

**KSTAR**  
Customer Focused, Quality Oriented



## KSTAR Electric Vehicle Charging System Solution

### Shenzhen Kstar Science & Technology Co., Ltd.

Customer service hotline: 400-700-9662  
Stock Code: 002518  
Headquarters address: 4/F, Bldg. 1, Software Park, Keji  
Middle 2nd Road, High-tech Zone, Shenzhen

### Manufacturing Bases

Shenzhen Guangming High-tech Zone Kstar Industrial Park  
Huizhou Zhongkai High-tech Zone Kstar Industrial Park  
CATL-KSTAR Science and Technology Co., Ltd.  
Kstar (Vietnam) Co., Ltd.  
Shenzhen Guanlan Fuyuan Industrial Zone Kstar Industrial Park  
Jiangxi Changxin Gold Sunshine Power Supply Co., Ltd.  
Jiangsu Kstar Energy Technology Co., Ltd.



Kstar reserves the right to change product design and specifications. All information has been carefully proofread for accuracy. If there are any omissions or errors in translation, the company is not responsible for the consequences arising therefrom. There may be slight differences between the picture and the actual product. Please refer to the actual product for the specifications and appearance (including but not limited to color). For detailed specifications and functional operation instructions, please refer to the user manual.

[WWW.KSTAR.COM.CN](http://WWW.KSTAR.COM.CN)

**KSTAR**

## Company Overview/Strategic Customers



**1993**  
Establishment

**4.4<sup>+</sup> Billion**  
2022 Business Overview

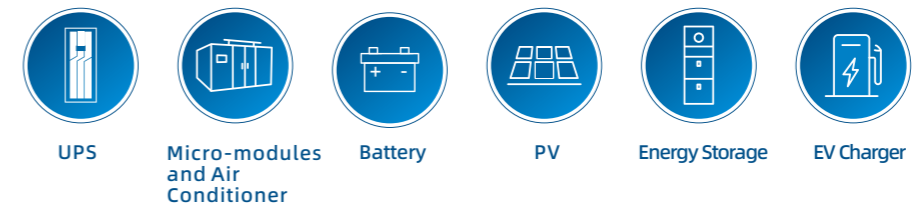
**2010**  
Listed

## Company Overview

KSTAR was founded in 1993 and was listed on the Shenzhen Stock Exchange in 2010 (stock code: 002518). For 30 years, we have focused on the research and development and manufacturing of UPS power supply, micro modules and air conditioner, batteries, PV, energy storage, and EV charger and have been a leading provider of comprehensive solutions in the smart energy field.

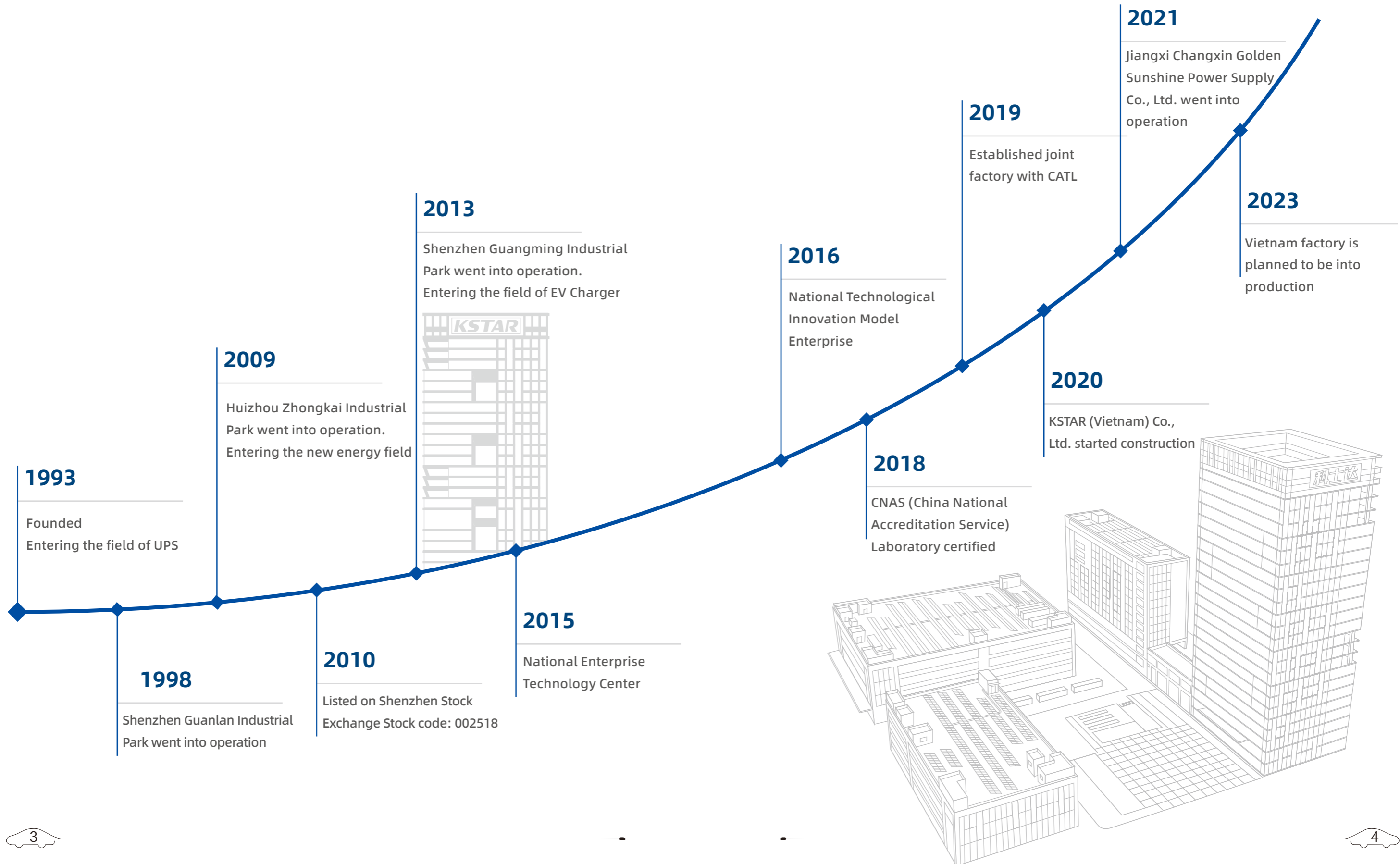
## Service System

Based on the logic of "Headquarter Customer Service Center--Regional Technical Support Center--Local After-sales Service Center--Regional Service Center", KSTAR has been the first enterprise in the industry that established a multi-level service center with a complete coverage, reasonable layout and user-friendly experience.



# Development Milestones

Customer Focused, Quality Oriented







**78**

Technical service centers



**450+**

Technical service staffs



**128**

Technical service stations



**7x24 hours**

response service

KSTAR's business covers more than 180 countries and regions. With the principle of "customer-focused & quality-oriented", KSTAR has been striving to provide products and services with high quality to create greater values for customers.

