**INVT Electric Vehicle
Drive Technology(Shenzhen) Co., Ltd.**

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INVT E-mobility 🔍

INVT E-mobility
Charging Solutions
For Home & Business

www.invt-ev.com

Green Power Drives the Future

Rooted in a mission to "Provide Excellent Products and Services, Empower Customers More Competitive", Shenzhen INVT Electric Co., Ltd (INVT) has carved a niche in the fields of industrial automation and energy power since its inception in 2002. It completed an IPO on the Shenzhen Stock Exchange A-share in 2010 under the stock code "002334". With a steadfast focus on pioneering advancements in industrial automation and energy power, INVT has expanded to encompass 15 subsidiaries with over 4,500 employees. In 2014, INVT broadened its portfolio to include electric vehicle technologies, establishing INVT Electric Vehicle Drive Technology (Shenzhen) Co., Ltd. (INVT E-mobility).

After a decade marked by unwavering professionalism and dedication, INVT E-mobility has gained recognition within the industry and forged partnerships with top-tier automotive brands, including Caterpillar, Citroën, Tata Group, Nissan, Peugeot, Dongfeng, Geely Auto, JAC Motors, etc. The company actively broadens its international footprint by providing solutions on EV motor controllers, on-board power systems, and EV chargers, propelling the future of eco-friendly sustainable transportation.

INVT E-mobility
AC & DC Charging Solutions For Home & Business

Full range of chargers from **7kW-480kW**

Home Charging Solutions

EVC16 AC Wallbox Home 7-22kW
EVC16 AC Elite Home-EU 7-22kW
EVC16 AC Elite Home-US 32-48A

Business Charging Solutions

EVC16 AC Commercial 22kW | 22kW*2
EVC16 DC Fast 60-240kW

INVT Charge App

INVT App & Cloud Management

EV Charging Solutions for Home

INVT E-mobility provides all-in-one solutions of software and hardware, with AC home chargers and INVT Charge App for real-time management. With 99.9% compatibility with electric vehicles in the market, INVT E-mobility provides chargers of high efficiency and flexibility and enables end users to enjoy a worry-free charging experience at home. With the functions of scheduling, DLB, and integration with solar energy, INVT E-mobility AC chargers help end users maximize their energy consumption and save costs with sustainable energy at home.
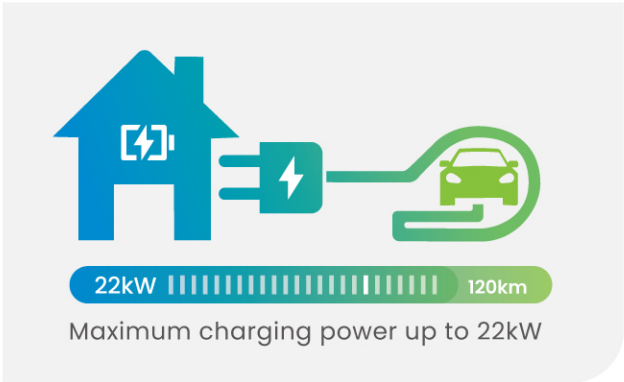
Fast Charging

99.9%
EV compatibility

BMW　Chevrolet　Ford　Kia

Mercedes Benz　Nissan　Hyundai　Tesla

Volkswagen　More ......
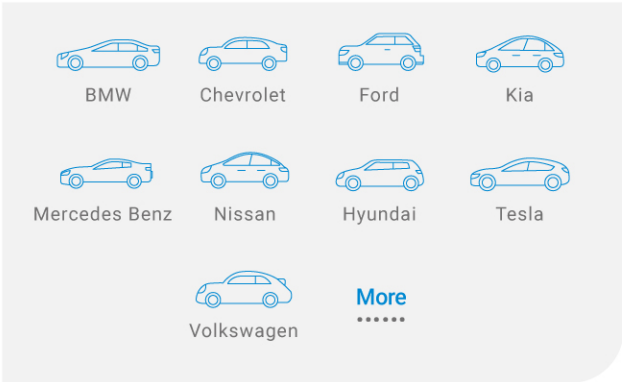
Adding max.
120 km per charging hour

22kW　120km
Maximum charging power up to 22kW

Dynamic Load Balancing at Home

Dynamic load balancing helps distribute power to EV chargers efficiently according to the current state of your household loads while charging. It prevents the overloading of the grid and helps to optimize energy consumption at home.

