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# 06

## CHARGING SYSTEM SOLUTIONS

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- > Internet and Smart City EV charging operation service platform
- > Intelligent operation management platform
- > Station level monitoring and management platform
- > Mobile APP management platform

### PRODUCTS

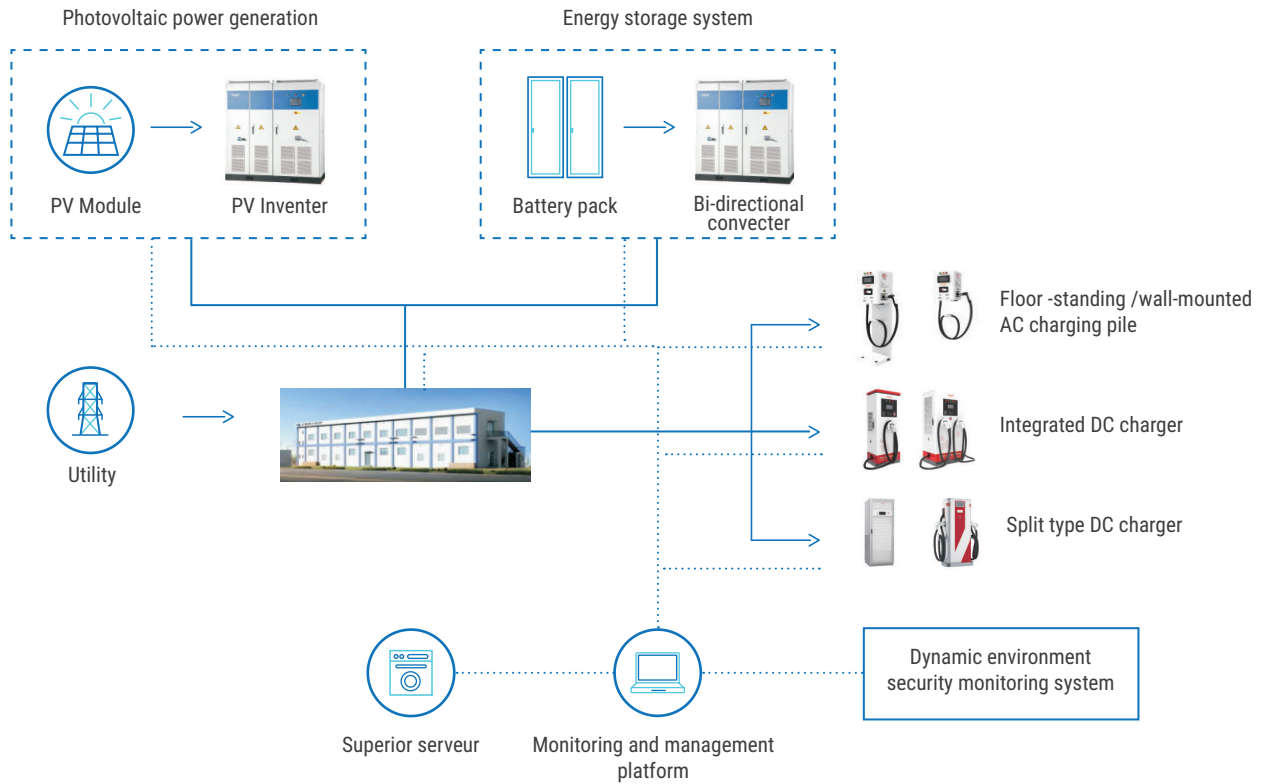
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AC Charger  
Integrated DC charger  
Split DC Charger  
Integrated AC & DC charger  
Wall-mounted DC charger  
Efficient charging module  
Solar on-grid inverter  
3-phase energy storage converter

# PUBLIC CHARGING SOLUTION

## GREEN, SMART FOR EVERYONE

Public charging network solution is an integrated system with multiple power resources of photovoltaic, energy storage and grid, which is also be equipped with intelligent operation management system, driving power and security monitoring system.



## FEATURES

- > High efficient and energy-saving: Integrating the multiple energy sources that beneficial to fast deployment and increased ROI
- > Economic and flexible: The energy storage system could realize the economic function of "peak shaving" for public utility
- > Smart monitoring: seamlessInternet covered, providing all round monitor protection

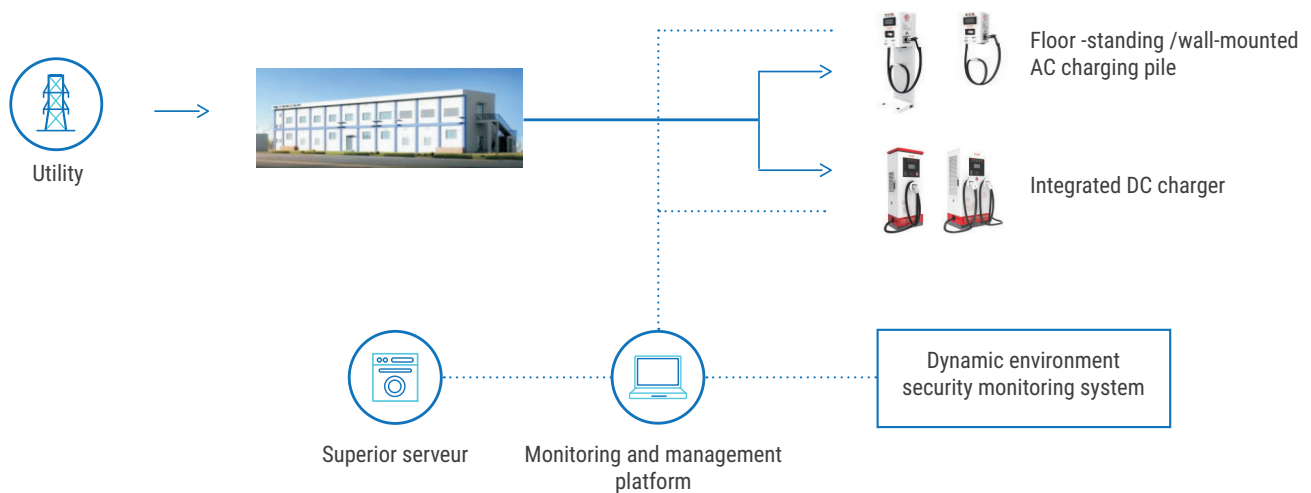
## APPLICATION

- > Bus group company : 9-12 meters electric buses
- > Taxi and car rental companies: supporting the establishment of pile and station, to meet the operational needs
- > City logistics company: Products delivery, commuter car, shuttle bus
- > Electric vehicle manufacturing enterprises: the rapid deployment of standard products, customized product cooperative development

# INTELLIGENT PARKING SOLUTION

## GUARANTEE ADEQUATE ELECTRICITY POWER FOR YOUR CONVENIENT LIFE

Charging solution for smart electric vehicle parking lot, aims to build a smart charging system for parking lot. Customers can install APP in their smart phones to search nearest parking spaces and charging points, the APP help you solve them all. Kehua charge pile initials safety self- checking before charging, charging monitor information can be checked in your smart phone anytime.



## FEATURES

- > Remote and visible: APP allows customer remotely search for charge piles, query charging fees and other services
- > Quick and easy: full range of charging products are able to be quickly installed to a variety of charging places, satisfy the different demands of the people
- > Safe and efficient: perfect security measures, intelligent operation and monitoring system, improve security and charging efficiency of the overall system

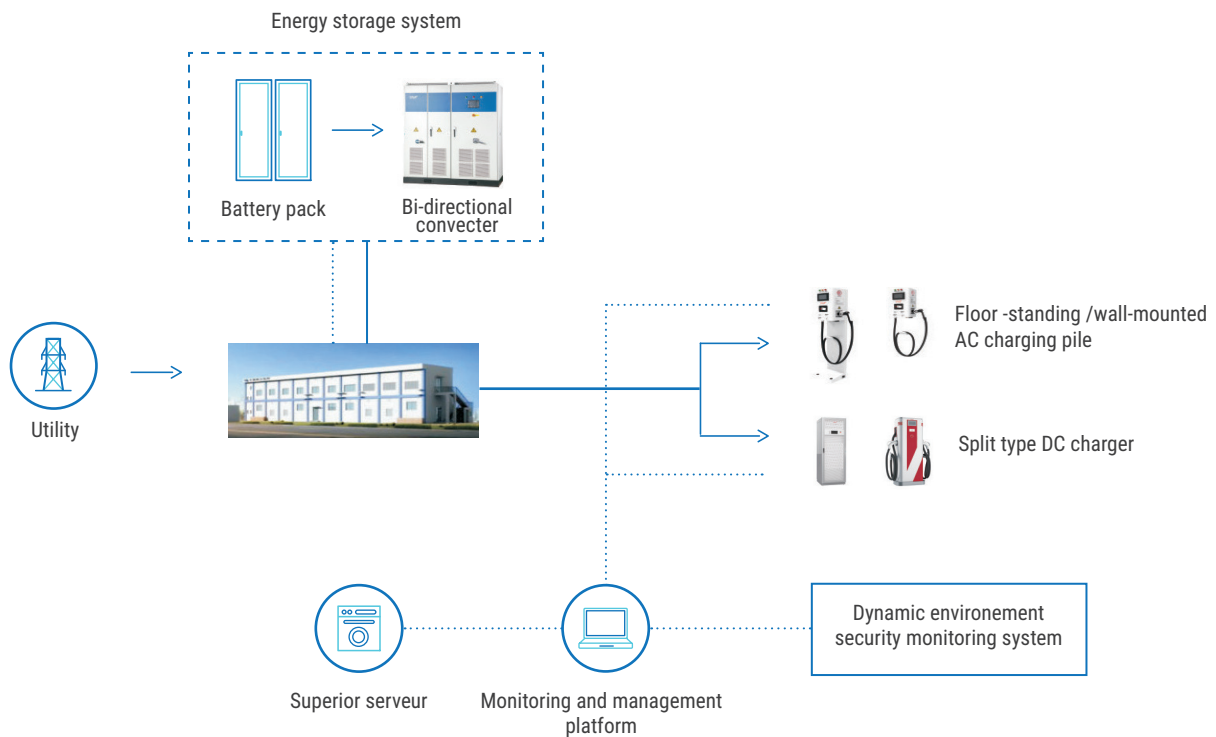
## APPLICATION

- > Commercial office: mainly applied AC charger, supplemented with DC charger, to provide a variety of charging plans
- > HOPSCA, theme parks, large stadium: mainly applied DC fast charge, quickly fulfill power
- > Resident community: mainly applied AC charger, both equipped with DC charger, charging at night work on daytime

# URBAN POWER STATION SOLUTION

## TRAVEL COMFORTABLY, MORE FUN FOR DRIVING

Urban power station solutions are designed fully consider the features of highway environment, provide the owners of safe and high quality electric power. The charging stations are deployed along the streets and high-speed roads in the city, timely power for the electric vehicle.