## North America

- ◆ Mexico

## Europe

- ◆ UK
- ◆ Netherlands
- ◆ Germany
- ◆ Poland
- ◆ Ukraine
- ◆ France
- ◆ Hungary
- ◆ Spain
- ◆ Italy
- ◆ Türkiye

## Asia

- ◆ China
- ◆ Korea
- ◆ Vietnam
- ◆ Malaysia
- ◆ India
- ◆ UAE
- ◆ Kazakhstan

## South America

- ◆ Brazil

## Africa

- ◆ Nigeria
- ◆ South Africa

## Oceania

- ◆ Australia

Global Service Centre





DC Charger Assembly Workshop



AC Charger Assembly Workshop



Charging Module Assembly Workshop



Computer Numerical Control Production line



Laser Cutting Machine



Weld Robot



SMT Production Line



Electronic Load



Automatic Optical Detection Line



Fully Automated Testing System



Aging System



Module Test



EMI Laboratory (Measuring RE Radiation Interference)



Environmental Compatibility Laboratory



Waterproof Laboratory

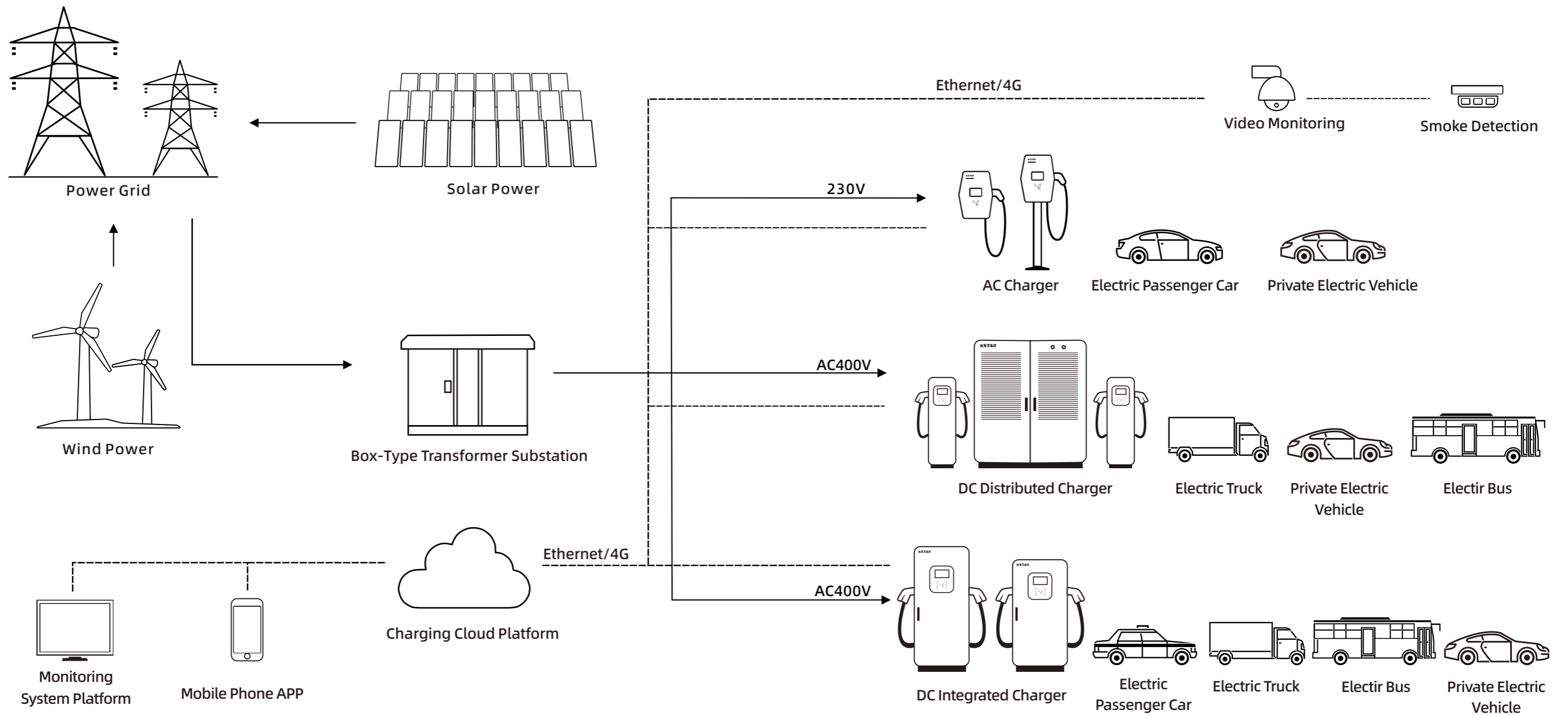


## Description

Combining with the intelligent charging cloud platform, power, fire protection and security monitoring, a smart and safe charging system is involved in this integrated solution.

## Application Scenario

Bus stations, charging stations, highway service areas, gas stations, residential areas, commercial complexes, scenic spots, etc.