63A — 50A — 10A

63A — 20A — 40A
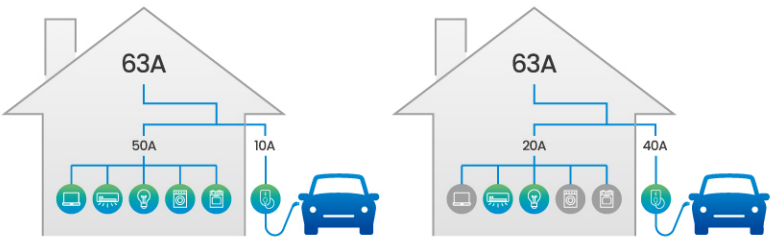
Powering with Solar Energy

Electricity generated by a photovoltaic system is dynamically considered when distributing the charging power. If more solar power is generated than the household consumes, this flows directly into the electric vehicles. 100% solar energy charging is supported with INVT E-mobility DLB module.

Standard: RS485/CAN
Optional: Bluetooth/WiFi

Solar Panel　Solar Inverter　CT　Power Distribution System　Household　AC220V　The Grid

Battery Pack

DLB Module

AC EV Charger

Cloud Monitoring

RS485
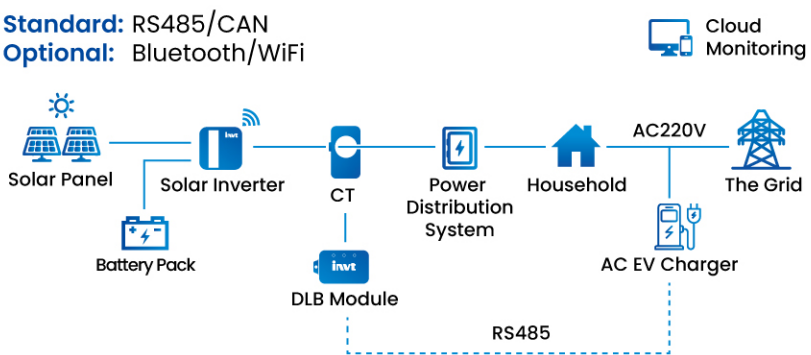
EVC16 AC Wallbox Home

7-22kW

Fast & Efficient Charging

- Max. current up to 32A, creating 22kW of power for increased charging speed
- 9X faster than a traditional AC home charger
- Current adjustable from 6-32A via APP

Smart Charging

- Track, manage, and optimize your charging via INVT Charging APP
- In real-time dynamically balance energy to reducing electricity costs
- Remote diagnosis & real-time notification

High Reliability

- CE compliance
- IP54 for outdoor installations
- Capable of charging at full power at a temperature range between -25℃~+55℃

Technical Specification

Product Information	EVC16-AW7KGP1UE (UC)	EVC16-AW11KGP1UE (UC)	EVC16-AW22KGP1UE (UC)
Input / Output Voltage	230Vac±15% (L,N,PE), 50/60 Hz	400Vac±15% (L1,L2,L3,N,PE), 50/60 Hz	400Vac±15% (L1,L2,L3,N,PE), 50/60 Hz
Input/Output Power	7kW	11kW	22kW
Max Output Current	32A	16A	32A
Charging Mode	Mode 3		
Earthing Systems	TT/TN		
Connection Type	Type 2 Cable		
Cable Length	4m		
Over Voltage Category	III		
Protection	Overcurrent, Overvoltage, Undervoltage, Ground fault detection		

