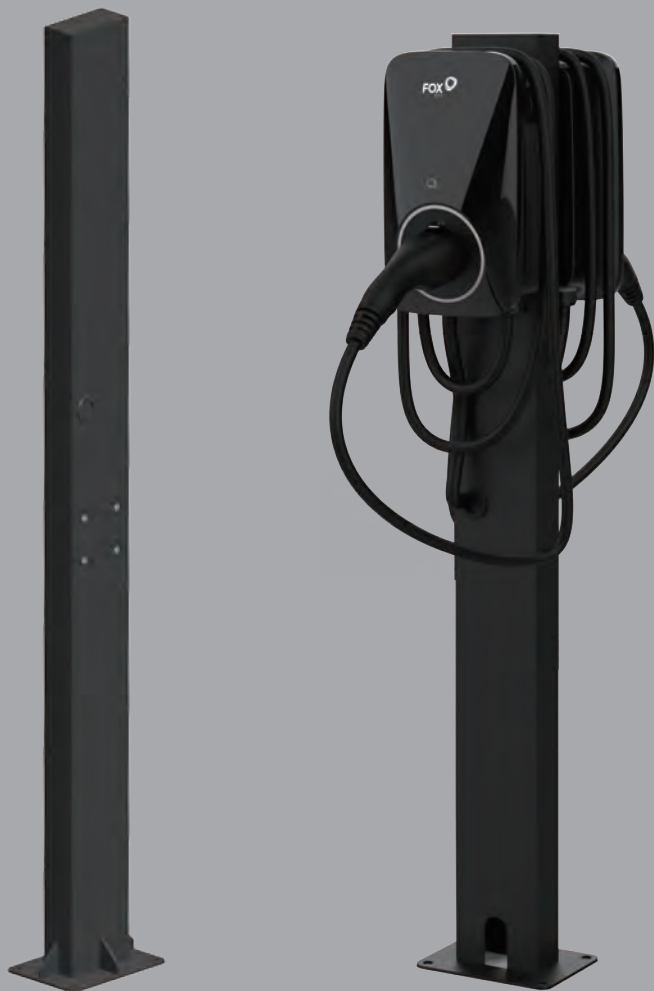
Thanks to the Silver plating on the standard J1772 inlet, our charger have better conductivity and could prevent overheating.



# AC TYPE2 CHARGING CABLE

## TECHNICAL SPECIFICATIONS

| TYPE                     | MEAC-S-032A                                      | MEAC-T-032A                                      |
|--------------------------|--|--|
| CABLE                    |  |  |
| Cable type               | 3 x 6 mm <sup>2</sup> + 1 x 0.75 mm <sup>2</sup> | 5 x 6 mm <sup>2</sup> + 1 x 0.75 mm <sup>2</sup> |
| Cable length             | 5.0 m  |  |
| ELECTRICAL PARAMETERS    |  |  |
| Rated Voltage            | 250V   | 480V   |
| Rated Current            | 32A  |  |
| Insulation resistance    | ≥100MΩ 500V DC                                   |  |
| Withstand voltage        | L、N and PE >2500V AC L and N >2500V AC           |  |
| MECHANICAL PARAMETERS    |  |  |
| Mated cycles             | ≥10000   |  |
| Mated force              | < 100N   |  |
| ENVIRONMENTAL PARAMETERS |  |  |
| Operate Temperature      | -30°C ~ 55°C                                     |  |
| Ingress Protection       | IP54   |  |
| Flame Rating             | UL94-V0  |  |
| STANDARD                 |  |  |
| Certification            | CE/TUV   |  |



## POST OF EV CHARGER

- Base: 200\*150 mm
- Main part: 60\*120\*1200 mm



THICKENED  
MATERIAL



WATERPROOF  
AND  
RUST-PROOF



SIMPLE  
INSTALLATION



ROBUST  
AND  
DURABLE



# EXTREMELY EASY TO INSTALL

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The installation process is fast and easy.  
We design the EV charger for easy installation, which  
can be completed in a few simple steps.



The future of charging is smart, and our management system is equipped with future-proof features.

The system works on the cloud, which enables us to update new features rapidly.



# FoxSwitch APP

01

Control your charger with FoxSwitch app, Find the FoxSwitch APP on the Apple APP & Google Play stores.



