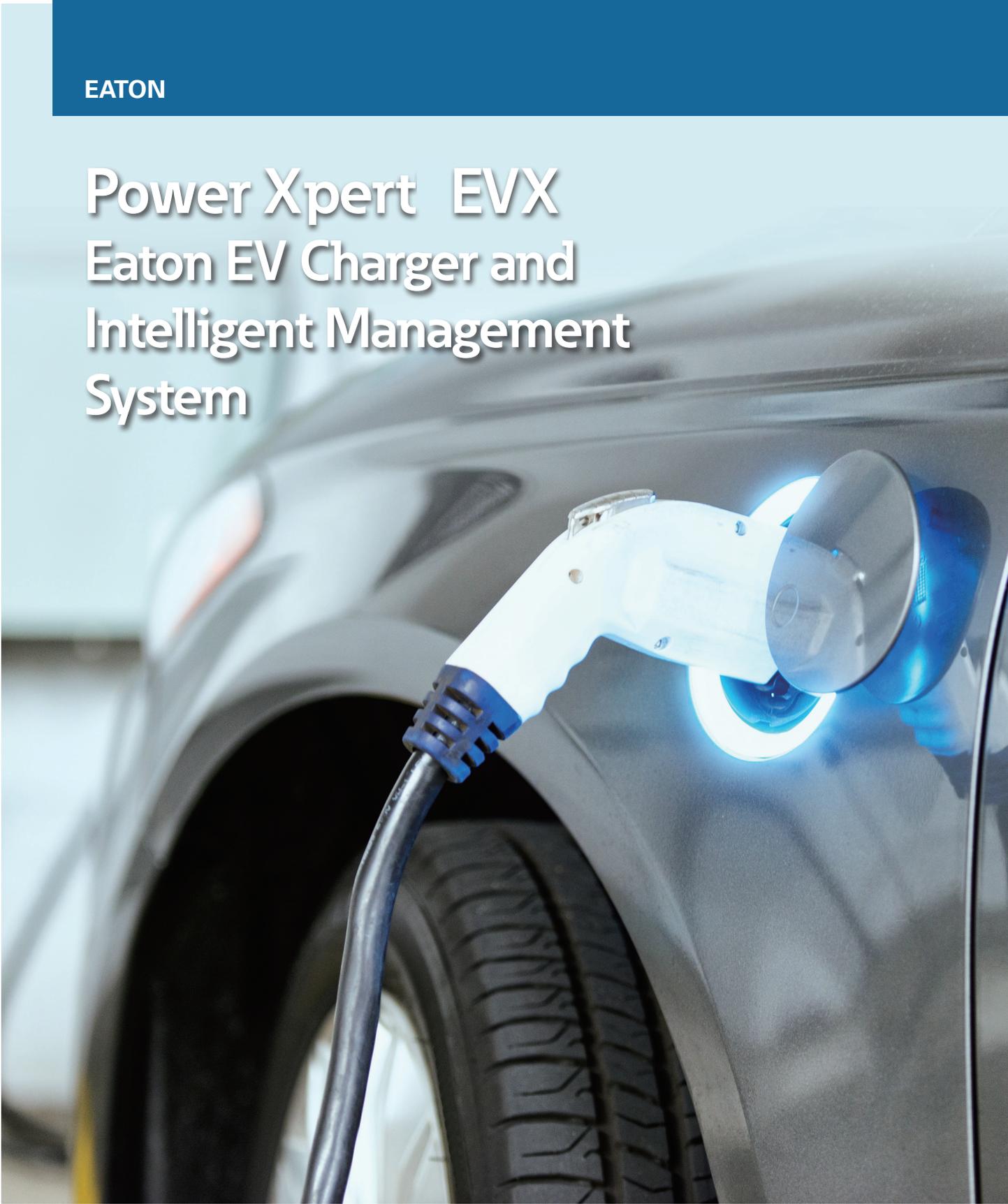


EATON

# Power Xpert EVX Eaton EV Charger and Intelligent Management System



**EATON**

*Powering Business Worldwide*



# Energizing a world that demands more.

## We deliver:

- **Electrical solutions** that use less energy, improve power reliability and make the places we live and work safer and more comfortable
- **Hydraulic and electrical solutions** that enable machines to deliver more productivity without wasting power
- **Aerospace solutions** that make aircraft lighter, safer and less costly to operate, and help airports operate more efficiently
- **Vehicle drivetrain and powertrain solutions** that deliver more power to cars, trucks and buses, while reducing fuel consumption and emissions

Discover today's Eaton.