User Interface			
User Authentication	INVT RFID Card (2 included) or INVT EV Charger App		
User Interface	INVT EV Charger App		
Communication Protocol	OCPP1.6J (Customization)		
Connectivity	WiFi		
Status Indication	3 LEDS (Power, Charging, Error)		

Certification			
Safety and Compliance	EN IEC 61851-1, EN IEC 62311, ETSI EN 300 328		
Certification	CE		
EMC	ETSI EN 301 489-1 V2.2.3: 2019 / ETSI EN 301 489-17 V3.2.4: 2020 EN 61000-3-12:2011 / ENIEC 61000-3-11: 2019		
Warranty	36 months, warranty can be discussed		

General Characteristics			
IP and IK Rating	IP54 / IK10		
Operating Altitude	2000m		
RCD	Type A , AC 30mA + DC 6mA		
Mounting	Wall or Floor using pedestal		
Emergency Stop Button	Yes		
Dynamic Load Balancing	Yes		
Operating Temperature Range	-25℃~+55℃		
Storage Temperature Range	-40℃~+75℃		
Relative Humidity	≤95% non-condensation		
Dimension (W*H*D)	230*375*115mm		
Enclosure Type	Plastic		
Weight	3.5kg	4kg	5kg
Circuit Breaker	40A (Single-phase)	25A (Three-phase)	40A (Three-phase)
Cooling Mode	Natural cooling	Natural cooling	Internal fan cooling

EVC16 AC Elite Home -EU

7-22kW

⚙ Compact & Convenient

- Compact & elegant design for home use
- LED indicator for better user experience
- Easy to install and maintain

⚡ Fast & Efficient Charging

- Max. output power up to 22kW
- Adjustable current from 6-32A with App
- Mode 3 charger, 9X faster than traditional chargers

🛡 High Reliability

- CE compliance
- IP65 for any climate, indoors and outdoors
- Capable of charging at full power at a temperature range between -25℃~+50℃

🔌 Smart Charging

- Track, manage, and optimize your charging via the INVT Charge App
- In real-time dynamically balance energy to reduce electricity costs

Technical Specification

Product Information	EVC16-AW7KGF1U2(UC)	EVC16-AW11KGF1U2(UC)	EVC16-AW22KGF1U2(UC)
Input / Output Voltage	230Vac±15% (L,N,PE), 50/60 Hz	400Vac±15% (L1,L2,L3,N,PE), 50/60 Hz	400Vac±15% (L1,L2,L3,N,PE), 50/60 Hz
Input/Output Power	7kW	11kW	22kW
Max Output Current	32A	16A	32A
Charging Mode	Mode 3		
Earthing Systems	TT/TN		
Connection Type	Type 2 Cable		
Cable Length	5m		
Over Voltage Category	III		
Protection	Overcurrent, Overvoltage, Undervoltage, Ground fault detection		

User Interface			
User Authentication	INVT RFID Card (2 included) or INVT EV Charger App		
User Interface	INVT Charge App		
Communication Protocol	OCPP1.6J (Customization)		
Connectivity	WiFi/Bluetooth/ Ethernet(Optional)		
Status Indication	5 LEDs + 1 Charging breath circular LED		

Certification			
Safety and Compliance	EN IEC 61851-1, EN IEC 62311, ETSI EN 300 328		
Certification	CE		
EMC	ETSI EN 301 489-1 V2.2.3: 2019 / ETSI EN 301 489-17 V3.2.4: 2020 EN 61000-3-12:2011 / ENIEC 61000-3-11: 2019		
Warranty	36 months, warranty can be discussed		