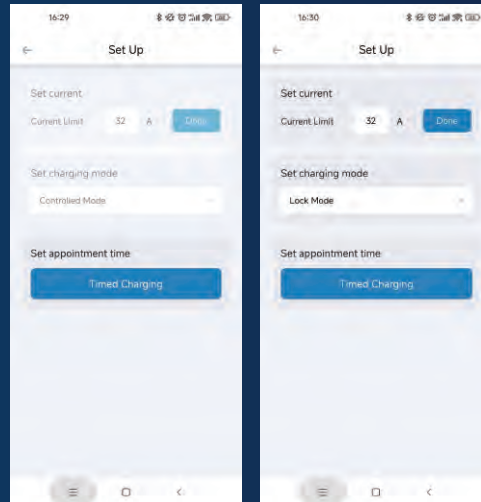
02

Start or stop charging, Monitor the status of your charger and control it remotely on the go, View your statistics in real time.



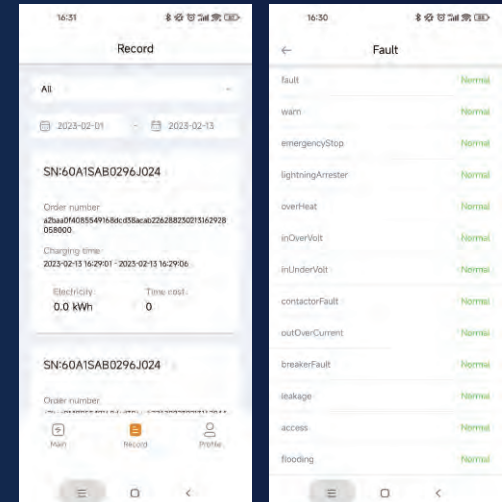
03

Schedule charging when the power is cheapest, Lock your charger to protect it from unwanted use.



04

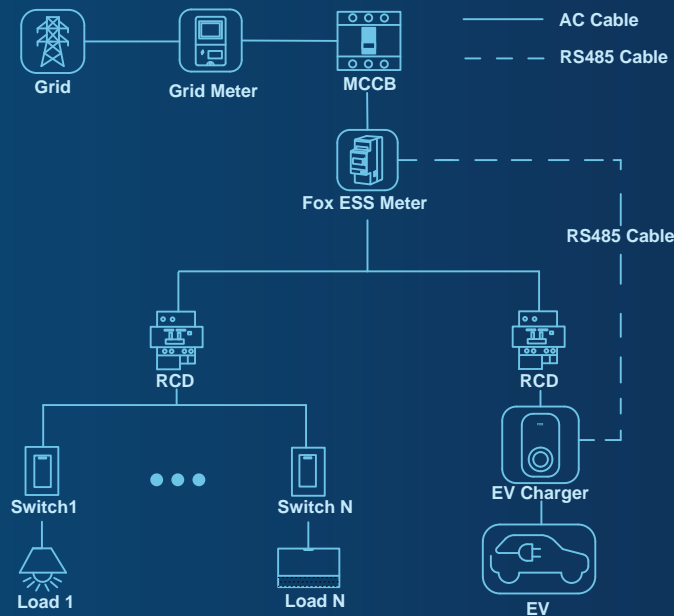
Update firmware remotely  
Query fault and charging order.



# LOAD BALANCE SOLUTION

## Dynamic Load Balance

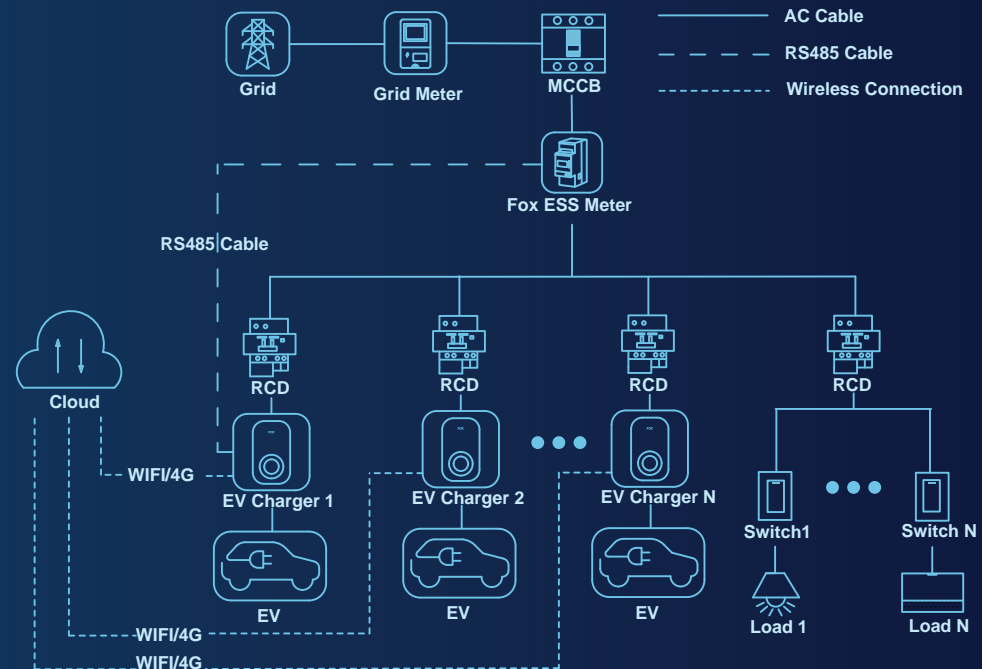
When the power consumption exceeds the limit, the charger's current is restricted to protect house load. The EV charger can be charge regularly according to the low electricity price.



