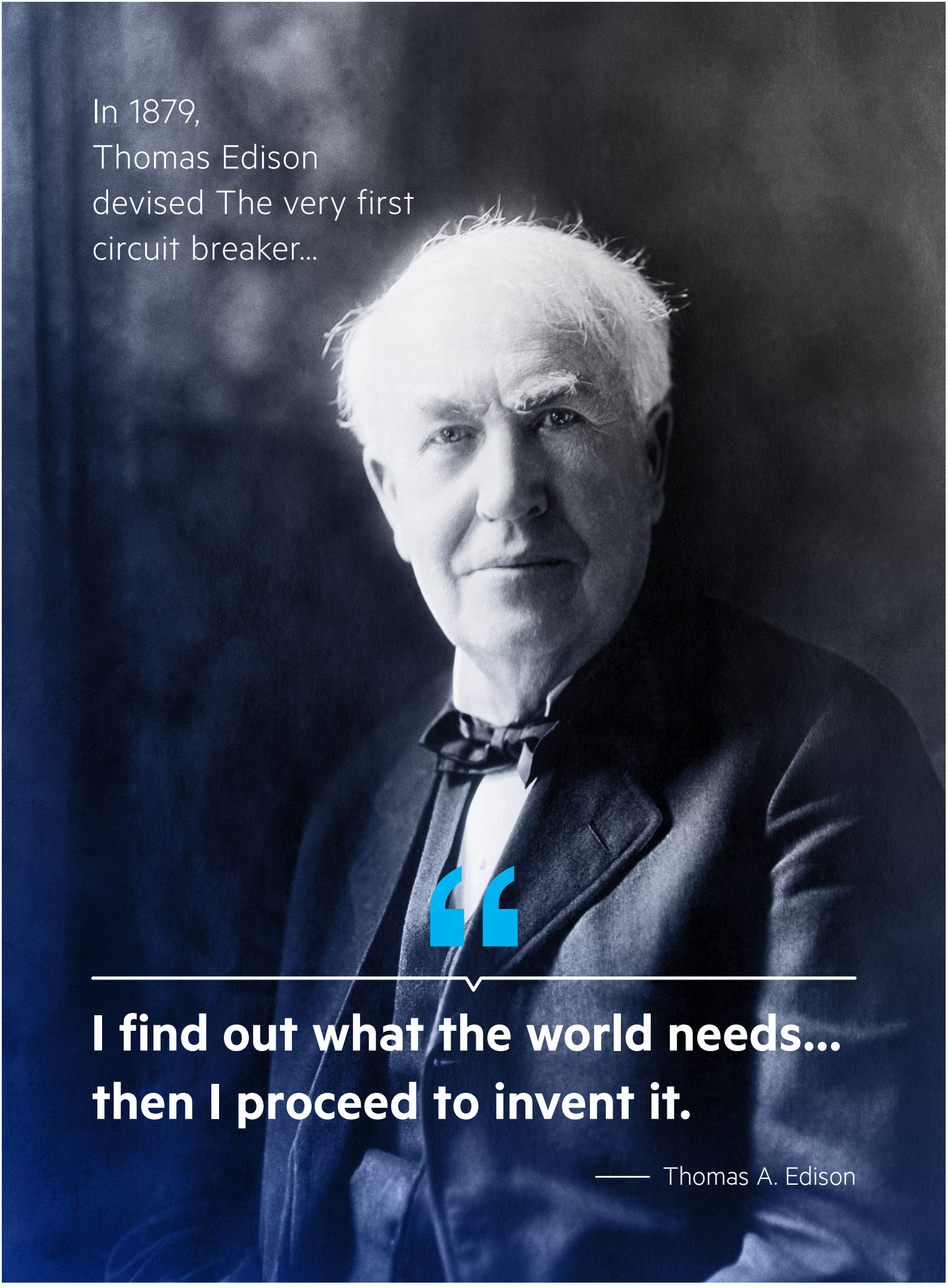
GEIS

Poros EV Charger
Enable Your Mobile Life

GEIS Electrical Protection

Safer Smarter Greener


In 1879,
Thomas Edison
devised The very first
circuit breaker...
“
I find out what the world needs...
then I proceed to invent it.
— Thomas A. Edison

About GEIS

GEIS was established in 2019 following the spin-off of several businesses and assets that ABB had acquired from GE on July 1, 2018, include 3 manufacturing centers, Warehousing & Trading business at FTZ, China Technology Center.