General Characteristics			
IP and IK Rating	~ IP65 / IK10		
Operating Altitude	2000m		
Current Leakage Protection	AC 30mA, DC 6mA		
Mounting	Wall or Floor using pedestal		
Emergency Stop Button	Yes		
Dynamic Load Balancing	Yes		
Operating Temperature Range	-25℃~+50℃		
Storage Temperature Range	-40℃~+75℃		
Relative Humidity	≤95% non-condensation		
Dimension (W*H*D)	210*330*82mm (Wall mounting)		
Enclosure Type	Plastic		
Weight	5.2kg	5.8kg	6.15kg
Circuit Breaker (External Installation)	40A (Single-phase)	25A (Three-phase)	40A (Three-phase)
Cooling Mode	Natural cooling	Natural cooling	Natural cooling

EVC16 AC Elite Home-US

32-48A

Compact & Convenient

- Compact & elegant design for home use
- LED indicator design for better user experience
- Easy to install and maintain

Fast & Efficient Charging

- Adding max. 36 miles per charging hour
- Adjustable current from 6-48A with App
- Level 2 charger, 9X faster than level 1 charger

High Reliability

- FCC, CSA, Energy Start Compliance
- NEMA 4 protection
- Capable of charging at full power at a temperature range between -30°C~+50°C

Smart Charging

- Track, manage, and optimize your charging via the INVT Charge App
- In real-time dynamically balance energy to reduce electricity costs
- Over-the-air updates

Technical Specification

Product Information	EVC16-AW7KGF1W(US)	EVC16-AW9KGF1W(US)	EVC16-AW12KGF1W(US)
Charge Mode	Level 2		
Input/Output Voltage	208/240Vac, 60Hz		
Input Cord	NEMA 6-50P , NEMA 14-50P	NEMA 6-50P , NEMA 14-50P	Hardwired
Max Output Power	7.68kW	9.6kW	11.52kW
Max Output Current	32A	40A	48A
Connector Type	SAE J1772 AC Type1		
Ground Fault Detection	20 mA CCID with auto retry		
Protection	Overcurrent, Overvoltage, Undervoltage, Ground fault detection, Surge Protection		
Cable Length	24.6 ft. (7.5 m)		

User Interface			
User Interface	INVT Charge App		
Communication Protocol	OCPP 1.6J (Can be customize to OCPP 2.0.1)		
Status Indication	5 LEDs + 1 Charging breath circular LED		

Certification			
Safety and Compliance	NEC Article 625 and UL 916, UL 2594, UL2231-1, UL2231-2, UL 1998, CSA C22.2. No.280		
Certification	Energy Star, CSA(US)		
EMC Compliance	FCC15 Class B		
Warranty	36 months, warranty can be discussed		

General Characteristics			
Connectivity	WiFi / Bluetooth / Ethernet(Optional) / RS485		
User Authentication	App		
Communication Protocol	OCPP 1.6J(Customization)		
Noise Level	≤45dB		
Enclosure Ratings	NEMA 4, indoor or outdoor installation		
Operating Temperature	-30°C~+50°C		
Storage Temperature	-40°C~+75°C		
Relative Humidity	≤95% non-condensation		
Maximum Altitude	≤2000m		
Cooling Mode	Natural cooling		
Dimension (W*H*D)	210*330*82mm (Wall mounting)		
Enclosure Type	Plastic		
Weight	11.46 lbs. (5.20kg)	12.79 lbs. (5.80kg)	13.56 lbs. (6.15kg)