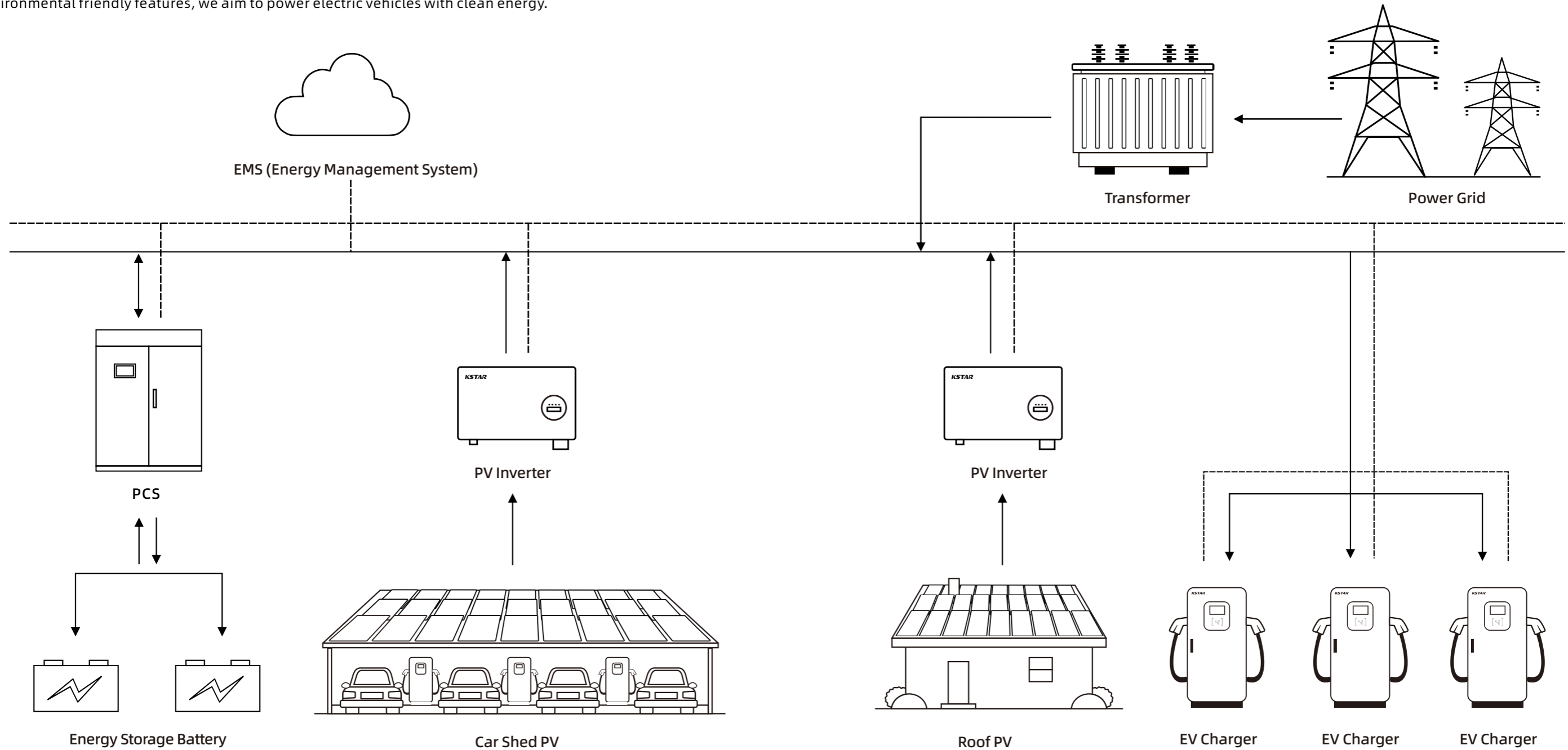


## Program Overview

KSTAR offers a full range of PV inverters, energy storage PCS, DC converters, charging piles, energy management systems (EMS), and integrated solutions for solar storage and charging. Our products enable self-consumption, grid-feeding, peak-shaving, valley-filling, emergency power supply, and improvement of power quality to promote energy conservation and emissions reduction. With low-carbon and environmental friendly features, we aim to power electric vehicles with clean energy.

## Application Scenario

Charging stations, transport hubs, industrial parks, commercial complexes, etc.





◆ **High Protection Level:**

Protection class IP65, suitable for all kinds of harsh environments;

◆ **Support Bluetooth Function:**

Start-up, shakedown and upgrade can be done via Bluetooth function;

◆ **Remote Upgrade Function:**

Support remote start/stop, remote upgrade and remote rate setting;

◆ **Scheduled:**

Scheduled charging is supported. Users can set the timing according to the actual needs;

◆ **Protection Function:**

Overvoltage protection, undervoltage protection, overload protection, short circuit protection, leakage protection, grounding protection, over-temperature protection, lightning surge protection, emergency stop function, etc. ;

◆ **Temperature Adaptability:**

The strong environment adaptability supports a working temperature range of -30~50°C

◆ **Various Communication Modes:**

Charging and fault information can be uploaded via Ethernet or wireless 4G communication.;

◆ **Various Start-up Methods:**

Card swiping, code scanning and Bluetooth can be used to start-up the device;

◆ **Human-computer Interaction:**

Information such as charging status, amount or fault can be clearly displayed;

◆ **Elegant Design:**

The shell is made of composite material with an elegant design;

◆ **Multiple Installation Methods:**

Wall-mounted or column-mounted

## Technical Specifications

Kstar AC Charger (Commercial Version)	
Power Supply	1P+N+PE
Input/output Power Rating	7kW
Input/output Voltage	230VAC±15%
Input/output Current	Up to 32A
Frequency	50/60Hz
Cable Length	4.5M
Connector Type	IEC 62196 type 2 plug
Dimension	276*100*380mm (W*D*H)
LED Indicator	Green/Blue/Red
LCD Display	4.3" color screen
RFID Reader	MifareISO/IEC14443 A
Start Mode	RFID card/App
Emergency Stop	Yes
WiFi+Bluetooth	Yes
Ethernet/4G	Optional
OCPP	OCPP 1.6 json
Energy Meter	AC energy meter
Power Measurement Accuracy	+/- 1.0%
Residual Current Detection	AC 30mA + DC 6mA
Ingress Protection	IP65
Electrical Protection	Over voltage protection, under voltage protection, overload protection, short circuit protection, open circuit protection, leakage protection, grounding protection, over temperature protection, surge protection.
Certification Standard	IEC61851-1, IEC62196
Installation	Wall-mounted or column-mounted
Work Temperature	-30°C~+50°C
Work Humidity	5%~95%
Work Altitude	<3000m
Software	OTA updates





**◆ High Protection Level:**

Protection class IP65, suitable for all kinds of harsh environments;

**◆ Technological & Beauty:**

The shell is made of composite material, with an elegant design;

**◆ Support Bluetooth Function:**

Start-up, shakedown and upgrade can be done via Bluetooth function;

**◆ Temperature Adaptability:**

The strong environment adaptability supports a working temperature range of -30~50°C;

**◆ Various Start-Up Methods:**

support card start-up charging, sweep code start-up charging, Bluetooth start-up charging, etc;

**◆ Protection Function:**

Overvoltage protection, undervoltage protection, overload protection, short circuit protection, leakage protection, grounding protection, over-temperature protection, lightening surge protection, emergency stop function, etc.;

**◆ Timed Charging:**

The charging time can be automatically or manually selected to flexibly utilize low electricity prices during off-peak hours so as to reduce charging costs;

**◆ Multiple Installation Methods:**

Wall-mounted or column-mounted

## Technical Specifications

Kstar AC Charger (Home Version)	
Power Supply	1P+N+PE
Input/output Power Rating	7kW
Input/output Voltage	230VAC±15%
Input/output Current	Up to 32A
Frequency	50/60Hz
Cable Length	4.5M
Connector Type	IEC 62196 type 2 plug
Dimension	276*100*380mm (W*D*H)
LED Indicator	Green/Blue/Red
LCD Display	No
RFID Reader	MifareISO/IEC14443 A
Start Mode	RFID card/App
Emergency Stop	Yes
WiFi+Bluetooth	Yes
Ethernet/4G	Optional
OCP	OCP 1.6 Json
Energy Meter	AC energy meter
Power Measurement Accuracy	+/- 1.0%
Residual Current Detection	AC 30mA + DC 6mA
Ingress Protection	IP65
Electrical Protection	Over voltage protection, under voltage protection, overload protection, short circuit protection, open circuit protection, leakage protection, grounding protection, over temperature protection, surge protection.
Certification Standard	IEC61851-1, IEC62196
Installation	Wall-mounted or column-mounted
Work Temperature	-30°C~+50°C
Work Humidity	5%~95%
Work Altitude	<3000m
Software	OTA updates



◆ **High Protection Level:**

Protection class IP55, suitable for all kinds of harsh environments;

◆ **Support Bluetooth Function:**

Start-up, shakedown and upgrade can be done via Bluetooth function;

◆ **Scheduled Charging:**

Scheduled charging is supported. Users can set the timing according to the actual needs;

◆ **Protection Function:**

Over voltage protection, under voltage protection, short circuit protection, leakage protection, lightning surge protection, emergency stop function, etc;

◆ **Temperature Adaptability:**

The strong environment adaptability supports a working temperature range of -30~50°C;

◆ **Various Communication Modes:**

Charging and fault information can be uploaded via Ethernet or wireless 4G communication ;

◆ **Various Start-up Methods:**

Card swiping, code scanning and Bluetooth can be used to start-up the device;

◆ **Human-computer Interaction:**

Information such as charging status, amount or fault can be clearly displayed.