- Components: Full range of circuit breakers up to 40.5kV: Medium voltage vacuum circuit breakers, LV circuit breakers: ACB, MCCB, MCB, RCD, RCBO: Control components.
- Equipment: MV switchgear (Air insulation and Gas Insulation Technology), LV switchgear, switchboard.
- Medium voltage cast coil dry type transformer.
- Medium voltage ATS system (Paralleling Switchgear).

After the separation, all the above product lines were rebranded as AEG for the China market and GEIS for global markets.

Note: GEIS brand is also used in China

Quality is Built-in

Vertical integrated Manufacturing Center

- Over 25 years of experience in localizing world-class products and manufacturing technologies, building strong expertise and a capable team.
- Consolidated most manufacturing processes under a single 60,000-square-meter facility in Shanghai.
- A strong R&D team dedicated to developing products that meet global standards and diverse applications.
- GEIS Thailand facility focuses on NEMA product lines.






GEIS deliver complete range of products for the evolving electrification needs:

SecoVac VCB

M-PACT Plus ACB

Elfa Series MCB/RCBO

EV Charger

SecoGear MV Switchgear

RMU Gas Insulated Switchgear

WaveCast Transformer

MLS LV Switchgear

Poros EV Charger

Catalogue

Charging Management Platform

“New Infrastructure” For Mobile Travel: Three-Dimensional And All-Round Charging Grid

As the sales penetration rate of electric vehicles exceeds 20%, the electrification era of vehicles has officially entered a stage of explosive growth. As a result, chargers no longer rely on vehicles, but independently become part of the city’s “infrastructure”. The role of the charger has officially changed from “minor role” to “central role”.

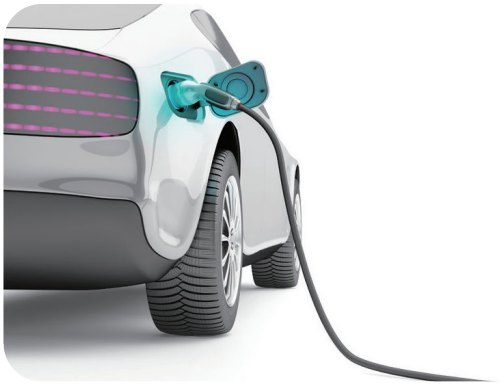
Network architecture of multi-level charging facilities for electric vehicles:

1. Charging based on home and workplace: Mainly based on low AC power (less than 22kW), trickle charge and discharge, suitable for 80-90% of electric vehicles; commuting and other daily travel;
2. Chargers in public facilities and business places: temporary charging for customers, generally low-power and medium-power chargers (less than 50kW), AC and DC;
3. Commercially operated superchargers: they are service stations to quickly charge commercial vehicles and long-distance travelers. They all support DC high-power fast charging, which can quickly charge electric vehicles for the next long-distance trip. They are generally built in a place with convenient transportation;
4. Open and interconnected charging facility network: Charging devices based on wireless communication support information interconnection based on voluntary principles, and are suitable for all electric vehicles, providing maximum convenience for e-moving;
5. Portable charger: portable charger is an “emergency unit” for electric vehicle owners. It is generally a low-power AC charger, and it can be flexibly connected to general electrical facilities (ordinary sockets). It is suitable in all-weather environment (waterproof and pressure-resistant), and comes with vehicles to meet emergency needs. It can also be used as a formal charger during long-distance travel (during parking).