EV Charging Solutions For Business

INVT E-mobility provides all-in-one commercial charging solutions for multiple scenarios with AC commercial chargers (22kW) and DC fast chargers (60kW to 240kW), catering to different needs of charging in the market. The high compatibility of EVs and high performance of commercial chargers guarantee an excellent & efficient charging experience for end users. INVT E-mobility also provides an App and cloud platform for station owners and drivers with great convenience and flexibility in charging management.
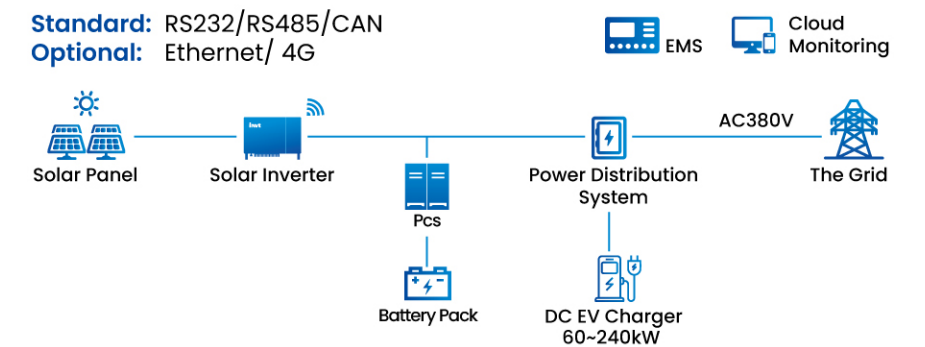
Dynamic Load Balancing for Business

Dynamic load balancing helps distribute power to EV chargers efficiently according to the current state of stations. It prevents the overloading of the grid and helps to optimize energy consumption, which effectively increases the station revenue.
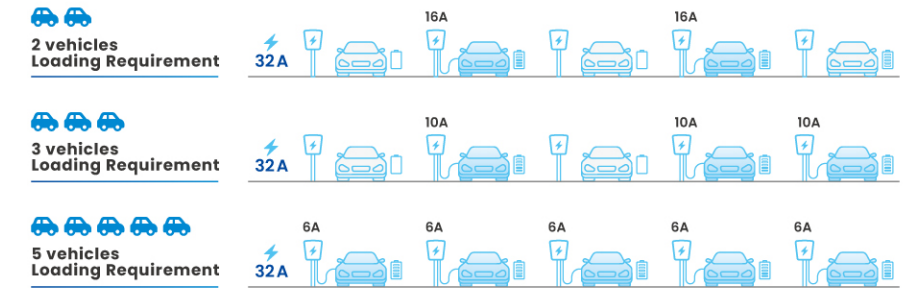
Powering with Solar Energy

Integrating the solar PV system helps charging station owners to benefit from free green energy, which reduces electricity billing and considerably increases the station investment ROI.

Standard: RS232/RS485/CAN
Optional: Ethernet/ 4G

EMS Cloud Monitoring

Solar Panel   Solar Inverter   Power Distribution System   AC380V   The Grid

Pcs

Battery Pack   DC EV Charger 60~240kW

Modular Design, High Performance

Customization for upper zone: (logo, color painting, pattern)

7-inch LCD touchscreen display

2 CCS/1 CCS+1 CHAdeMO cable connectors +1 AC 22kW cable connector

Customization for branding (logo, color, painting, pattern)

Optimized modular design for reliability, serviceability, and convenience

Easy upgrades and smart design, with one person to finish module adding and replacement

30kW modular, scalable up to 8 modules

5-meter cables, flexible and convenient to use

Compact structure and space-saving Ultra-thin design with 550mm in depth

EVC16 AC Commercial

22kW | 2*22kW

Fast & Efficient

- Max. fast charging 2 vehicles simultaneously, with each max. power up to 22kW
- Adding 65 km in 30 mins

High Reliability & Convenient

- CE, MID,PTB(optional) certified
- IP55
- Flexible choice for indoor or outdoor installations

Smart Charging

- Smart functionality with OCPP 1.6 and 2.0.1(optional) compliant, can adapt its power usage and provide optimal charging today and into the future
- Smart App for remote positioning, charging booking and tracking
- In real-time dynamically balance energy to increase station revenue

