



# **EV CHARGING SOLUTIONS**

Power for a Better World

LUOYANG GRASEN POWER TECHNOLOGY CD., LTD



### Headquarter

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Power for a Better World

### Company Overview

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### **Company Overview**

Since 2010

# 40,000+sqm

Industrial park based in Luoyang, China

# 170+patents

Placed in-house R&D centers in Luoyang, Xi'an

# OEM & ODM Service

Global network covering Europe, CIS, Middle East, Asia Pacific Region, Latin America and Africa.

# Milestones

### 2010 2016

- Founded in 2010.
- The 1st Chinese EV charger manufacturer to obtain ISO/TS16949:2009 certification.
- Partnered with Yutong Bus, Chery, and other leading car manufacturers.
- Developed China's first constant power DC charging station.
- Created the industry's first liquid-cooled pantograph charger station for bus.

### 2017 2019

- Factory with 40,000 m<sup>2</sup> of production and storage space was built.
- Launched liquid-cooled charger module and charger.
- Established long-term partnerships with BYD and CATL.
- Expanded into the global market.

### 2020 2023

- The first Chinese company in the industry to earn TUV CE certification (DIN 70121, DIN 70122 standards).
- All products are compliant with the OCPP 1.6J protocol.
- Named among China's Top 10 Influential Charging Station Brands for 3 consecutive years.
- Sold over 2000 charging stations to Europe, the Americas, and Central Asia.

### 2024 Present

- Established overseas subsidiaries in Malaysia and Uzbekistan.
- Grasen CSMS (Charging Station Management System) has been officially OCPP1.6J certified, supporting 20+ operators and 400+ charging stations worldwide.

### **Global Network**

Grasen offers comprehensive EV charging solutions designed to meet the needs of every market.







Corporate HQ Luoyang, China



**Regional Office** Kuala Lumpur, Malaysia Tashkent, Uzbekistan



**Factory** Grasen Industrial Park Luoyang, China

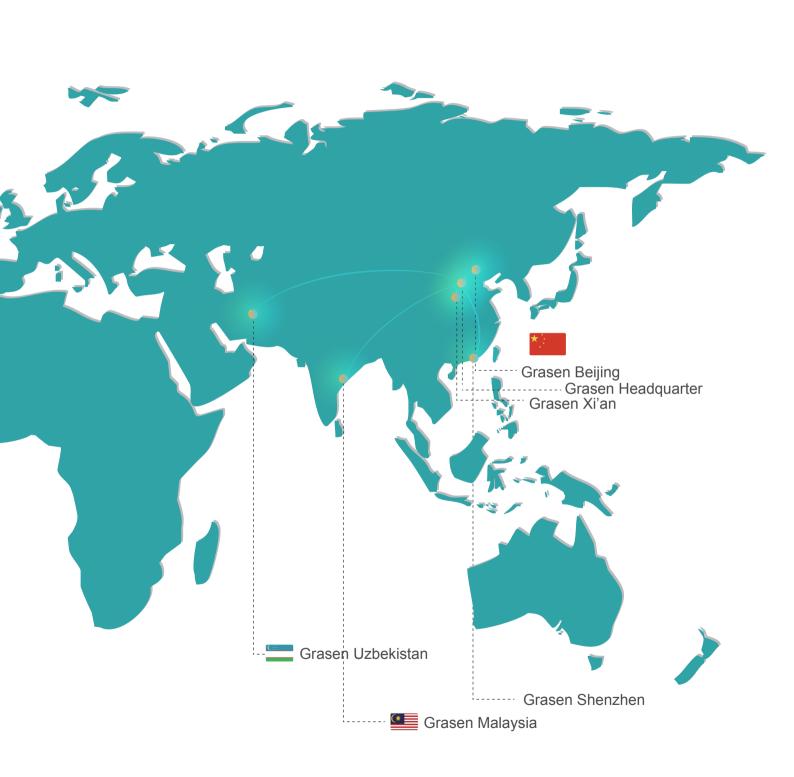
**R&D** Hub

Xi'an, China

Luoyang, China



Marketing and Sales Center Luoyang, China Beijing, China Shenzhen, China



### Why Choose Us



- GRASEN is a global leader in EV charging solutions, dedicated to advancing sustainable energy through innovative, efficient, and reliable products.
- Established in 2010, we design, manufacture, and innovate EV charging products that integrate new energy systems for maximum efficiency and reliability.
- Over the past 15 years, we've expanded rapidly across four continents to improve EV adoption and cost-effectiveness inhome, business, and public infrastructure.