## Static load balancing

It can balance the total available power distribution of multiple chargers at a specific time.

Used to manage multiple chargers in the system.



# FOX ESS SOLAR EV CHARGING SOLUTION

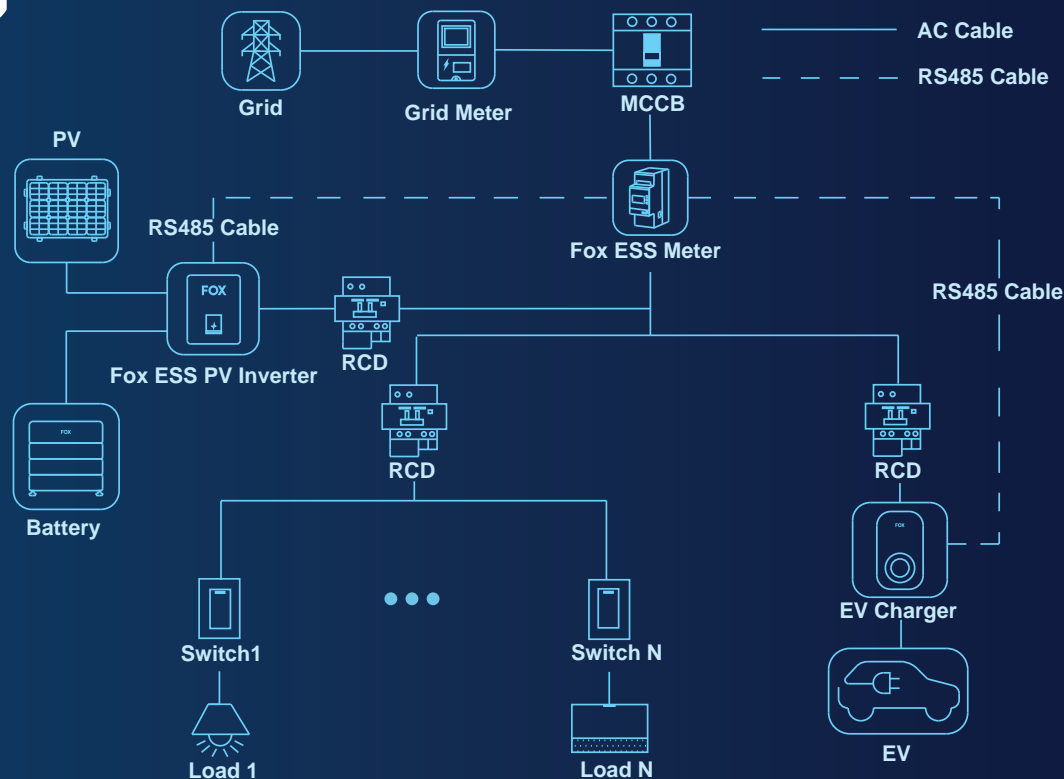
## Solar linkage

There are three Work Modes designed for the Smart EV Charger:

**GREEN mode**, In the state of spontaneous self-use, the inverter gives priority to charging the battery, and the remaining energy is supplied to the EV charger.

**ECO mode**, In the state of spontaneous self-use, the inverter gives priority to power the EV charger and the battery can also power the EV charger.