## Technical Specifications

KSTAR AC Charger (22kW)	
Power Supply	3P+N+PE
Input/output Power Rating	22kW
Input/output Voltage	400V AC±15%
Input/output Current	Up to 32A
Frequency	50/60Hz
Cable Length	4.5M
Connector Type	IEC 62196 type 2 plug
Dimension	276*100*380mm (W*D*H)
LED Indicator	Green/Blue/Red
LCD Display	4.3" color screen
RFID Reader	MifareISO/IEC14443 A
Start Mode	RFID card/App
Emergency Stop	Yes
WiFi+Bluetooth	Yes
Ethernet/4G	Optional
OCPP	OCPP 1.6 Json
Energy Meter	AC energy meter
Power Measurement Accuracy	+/- 1.0%
Residual Current Detection	AC 30mA + DC 6mA
Ingress Protection	IP55
Electrical Protection	Over voltage protection, under voltage protection, overload protection, short circuit protection, open circuit protection, leakage protection, grounding protection, over temperature protection, surge protection.
Certification Standard	IEC61851-1, IEC62196
Installation	Wall-mounted Floor-standing (with pedestal)
Work Temperature	-30°C~+50°C
Work Humidity	5%~95%
Work Altitude	<3000m
Software	OTA updates



◆ **High Protection Level:**

Protection class IP54, suitable for all kinds of harsh environments;

◆ **Support Bluetooth Function:**

Start-up, shakedown and upgrade can be done via Bluetooth function;

◆ **Scheduled Charging:**

Scheduled charging is supported. Users can set the timing according to the actual needs;

◆ **Protection Function:**

Over voltage protection, under voltage protection, short circuit protection, leakage protection, lightning surge protection, emergency stop function, etc;

◆ **Temperature Adaptability:**

The strong environment adaptability supports a working temperature range of -30~50°C;

◆ **Various Communication Modes:**

Charging and fault information can be uploaded via Ethernet or wireless 4G communication;

◆ **Various Start-up Methods:**

Card swiping, code scanning and Bluetooth can be used to start-up the device;

◆ **Human-computer Interaction:**

Information such as charging status, amount or fault can be clearly displayed.

## Technical Specifications

KSTAR AC Charger (44kW)	
Power Supply	3P+N+PE
Input/output Power Rating	44kW
Input/output Voltage	400V AC±15%
Input/output Current	Up to 64A
Frequency	50/60HZ
Cable Length	4.5M
Connector Type	IEC 62196 type 2 plug
Dimension	450*220*1600mm(W*D*H)
LED Indicator	Green/Blue/Red
LCD Display	4.3" color screen
RFID Reader	MifareISO/IEC14443 A
Start Mode	RFID card/App
Emergency Stop	Yes
WiFi+Bluetooth	Yes
Ethernet/4G	Optional
OCPP	OCPP 1.6 Json
Energy Meter	AC energy meter
Power Measurement Accuracy	+/- 1.0%
Residual Current Detection	AC 30mA + DC 6mA
IP Rating	IP54
Electrical Protection	Over voltage protection, under voltage protection, overload protection, short circuit protection, open circuit protection, leakage protection, grounding protection, over temperature protection, surge protection.
Certification Standard	IEC61851-1, IEC62196
Installation	Floor-standing
Work Temperature	-30°C~+50°C
Work Humidity	5%~95%
Work Altitude	<3000m
Software	OTA updates





◆ **Wide Voltage Range:**

Output voltage range is DC200-1000V, suitable for all new energy vehicles on the market;

◆ **Metering Accuracy:**

Measuring accuracy can meet Level 1.0;

◆ **Various Start-up Methods:**

Card swiping, code scanning and Bluetooth can be used to start-up the device;

◆ **Remote Upgrade Function:**

Support the functions of remote start/stop, remote upgrade and remote rate setting;

◆ **Complete Protection Functions:**

Over-voltage protection, over-temperature protection, over-current protection, short circuit protection, leakage protection, lightning surge protection, etc;

◆ **Multiple Installation Methods:**

Wall-mounted or column-mounted;

◆ **Active Protection Function:**

Real-time monitors BMS data abnormalities, battery overheating, battery reverse connection, battery overcharging, and other dynamic data, actively protecting and ensuring the safety of the battery;

◆ **Various Communication Modes:**

With strong anti-interference ability, the charging and fault information can be uploaded via Ethernet or wireless 4G communication;

◆ **Modularized Design:**

Charging module adopts modularized design. It's easy to be operated, expanded and maintained;

◆ **Design of Access Control Switch:**

When the cabinet is opened, the system will send an alarm notification to ensure personal safety;

◆ **High Protection Level:**

With the IP54 level, it can be installed in the outdoor harsh environment;

## Technical Specifications

KSTAR Wall-mounted DC Charger	
Output Power Rating	20-60kW
Output Voltage	200-1000V
Output Current	Up to 300A
Peak Efficiency	≥95%
Number of Connector	1*CCS2
Earthing System	3P, N, PE
Input Voltage	3-phase 400V AC±20%
Input Frequency	45-65Hz
Harmonic distortion (THDi)	≤5%
Power Factor	≥0.99
LCD Display	7" color touch screen
Status indication	LCD/LED/APP
RFID Reader	MifareISO/IEC14443 A
Start Mode	RFID card/QR Code/APP
Emergency Stop	Yes
WiFi+Bluetooth	Yes
Ethernet/4G	Optional
OCPP	OCPP 1.6 Json
Power Measurement Accuracy	+/- 1.0%
IP Rating	IP54
Electrical Protection	Over voltage protection, under voltage protection, overload protection, short circuit protection, open circuit protection, leakage protection, grounding protection, over temperature protection, surge protection.
Certification Standard	IEC61851-1, IEC61851-23, IEC61851-24, IEC62196
Work Temperature	-30°C~+50°C
Storage Temperature	-40°C~+50°C
Work Humidity	5%~95%
Work Altitude	<3000m
Cable Length	5M Standard, 6m/7m Optional
Dimension	700*300*610mm(W*D*H)
Installation	Wall-mounting, Floor-standing (with pedestal)
Software	OTA updates