## FEATURES

- > Cost-effective: simple structure design, energy storage system not only realizes the economic function of peak shaving and filling valley for public utility, but lower the transformation of power grid as well
- > Safe and reliable: perfect protection design, intelligent operation and security monitoring system to ensure safe and rapid charging
- > Operation monitoring: seamless coverage for the entire network, provide operators with a wealth of data
- > Convenient and quick: remote appointments, monitoring charge information; credit card, sweep code, WeChat, and other variety of convenient paying ways

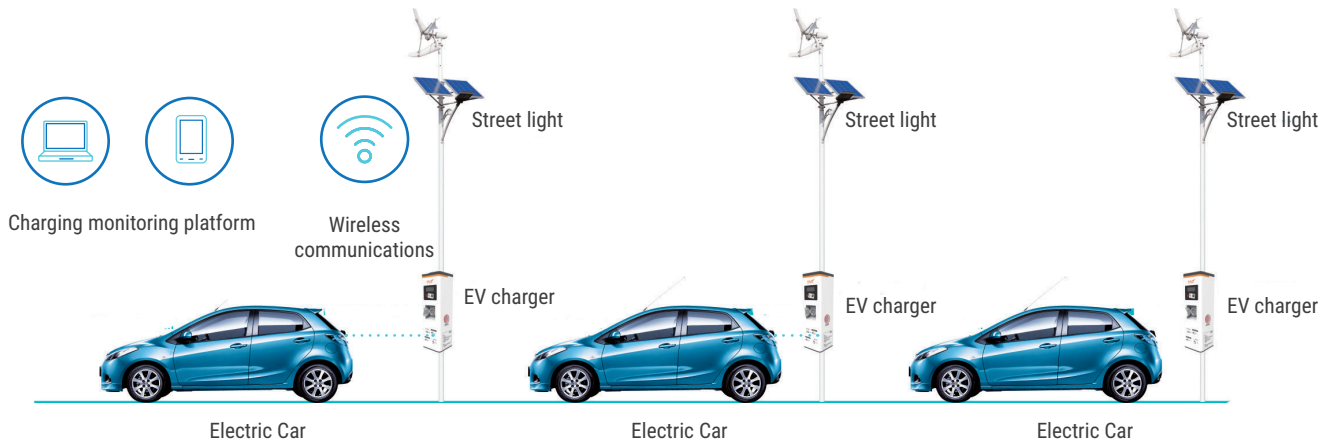
## APPLICATION

- > Urban areas and the surrounding areas: the establishment of rapid charge-up operation network to address the concerns of owners
- > EV charger along the way of inter-city expressway, provincial / national highway: fast charging, remote travel all the way to accompany
- > Existing site transformation: make full use of existing resources, rationalize the design planning, enhanced additional value

# STREETLIGHT CHARGING PILE SOLUTION

## ONE PILE, ONE WIDER LAND

Streetlight is installed accompanied with charging piles, saving valuable land resources. Electric vehicle charging network can be build up in the city to effectively solve the charging difficulty, and better promote EV industry.



## FEATURES

- > Intelligent management  
The smart monitoring operation platform obtains data of charging pile by accessing the dynamic IP address
- > Direct wired to streetlight, no new wiring
- > Small footprint, short construction period
- > Anti-thunderbolt
- > Charging when side parking, green way to travel
- > Unattended charging, scan code or credit card to start charge, automatically stop after power fulfilled

## APPLICATION

- > Urban parking lot in residential community and its surrounding office buildings

# SOLAR-STORAGE CHARGING STATION SOLUTIONS

## GREEN TRAVEL, GREEN POWER, GREEN ENERGY SOURCE

This solution combined with Kehua's product system, taking the electric vehicle charging system as the core, solar, integrating wind energy and energy storage systems to provide a new green power and create a more comfortable living environment.

### FEATURES

#### > Cost-effective

Solar system is installed on the idle land and rooftop to supplement as power distribution resource, bringing in additional revenue  
Peak load shifting and expanding power distribution at same time

#### > Multi-function

Resource integration (PV + energy storage + charging), various operating modes  
Function adjustable based on local conditions, on-demand customization

#### > Intelligent

Dispatching acceptance of different controlling layers like local, distribution network and centralized micro-network

#### > Emergency use

Energy storage system can offer emergency power to loads

### APPLICATION

> Intercity expressway, highway: provide a green way for travel via integration of energy resources

> City bus charging station: efficiently making use of idle areas and enhance value-added

> Others: resource integration for local idle roofs, idle sheds, power distribution needs be expanded and other occasions

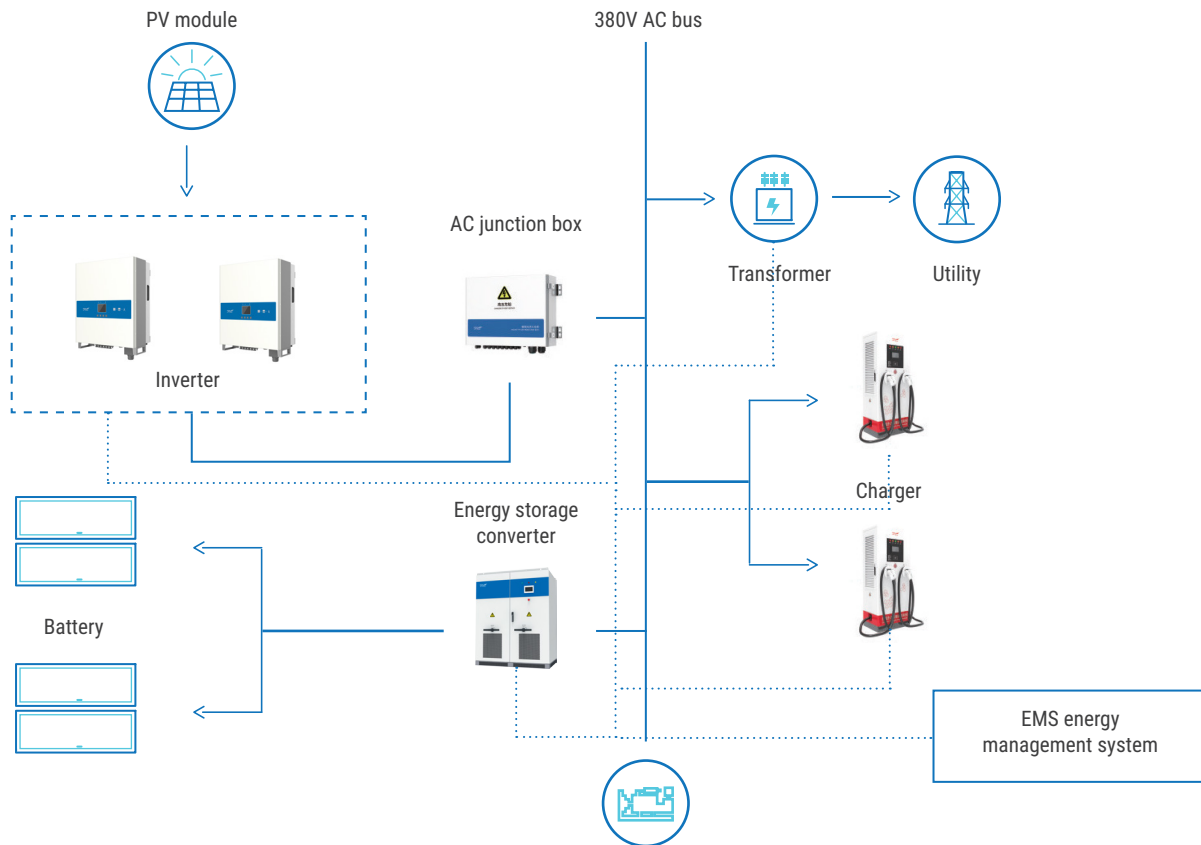


### Daytime Peak Time

Green – electrical vehicle is charged by energy storage, wind / solar power, excess green power will be stored.  
Economic - lower peak electricity consumption

### Night Valley Time

Smart – electrical vehicle and energy storage system get charged by grid  
Efficiency - earn the price difference between peak and valley, promotes the development of electric vehicles



#### PHOTOVOLTAIC SYSTEM

- 1 - No danger of exhaustion
- 2 - No noise, no pollution
- 3 - Not limited by the geographical distribution of resources
- 4 - Spot power supply
- 5 - High energy quality

#### OPTICAL STORAGE AND FILLING SYSTEM

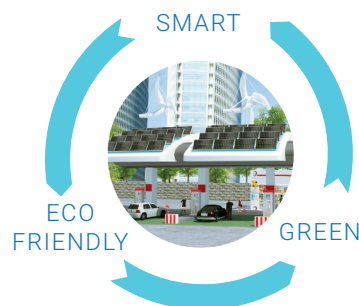
- 1 - Optimal operation mode
- 2 - To ensure the stable operation of power system
- 3 - Emergency power supply
- 4 - Receiving power grid and load scheduling
- 5 - Reduce the original distribution capacity

#### CHARGING SYSTEM

- 1 - Green travel
- 2 - Strong compatibility
- 3 - Fast charging speed
- 4 - High efficiency

#### ENERGY STORAGE PART

- 1 - Improve power quality
- 2 - Improve stability and reliability
- 3 - Peak shaving
- 4 - Emergency power supply
- 5 - Enhance the use of renewable energy



Solar-storage charging system

# AIRPORT CHARGING SOLUTIONS

## CUSTOMIZATION FOR SPECIAL OCCASIONS

The airport charging system solution covers the control area and the non-control area. For control area, mainly provide charging service for particular vehicles (aircraft tractor, passenger cars, ferry vehicles, etc.) while for non-control area majorly on common vehicles (bus, Taxis, etc.).

## FEATURES

> Energy sources integration, green and energy-saving

Solar-storage micro-grid system can be applied as the low-carbon and environment friendly power system for modern airport.

> Smart management

Manage intelligently for power grid, solar power generation system, battery energy storage system.

Smart charging monitoring system (optional for equipment, power station and general center)

Perfect customer experience (APP support client for site queries, online payment and other convenient operation)