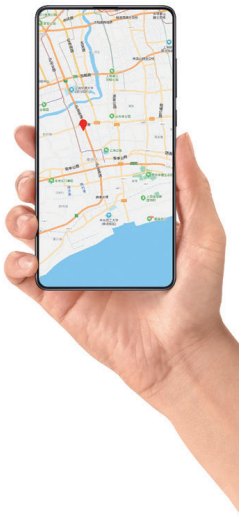
Residential areas, workplaces and business circles
Equipment: Low power AC charger
Feature: High density, convenience and availability

Charging station for bus and taxi and highway rest stop
Equipment: High-power AC and DC chargers
Feature: Low density, rapidity, safety

Charging stations for highway rest areas, tourist attractions, parking lot and highway
Equipment: High-power DC charger
Feature: Low density, fast charging, flexible charging



Portable charger
Equipment: Low-power DC charger
Feature: insurance policy anytime and anywhere



Charging Management Platform

Why Poros

Control Panel

- Poros circuit boards comply with GB/T18487.2 EMC (EMC Requirements for Off-board Electric Vehicle Supply Equipment), and the electrical immunity and radiation meet the requirements for residential environment
- The control circuit board also complies with EPT910 (Test Criteria for Avionic Equipment)

A. 10-year simulated accelerated life test (85°C cycle test)
B. Tin whisker growth test
C. Control circuit board passed -25C ~60C aging test

Charging Gun

- Poros charging gun meets the standards: GB/T20234.1, GB/T20234.2, IEC62196.1, IEC62196.2;
- Ultra-high IP: single gun protection level IP67, IP54 after integrated with socket/pile
- Ultra-long plug life: > 10000 times
- Harsh ambient temperature: -30°C~50°C
- Flexible charging modes: mode 2/mode 3

Communication Method

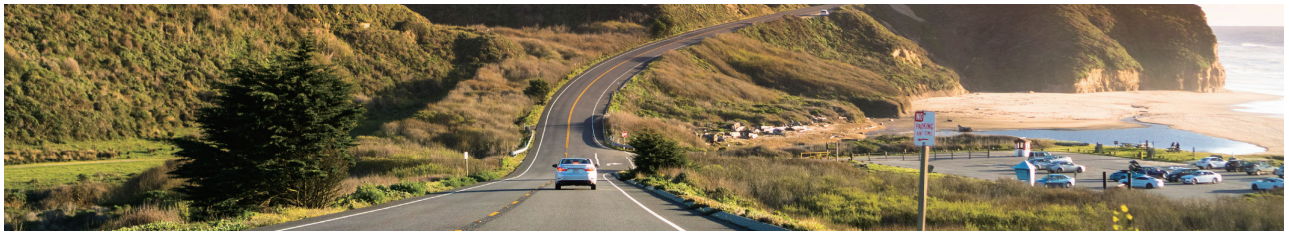
- Communication: 4G/5G, wifi optional, charger searching through network positioning
- Scanning code charging, WeChat payment, convenient and fast

More Protection

- Overload protection
- Surge protection
- Overvoltage protection
- Under-voltage protection
- Short circuit protection
- Grounding protection
- Overheat protection
- Lightning protection
- Emergency stop protection

Appearance Design

- Perfect in form and function: The product has inherited the century-old design concept and integrated industrial aesthetics with life, so that simple and elegant visual symbol is presented and highlighted.
- Multiple installation methods are optional in different scenarios
- Fashion, colorful and customized design