### Certificate











# ig Station



# T Series Ultra-fast DC Charger

High-power charging innovation, added revenue



For locations requiring high-speed charging, our T Series delivers up to 420 kW of power. The simultaneous charging offers flexibility based on the charging demand. This series is designed for dense traffic environments such as highway corridors, airports, train stations, and urban areas with high vehicle traffic, ensuring vehicles are ready in the shortest time possible.

# Product highlights:

### Over States

Delivers up to 420 kW of power, providing an impressive 240 km of range boost in just 5 minutes.

### Added revenue

Designed for high-traffic locations, where the demand for fast charging is high and drivers are willing to pay more for convenience.

### 🐍 User-friendly

An 8-inch LCD with 800-nit brightness ensures visibilityeven in direct sunlight and dims automatically when not in use.

### Basy accessibility

Supports RFID, QR code, remote start and POS terminal access (Support POS customized integration based on/according to customer needs).

### Premium service life

Top-brand components from Phoenix, Schneider and more are at the core of every product, for stable and durable operation.

### **For all weather**

Excellent performance in temperatures from -30°C to 55°C, at altitudes up to 5,200 meters, and in high-humidity or salt-mist environments.



### **EV charging applications**



Highway corridors



Train stations



Shopping centers



Car parks



Fleets

#### Design

Power	60kW-120kW	150kW-180kW	240kW-420kW
Dimension(W x D x H)	1006*640*1890mm	700*806*1890mm	800*940*2275mm
Charging Ports	Dual Ports		
Cable Length	5m or 7m		

#### **Technical Data**

Input Voltage	400V±15%/440V±10%/480V±10%		
Input Voltage Type	TN-S		
Working Frequency	45~65Hz		
Power Factor	≥0.99		
Efficiency	≥94%		
Rated Voltage	CHAdeMO 500Vdc; CCS1/CCS2 1000Vdc; GBT 1000Vdc		
Output Current	CHAdeMO 125A; CCS1/CCS2 400A (Max) ; GBT 250A		

#### UI

Display	8" LCD Touch Screen	
Language	Chinese, English, French, German, Spanish, Russian, etc.(Customized)	
Payment	Mobile APP/RFID/POS	
Network Connection	4G/Ethernet	
Communication Protocol	OCPP1.6J	