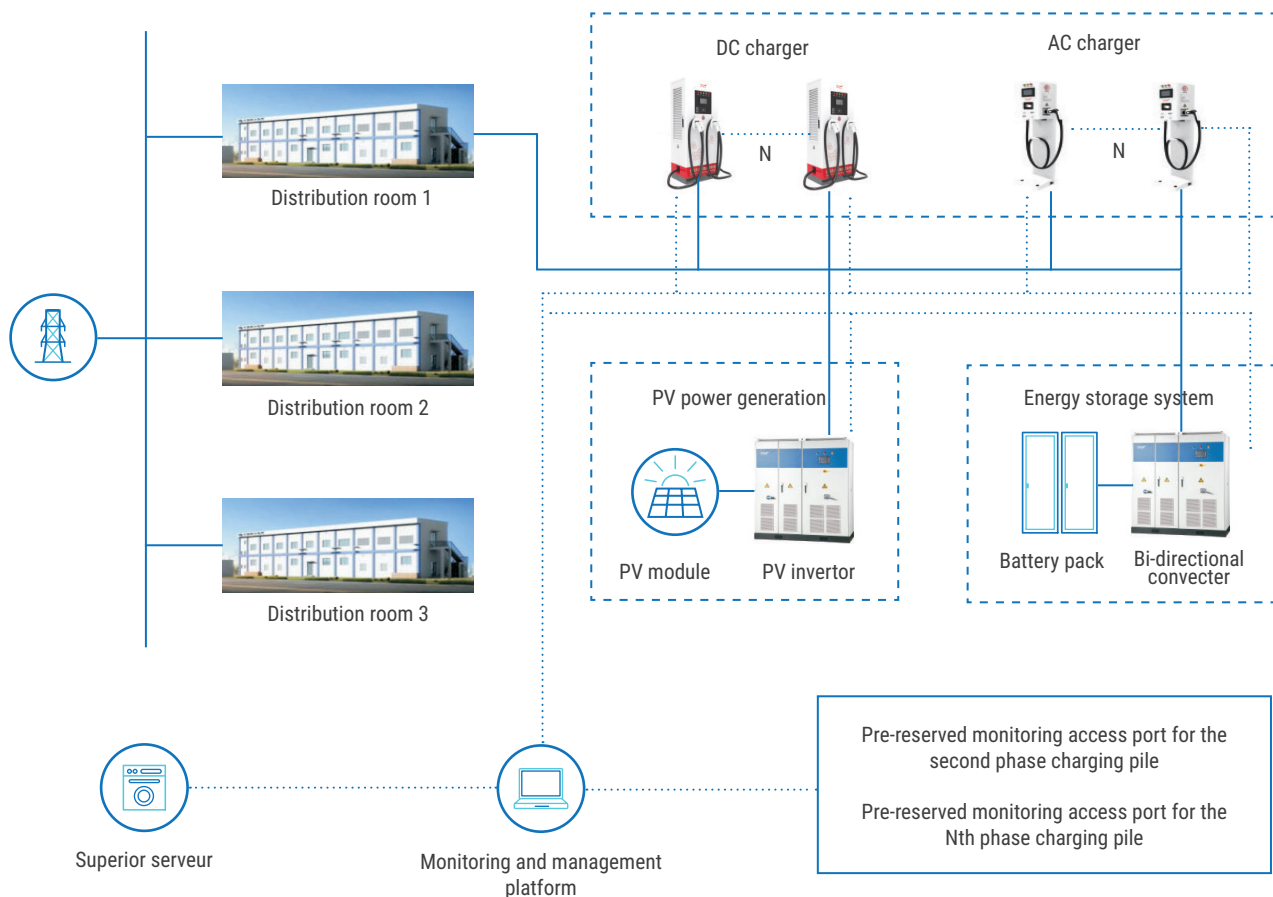
> Cost-effective

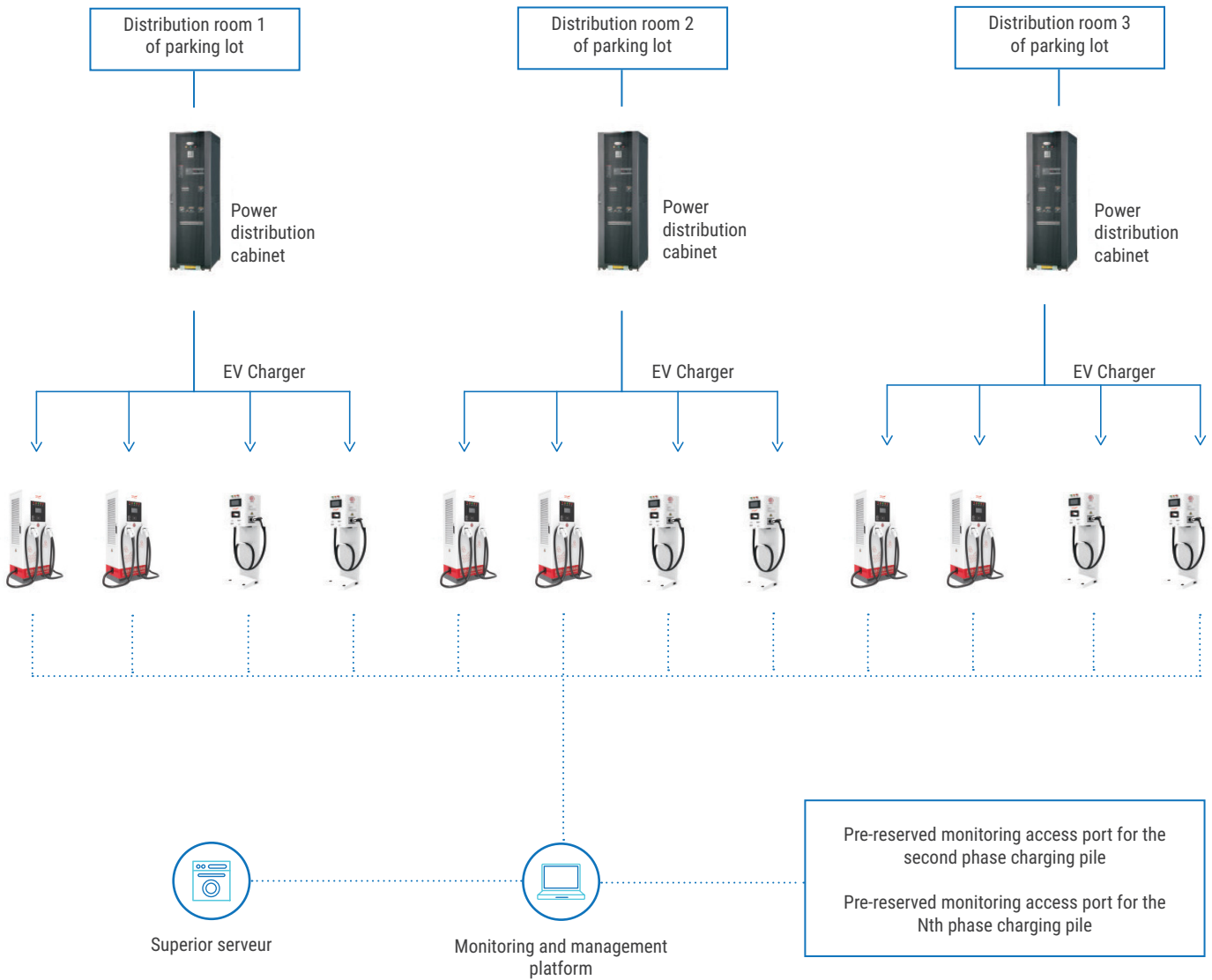
Project can be accomplished with phased construction, seamlessly integrate monitoring and power supply system. Support airport special vehicles and common vehicle charging and power supply

## APPLICATION

> Corridor parking lot and apron parking lot of airport control area: efficient operation, energy saving

> Hotel parking lot, public parking lot and office building parking lot of airport non-control area: energy source integration, green commuting way





# MULTI-STOREY PARKING GARAGE CHARGING SOLUTION

## SMALLER SPACE, LARGER POWER

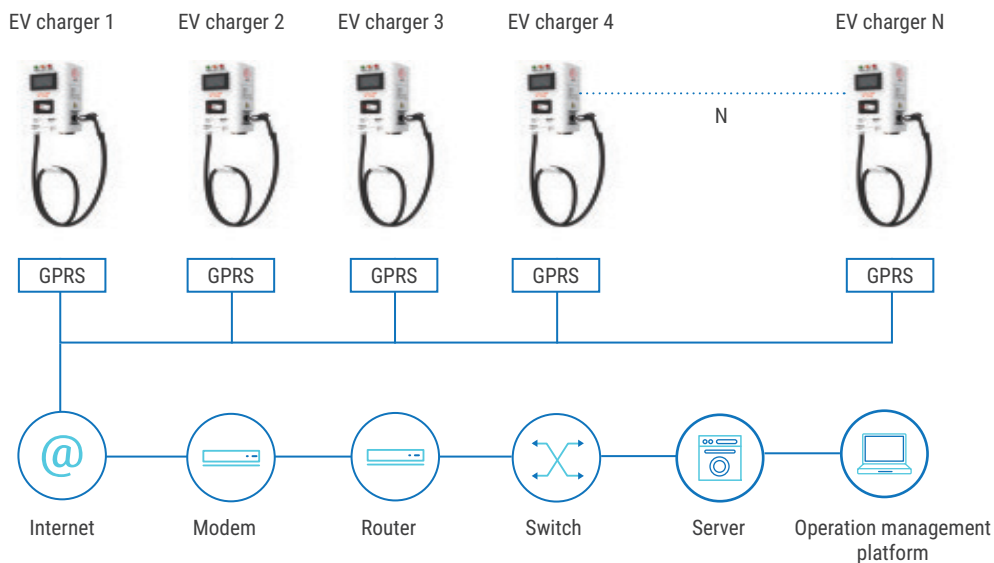
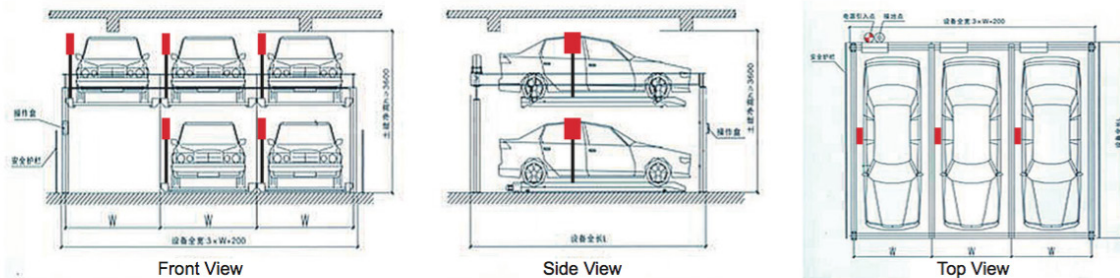
Suitable for parking lots of commercial, government institutions, residential community and other situations with lacking usable land. Charging pile can be installed according to the actual use of mobile parking spaces, optional for left or right to car frame.

## FEATURES

- > Intelligent management: The intelligent monitoring operation platform obtains data of charging pile by accessing the dynamic IP address.
- > Programmable control system realizing the parking position could go up and down automatically and shift parallelly.
- > Space-saving, flexible configuration, short construction time.
- > Smart parking guidance, assigned parking Spaces automatically.
- > Parking and charging at the same time, green transportation.
- > Scan or wipe card for charging, automatic stop when fully charged.

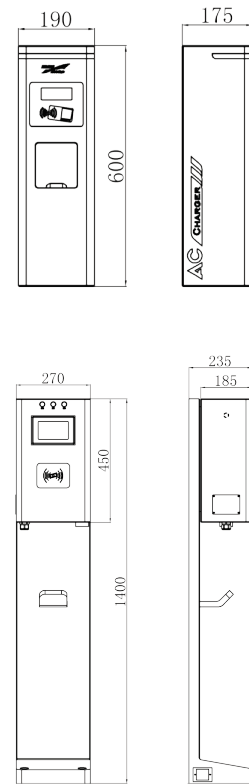
## APPLICATION

- > The supporting parking lot for intense area such as residential /commercial area.





# EVA SERIES AC CHARGING PILE



## PRODUCT OVERVIEW

- > AC single-shot charging piles are divided into various types including streetlight type charging pile, wall-mounted charging pile, tower-type charging pile, specifically for small electric vehicles with car-carry AC charger.
- > Controlling of AC charging pile is implemented by the embedded single chip computer, dominates the functions of credit card management, charging interface management, online monitoring, power metering, security and other functions, and it is the operating terminal for end user.
- > AC charging pile is equipped with integrated functions of monitoring, metering, billing and protection, so as to provide safe and controllable AC power supply for car-carry charger.

## FEATURES

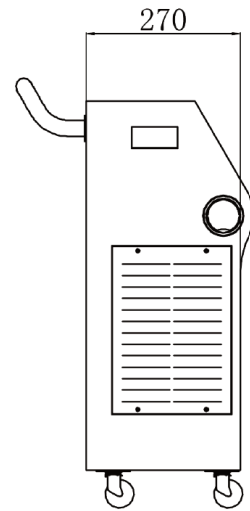
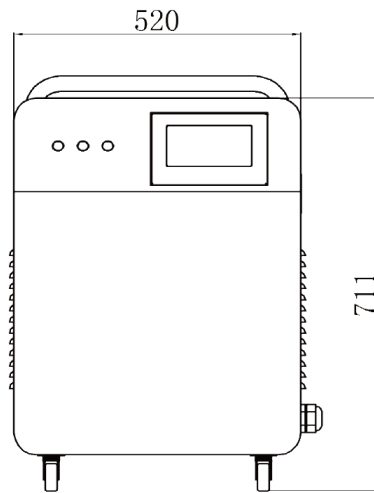
- > High-sensitivity card reader
- > High-precision energy meter
- > Industrial grade processor
- > Friendly User Interface
- > Perfect protection function
- > Software upgrade function
- > Ethernet background communication
- > Installation diversity
- > Excellent operational status indication

## TECHNICAL DATA

SPECIFICATION		EVA220-B3K5- HS	EVA220-C3K5- HS	EVA220-C07K- HS	EVA220-C3K5- FS	EVA220-C07K- FS
Product		Streetlight type changing pile	Wall-mounted AC Changing pile		Tower-type AC Changing pile	
INPUT	Rated voltage (Vac)	220±15%				
	Frequency range (Hz)	50±1				
OUTPUT	Numbers of charging gun	1				
	Output Voltage (Vac)	220±15%				
	Output Power (kW)	3.5	3.5	7	3.5	7
	Rated Current (A)	16	16	32	16	32
EQUIPEMENT INFORMATION	Length of charging gun	Type B connection	3.5m Chinese standard	3.5m Chinese standard	3.5m Chinese standard	
	Working Temperature (°C)	-20~+50				
	Storage Temperature (°C)	-20~+55				
	Operating humidity	5~95%				
	Dimensions (WxDxH) (mm)	190×175×600	270×185×450	270×185×450	270×235×1400	270×235×1400
	Weight (kg)	24	27	27	40	40
FEATURES	Basic	Human-machine interface:LCD. Payment mode: Non- contact CPU card. Charging billing: AC electrical energy meter. Communication interface: Ethernet / 2G wireless	Human-machine interface: 7-inch touch screen Payment mode: Non-contact CPU card Charging billing: AC electrical energy meter. Communication interface: Ethernet			
	Optional	Human-machine interface: voice broadcast	Human-machine interface: voice broadcast Length of charging gun: 5 m, 7 m, 10 m Communication interface: 2G/3G/4G wireless			
OTHERS	IP grade	IP54				
	Basic protection	Short-circuit,Over/under voltage,Over current,Leakage				
	Remote controlling	Able to send commands and switch signal to control start and stop of charging pile				
	Protective measures	Anti-moisture, anti-fungal, anti-salt spray, anti-dust, waterproof, etc.				
	Sectional charge	Charge differently at peak and valley time				

> Specification is subject to change without prior notice.