Technical Specification

Product Information	EVC16-AW22KGB1UE(UC)	EVC16-AW22KTB1UE(UC)	EVC16-AW22KGB2U2(UC)	EVC16-AW22KTB2U2(UC)
Input/Output Voltage	400Vac±15% (L1,L2,L3,N,PE), 50/60Hz	400Vac±15% (L1,L2,L3,N,PE), 50/60Hz	400Vac±15% (L1,L2,L3,N,PE), 50/60Hz	400Vac±15% (L1,L2,L3,N,PE), 50/60Hz
Input/Output Power	1*22kW	1*22kW	2*22kW	2*22kW
Max Output Current	1*32A	1*32A	2*32A	2*32A
Connection Type	1*Type 2 Cable	1*Type 2 Socket with or without shutter	2*Type 2 Cable	2*Type 2 Socket with or without shutter
Cable Length	5m	——	5m	——
Charging Mode	Mode 3			
Network Type	TN/TT			
Over Voltage Category	III			
Protection	Overcurrent, Overvoltage, Undervoltage, Ground fault detection, Surge Protection			

User Interface	
User Authentification	App, RFID Card, Credit Card by POS Terminal (Optional)
User Interface	INVT Charge App; INVT Charge Cloud
Connectivity	Ethernet, 4G, RS485
Communication Protocol	OCPP 1.6J (Can be customize to OCPP 2.0.1)
Status Indication	LED / App / LCD (5 inch)

Certification	
Safety and Compliance	EN IEC 61851-1, EN IEC 62311, ETSI EN 300 328
Certification	CE
Energy Metering	CE, MID, PTB (optional)
EMC Compliance	ETSI EN 301 489-1 V2.2.3: 2019 / ETSI EN 301 489-17 V3.2.4: 2020 EN 61000-3-12:2011 / ENIEC 61000-3-11: 2019
Warranty	36 months, warranty can be discussed

General Characteristics				
IP and IK Rating	IP55 / IK10			
Operating Altitude	2000m			
Current Leakage Protection	AC 30mA, DC6mA			
Mounting	Wall or Floor using pedestal			
Emergency Stop Button	Yes			
Dynamic Load Balancing	Yes			
Operating Temperature Range	-30℃~+50℃			
Storage Temperature Range	-40℃~+75℃			
Relative Humidity	≤95% non-condensation			
Dimension (W*H*D)	333*533*162mm			
Enclosure Type	Galvanized plate SECC			
Weight	12kg	11.5kg	18kg	16kg
Cooling Mode	Fan cooling			
Circuit Breaker	40A (Three-phase)			

EVC16 DC Fast

60-240kW

Ultra Fast Charging

- Scalable modular design with max. up to 240kW, adding 150 miles in less than 30 mins
- Charging speed improved by max. up to 40% with 300A boost mode
- Multiple cable & charging connector options, with DC connector up to 200kW of power

Improve Your Business Revenue

- In real-time dynamically balance energy to increase station revenue
- Integration with solar power system to reduce cost

Smart Cloud Portal

- Smart functionality with OCPP 1.6 and 2.0.1(optional) compliant
- Easy charge station management with INVT Cloud Platform

- Smart App for remote positioning, charging booking and tracking

Technical Specification

Product Information	EVC16-DH60K7P3UE(UC)	EVC16-DH120K7P3UE(UC)	EVC16-DH180K7P3UE(UC)	EVC16-DH240K7P3UE(UC)
Input Voltage	260~485Vac (L1,L2,L3,N,PE), 50/60Hz			
Max Input Current	124A	216A	310A	400A
Ouput Voltage	CCS2: 200 to 1000Vdc / Type 2: 400Vac (CHAdeMO: 150 to 500 Vdc optional)			
Max Output Power	DC: 60kW / AC: 22kW	DC: 120kW / AC: 22kW	DC: 180kW / AC: 22kW	DC: 240kW / AC: 22kW
Max Output Current	CCS2: 200A / Type 2: 32A (Boost Mode : 300A)			
Connector Type	2*CCS2 + 1*Type2 (Chademo Optional)			
Cable Length	AC cable 4m, DC cable 5m			
Protection	Overcurrent, Overvoltage, Undervoltage, Ground fault detection, Surge protection			