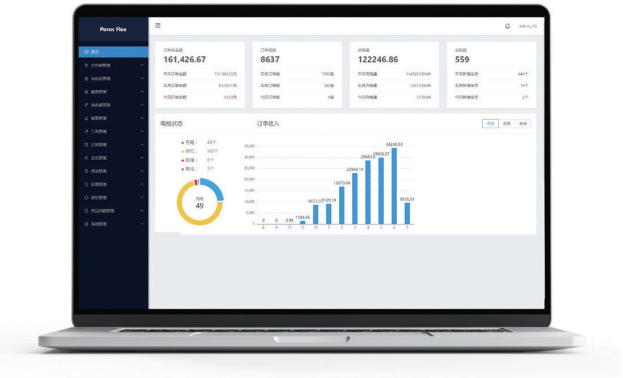


Charging Management Platform

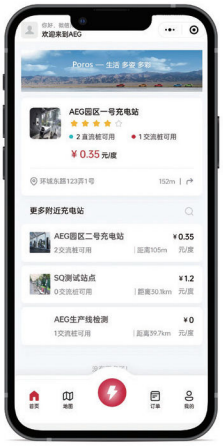
Poros Flex

Poros Flex Charging Management Platform

GEIS uses Internet of Things, cloud computing and big data technology to build the PorosFLex all-round charging management platform, which provides users with refined operation, automation and intelligent diagnostic services, etc. The platform currently supports WeChat applets and is compatible with the mainstream operating platforms, maximizing the operational efficiency of charging stations and reducing operating costs.



- **Monitoring overview:** Have free access to major operators, and display information such as power stations connected to the platform, the number of charging piles, map locations, and realtime power.
- **Fine management:** You can open an independent account to view site information, real-time power, charger status monitoring, etc. It can also be deployed independently (customized) to realize independent charging and flexible configuration by merchants. It can easily realize charger business management and expansion, data interaction, and industry data interconnection.
- **Safe and independent:** Independent WEB management page, independent storage capacity, independent execution of planned tasks and independent analysis and processing capabilities, data encryption; software and hardware reconfigurability, which facilitates the gradual increase, change and expansion of software and hardware configurations, and smooth upgrade according to actual needs; data security needs for merchant operations satisfied.
- **Flexible charging:** It can monitor the status ofthe vehicle and the grid.



Poros Flex Charging Applet

- **Pile station positioning:** Get the location of nearby pile stations, check the basic information of pile stations, and select a pile station for navigation.
- **Scanning code charging:** One-key scanning code, which is convenient and fast, so that you can check and control the charging progress at any time.
- **Mobile payment:** flexible selection of charge on a per-use basis or account recharge.
- **Order management:** Check the charging and recharge records, and order status “unsettled”, “settled”, and “charging”.
- **Self-service:** Users can remotely start or stop charging, check charging status, and make an appointment for charging, etc.

Poros Legend Charger

Poros Legend chargers feature simple product design, diverse customization and beautiful appearance. Modular design facilitates product update and upgrade. Legend chargers are AC wall-mounted and vertically installed. They are fully waterproof and dustproof, and are suitable for all-weather indoor and outdoor scenarios.

Legend AC charger is an EV charger which provides electric vehicles with on-board chargers under charging mode 3 and is compatible with international interfaces (within 3-phase voltage 400V and current 32A). It provides intelligent control and multiple protections to ensure charging safety.

Type	Item	Value
Appearance	Installation method	Wall-mounted/floor-mounted typ
	Gun cable length	5m
Electrical parameters	Maximum power	11/22kW
	Input voltage	AC400V±10%
	Input frequency	50Hz
	Output voltage	AC400V±10%
	Output current	32A
	Standby power consumption	3W
	Power frequency withstand voltage	2kV
	Impulse withstand voltage	5kV
	Leakage protection accuracy	A+6mA
Function design	Communication method	Lan, wifi, 4G (Optional)
	Orderly charging	Optional
Environmental adaptation	IP grade	IP54
	Operating temperature	-20°C ~+50°C
	Ambient humidity	5%~95%
	Altitude	2000m
Safety protection	Overload protection, surge protection, overvoltage protection, under-voltage protection, short circuit protection, grounding protection, overheat protection, lightning protection, emergency stop protection	

AC Charger

Poros Legend

Intuitive human-machine interaction mode: the on, off, fast flashing, and slow flashing of the power, charging, and fault indicators represent different working modes of the charger.

Built-in QR code: QR code can be built-in and replaced easily to prevent the external paste from being easily damaged.