#### Physical and Environmental Data

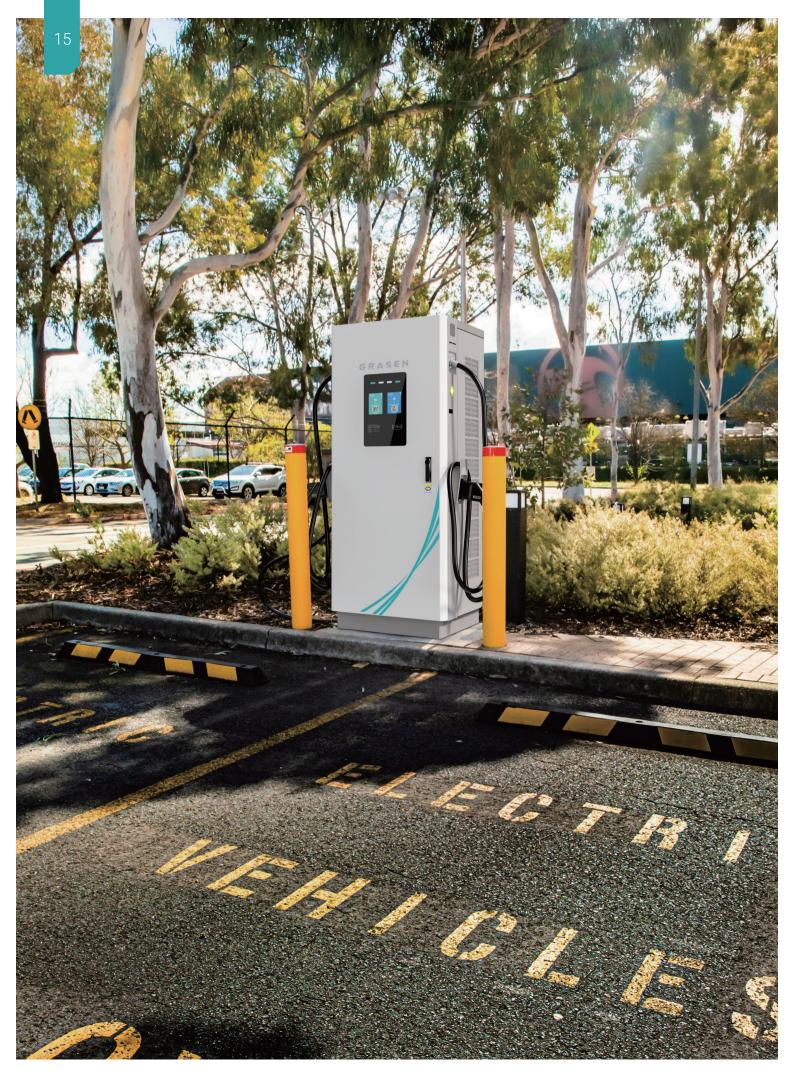
Operating Temperature	-30°C ~ +50°C
Storage Temperature	-35°C ~ +55°C
Operating Humidity	≤95% Non-Condensing
Protection	IP55
Cooling Method	Forced Air Cooling

#### Certs & Standards

Certificate	TUV CE	NTC CE	NTC CE
Charging Interface	DIN70121/DIN70122/ISO15118		

#### **Customization Options**

Cable Management System	Yes
Dehumidifier	Yes
Heater	Yes
POS Terminal	Yes



# R Series Fast DC Charger

High-performance design, powerful and reliable



As part of the fast-charging series, the R Series features a smaller design and more affordable pricing, without compromising on performance, making it a high-value choice. Moreover, the high efficiency modular power architecture improves up-time and reduces maintenance costs, making them ideal for charging hubs and public areas.

### Product highlights:

### Over State

Delivers up to 240 kW of power, providing an impressive 120 km of range boost in just 5 minutes.

### **&** User-friendly

An 8-inch LCD with 800-nit brightness ensures visibility even in direct sunlight and dims automatically when not in use.

### O Premium service life

Top-brand components from Phoenix, Schneider and more are at the core of every product, for stable and durable operation.

### Added revenue

Designed for high-traffic locations, where the demand for fast charging is high and drivers are willing to pay more for convenience.

### Easy accessibility

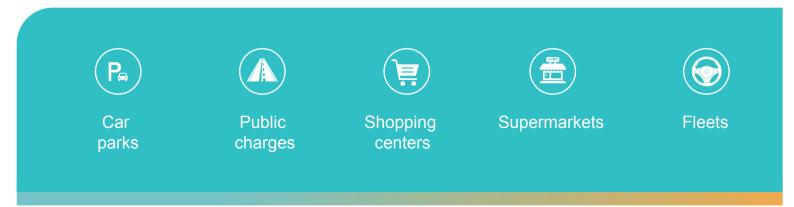
Supports RFID, QR code, remote start and POS terminal (Nayax) access .

### For all weather

Excellent performance in temperatures from -30°C to 55°C, at altitudes up to 5,200 meters, and in high-humidity or salt-mist environments.