# EVD SERIES MOBILE DC CHARGER



## PRODUCT OVERVIEW

- > This product mainly consist of main control module, charging module, touch screen, card reader, LED instructions, energy meter, charging gun, emergency stop button and other components
- > Dynamically adjust the charging current or voltage parameters to complete the process of intelligent charging
- > The overall structure is designed as mobile to meet the needs of DC low-power charging

## FEATURES

- > High-performance STM chip, efficient and stable
- > Human-machine interaction interface, 7-inch true color touch screen, user-friendly design
- > Perfect electrical protection
- > Great cost-effective, elegant appearance, high IP grade
- > Smart Ethernet communication

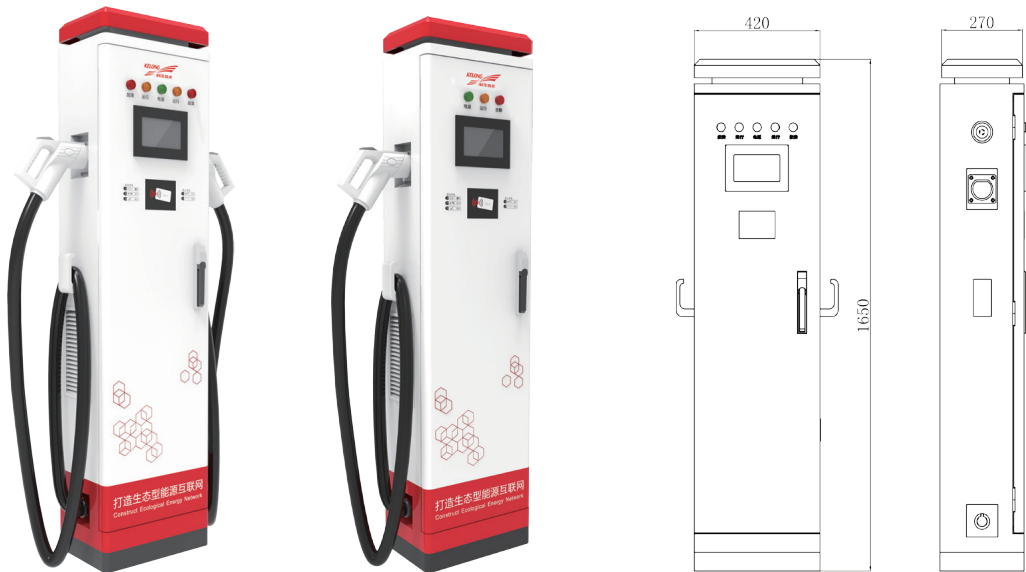


## TECHNICAL DATA

SPECIFICATION		EVD751-015K-MS	EVD751-030K-MS
Product name		DC Mobile Charger	
INPUT	Rated voltage (Vac)	380V (Three-phase- ve-wire system, 3W+N+PE) ±20%	
	Rated frequency (Hz)	45~65	
	PF	≥0.99	
OUTPUT	Numbers of charging gun	1	
	Output voltage (Vdc)	300~750	
	Output Power (kW)	15	30
	Rated Current (A)	20	40
EQUIPEMENT INFORMATION	Length of charging gun	3m Chinese standard (Electronic lock included)	
	Cooling	Natural cooling	
	Efficiency	≥95.5%	
	Noise (dB)	<60	
	Stabilized current precision	≤±1.0%	
	Stabilized voltage precision	≤±0.5%	
	Output current accuracy	≤±1.0%	
	Output voltage accuracy	≤±0.5%	
	Current imbalance	≤±3.0%	
	THDI	≤4%	
	Working Temperature (°C)	-20~+50	
	Storage Temperature (°C)	-20~+70	
	Dimension (WxDxH) (mm)	520×270×711	
Weight (kg)	36	45	
FEATURES	Basic	Human-machine interface: 7-inch touchscreen BMS auxiliary power supply: 12/24V switchable (optional for 12V or 24V) Communication Interface: Ethernet	
	Optional	Length of charging gun: 5 m, 7 m, 10 m	
OTHERS	IP grade	IP32	
	Basic protection	Short-circuit, over/under voltage, over current, DC insulation detection	
	Remote controlling	Able to send commands and switch signal to control start and stop of charging pile	

> Specification is subject to change without prior notice.

# EVD SERIES INTEGRATED DC CHARGER 30KW



## PRODUCT OVERVIEW

This system integrates charging pile, charging interface, human-machine interface, communication and billing. It is suitable for outdoor DC charging for electric vehicles with safety and automation.

## FEATURES

- > High-performance ARM chip, efficiency and stability
- > Human-machine interface, 7-inch true color touch screen, user-friendly design
- > Perfect electrical protection
- > Great cost-effective, elegant appearance, high IP grade (IP54)
- > Intelligent Ethernet communication
- > Wireless communication function
- > Double-plug intelligent output

## TECHNICAL DATA

SPECIFICATION		EVD500-030K-TS	EVD500-030K-TD	EVD751-030K-TS	EVD751-030K-TD
Product		Integrated DCCharger			
INPUT	Rated voltage (Vac)	380V (Three-phase- ve-wire system, 3W+N+PE)±20%			
	Frequency range (Hz)	45~65			
	PF	≥0.99			
OUTPUT	Numbers of charging gun	1	2	1	2
	Output voltage (Vdc)	200~500		300~750	
	Output Power (kW)	30			
	Rated Current (A)	60		40	
EQUIPMENT INFORMATION	Length of charging gun	5m Chinese standard (Electronic lock included)	7m Chinese standard (Electronic lock included)	5m Chinese standard (Electronic lock included)	7m Chinese standard (Electronic lock included)
	Cooling	Air cooling			
	Efficiency	≥95.5%			
	Noise (dB)	<60			
	Stabilized current precision	≤±1.0%			
	Stabilized voltage precision	≤±0.5%			
	Output current accuracy	≤±1.0%			
	Output voltage accuracy	≤±0.5%			
	Current imbalance	≤±3.0%			
	THDI	≤4%			
	Working temperature (°C)	-20~+50			
	Storage temperature (°C)	-20~+70			
	Operating humidity	5~95%			
	Dimension (W×D×H) (mm)	420×280×1650			
Weight (kg)	85	95	85	95	
FEATURES	Basic	Human-machine interface: 7-inch touchscreen Payment mode: non-contact CPU card BMS auxiliary power supply: 12/24V switchable (optional for 12V or 24V) Billing: DC energy meter Communication Interface: Ethernet			
	Optional	Length of charging gun: 5m, 7m, 10m, communication interface:4G wireless function			
OTHERS	IP grade	IP54			
	Basic protection	Short-circuit, over/under voltage, over current, DC insulation detection			
	Remote controlling	Able to send commands and switch signal to control start and stop of charging pile			
	Protective measures	Anti-moisture, anti-fungal, anti-salt spray, anti-dust, etc.			
	Charge according to different time	Charge differently at peak and valley time			

> Specification is subject to change without prior notice.

# EVD SERIES INTEGRATED DC CHARGER 60KW



## PRODUCT OVERVIEW

This system integrates charging pile, charging interface, human-machine interface, communication and billing. It is suitable for outdoor DC charging for electric vehicles with safety and automation.

## FEATURES

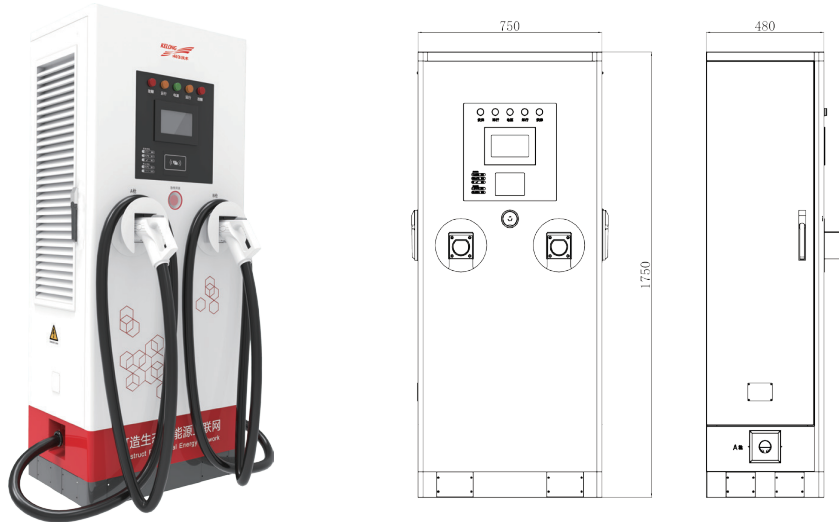
- > High-performance ARM chip, efficiency and stability
- > Human-machine interface, 7-inch true color touch screen, user-friendly design
- > Perfect electrical protection
- > Great cost-effective, elegant appearance, high IP grade (IP54)
- > Intelligent Ethernet communication
- > Wireless communication function
- > Double-plug intelligent output

## TECHNICAL DATA

SPECIFICATION		EVD500-045K- TS	EVD500-060K- TS	EVD500-060K- TD	EVD751-060K- TS	EVD751-060K- TD
Product		Integrated DC Charger				
INPUT	Rated voltage (Vac)	380V (Three-phase- ve-wire system, 3W+N+PE) ±20%				
	Frequency range (Hz)	45~65				
	PF	≥0.99				
OUTPUT	Numbers of charging gun	1	1	2	1	2
	Output voltage (Vdc)	200~500			300~750	
	Output Power (kW)	45	60		60	
	Rated Current (A)	90	120		80	
EQUIPMENT INFORMATION	Length of charging gun	5m Chinese standard (Electronic lock included)		7m Chinese standard (Electronic lock included)	5m Chinese standard (Electronic lock included)	7m Chinese standard (Electronic lock included)
	Cooling	Air cooling				
	Efficiency	≥95.5%				
	Noise (dB)	<60				
	Stabilized current precision	≤±1.0%				
	Stabilized voltage precision	≤±0.5%				
	Output current accuracy	≤±1.0%				
	Output voltage accuracy	≤±0.5%				
	Current imbalance	≤±3.0%				
	THDI	≤4%				
	Working temperature (°C)	-20~+50				
	Storage temperature (°C)	-20~+70				
	Operating humidity	5~95%				
	Dimension (WxDxH) (mm)	600×398×1650				
Weight (kg)	158	166	186	166	186	
FEATURES	Basic	Human-machine interface: 7-inch touch screen Payment mode: Non-contact CPU card charge BMS auxiliary power supply: 12/24V switch (optional for 12V or 24V) Billing: DC energy meter Communication Interface: Ethernet				
	Optional	Length of charging gun: 5m, 7m, 10m Communication interface: 4G wireless function				
OTHERS	IP grade	IP54				
	Basic protection	Short-circuit, over/under voltage, over current, leakage, etc.				
	Remote controlling	Able to send commands and switch signal to control start and stop of charging pile				
	Protective measures	Anti-moisture, anti-fungal, anti-salt spray, anti-dust, etc				
	Charge according to different time	Charge differently at peak and valley time				

> Specification is subject to change without prior notice.