An easy-to-trigger emergency stop button is set to cut off the power supply in case of emergency.

Function customization: different internal hardware can be conveniently selected according to different scenarios: home use, home use in public places, charging and other scenarios.

Poros Legend-E AC Charger

Poros nova chargers feature simple product design, diverse customization and beautiful appearance. Modular design facilitates product update and upgrade. Legend chargers are AC wall-mounted and vertically installed. They are fully waterproof and dustproof, and is suitable for all-weather indoor and outdoor scenarios.

Nova AC charger can provide electric energy for electric vehicles with on-board chargers, and can provide products that comply with GB18487.1/2 and IEC61851. This charger provides charging power 7, 11 or 22kW (optional), and is suitable for 1-phase AC220-230V and three-phase AC380-440V power systems. Legend series supports 4G/wifi communication, and provides intelligent control, multiple protection, charging exception alert and other functions to ensure charging safety.

- **Safety Guarantee:** A Variety Of Electrical Protection Functions To Ensure The Safety Of Equipment And Personnel
- **Beautiful And Durable:** Industrial Aesthetic Design, Suitable For Various Home Use And Business Occasions
- **Stable And Reliable:** Stringent Process Requirements, IP54, Not Affected By Environment
- **Human-Machine Interaction:** Led Breathing Light Strip, Which Can Indicate Charger Status, Fault Alarm And Other Information
- **Intelligent Interconnection:** Multiple Communication Methods Such As 4g, Wifi, And Ethernet, Appointment For Charging, Remote Control And Other Functions Supported

Specifications	Poros WS-32-G1	Poros WS-32-E1	Poros WS-32-E3
Input voltage	AC230V±10% 1-Phase	AC230V±10% 1-Phase	AC400V±10% 3-Phase
Input frequency	50Hz	50-60Hz	50-60Hz
Rated power	7kW	7kW	22kW
Output current	32A 1-Phase	32A 1-Phase	32A 3-Phase
Standby power consumption	<2W	<2W	<2W
Communication method	RFID	4G, wifi, Ethenet	4G, wifi, Ethenet
IP grade	IP54	IP54	IP54
Altitude	<2000m	<2000m	<2000m
Charging protocol	IEC-103	OCPP 1.6	OCPP 1.6
Safety protection	Overvoltage protection, under-voltage protection, overload protection, short circuit protection, surge protection, ground protection, overheat protection, lightning protection	Overvoltage protection, under-voltage protection, overload protection, short circuit protection, surge protection, ground protection, overheat protection, lightning protection	Overvoltage protection, under-voltage protection, overload protection, short circuit protection, surge protection, ground protection, overheat protection, lightning protection

DC Charger

Poros DC Supercharger

GEIS Poros DC supercharger is a DC fast charger. Its power is within 30kW~160kW. It supports multiple output forms of single gun, double guns or three guns, and provides customers with reliable, safe and fast DC charging services, which can meet charging needs of electric vehicles. It provides a variety of communication interfaces, communicates with the station-level monitoring center or operation management center in real time, and uploads real-time charging information. The product has a self-inspection function, and immediately stops charging when an exception or fault is detected, ensuring the personal safety of the users and the safety of the vehicles during charging.

Main Features:

- **Fast charging:** Electric vehicles consume 14kW per 100 km, and can continue to travel for 100km only after charging for 10min.
- **Time and power saving:** high conversion efficiency, standby power consumption ≤20W, wide output voltage range, suitable for many models.
- **Diverse charging modes:** Modes such as charging by time, charging by electric quantity, charging by amount and automatic charging.
- **Flexible payment methods:** Special IC payment, mobile APP payment, QR code payment, account payment supported, unconscious payment enabled.
- **Flexible networking:** RS485, Ethernet, GPRS, Wifi, and other communication interfaces are connected to the background.
- **Reasonable structural layout:** strong and weak AC and DC are separated, and the system is stable, reliable and small in size.
- **High IP grade:** It is fully waterproof and dustproof, and its IP grade is IP54. It is suitable for outdoor scenarios.
- **Perfect safety protection function:** it has protection functions such as short circuit, overload, overvoltage, undervoltage, leakage and lightning protection.
- **Accurate metering and billing:** Energy meters are all certified by CMC State Grid.
- **Low noise:** Through directional noise reduction, the noise is less than 55 dB.