### EV charging applications



#### Design

Power	40kW-160kW	160kW-240kW
Dimension(W x D x H)	700*490*1696mm	750*605*1805mm
Cable Length	5m or 7m	
Charging Ports	Dual Ports	

#### **Technical Data**

Input Voltage	400V±15%/440V±10%/480V±10%		
Input Voltage Type	TN-S		
Working Frequency	45~65Hz		
Power Factor	≥0.99		
Efficiency	≥94%		
Rated Voltage	CHAdeMO 500Vdc; CCS1/CCS2 1000Vdc; GBT 1000Vdc		
Output Current	CHAdeMO 125A; CCS1/CCS2 400A (Max) ; GBT 250A		

UI

Display	8" LCD Touch Screen		
Language	Chinese, English, French, German, Spanish, Russian, etc.(Customized)		
Payment	Mobile APP/RFID/POS		
Network Connection	4G/Ethernet		
Communication Protocol	OCPP1.6J		

#### Physical and Environmental Data

Operating Temperature	-30°C ~ +50°C
Storage Temperature	-35°C ~ +55°C
Operating Humidity	≤95% Non-Condensing
Protection	IP54
Cooling Method	Forced Air Cooling

#### Certs & Standards

Certificate	TUV CE
Charging Interface	DIN70121/DIN70122/ISO15118

#### **Customization Options**

Cable Management System	Yes	Yes
Dehumidifer	Yes	Yes
Heater	Yes	Yes
POS Terminal	Yes	Yes
Staimless steel Cabinet	Yes	Yes





## S Series Smart AD DC Charger (E) (@)

Beyond a charger, unlock a new revenue stream

The S Series fast charger integrates a 55-inch LCD screen that doubles as a powerful advertising platform. The large display can be utilized to provide a third party advertising, site specific content, scale charging network, and generate additional revenue. This series is perfect in high-traffic locations like malls, supermarkets, dealerships, hotels, and much more.

### Product highlights:

### C Smart advertising

Equipped with 55-inch LCD— a large billboard with smart advertising, generating additional revenue.

### Advanced cooling technology

Its cooling technology allows it to quickly respond to temperature changes and deliver constant high amperage, ensuring optimal performance.

### 🕑 Simultaneous charging

Support simultaneous charging of two Evs, splitting available power without concerns about grid overloads.

### OCPP1.6/2.0.1

OCPP1.6J/OCPP2.0.1 compliant, guaranteeing cybersecurity and interoperability across chargers, vehicles and facilities.

### Advanced safety protection

Real-time monitoring, pre-diagnostics, alarm alerts and BMS offer protection against overvoltage, overload, short circuits and leakage.



# EV charging applications











Public charges

Shopping centers

Supermarkets

Dealerships

Hotels

#### Design

Power	60kW/90kW/120kW
Dimension(W x D x H)	870mm*610mm*2037mm
Charging Ports	Dual Ports
Cable Length	5m or 7m

#### **Technical Data**

Input Voltage	400V±15%/440V±10%/480V±10%		
Input Voltage Type	TN-S		
Working Frequency	45~65Hz		
Power Factor	≥0.99		
Efficiency	>94%		
Rated Voltage	CHAdeMO 500Vdc; CCS 1000Vdc; GBT 1000Vdc		
Output Current	CHAdeMO 125A; CCS1/CCS2 200A; GBT 250A		

#### UI

Advertising Screen	55"LCD		
AD Machine Brightness	2500cd/m <sup>2</sup>		
User Interface Display	8" LCD Touch Screen		
Language	Chinese, English, French, German, Spanish, Russian, etc.(Customized)		
Payment	Mobile APP/RFID		
Network Connection	4G/Ethernet		
Communication Protocols	OCPP1.6J		

#### Physical and Environmental Data

Working Temperature	-30°C ~ +50°C	
	-35°C ~ +55°C	
Storage Temperature		
Operating Humidity	≤95% Non-Condensing	
Protection	IP54	
Acoustic Noise	<60dB	
Cooling Method	Forced Air-Cooling	
Emergency Stop	Yes	

#### **Customization Options**

Dehumidifier	Yes
Heater	Yes



# **DC Wallbox Charger**

Flexible installations for both commercial and residential use



The Grasen DC wallbox is a smart investment in e-mobility. It is applicable to a wide range of use cases in a compact design that allows flexible installations and is safe for multi-charging in shopping centers, companies, vehicle fleets, and both public and private car parks.