# EVD SERIES INTEGRATED DC CHARGER 90KW



## PRODUCT OVERVIEW

This system integrates charging pile, charging interface, human-machine interface, communication and billing. It is suitable for outdoor DC charging for electric vehicles with safety and automation.

## FEATURES

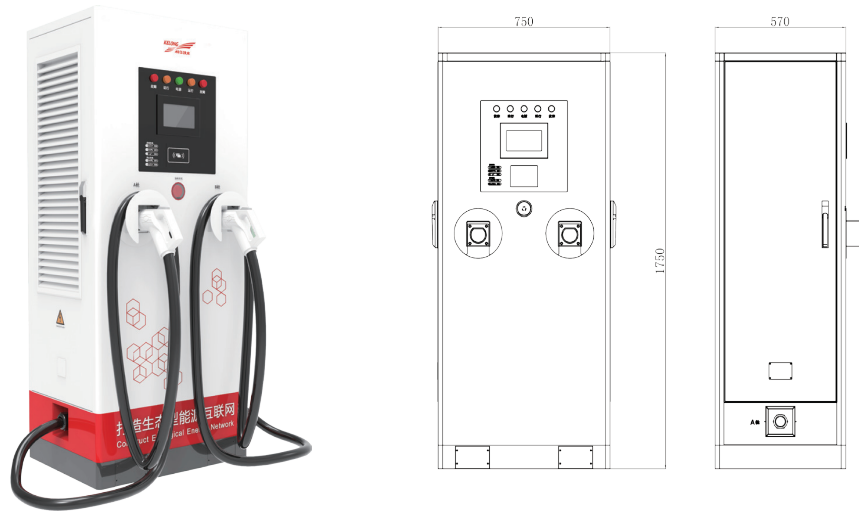
- > High-performance ARM chip, efficiency and stability
- > Human-machine interface, 7-inch true color touch screen, user-friendly design
- > Perfect electrical protection
- > Great cost-effective, elegant appearance, high IP grade (IP54)
- > Intelligent Ethernet communication
- > Wireless communication function
- > Double-plug intelligent output

## TECHNICAL DATA

SPECIFICATION		EVD500-090K-TD	EVD751-090K-TD
Product name		Integrated DC charger	
INPUT	Rated voltage (Vac)	380V (Three-phase- ve-wire system, 3W+N+PE)±20%	
	Rated frequency (Hz)	45~65	
	PF	≥0.99	
OUTPUT	Numbers of charging gun	2	
	Output voltage (Vdc)	200~500	300~750
	Output Power (kW)	90	
	Rated Current (A)	180	120
EQUIPMENT INFORMATION	Length of charging gun	7m Chinese standard (Electronic lock included)	
	Cooling	Air cooling	
	Efficiency	≥95.5%	
	Noise (dB)	<60	
	Stabilized current precision	≤±1.0%	
	Stabilized voltage precision	≤±0.5%	
	Output current accuracy	≤±1.0%	
	Output voltage accuracy	≤±0.5%	
	Current sharing unbalance	≤±3.0%	
	THDI	≤4%	
	Working Temperature (°C)	-20~+50	
	Storage Temperature (°C)	-20~+70	
	Operating humidity	5~95%	
	Dimension (W×D×H) (mm)	750×480×1750	
Weight (kg)	268		
FEATURES	Basic	Human-machine interface: 7-inch touch screen Payment mode: Non-contact CPU card BMS auxiliary power supply: 12/24V switchable (optional for 12V or 24V) Billing: DC energy meter Communication Interface: Ethernet	
	Optional	Length of charging gun: 5 m, 10 m Communication interface: 4G wireless function	
OTHERS	IP grade	IP54	
	Basic protection	Short-circuit, over/under voltage, over current, leakage, etc.	
	Remote controlling	Able to send commands and switch signal to control start and stop of charging pile	
	Protective measures	Anti-moisture, anti-fungal, anti-salt spray, anti-dust, etc.	
	Charge according to different time	Charge differently at peak and valley time	

> Specification is subject to change without prior notice.

# EVD SERIES INTEGRATED DC CHARGER 120KW



## PRODUCT OVERVIEW

This system integrates charging pile, charging interface, human-machine interface, communication and billing. It is suitable for outdoor DC charging for electric vehicles with safety and automation.

## FEATURES

- > High-performance ARM chip, efficiency and stability
- > Human-machine interface, 7-inch true color touch screen, user-friendly design
- > Perfect electrical protection
- > Great cost-effective, elegant appearance, high IP grade (IP54)
- > Intelligent Ethernet communication
- > Wireless communication function
- > Double-plug intelligent output

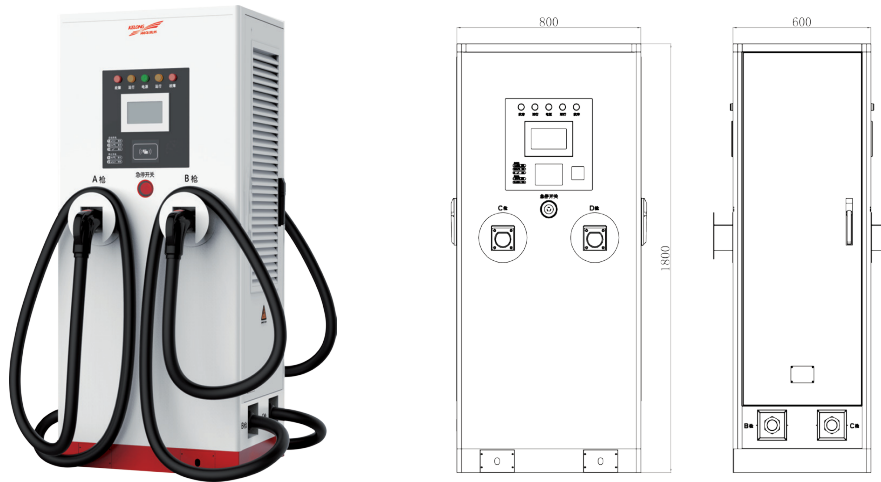


## TECHNICAL DATA

SPECIFICATION		EVD500-120K-TD	EVD751-120K-TD
Product name		Integrated DC charger	
INPUT	Rated voltage (Vac)	380V (Three-phase- ve-wire system, 3W+N+PE)±20%	
	Rated frequency (Hz)	45~65	
	PF	≥0.99	
OUTPUT	Numbers of charging gun	2	
	Output voltage (Vdc)	200~500	300~750
	Output Power (kW)	120	
	Rated Current (A)	240	160
EQUIPEMENT INFORMATION	Length of charging gun	7m Chinese standard (Electronic lock included)	
	Cooling	Air cooling	
	Efficiency	≥95.5%	
	Noise (dB)	<60	
	Stabilized current precision	≤±1.0%	
	Stabilized voltage precision	≤±0.5%	
	Output current accuracy	≤±1.0%	
	Output voltage accuracy	≤±0.5%	
	Current sharing unbalance	≤±3.0%	
	THDI	≤4%	
	Working Temperature (°C)	-20~+50	
	Storage Temperature (°C)	-20~+70	
	Operating humidity	5~95%	
	Dimension (W×D×H) (mm)	750×570×1750	
	Weight (kg)	285	
FEATURES	Basic	Human-machine interface: 7-inch touch screen Payment mode: Non-contact CPU card BMS auxiliary power supply: 12/24V switchable (optional for 12V or 24V) Billing: DC energy meter Communication Interface: Ethernet	
	Optional	Length of charging gun: 5 m, 10 m Communication interface: 4G wireless function	
OTHERS	IP grade	IP54	
	Basic protection	Short-circuit, over/under voltage, over current, leakage, etc.	
	Remote controlling	Able to send commands and switch signal to control start and stop of charging pile	
	Protective measures	Anti-moisture, anti-fungal, anti-salt spray, anti-dust, etc.	
	Charge according to different time	Charge differently at peak and valley time	

> Specification is subject to change without prior notice.

# EVD SERIES INTEGRATED DC CHARGER 120KW FOUR PLUGS



## PRODUCT OVERVIEW

- > This system integrates charging pile, charging interface, human-machine interface, communication and billing. It is suitable for outdoor DC charging for electric vehicles with safety and automation.
- > Charging pile will dynamically adjust the charging current or voltage parameters based on the data provided by battery management system (BMS) to implement the appropriate action to complete the process of smart charging.

## FEATURES

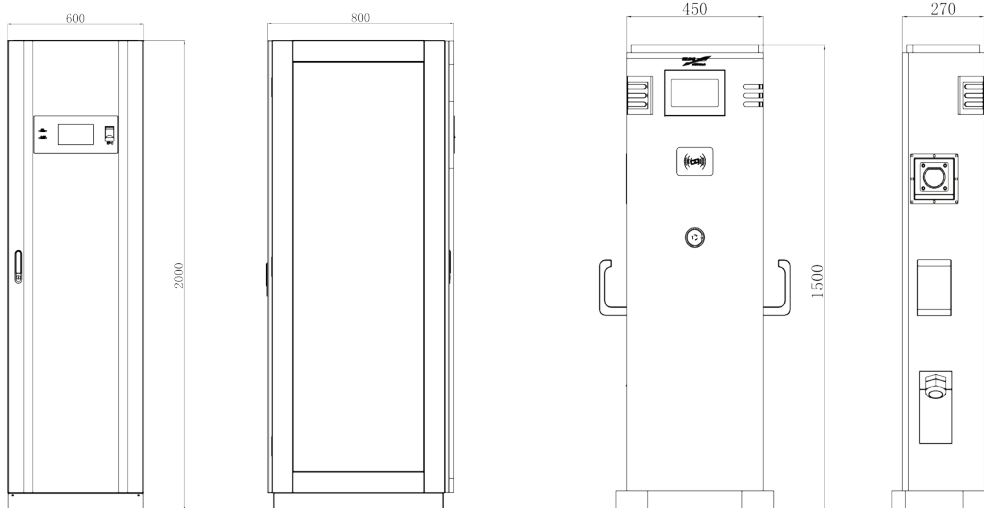
- > High-performance ARM chip, efficiency and stability
- > Human-machine interface, 7-inch true color touch screen, user-friendly design
- > Perfect electrical protection
- > Great cost-effective, elegant appearance, high IP grade (IP54)
- > Intelligent Ethernet communication
- > Wireless communication function
- > Four-plug intelligent output

## TECHNICAL DATA

SPECIFICATION		EVD751-120K-T4
Product name		Integrated DC changer
INPUT	Rated voltage (Vac)	380V (Three-phase- ve-wire system, 3W+N+PE)±20%
	Rated frequency (Hz)	45~65
	PF	≥0.99
OUTPUT	Numbers of charging gun	4
	Output voltage (Vdc)	300~750
	Output Power (kW)	120
	Rated Current (A)	160
EQUIPMENT INFORMATION	Length of charging gun	7m Chinese standard (Electronic lock included)
	Cooling	Air cooling
	Efficiency	≥95.5%
	Noise (dB)	<60
	Stabilized current precision	≤±1.0%
	Stabilized voltage precision	≤±0.5%
	Output current accuracy	≤±1.0%
	Output voltage accuracy	≤±0.5%
	Current sharing unbalance	≤±3.0%
	THDI	≤4%
	Working Temperature (°C)	-20~+50
	Storage Temperature (°C)	-20~+70
	Operating humidity	5~95%
	Dimension (W×D×H) (mm)	800×600×1800
Weight (kg)	340	
FEATURES	Basic	Human-machine interface: 7-inch touch screen Payment mode: Non-contact CPU card BMS auxiliary power supply: 12/24V switchable (optional for 12V or 24V) Billing: DC energy meter Communication Interface: Ethernet
	Optional	Length of charging gun: 5 m, 10 m Communication interface: 4G wireless function
OTHERS	IP grade	IP54
	Basic protection	Short-circuit, over/under voltage, over current, leakage, etc.
	Remote controlling	Able to send commands and switch signal to control start and stop of charging pile
	Protective measures	Anti-moisture, anti-fungal, anti-salt spray, anti-dust, etc.
	Charge according to different time	Charge differently at peak and valley time

> Specification is subject to change without prior notice.