Specifications	Poros DC-E Series
Input voltage	Ac400v±10%
Input frequency	50-60Hz
Rated power	40~180kW
Output current	200-1000v DC
Efficiency	≥95%
Harmonic Content	<5%
HMI	7 Inch LCD
Communication Method	4G/Wifi/Ethernet
Number Of Charging Guns	Single Gun/Double Guns
IP Grade	IP54
Altitude	<2000m
Operating Temperature	-20℃ ~+50℃
Operating Humidity	<95%, No Condensation
Safety Protection	Overvoltage/Under-Voltage Protection, Overload Protection, Short Circuit Protection, Surge Protection, Ground Protection, Overheat Protection, Lightning Protection

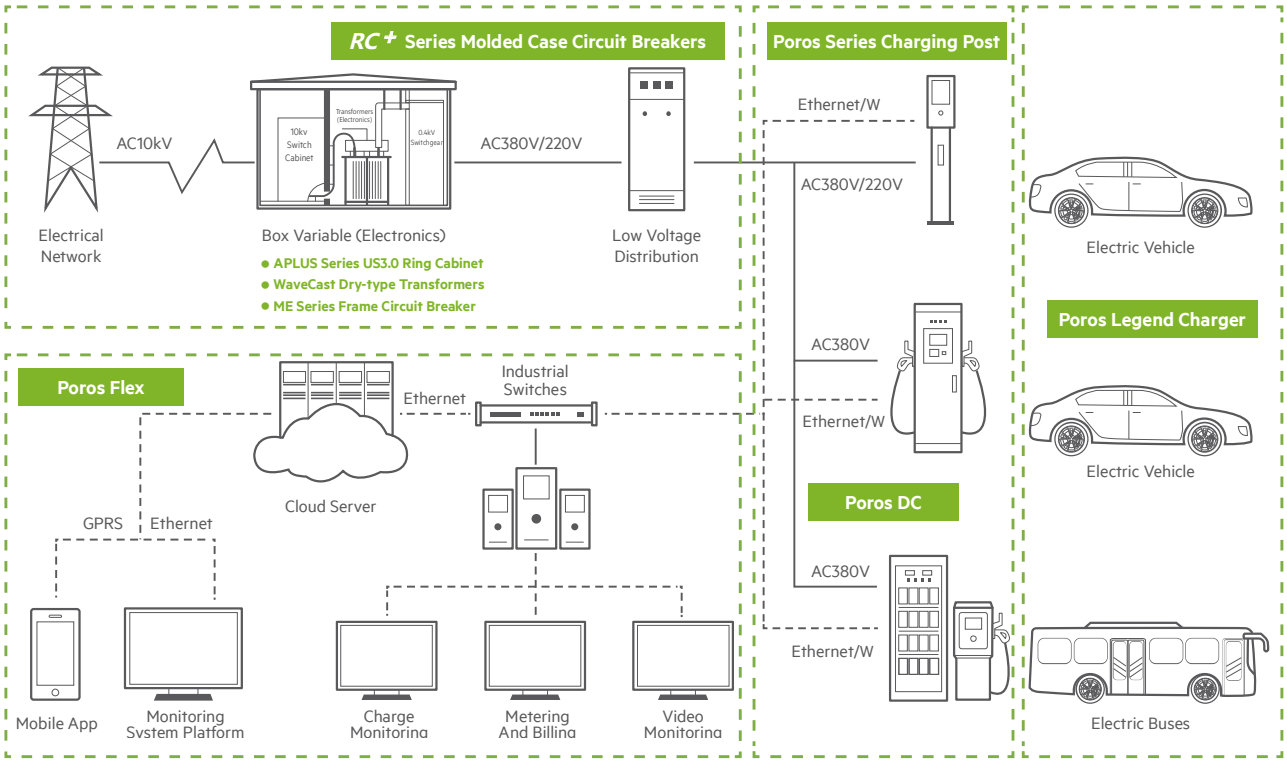
Poros GO Portable Vehicle Charger

GEIS Poros GO is an AC portable charger. The whole machine is small and lightweight, and has streamlined appearance full of design and elegant carbon fiber texture. The product is also comparable to GEIS Poros series in terms of safety and reliability. It is fully dustproof, waterproof, wearresistant, and crush-resistant, and suitable for all-weather outdoor use. The designed good-looking outer package takes into account both beauty and practicality, and is light and easy to store. It is a well-deserved “Plan B” in the trunk of your electric vehicle.

Type	Item	Value
Cable Length	Plug Cord Length	1m
	Gun Cable Length	3m
Electrical Parameters	Rated Input Voltage	AC230V/50Hz
	Rated Output Voltage	AC230V/50Hz
	Rated Output Current	13A
	Rated Residual Operating Current	30mA
Application Environment	IP class	IP67
	Operating Temperature	-25°C ~+50°C
	Ambient Humidity	5%-95%
	Altitude	2000m
Applicable Standard	GB/T 18487.1, IEC 61851	
Safety Protection	Over-Voltage Protection, Under-Voltage Protection, Over-Temperature Protection, Over-Current Protection, Leakage Protection, Grounding Protection	

Integrated Solution of Charging System

Integrated Solution of Charging System



US3.0 Gas Insulated Ring Main Unit

- 3mm stainless steel gas tank, automatic laser welding process, 40+ years of safe operation and maintenance-free
- Annual leakage rate of gas tank <0.01%, and ultra-low leakage rate for environmental protection purpose
- Left and right sides can be arbitrarily extended, and the common box solution involving up to 5 circuits is adopted