### Product highlights:

### Power

Three power options: 20 kW single-port, 40 kW or 60kW dual-port models, providing flexible charging solutions.

### 🐹 Intelligent design

Space-savings, support flexible wall-mount or pedestal-mount installations, works with all EVs.

### **Premium user experience**

Easy UI, 8-inch, 800-nit LCD touch screen with excellent visibility, customized languages, several authentication, payment options.

### 🔺 Enhanced connectivity

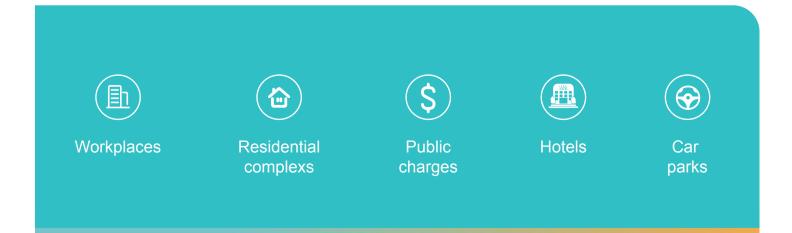
Built-in 4G router (available for 20 kW and 30-40 kW models) ensures network connection.

### Ø Brand customization

Create unique brand look, select scalable modular design, and customize the user interface to match customers' needs.



# EV charging applications



#### Design

Power	20kW	30kW-40kW	30kW-60kW
Dimension(W x D x H)	520*260*1655mm	690*357*1686mm	690X459X1686mm
Charging Ports	Single Port	Dual Ports	Dual Ports
Cable Length	5m or 7m		

#### **Technical Data**

Input Voltage	AC400V±15%	400V±15%	400V±15%/440V±10%/480V±10%
Input Voltage Type		TN-S	
Working Frequency	45~65Hz		
Power Factor		≥0.99	
Efficiency	≥94%		
Rated Voltage	CHAdeMO 500Vdc; CCS1/CCS2 1000Vdc; GBT 1000Vdc		
Outrast Coursest		CHAdeMO 125A; CCS1/	
Output Current	CCS2/GBT 80A	CCS2/GBT 125A	CCS2 200A; GBT 200A;

#### UI

Display	8" LCD Touch Screen		
Language	Chinese, English, French, German, Spanish, Russian, etc.(Customized)		
Payment	Mobile APP/RFID/POS(Optional)		
Network Connection	4G/Ethernet		
Communication Protocol	OCPP1.6J		

#### Physical and Environmental Data

Operating Temperature	-30°C ~ +50°C
Storage Temperature	-35°C ~ +55°C
Operating Humidity	≤95% Non-Condensing
Protection	IP54
Cooling Method	Forced Air Cooling