# EVD SERIES SPLIT TYPE DC CHARGER



## PRODUCT OVERVIEW

> This system is consisted of modular DC charging cabinet and DC charging pile, mainly including control module, power module, touch screen, card reader, LED indicator, energy meter, charging gun, emergency stop button etc.

## FEATURES

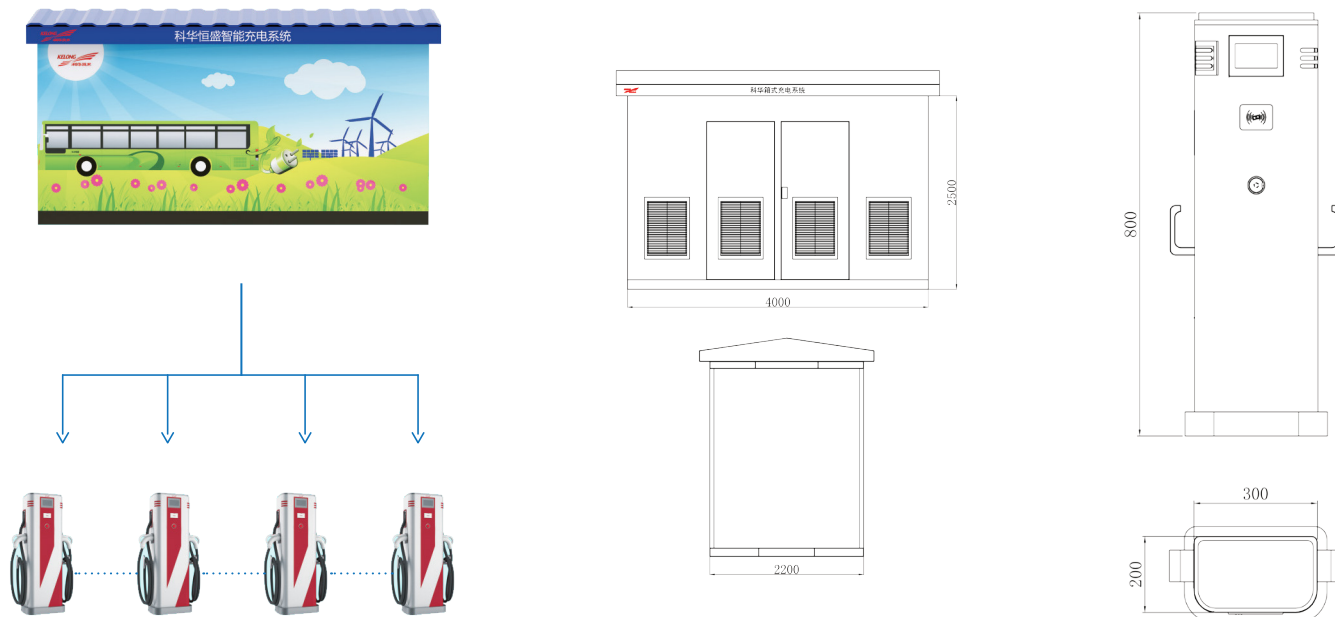
- > High-performance ARM chip, efficiency and stability
- > Human-machine interface, 7-inch true color touch screen, user-friendly design
- > Perfect electrical protection
- > Great cost-effective, elegant appearance, high IP grade (IP54)
- > Intelligent Ethernet communication
- > Wireless communication function
- > Double-plug intelligent output

## TECHNICAL DATA

SPECIFICATION		EVD751-180K-SD
Product name		Spilt type DC charger
INPUT	Rated voltage (Vac)	380V (Three-phase- ve-wire system, 3W+N+PE)±20%
	Rated frequency (Hz)	45~65
	PF	≥0.99
OUTPUT	Numbers of charging gun	2
	Output voltage (Vdc)	300~750
	Output Power (kW)	180
	Rated Current (A)	240
EQUIPEMENT INFORMATION	Length of charging gun	7m Chinese standard (Electronic lock included)
	Cooling	Air cooling
	Efficiency	≥95.5%
	Noise (dB)	<60
	Stabilized current precision	≤±1.0%
	Stabilized voltage precision	≤±0.5%
	Output current accuracy	≤±1.0%
	Output voltage accuracy	≤±0.5%
	Current sharing unbalance	≤±3.0%
	THDI	≤4%
	Working Temperature (°C)	-20~+50
	Storage Temperature (°C)	-20~+70
	Operating humidity	5~95%
	Charging cabinet dimension (WxDxH) (mm)	600×800×2000
	Charging pile dimension (WxDxH) (mm)	450×270×1500
Cabinet weight (kg)	430	
Pile weight (kg)	45	
FEATURES	Basic	Human-machine interface: 7-inch touch screen Payment mode: Non-contact CPU card BMS auxiliary power supply: 12/24V switchable (optional for 12V or 24V) Billing: DC energy meter Communication Interface: Ethernet
	Optional	Length of charging gun: 5 m, 10 m Communication interface: 4G wireless function
OTHERS	IP grade	IP54
	Basic protection	Short-circuit, over/under voltage, over current, leakage, etc.
	Remote controlling	Able to send commands and switch signal to control start and stop of charging pile
	Protective measures	Anti-moisture, anti-fungal, anti-salt spray, anti-dust, etc.
	Charge according to different time	Charge differently at peak and valley time

> Specification is subject to change without prior notice.

# EVD SERIES CONTAINER-TYPE DC CHARGING SYSTEM



## PRODUCT OVERVIEW

> The container-type charging system is consisted of centralized charging container and charging terminal equipment. There are multiple sets of split type DC charge-rin the container. The charging container is mainly divided into several parts such as enclosure(include lighting and fan), power distribution boxes, power configuration and communication unit, industrial air conditioner and other major parts.

## FEATURES

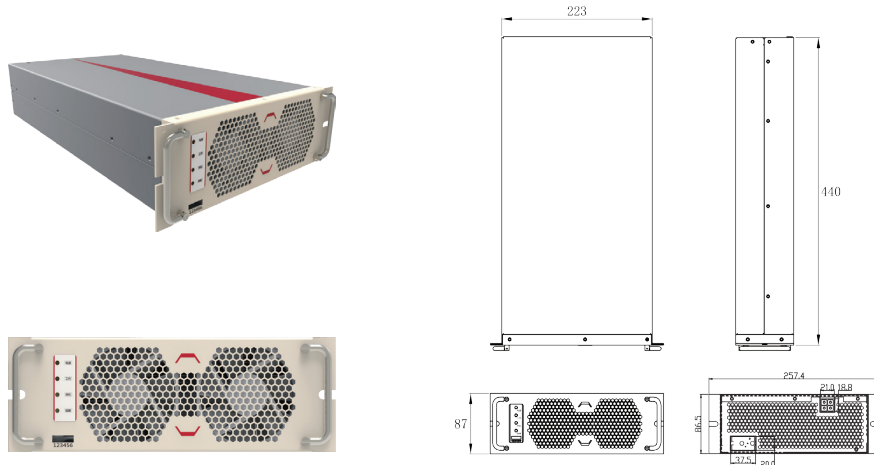
- > One-stop container-type charging design, no need to build equipment room
- > Factory pre-installation and pre-debugging, easy on-site installed and debugged.
- > Centralized management of charging equipment
- > Advanced design of air duct and heat flow
- > Small footprint of charging terminal equipment
- > Supporting monitoring software, use APP in cell phone to control charging
- > Charging system using modularization design, any combination is available.

## TECHNICAL DATA

SPECIFICATION		EVD751-600K-B8
Product name		Container-type DC charging system (compatible with 480kW/720kW)
INPUT	Rated voltage (Vac)	380V (Three-phase- ve-wire system, 3W+N+PE)±20%
	Rated frequency (Hz)	45~65
	PF	≥0.99
OUTPUT	Numbers of charging gun	8(optional for 16)
	Output voltage (Vdc)	300~750
	Output Power (kW)	600
	Rated Current (A)	800
EQUIPEMENT INFORMATION	Length of charging gun	7m Chinese standard (Electronic lock included)
	Cooling	Intelligent air cooling
	Efficiency	≥95.5%
	Noise (dB)	<60
	Stabilized current precision	≤±1.0%
	Stabilized voltage precision	≤±0.5%
	Output current accuracy	≤±1.0%
	Output voltage accuracy	≤±0.5%
	Current sharing unbalance	≤±3.0%
	THDI	≤4%
	Working Temperature (°C)	-20~+50
	Storage Temperature (°C)	-20~+70
	Operating humidity	5~95%
	Container dimension (WxDxH) (mm)	4000×2200×2500
	Terminal equipment dimension (WxDxH) (mm)	300×200×800
Weight(kg)	3920	
FEATURES	Basic	Human-machine interface: 7-inch touch screen Monitor con guration: environment monitoring system × 1 (entrance guard, water immersion, smoke alarms, temperature and humidity) BMS auxiliary power supply: 12/24V switchable (optional for 12V or 24V) Charging: DC energy meter Communication interface: Ethernet
	Optional	Length of charging gun: 5 m, 10 m Communication interface: 4G wireless function
OTHERS	IP grade	IP54
	Basic protection	Short-circuit, over/under voltage, over current, leakage, etc.
	Remote controlling	Able to send commands and switch signal to control start and stop of charging pile
	Protective measures	Anti-moisture, anti-fungal, anti-salt spray, anti-dust, etc.
	Charge according to different time	Charge differently at peak and valley time

> Specification is subject to change without prior notice.

# EV3 SERIES HIGH-EFFICIENT CHARGING MODULE



## PRODUCT OVERVIEW

> High-efficient charging module is employed with advanced three-phase and three-line power factor correction technology, single-phase implemented Interleave technology and wide-range soft switching power supply technology realized by LLC series resonant three-level. Its features are small size, light weight, high efficiency, high power factor, low input current waveform distortion (THD), high reliability, etc.