- Modular mechanical design, simple and reliable transmission structure, guaranteed mechanical life of 6,000 times (circuit breaker mechanical life of 10,000 times)
- Telemetry & tele-control, relay protection, suitable for various applications

Integrated Solution of Charging System

Integrated Solution of Charging System

Wavecast SCB Resin Insulated Dry-Type Power Transformer

- Complete range of models: SCB, SCB10, SCB11, SCB12, SCB13, SCB14, etc.
- Energy-saving and environment-friendly products; safe, low-noise, and pollution-free
- High and low-voltage coils all vacuum cast, foil windings, strong lightning impulse resistance and short circuit withstand capability, and high operational reliability
- High voltage coil with ventilation duct (Patent No.: ZL201921375730.4), small partial discharge, good moisture-proof and heat-dissipating performance
- Temperature display and control system that resists electric and magnetic field interference to achieve tele-control and monitoring
- The series has passed all type tests and special tests such as climate C2, environment E2 and combustion F1 grades

ME Air Circuit Breaker

- Rated current 400-6400A
- Patented arc extinguishing design of the misaligned deionization partition improves the arc extinguishing capability, up to 150kA when Icu = Ics
- Color LCD display, user-friendly interactive operation
- Current protection setting range: 0.2-1In
- Full power measurement and protection: voltage, current, reverse power protection
- Capture and record overload, short circuit, ground trip events
- RELT allowable short-circuit energy limit, double setting, protection of safe operation
- Digital metering, IOT, bus extension, Ethernet, Bluetooth, NFC

R+/RC+ Moulded Case Circuit Breaker

- Current-limiting moulded case circuit breaker
- Short circuit breaking capacity 36/50/80/150kA
- 3-pole or 4-pole protection
- Thermal magnetic or electronic protection, grounding, leakage protection, etc.

GEIS Electric
Website: www.geis.tech
Hotline: 400-820-5234

This catalog may be subjected to revision without prior notice.
Version No.: GENCEVAO25V2