**FAST mode**, the EV charger will charge at the set maximum current.



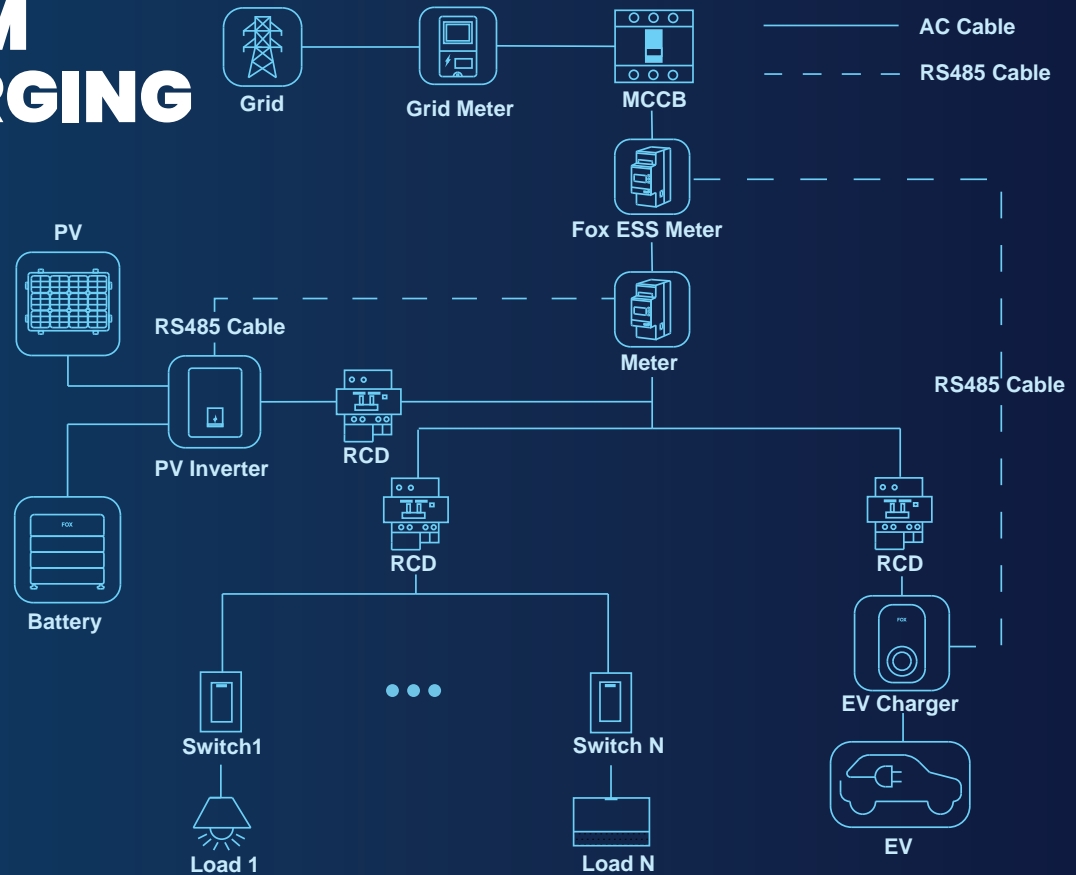
# NONE FOX ESS ENERGY SYSTEM SOLAR EV CHARGING SOLUTION

There are three Work Modes designed for the Smart EV Charger:

**GREEN mode**, In the state of spontaneous self-use, the inverter gives priority to charging the battery, and the remaining energy is supplied to the EV charger.

**ECO mode**, In the state of spontaneous self-use, the inverter gives priority to power the EV charger and the battery can also power the EV charger, grid power the EV charger.

**FAST mode**, When the inverter is not in the self-use state, the EV charger will charge at the set maximum current.



# EV BILLING

Our scalable EV charging billing system has been designed specifically for EV charging networks to address every aspect of your billing operations.



- Multiple EV billing tariffs and plans are supported, including pre-paid, post-paid, etc.
- Real-time rating
- Dynamic and static cost factoring
- Supports extensive business models, including OEM, Host, etc.
- Allows complex reconciliation between partners in the ecosystem
- Support for multiple currencies
- Flexible tax management
- Integration with multiple payment gateways
- Reporting and dashboards



# TYPE 2 CHARGING SOCKET WITH SHUTTER

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Type 2 Charging Socket With Shutter Is Based On The Proven Charging Socket Type 2 With An Additional Shutter Module, With Additional Protection Against Contact Of Electrical Parts.



# FOX ESS PROJECT PICTURES



München, Germany









Wenzhou, China



Site Picture





Site Picture



Site Picture






Site Picture



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