**◆ Easy installation:**

Integrated design makes it easy to be installed;

**◆ Wide Voltage Range:**

Output voltage range is DC200-1000V, suitable for all new energy vehicles on the market;

**◆ High Charging Efficiency:**

Max efficiency is up to 96%, improving the operation efficiency;

**◆ Human-computer Interaction:**

Information such as charging status, amount or fault can be clearly displayed, making it convenient for users to operate;

**◆ Metering Accuracy:**

Measuring accuracy can meet Level 1.0;

**◆ Various Start-Up Methods:**

Card swiping, code scanning and Bluetooth can be used to start-up the device;

**◆ Remote Upgrade Function:**

Support the functions of remote start/stop, remote upgrade and remote rate setting;

**◆ Hinged Design:**

The equipment is designed with hinged side doors, which is convenient for maintenance;

**◆ Active Protection Function:**

Real-time monitors BMS data abnormalities, battery overheating, battery reverse connection, battery overcharging, and other dynamic data, actively protecting and ensuring the safety of the battery;

**◆ Case Safety Protection:**

360°anti-collision design, automatic power-off when inclination exceeding 30°;

**◆ Various Communication Modes:**

With strong anti-interference ability, the charging and fault information can be uploaded via Ethernet or wireless 4G communication;

**◆ Modularized Design:**

Charging module adopts modular design. It's easy to be operated, expanded and maintained;

**◆ Intelligent Speed Regulation:**

Cooling fan can adjust the speed correspondingly according to the working temperature, reducing the noise and energy consumption;

**◆ Auxiliary Power Switch:**

Support 12V and 24V screen switching;

**◆ High and Low Voltage Isolation Design:**

High voltage and low voltage parts are isolated for safety protection and easy maintenance;

**◆ Energy Saving Design:**

In standby mode, the power of module is as low as 6W;

## Technical Specifications

### Kstar DC Integrated Charger

Output Power Rating	60-240kW
Output Voltage	200-1000V
Output Current	Up to 300A
Overall Efficiency	≥95%
Number of Connector	2*CCS2 or 1*CCS2+1*GB/T
Earthing System	3P, N, PE
Input Voltage	3-phase 400V AC±20%
Input Frequency	45-65Hz
Harmonic distortion (THDi)	≤5%
Power Factor	≥0.99
LCD Display	7" color touch screen
Status indication	LCD/LED/APP
RFID Reader	MifareISO/IEC14443 A
Start Mode	RFID card/QR Code/APP
Emergency Stop	Yes
WiFi+Bluetooth	Yes
Ethernet/4G	Optional
OCPP	OCPP 1.6 J2013
Power Measurement Accuracy	+/- 1.0%
IP Rating	IP54
Electrical Protection	Over voltage protection, under voltage protection, overload protection, short circuit protection, open circuit protection, leakage protection, grounding protection, over temperature protection, surge protection.
Certification Standard	IEC61851-1, IEC61851-23, IEC61851-24, IEC62196
Work Temperature	-30°C~+50°C
Storage Temperature	-40°C~+50°C
Work Humidity	5%~95%
Work Altitude	<3000m
Cable Length	5M Standard, 6m/7m Optional
Dimension	800*500*1600mm(W*D*H)
Installation	Floor-standing
Software	OTA updates



Distributed Charger host



Air Cooling Terminal



Liquid Cooling Terminal

◆ **Compact Terminal:**

The charging terminal occupies a small area and is easy to install;

◆ **Wide Voltage Range:**

Output voltage range is DC200-1000V, suitable for all new energy vehicles on the market;

◆ **High Charging Efficiency:**

Max efficiency is up to 96%, improving the operation efficiency;

◆ **Flexible Configuration:**

The number of charging connector ranges from 1 to 12;

◆ **Metering Accuracy:**

Measuring accuracy can meet Level 1.0;

◆ **Various Start-Up Methods:**

Card swiping, code scanning and Bluetooth can be used to start-up the device;

◆ **Remote Upgrade Function:**

Support the functions of remote start/stop, remote upgrade and remote rate setting;

◆ **Complete Protection Functions:**

Over-voltage protection, over-temperature protection, over-current protection, short circuit protection, leakage protection, lightning surge protection, etc;

◆ **Active Protection Function:**

Real-time monitors BMS data abnormalities, battery overheating, battery reverse connection, battery overcharging, and other dynamic data, actively protecting and ensuring the safety of the battery;

◆ **Power Sharing:**

A charging module can be shared to any connector;

◆ **Various Communication Modes:**

Support Ethernet and wireless 4G communication, upload charging information, independent isolation design, strong anti-interference;

◆ **Modularized Design:**

Charging module adopts modular design. It's easy to be operated, expanded and maintained;

◆ **Intelligent Speed Regulation:**

Cooling fan can adjust the speed correspondingly according to the working temperature, reducing the noise and energy consumption;

◆ **Access Control Switch Design:**

When the cabinet is opened, the system will send an alarm notification to ensure personal safety;

◆ **Auxiliary Power Switch:**

Support 12V and 24V screen switching;

◆ **Energy Saving Design:**

In standby mode, the module standby power consumption is 0;

◆ **Dust-proof Design:**

Water-washable dust-proof design for easy cleaning;

◆ **Water Immersion Protection Design:**

When the bottom of the charger is flooded with more than 200mm, the input and output will be disconnected and charging will stop.

◆ **High Protection Level:**

With the IP54 level, it can be installed in the outdoor harsh environment;

◆ **Double-Plug & Double-Pile Charging Function:**

Two terminals or two connectors can simultaneously provide high-power charging for 1 vehicle;