#### Certs & Standards

Certificate	/	NTC CE	TUV CE
Charging Interface	DIN70121/DIN70122/ISO15118		

#### **Customization Options**

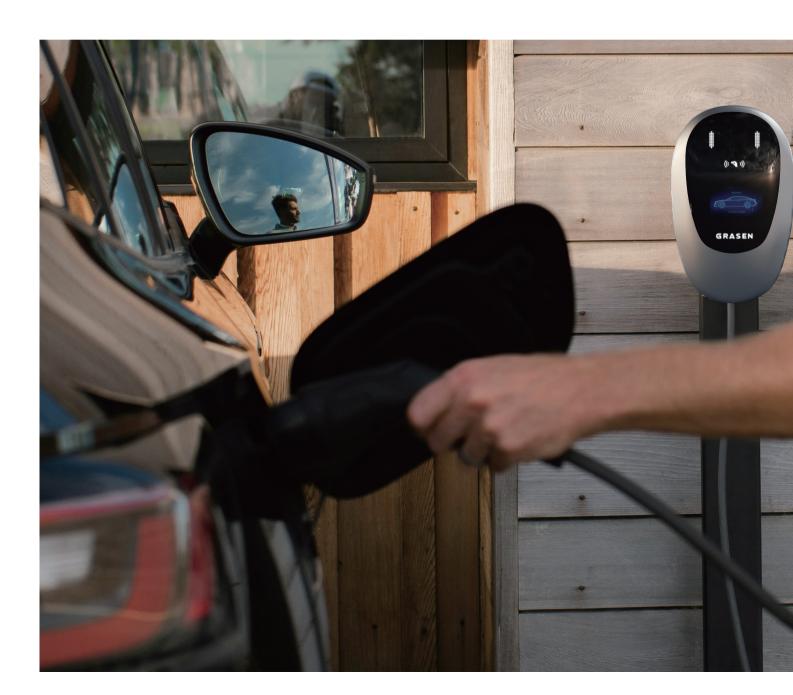
Heater	Yes	Yes	Yes
POS terminal	/	/	Yes
Wall-mount	Yes	Yes	Yes



The most cost-effective solution for charging Evs at home

Grasen AC Genie solution delivers future-proof flexibility for homes, commercial facilities, workplaces, and residential complexes. Available in three different power capacities – 7.4 kW, 11 kW, and 22 kW, it features a compact and sleek design, making it the perfect charger for both indoor and outdoor use.







### Product highlights:

### Over Power

Up to 22 kW of power with a Type 2/GBT plug, charging approximately 100 km of range in 1 hour.

### Accurate monitoring

With a built-in metering IC, energy meter, or optional MID-certified meter, users can easily track electricity consumption.

### 🕅 Design

Sleek and compact design, support wall-mount or pedestal-mount installations.

### Protections

Comprehensive protections against overvoltage, overload, short circuits, leakage, and lightning strikes.

### Safety

The IP55-rated enclosure ensures reliable operation in rain, wind, snow, and dust, making it ideal for harsh conditions.

### < Effortless to use

Authorize, start, and stop charging sessions with mobile app, RFID charge cards and plug & charge.



### **EV charging applications**



Homes



Residential complexs



Townhomes



Workplaces



#### Design

Power	7kW	11kW	22kW
Dimension(W x D x H)		420x260x120mm	
Charging Ports	Single Port		
Cable Length	5m		
Emergency Stop	Yes		
Le Pres Press	Standby (Green), Gun Plugged (Blue),		
Indications	Charging (Flashing White), Fault(Flashing Red)		

#### **Technical Data**

Input Voltage	1-Phase 220VAC±10%	3-Phase	e 380VAC±15%	
Working Frequency	50/60Hz			
Internal RCD Rated	AC 30mA, DC 6mA			
Output Voltage	220VAC±10%	AC±10% 380VAC±15%		
Output Current	32A	16A	32A	

#### UI

Display	5" LCD Screen(Optional)	
Payment	RFID Card/Mobile APP	
Network Connection	4G/Ethernet	
Communication Protocol	OCPP1.6J (Optional)	

#### Physical and Environmental Data

Operating Temperature	-30 °C ~+50 °C
Storage Temperature	-35 °C ~+55 °C
Operating Humidity	< <u>95%</u>
Protection	IP55

#### Certs & Standards

Charging Interface	IEC62196 Type2/GBT

#### **Customization Options**

5" LCD Screen	Yes
Pedestal	Yes
Metering	Metering IC/Energy Meter/MID Certified Meter



### Portable AC Charger

Your Reliable Charging Companion

With power options of 3.5 kW and 7 kW, Grasen's AC portable charger is designed for efficiency and convenience, making charging effortless at home, in the office, or on the road. Whether for daily use or unexpected needs, it delivers reliable power wherever and whenever you need it.





### Over Power

Up to 7 kW of power with a Type-1 or Type-2 plug, to charge approximately 41 km of range in 1 hour.