**EATON**

*Powering Business Worldwide*

# CONTENTS

## Power Xpert EVX EV Charger and Intelligent Management System

- Portable Box .....2
- Home Mini Wallbox ..... 4
- Smart Home Series..... 6
- Caro Smart Home Series ..... 8
- Business AC Series ..... 10
- Twin AC Series Pedestal ..... 12
- DC30 ..... 14
- DC60 ..... 16
- DC120 ..... 18
- Power Module ..... 20
- Prefabricated EV Charging Station..... 22
- Cloud Platform ..... 27
- Management System ..... 28
- Mobile App ..... 29
- Load Balance Solution ..... 30
- Compatible with PV System ..... 31
- Charging Solution ..... 32

## Portable Box

### Easy Operation

- Portable, plug & play
- Curve design, easy to roll

### Friendly Interface

- Simple display with LED indicators
- Charging status identification

### Robust Structure

- Anti-corrosion and weather proof
- High protection grade up to IP65

### Secure and Safe

- Leakage current protection
- Over temperature protection



## Portable Box

Datasheet	Model	EVXI-A3500H
Input	Power Supply	1P+N+PE
	Rated Voltage	230V AC
	Rated Current	13A
	Frequency	50/60Hz
Output	Output Voltage	230V AC
	Maximum Current	13A
	Rated Power	3kW
User Interface	Power Cord Plug	Schuko
	Charge Connector	Type 2 cable
	Cable Length	4m
	Enclosure	Plastic PC940
	LED Indicator	Green/Yellow/Red
	LCD Display	No
	Start Mode	Plug&Play
Safety	Ingress Protection	IP65
	Impact Protection	IK10
	Electrical Protection	Over current protection, Residual current protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection
	Designed Standard	ENIEC 61851-1:2019, IEC 61851-1:2017, IEC 62955:2018
Environment	Work Temperature	-30°C~+50°C
	Work Humidity	5%~95%
	Work Altitude	<2000m
Package	Product Dimension	195*74*43mm (H*W*D)
	Package Dimension	360*295*155mm (L*W*H)
	Net Weight	1.9kg
	Gross Weight	2.1kg
	External Package	Handbag/Carton



## Home Mini Wallbox

### Cost Effective

- Half size of A4 paper, compact design
- Home use with competitive price

### Secure and Safe

- Over temperature protection
- Over current protection

### Simple Operation

- Start / Stop charging by RFID card
- Simple HMI with LED indicators

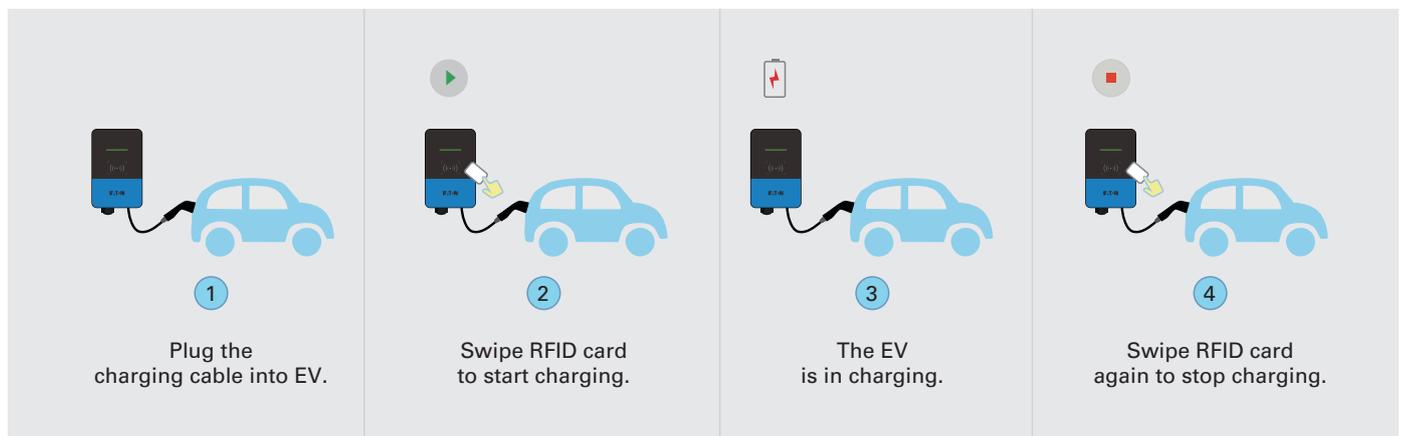
### Flexible Option

- Type 2 charging cable
- 16A / 32A adjustable output current
- RFID authentication, optional with plug & play
- Wall-mount / floor-stand installation



## Home Mini Wallbox

Datasheet	Model	EVXI-A7000A Basic
Input	Power Supply	1P+N+PE
	Rated Voltage	230V AC
	Rated Current	32A
	Frequency	50/60Hz
Output	Output Voltage	230V AC
	Maximum Current	32A
	Rated Power	7kW
User Interface	Charge Connector	Type 2 cable
	Cable Length	4m
	Enclosure	Plastic PC940
	LED Indicator	Green/Yellow/Red
	LCD Display	No
	RFID Reader	Mifare ISO/IEC 14443 A
	Start Mode	Plug&Play/RFID card
Safety	Emergency Stop	Yes
	Energy Meter	No
	Ingress Protection	IP65
	Impact Protection	IK10
	Electrical Protection	Over current protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection
Designed Standard	EN IEC 6185 1-1:2019, IEC 61851-1:2017, IEC 62955:2018	
Environment	Installation	Wall-mount/ Pole-mount
	Work Temperature	-30°C~+50°C
	Work Humidity	5%~95%
	Work Altitude	<2000m
Package	Product Dimension	233*150* 70mm (H*W*D)
	Package Dimension	350* 290*185mm (L *W*H)
	Net Weight	2.5kg
	Gross Weight	3.0kg
	External Package	Carton