## Technical Specifications

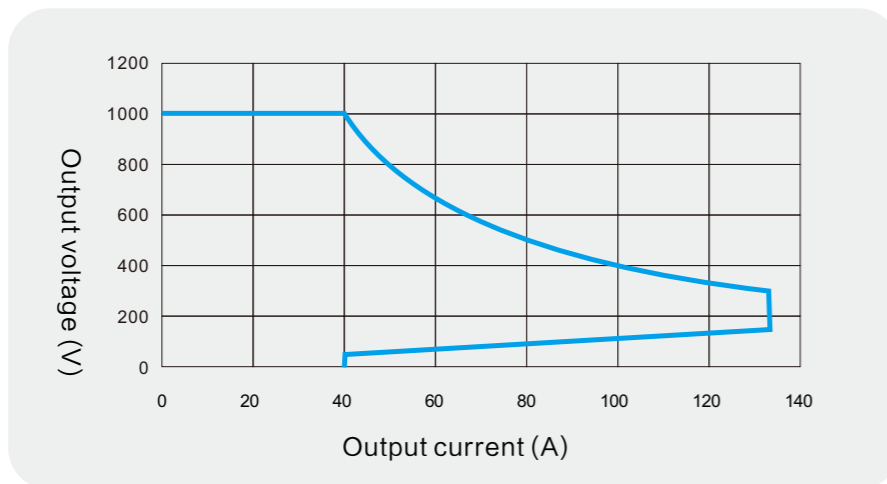
### KSTAR Distributed DC Charger

Output Power Rating	360-720kW
Output Voltage	200-1000V
Output Current	Up to 300A (Air cooling) Up to 600A (Liquid Cooling)
Overall Efficiency	≥95%
Number of Terminals	1-6
Number of Connectors	1-12
Earthing System	3P, N, PE
Input Voltage	3-phase 400V AC±20%
Input Frequency	45-65Hz
Harmonic distortion (THDi)	≤5%
Power Factor	≥0.99
LCD Display	7" color touch screen
Status indication	LCD/LED/APP
RFID Reader	MifareISO/IEC14443 A
Start Mode	RFID card/QR Code/APP
Emergency Stop	Yes
WiFi+Bluetooth	Yes
Ethernet/4G	Optional
Ocpp	Ocpp 1.6 Json
Power Measurement Accuracy	+/- 1.0%
IP Rating	IP54
Electrical Protection	Over voltage protection, under voltage protection, overload protection, short circuit protection, open circuit protection, leakage protection, grounding protection, over temperature protection, surge protection.
Certification Standard	IEC61851-1, IEC61851-23, IEC61851-24, IEC62196
Work Temperature	-30°C~+50°C
Storage Temperature	-40°C~+50°C
Work Humidity	5%~95%
Work Altitude	<3000m
Cable Length	5M Standard, 6m/7m Optional
Dimension	Host: 800*750*1800mm(W*D*H); Terminal: 450*220*1600 (W*D*H)
Installation	Floor-standing
Software	OTA updates





## Output Characteristic Curves



## Output Characteristic Curves

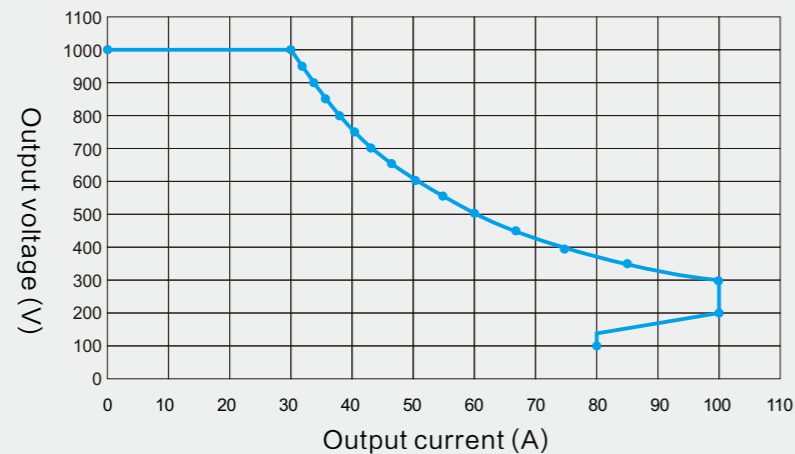
- ◆ **High efficiency:** Max efficiency is greater than 97%;
- ◆ **Wide voltage range:** DC150V-1000V;
- ◆ **Parallel capability:** Support parallel operation of 60 charging modules;
- ◆ **Low noise design:** Reduced impact of noise on the environment;
- ◆ **Low standby power consumption:** Help to increase operational income;
- ◆ **Sophisticated protection function:** Protection against input overcurrent, input overvoltage, output reverse connection, output short circuit, output anti-backfill, over-temperature, etc.;
- ◆ **Built-in current anti-backfill circuit,** automatic protection for reverse battery connection;
- ◆ **Built-in PFC circuit** to improve the input power factor;
- ◆ **Ultra-wide constant power range:** DC300-1000V;

## Technical Specifications

Basic Specification	
Dimension:	380*430*88 (W*D*H)
Weight:	<15kg
Efficiency:	97% (Peak)
Cooling:	Fan Cooling
Self-consumption:	<6w@400V
Startup time :	3-8s
Input Specification	
Input voltage:	260-485VAC
AC input mode:	3P+PE
Input frequency:	45-65Hz (Rated frequency: 50/60Hz)
Input current:	≤60A
Power factor:	>0.99
THDi:	< 5%
Output Specification	
Output voltage:	150-1000VDC
Output power:	30kW
Ripple factor:	≤0.5%
Environmental Specification	
Altitude:	≤2000m
Operating temperature:	-40 - 75°C
Storage temperature:	-40 -85°C
Relative humidity:	≤95%
MTBF:	500,000 hours
Noise:	≤65dB
Standards Compliance	
EN 61851-23 in conjunction with EN 61851-1:2011; EN IEC 61851-1: 2019; 61851-21-2; EN 62477-1:2012+A11+A1+A12	



## Output Characteristic Curves



## Output Characteristic Curves

- ◆ **High efficiency:** Max efficiency is greater than 96.5%;
- ◆ **Wide voltage range:** DC150V-1000V;
- ◆ **Parallel capability:** Support parallel operation of 60 charging modules;
- ◆ **Low noise design:** Reduced impact of noise on the environment;
- ◆ **Low standby power consumption:** Help to increase operational income;
- ◆ **Sophisticated protection function:** Protection against input overcurrent, input overvoltage, output reverse connection, output short circuit, output anti-backfill, over-temperature, etc.;
- ◆ **Built-in current anti-backfill circuit,** automatic protection for reverse battery connection;
- ◆ **Built-in PFC circuit** to improve the input power factor;
- ◆ **Ultra-wide constant power range:** DC300-1000V;

## Technical Specifications

Basic Specification	
Dimension:	218*460*88mm (W*D*H)
Weight:	<15kg
Efficiency:	>96.5% (Peak) >95% (Full Load)
Cooling:	Fan Cooling
Self-consumption:	<6w@400V
Startup time :	3-8s
Input Specification	
Input voltage:	285-475VAC
AC input mode:	3P+PE
Input frequency:	45-65Hz (Rated frequency: 50/60Hz)
Input current:	≤40A
Power factor:	>0.99
THDi:	< 5%
Output Specification	
Output voltage:	200-1000VDC
Output power:	20kW
Ripple factor:	≤0.5%
Environmental Specification	
Altitude:	≤2000m
Operating temperature:	-40 - 75°C
Storage temperature:	-40 -85°C
Relative humidity:	≤95%
MTBF:	500,000 hours
Noise:	≤65dB
Standards Compliance	
EN 61851-23 in conjunction with EN 61851-1:2011; EN IEC 61851-1: 2019; 61851-21-2; EN 62477-1:2012+A11+A1+A12	