### Durable Materials

Constructed from rugged, waterproof materials with a 5 m charging cable (customizable)

### **Connectivity**

Bluetooth/Wi-Fi, mobile app control.

### C Portability

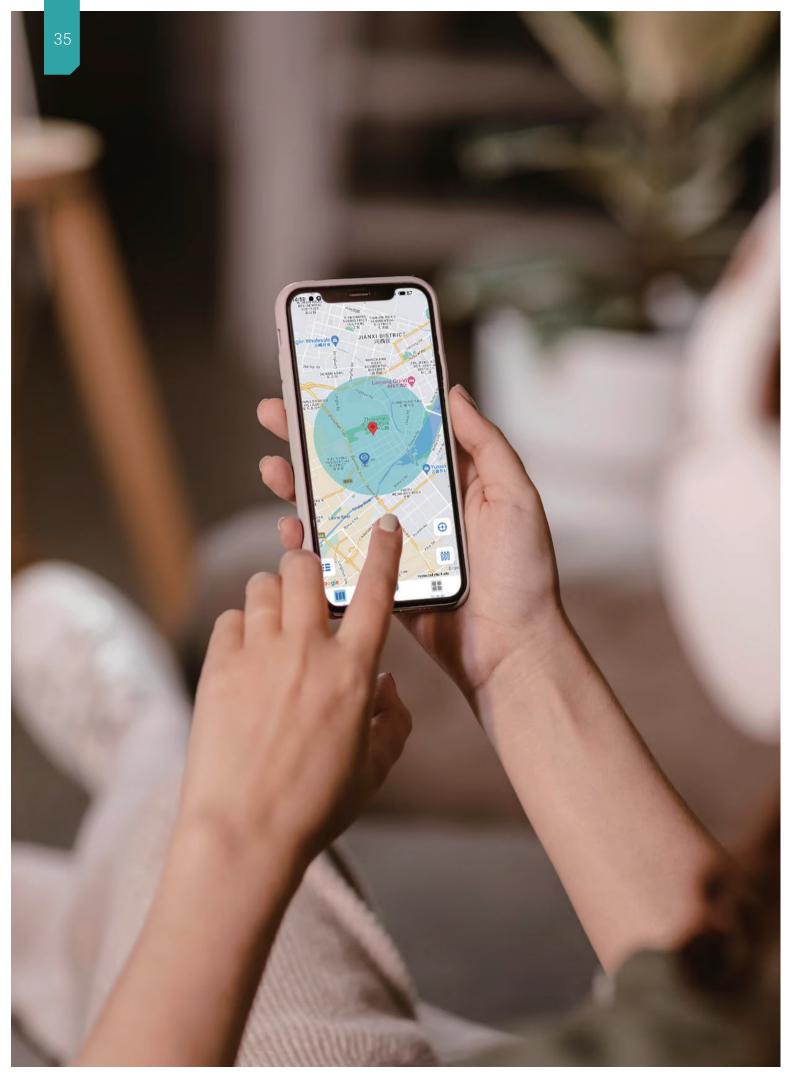
Mini-sized for easy portability, this charger adapts to your lifestyle, providing reliable power on the go.

### 😵 Durability & safety

IP65-rated resistance; wide temperature range from  $-20^{\circ}$ C to  $+55^{\circ}$ C; tested to IK10 physical impacts.







# APP Smart App

Grasen's mobile app is designed to make your charging experience effortless and convenient. With an intuitive interface and powerful features, you can manage your entire charging session all within the app.

- Locate a nearby station
- Easily navigate
- Scan to charge
- Key features
- Real-time updates on charging status
- Pay online securely
- Remote control & scheduling
- Available for iPhone and Android

### 🖶 All in App

With our app, you can easily find nearby charging points, activate the one via a QR code, track the charging status, schedule charging remotely, stop and pay. The app provides all the details of your charging session.

### 🕓 Save Time

Grasen's app allows you to reserve a charging slot in advance and saving you time by avoiding queues.

### Security

Our software development ensures secure and reliable communication between the charging stations and the network. It is crucial to protect users profile and data from unauthorized access.