User Interface	
Connectivity	Internet access via 4G /Ethernet (RJ45)
User Authentication	QR code , RFID Card, Credit Card by POS Terminal (Optional)
User Interface	7.0-inch IPS-TFT-LCD Touchscreen
Communication Protocol	OCPP 1.6J (Can be customize to OCPP 2.0.1)
Energy Metering	Class A(DC), Class B(AC) / CE, MID, PTB (optional)

Certification & Standards	
Safety and Compliance	EN 61851-23:2014, EN IEC 61851-1:2019 , EN 61851-24:2014
EMC Compliance	EN IEC 61851-21-2:2021 , EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019
Warranty	24 months, warranty can be discussed
Certification	CE(TUV)

General Characteristics				
Power Factor	≥ 0.99			
Start Time (S)	3-8			
Efficiency	≥ 96			
RFID Reader	ISO14443 TypeA、MIFARE® ONE (MF1)Card			
Emergency Stop Button	Yes			
Intelligent Power Distribution	Yes			
Residual Current Device	Type A (≤30mA)			
Cable Retraction System	Optional			
IP Rating	IP55 outdoor use and IK-10			
Operating Temperature	-25℃~+55℃			
Storage Temperature	-40℃~+75℃			
Relative Humidity	≤95% non-condensation			
Maximum Altitude	< 2000m (2000 to 5000m with power derating)			
Cooling Mode	Intelligent fan cooling			
Noise Level	≤70dB			
Dimension (W*H*D)	550*1840*750mm			
Enclosure Type	Galvanizing plate SECC			
Weight	About 250kg	About 280kg	About 320kg	About 340kg

INVT Charge App for Home Use

ANDROID App ON
Google Play

Download On The
App Store

Details

Charging

3US230000001
00:59

11.3 kWh	1.67 $	11.4 kW
Energy	Cost	Power
238 v	48 A	36.4 mi
Voltage	Current	Distance
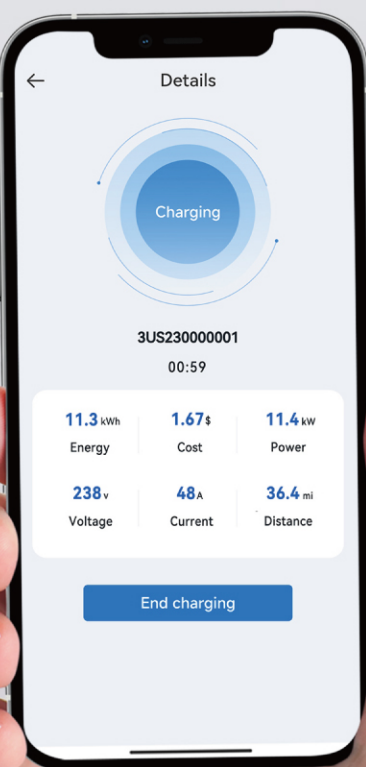
End charging