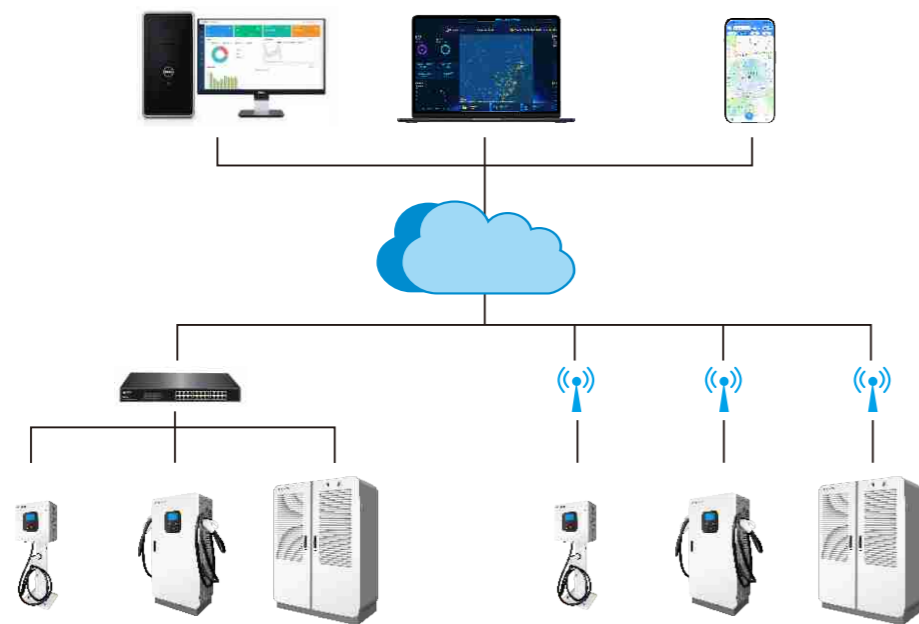
# Intelligent Monitoring System

Customer Focused, Quality Oriented

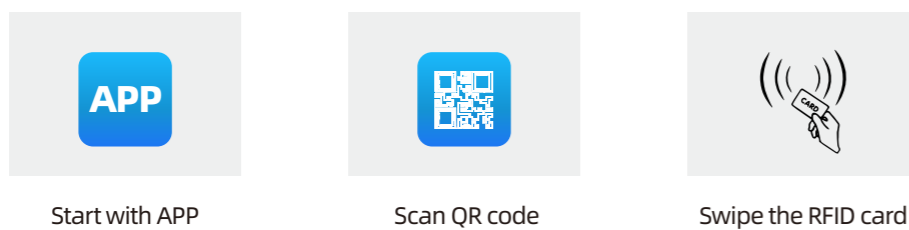
KSTAR K Charging Operation Platform is a system platform that focuses on "charging service" and provides integrated services for "people, vehicles, and chargers". It is a web-based remote monitoring system. Users can create a charging station through the system and add chargers in the station. They can then monitor the operational status of each charger in real-time. Users can also obtain key data such as charging power and charging amount, and have a clear view of the equipment's operation status, including faults and alarms. Various analysis charts can be adopted to make effective assessments of the charging operation.



## Topology of Monitoring System

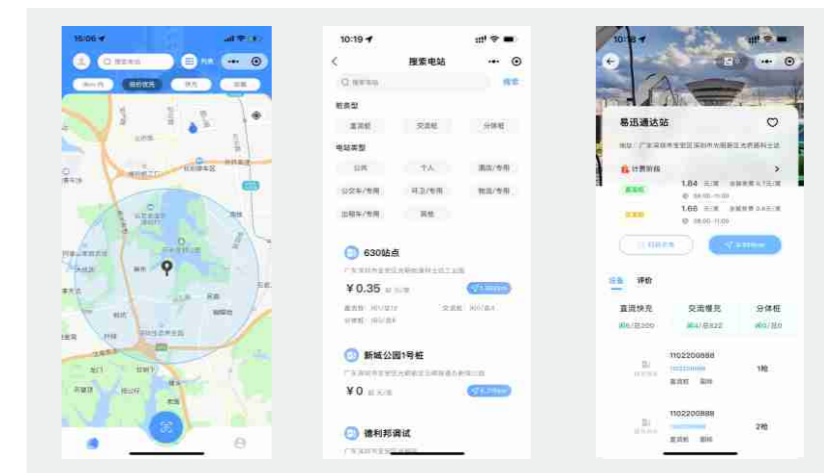


## Payment Methods



## Product Features

- Station Management:** Support charging station management, station map, station comment and query, making it easy for a unified management;
- Charger Management:** Status of charger (offline/idle/charging), charging details and device alarm notifications can be viewed in real-time;
- Finance Management:** Top-up management, refund management, order management, reconciliation management, invoice management;
- Operation Management:** Rate customization, coupon definition, advertising campaign management, information management;
- User Management:** Add users through the system, create and modify membership cards, query users in Mini Programs, manage user vehicles, etc.;
- Safety Management:** Database supports backup to ensure data safety and integrity all round.
- System Management:** Support sub-account settings, access rights settings;
- Remote Management:** Support remote start/stop, remote rate setting and remote upgrade.
- Open Platform:** The open platform is used for third-party platform access;



- Quickly Find Chargers
- Support Positioning and Navigation
- Query Charging Status in Real-time
- View Equipment Status in Real-time
- Transparent Charges
- Scan for Payment