## FEATURES

- > Hot-swappable module: By adopting no master- slave parallel control technology, each power module is independent, the power module can be maintained on-line.
- > Three-level soft switching technology improves overall efficiency
- > All-digital DSP control, with high precision, fast speed and great overall performance
- > Saving energy: With advanced APFC control technology, the input power factor is greater than 0.99, it reduces the load of the power grid and saving power distribution costs. With high power density design, a higher utilization of limited space leads to lower investment costs
- > Intelligent fan speed control, reduce noise and prolong life
- > Reliable electromagnetic compatibility, passed the authoritative and professional electromagnetic compatibility testing



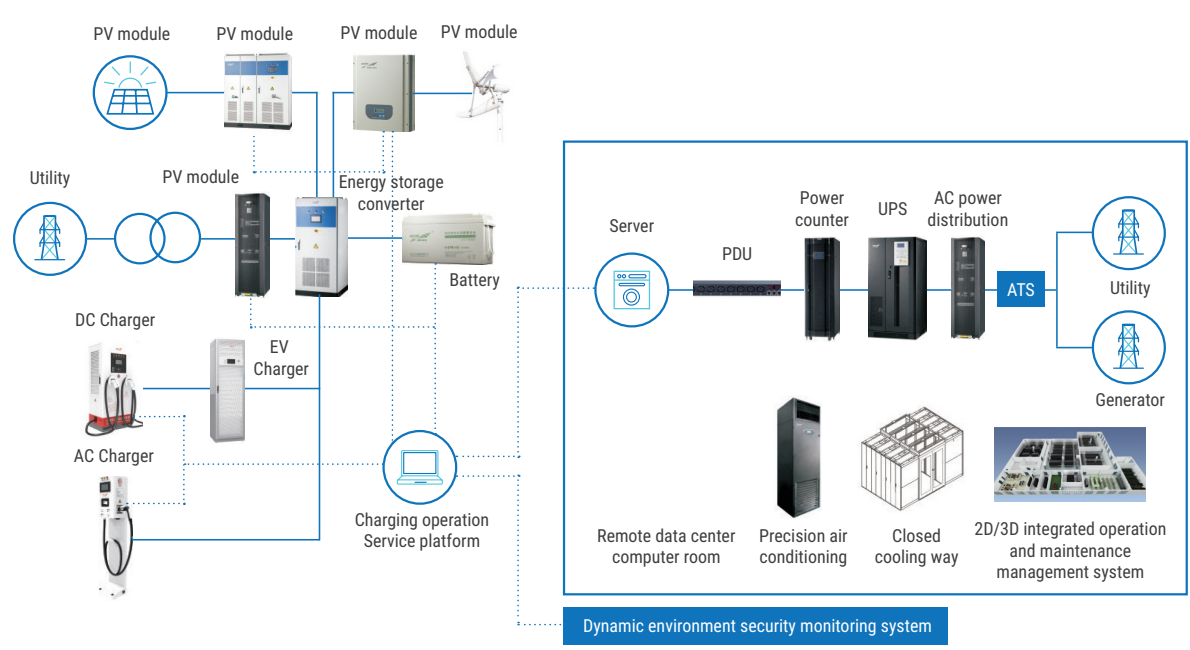
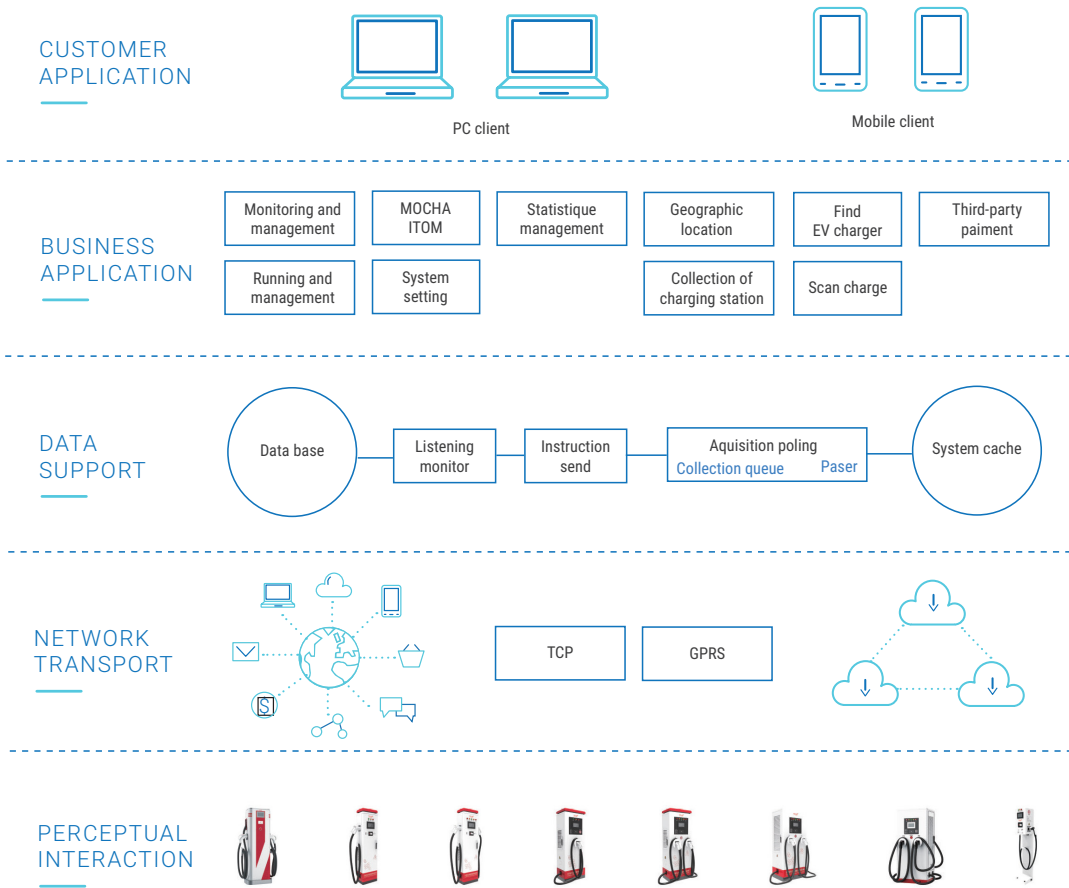
## TECHNICAL DATA

SPECIFICATION		EV3500-015K-AR	EV3751-015K-AR
Product name		Charging module	
INPUT	Rated voltage (Vac)	380V (Three-phase- ve-wire system, 3W+N+PE) ±20%	
	Frequency range (Hz)	45~65	
	PF	≥0.99	
OUTPUT	Output voltage (Vdc)	200~500	300~750
	Output power (kW)	15	15
	Rated current (A)	30	20
	Stabilized current precision	≤±1.0%	
	Stabilized voltage precision	≤±0.5%	
	Output current accuracy	≤±1.0%	
	Output voltage accuracy	≤±0.5%	
	Current sharing unbalance	≤±3.0%	
OTHERS	THDI	≤4%	
	Efficiency	≥95.5%	
	Cooling	Air cooling	
	Noise (dB)	<55	
	Working temperature (°C)	-20~+50, 50~65 derating output	
	Storage temperature (°C)	-20~+70	
	Operating humidity	5~95%	
	Dimension (WxDxH) (mm)	223x440x87	223x440x87
Weight (kg)	9	9	

> Specification is subject to change without prior notice.

# EVS SERIES ELECTRIC VEHICLE OPERATION MANAGEMENT PLATFORM

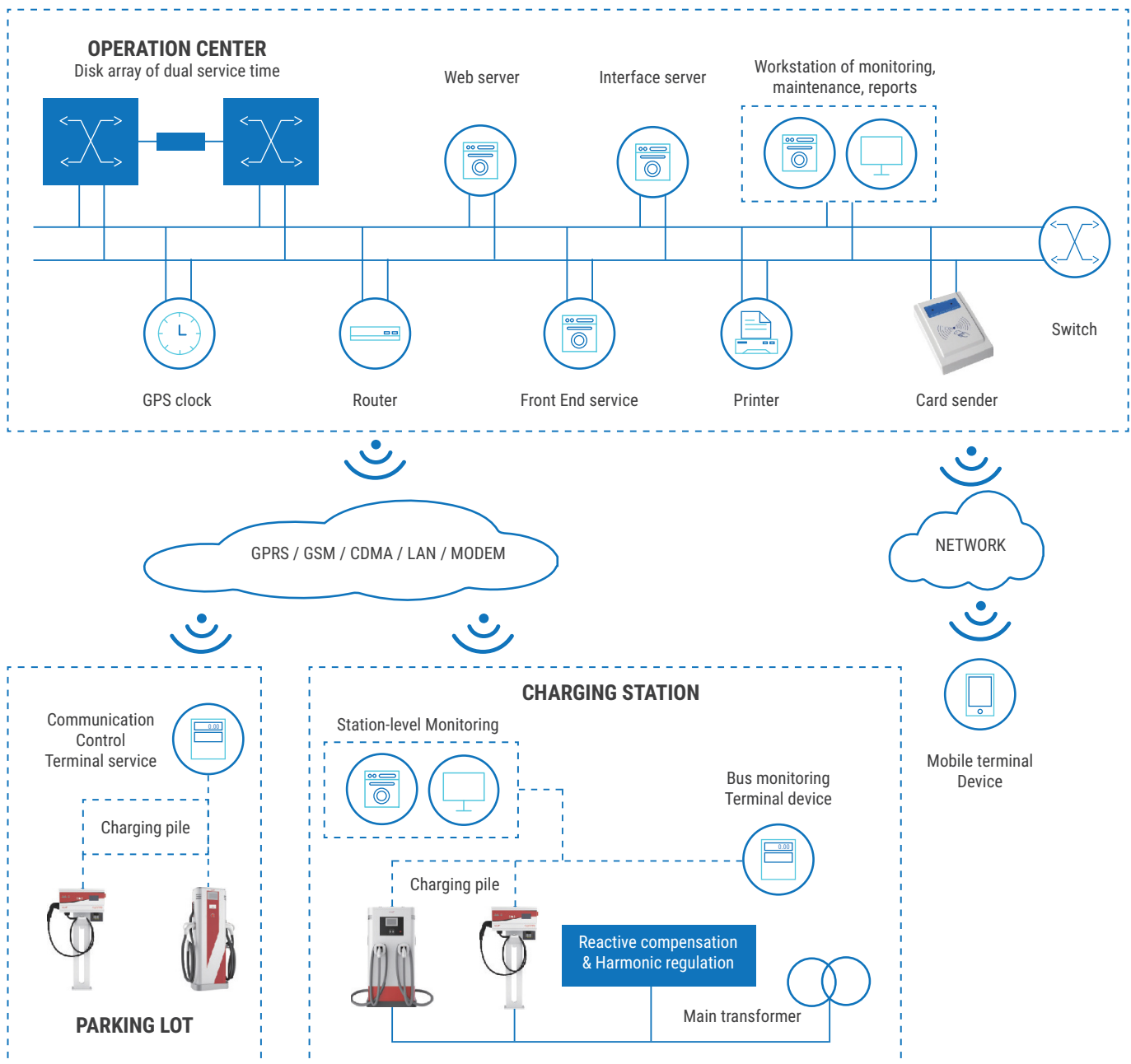
The Charging device use the Ethernet, GPS, CAN and RS485 communication mode, internal private network or the Internet to realize the monitoring grade by grade, managing the devices for whole network billing, charging, power distribution, Security, and according to customer requirements, upload the data to the server of higher level or making the local network within the local scope.



## EVS SERIES OF CENTRAL OPERATION MANAGEMENT PLATFORM

Through the whole course of entire network monitoring on electricity of various forms, realizing convenient vehicle scheduling and reasonable charging plan. Through a variety of communication methods, monitoring on the vehicle, charging system, dynamic environment system, and the dedicated management server is deployed in the station, through the analysis of data collected in the station, realizing the unified management for the information resources of the station. Adopting three-level structure of network level, site level and equipment level to upload monitoring data to operations center. Layered management could be applied for Province, city, district, visually display the branch locations and operation conditions. According to the different authorities, meeting the demand of management, cash register, manufacturers maintenance use. Flexible networking function, local area network (LAN), wireless network, special line network and public network, to meet different application requirements. Data transmission software encryption, safe and reliable.