Smart Energy Management with INVT Charge App

Setting	Real-time Status	Adjust Current	Schedule Charging	Charging History
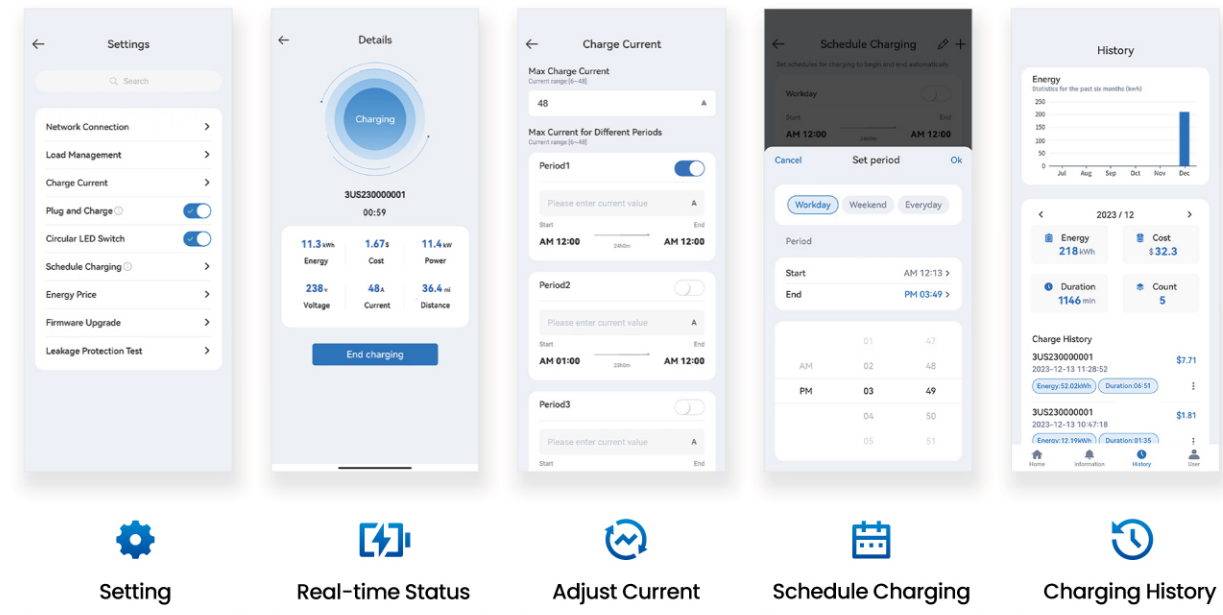
Real-time monitoring and management   01

- Track the charging with details
- Remotely start and stop charging, and monitor in real-time
- Adjust charging current

Smart Charging   02

- Schedule charging to better reduce charging cost
- Dynamic load management
- Solar charging mode with INVT DLB module supported

Real-time notifications   03

- Real-time alarm notification
- Remote diagnosis

Account Management   04

- Multiple charging management for diverse user scenarios

INVT App & Cloud

INVT Charging App & Cloud provides real-time charging management

Energy Management   01

- Dynamic load balancing
- Manage multiple power systems
- Optimize power consumption and improve management efficiency

Business Management   02

- Optimize charging costs by dynamically adjusting power
- System securely hosted in the cloud, enabling fast transfers and seamless distribution of revenue to corporate accounts through operator transactions
- Seamlessly integrate with Payter payment terminals

Real-time notifications   03

- Remote diagnosis and troubleshooting
- Efficient maintenance monitoring
- Quick issue resolution

Account Management   04

- Diversified payment methods and a convenient charging reservation function
- Self-invoicing

INVT Charging App & Cloud Management

For commercial charging products, INVT E-mobility provides the INVT Cloud Platform for station owners and operators to monitor, maintain, and manage the EV chargers and stations, to provide better charging services and increase business revenue.

INVT E-mobility also provides the INVT Charging App for the driver to search, pre-book, and manage their charging based on their needs.

Functions of INVT App & Cloud

Category	Function	Cloud Platform for Management	App for Driver
User Mangement	Account Management	√	√
	Online Payment	√	√
	Self-Invoicing	√	√
	Start/ Stop Charging	√	√
Homepage	Data Summary	√	√
	Data Record	√	√
	Charging Session Records	√	√
Station Management	Charging Station List	√	√
	Add Charging Station	√	
	Charging Monitoring	√	√
	Station Data Record	√	
	Add Chargers	√	
	DLB Setting	√	
Charger Management	Charger List	√	√
	Charger Details	√	√
	Charger Records	√	√
	Remote Parameter Setting	√	
	Remote Firmware Upgrade	√	
Alarm Management	Online Diagnostic	√	√
	Alarm Notification	√	√
	Alarm Details	√	√
Device Setting	Cloud Connection Setting	√	