State Grid Project



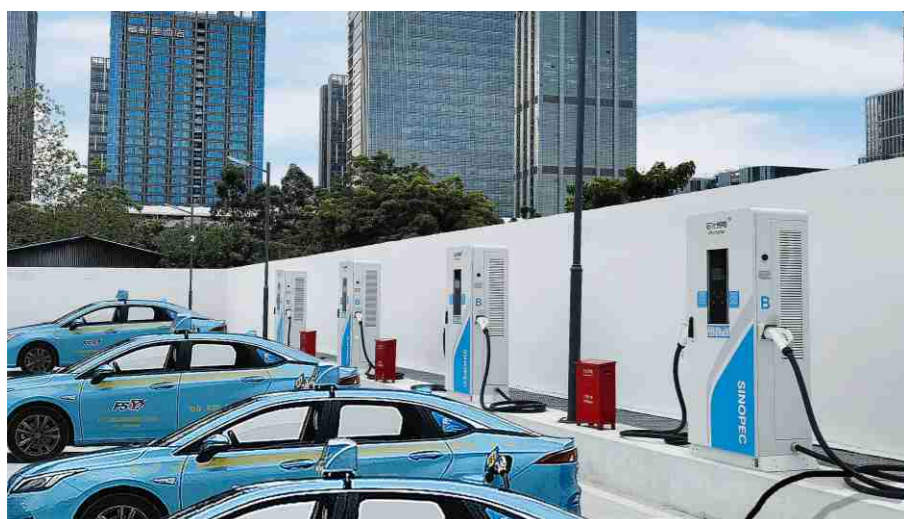
China Petroleum Project



China Southern Power Grid Project



China Tower Project



SINOPEC Project



China Potevio project



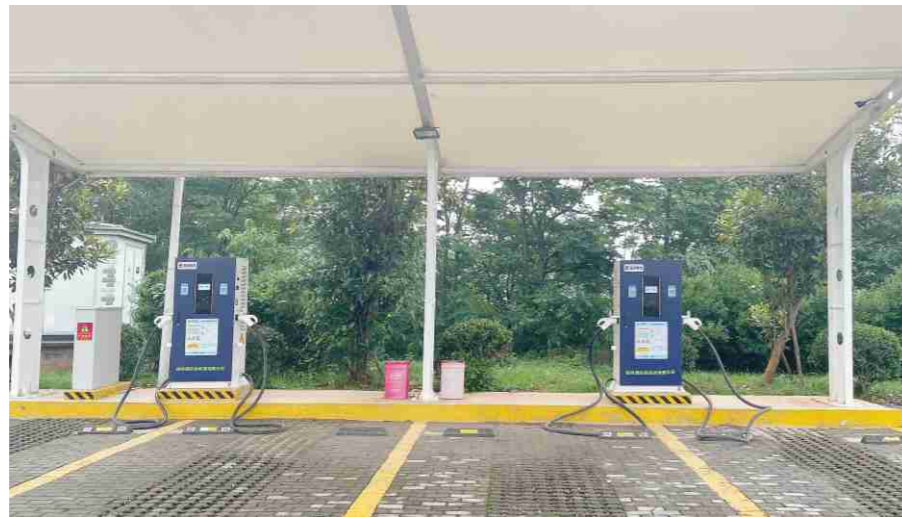


China Gas Project



Changsha Traffic Investment Project

Wuling Power Project



Shudao Group Project



Wuxi Municipal Project



Huanggang Traffic Investment Project







Fujian Mintou Project



Yingkou Traffic Investment Project



Ningde Traffic Investment Project



Shangqiu Municipal Project



Shenzhen Energy Group Project



Shenyang Anyun Group Project





Fujian Quanzhou  
Public Transport Project



ZhongshanBus Project

Beijing Daxing Bus Project



ChangchunBus Project



Guangzhou Bus Project



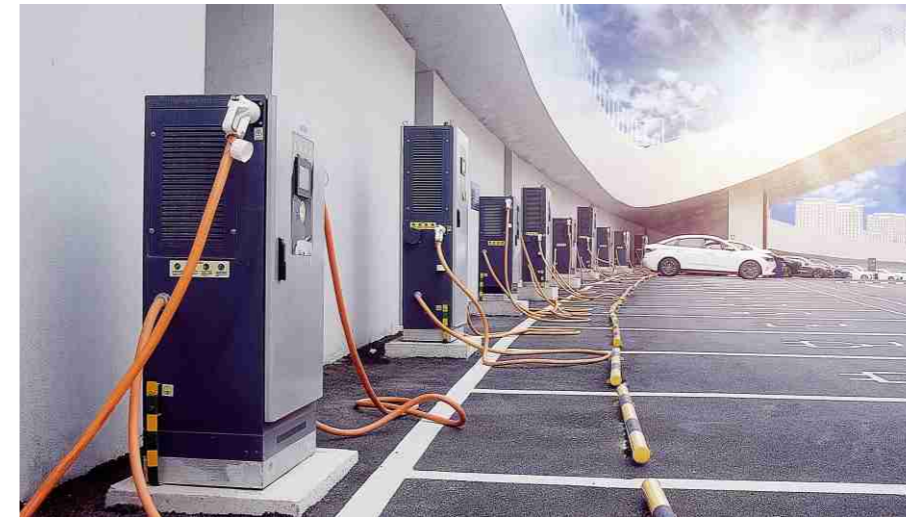
JilinBus Project







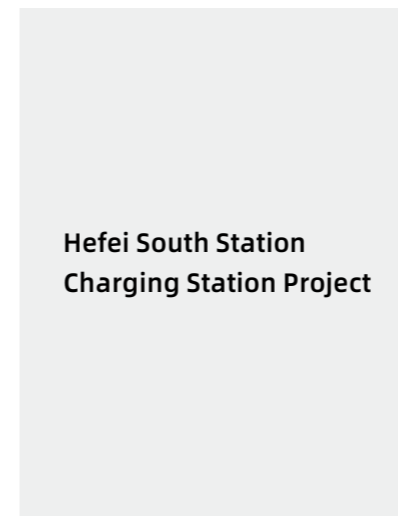
Shandong  
Huicheng Bus Project



Zhejiang Quzhou  
Sports Park Project



Shandong Linyi Bus Project



Hefei South Station  
Charging Station Project



Shandong  
Yanggu Bus Project



Xi'an High  
Speed Rail Station Project





BYD Charging Project



Chang'an Automobile Project

Shenzhen S.F. Express Logistics Park Project



Shenzhen Shajing Charging Station Project



Japan Charging Station Project



Shaanxi Lakelei Mansion Project





National Torch Program Key High-tech Enterprise



National Enterprise Technology Center



CNAS (China National Accreditation Service) Laboratory, China



TÜV Rheinland Laboratory, Germany



National Technological Innovation Model Enterprise



The 7th Batch of National Level Green Factory



Cape Test Inspection Report/CQC certification

China Southern Inspection Report

Inspection Report of Guangdong Institute of Quality

Testing and certification of charging station products



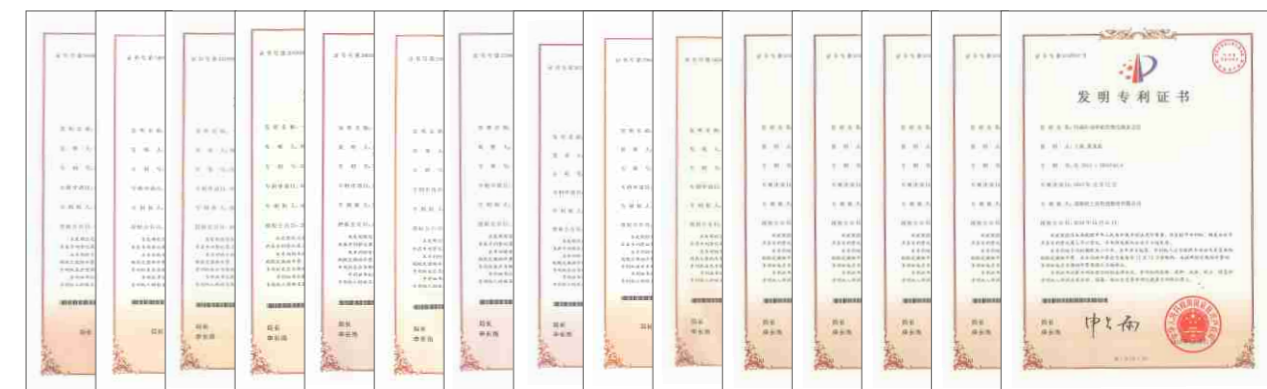
ISO27001 Quality management System Certification

ISO9001 Quality Management System Certification

ISO14001 Environmental Management System Certification

OHSAS18001 Occupational Health and Safety Management System Certification Certificate

IECQ Qc080000 Hazardous Substance Process Management System Certification



Invention Patent