- > Dynamic environment data monitoring
- > Charging Terminal battery data
- > User transaction data
- > The battery data analysis
- > Charging system operation information
- > User Information Management
- > Card management
- > Mobile phone APP access
- > Operation data statistical analysis

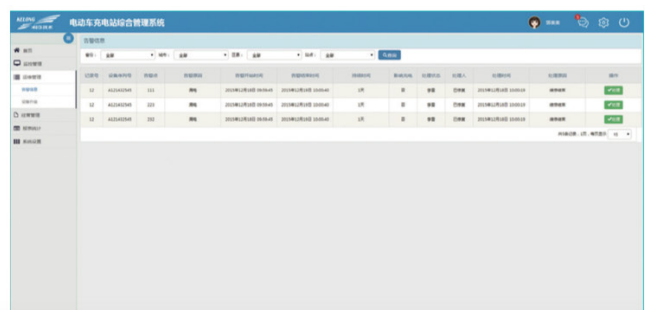
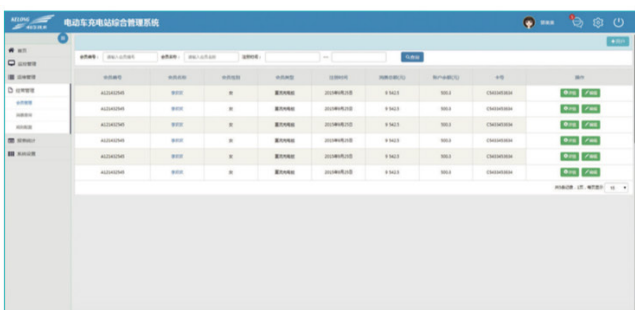
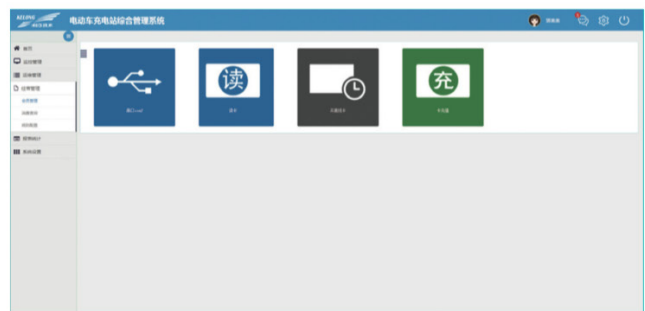
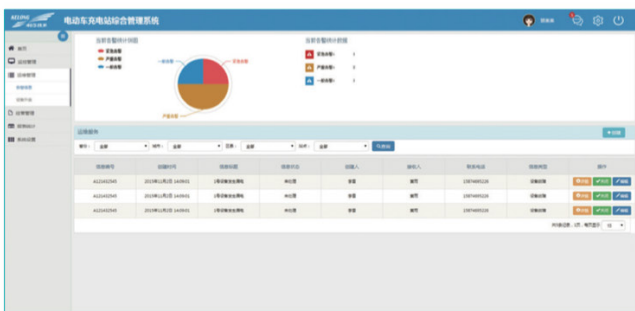
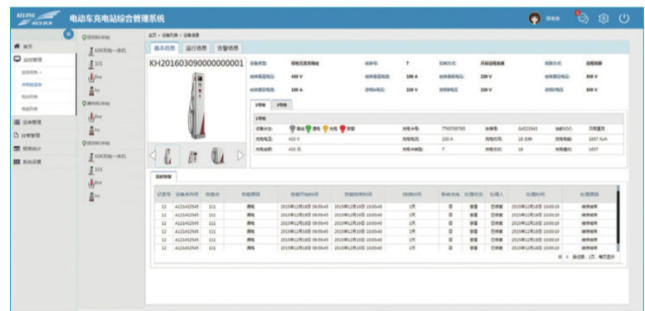


# EVS SERIES ELECTRIC VEHICLE OPERATION MANAGEMENT PLATFORM

## EVS MONITOR AND MANAGEMENT PLATFORM

This platform could independently monitor and operate on the charging station, connecting the operation center and charging pile, forming a three-level network structure. It can also provide site aerial view, comprehensively understand the status of the alarm condition for each site, timely find the alarm area, and also manage billing, cards, sales data for each station.

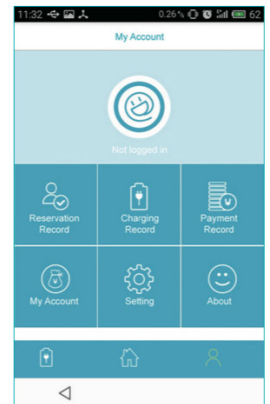
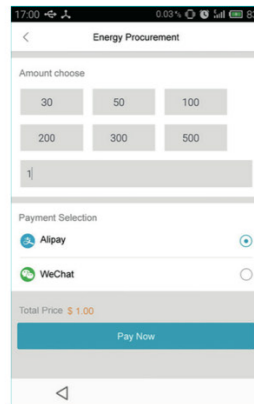
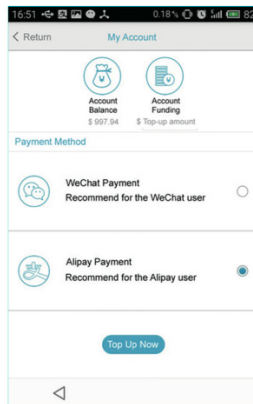
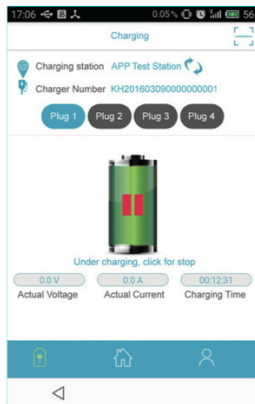
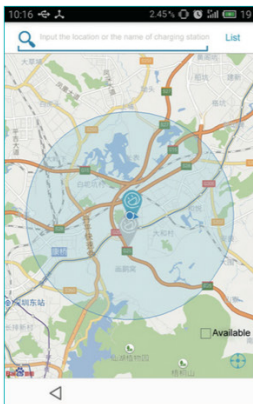
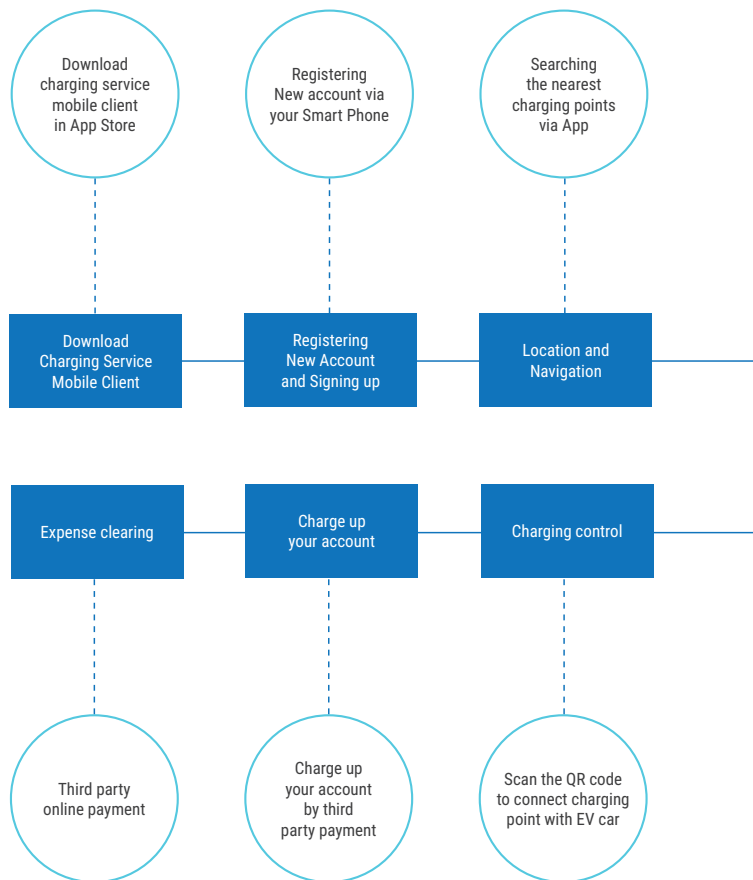
- > On-site environment and security monitoring
- > The operation condition of the charging system
- > Count charging station site usage
- > Count charging consumer information
- > Monitor vehicle battery status
- > Power distribution data collection
- > Real-time display charging information, control the charging process
- > Metering charging and the human-computer interaction interface
- > Charging management and fault protection
- > User information management, cards at the same time, station level to monitor system and complete the bottom layer equipment data acquisition and management, according to the usage of all charging pile, free state and alarm status, charges and other information



## EVS APP

Realizing the functions of charging station navigation, charging control, cost settlement, also through the APP could search the surrounding living information, make the process of waiting wonderful.

- > Registration and Log-in: Client-side provides registration function, and the registry shall provide the basic information of the user, such as mobile phone number, through the cell phone verification code complete the registration verification, after completing registration, the user could login with the registry account.
- > Navigation, By positioning, we can find the charging pile and realize navigation
- > Charging control: QR code charging, after the connection between car and charging pile ready, input the serial number of terminal in the phone APP or scan the QR code can start charging.
- > Accounts Recharge: can use 3rd party billing network to top-up account deposits
- > Expense settlement: 3rd party billing network to charging terminal credit card payment



# APPLICATION

Xiamen Gaoqi airport is one of the first batch pilot units for the civil aviation administration «oil change electricity project», in November 2015, began to implement the special kinds of vehicles in airport area to the electricity step by step, Kehua provided turnkey solutions for this project, charging the special vehicles in airport (aircraft tractor, shuttle buses, trailers, etc.).



The SAIC Motor, as the biggest listed company in China's A stock exchange market, and also No.85 of the magazine <fortune>top global 500, and one of the 4 biggest Chinese car makers, installed the Charging equipment in the assembly workshop, the factory will do the inspection before electric vehicle is finished, and they have future plan for the pure electric logistics vehicle and the school bus.



To ensure the smooth operation of electric taxis, Xiamen traffic transportation office has an overall plan on the charging facilities, and the public transportation group and municipal construction group is responsible for the project construction, the plan is to build up 15 charging stations, 350 charging piles. Kehua provides «one-stop» construction project for new energy EV charging station, giving the priority to the construction of xiamen university, South Putuo charging stations, BRT Qianpu underground parking charging stations and put into operation, mainly provide the charging service for Xiamen electric taxis, such as: BYD e5, BAIC ev200, etc.





HuaRong road charging stations project, one of the projects planned and constructed by Xiamen transportation office, is the National Grid charging stations demonstration project in Xiamen, the project construction and operation is supported by the National Grid company. Kehua provides the «one-stop» construction project, providing charging infrastructure and project construction.



Kehua provides the charging solution for some Multi-storey Parking Garage, providing AC charger product, operation & management software products in the long run.



The Jiangsu Province Yancheng city Jianhu county responds to the national call, firstly put 60 renewable energy electric buses into use replacing traditional oil-drive buses. Kehua provides 'one-stop' renewable energy electric station construction solution, constructing chengdong bus charging station and Chengnan Transfer Center bus charging station.



# APPLICATION

Putian city bus group purchased 120 electric buses, Kehua provides 'one-stop' renewable energy charging station construction solution, which was put into use in City north station/ Liyuan Bus station/ Railway station making total 5MW installation of EV charger, ensuring the normal operation of electric buses for this group.



Putian Bus Station

Kehua provides 'one-stop' renewable energy charging station construction solution and service for Fujian province Ningde city public transportation company, building up specially bus-used charging station, this project has been already put into use, green and environment friendly.



Ningde Bus Station

Zhangzhou bus group start the first stage EV charger construction, now Kehua already finished 5 EV charging stations specially designed for bus charging usage. Kehua provides the "One-stop" EV charging station construction solution. For now, this project is under operation which will lead the new development trend of electric bus industry.



Zhangzhou Bus Station



Kehua assist the EV charging infrastructure construction (EV charger and related power devices), providing the "One-stop" EV charging station construction solution, the solution is reliable, efficient, intelligent. Relative EV charger solution also provided for Sanming city bus station, Fuding city bus station, Jianning city bus station, Taining city bus station, Jinlv bus group, Jinlong bus group, Dongfeng bus group, and relative enterprise and public institution.