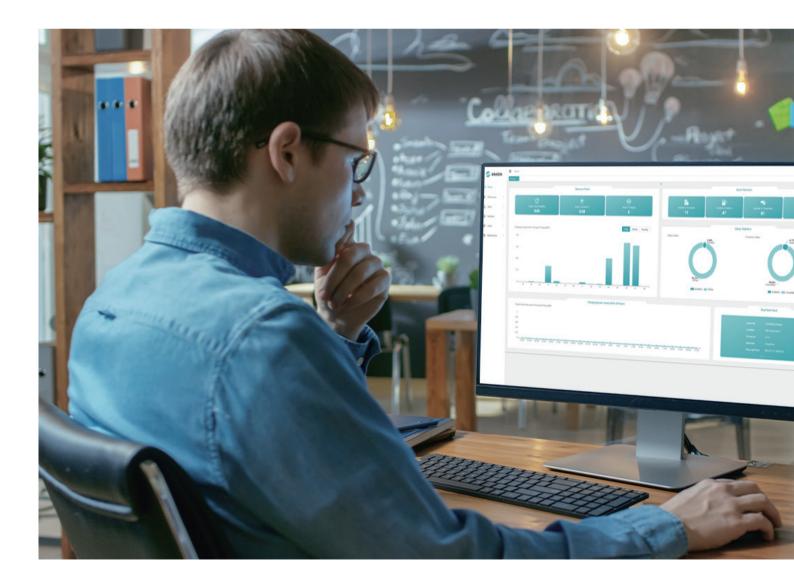


# CSMS

# Charging Station Management Software

Smart Solutions to Maximize Your Charging Network Efficiency

Grasen brings a new standard to EV charging management with smart, adaptive, and future-ready solutions. Our comprehensive EV charging management optimize energy usage, simplify operations, and enhance user experiences, ensuring the charging installations are efficient, scalable, and cost-effective.



# We offer both rental and purchase options to accommodate different needs

Highlights

Operator & user Management	<ul> <li>Enables super operators to manage multiple sub-operators, each with unique billing plans and marketing strategies</li> <li>Supports user group management with customizable discount rates</li> </ul>
Smart monitoring & reporting	<ul> <li>Locate and check chargers' status and allow remote control of each charging points</li> <li>Customisable reports available</li> </ul>
Intelligent charging & maintenance	<ul> <li>Dynamic load management:optimise simultaneous EV charging avoiding overloads</li> <li>Upgrade programs remotely</li> <li>Quick fault analysis and resolution</li> </ul>
<b>S</b> Payment and billing	<ul> <li>Payment methods: PayPal, credit cards, and tailored local payment systems</li> <li>Complete billings: reservation, occupancy, charging, and service.</li> </ul>



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# After-sales support

At Grasen, our customer support doesn't end at the point of sale.We provide you with comprehensive after-sales service, supporting your business operations seamlessly. Our dedicated team is with you every step of the way—from manufacturing to installation, commissioning, and ongoing maintenance.



### We're here to help-every step of the way.

### Our after-sales support includes:

#### 24/7 Customer Service

Our expert team is available around the clock to assist with any questions, concerns, or troubleshooting needs, ensuring you always have the help you need, when you need it.

#### 26-Month Warranty with Extended Warranty Options

We offer a 26-month standard warranty, with the option to extend for additional peace of mind, covering defects in materials and workmanship.

#### Remote Technical Support

Our team of qualified and experienced experts provides remote technical support, offering quick and effective solutions to any setup, operational, or troubleshooting issues.

#### Free Spare Parts

Should you ever need a replacement part, we offer free spare parts to keep your charging station in optimal condition, without the extra cost.

#### Installation & Commissioning Guidance

We provide professional installation and commissioning guidance, ensuring that your charging stations are correctly set up and fully functional right from the start.

#### Customizable Solutions

We provide customizable solutions to meet the unique needs of your business, offering flexibility and tailored options for a seamless integration into your operations.