## Smart Home Series

### Innovativeness

- Minimal size, streamline design
- Home use with intelligent App control

### Intelligent Control

- Wireless communication (WiFi/Bluetooth)
- OCPP communication protocol with CMS
- Smart charge / scheduled charge by App

### Secure and Safe

- 6mA DC residual current protection
- Anti-welding protection

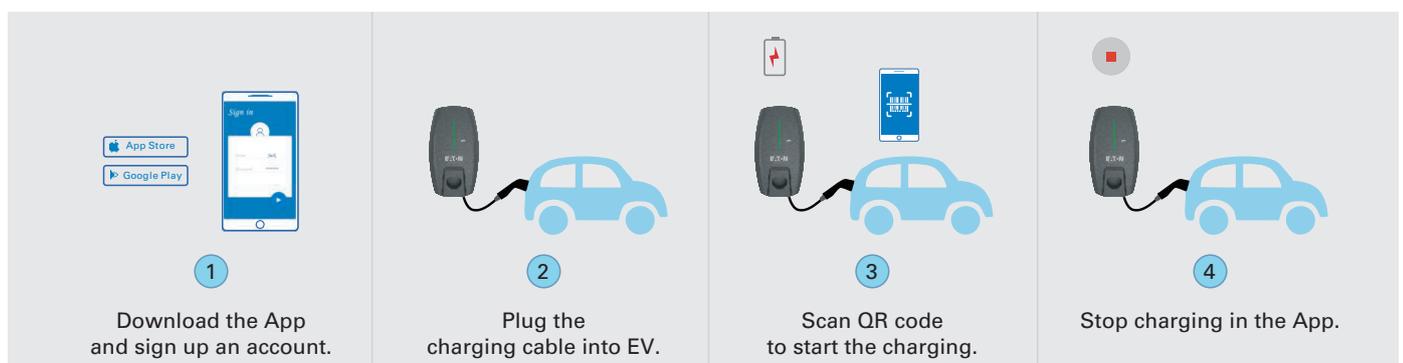
### Flexible Option

- Type 2 charging cable
- App operation / RFID authentication / plug & play
- Wall-mount / floor-stand installation



## Smart Home Series

Datasheet	Model	EVXI-A7000H ALPHA	EVXI-A011KH ALPHA
Input	Power Supply	1P+N+PE	3P+N+PE
	Rated Voltage	230V AC	400V AC
	Rated Current	32A	16A
	Frequency	50/60Hz	50/60Hz
Output	Output Voltage	230V AC	400V AC
	Maximum Current	32A	16A
	Rated Power	7kW	11kW
User Interface	Charge Connector	Type 2 cable	
	Cable Length	4m	
	Enclosure	Plastic PC940	
	LED Indicator	Green/Yellow/Red	
	RFID Reader	Mifare ISO/IEC 14443 A	
	Start Mode	Plug&Play/RFID card/App	
	Emergency Stop	No	
Communication	WiFi	Yes	
	Bluetooth	Optional	
	OCPP	OCPP 1.6 Json (OCPP 2.0 optional)	
Safety	Energy Meter	No	
	RCD	6mA DC	
	Ingress Protection	IP65	
	Impact Protection	IK10	
	Electrical Protection	Over current protection, Residual current protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection	
	Certification	CE/CB	
	Certification Standard	EN IEC 61851-1:2019, 1EC 61851-1:2017, 1EC 62955:2018	
Environment	Installation	Wall-mount/Pole-mount	
	Work Temperature	-30°C~+50°C	
	Work Humidity	5%-95%	
	Work Altitude	<2000m	
Package	Product Dimension	328.07*180.73*86.84 mm (H*W*D)	328.07*180.73*86.84mm (H*W*D)
	Package Dimension	430*290*200 mm (L *W*H)	430*290*200 mm (L*W*H)
	NetWeight	3.2kg	3.2kg
	Gross Weight	4.0kg	4.0kg
	External Package	Carton	



## CARO Smart Home Series

### Innovativeness

- Ergonomic enclosure and user-friendly body design
- Optional design with T2S socket
- Switch between single-phase and three-phase

### Intelligent Control

- Support multiple communication (WiFi/4G/Ethernet)
- Schedule charge by APP
- Load balance system control
- Compatible with PV

### Secure and Safe

- 30mA Type A + 6 mA DC residual current protection
- Anti-welding protection
- Optional PEN-Fault protection

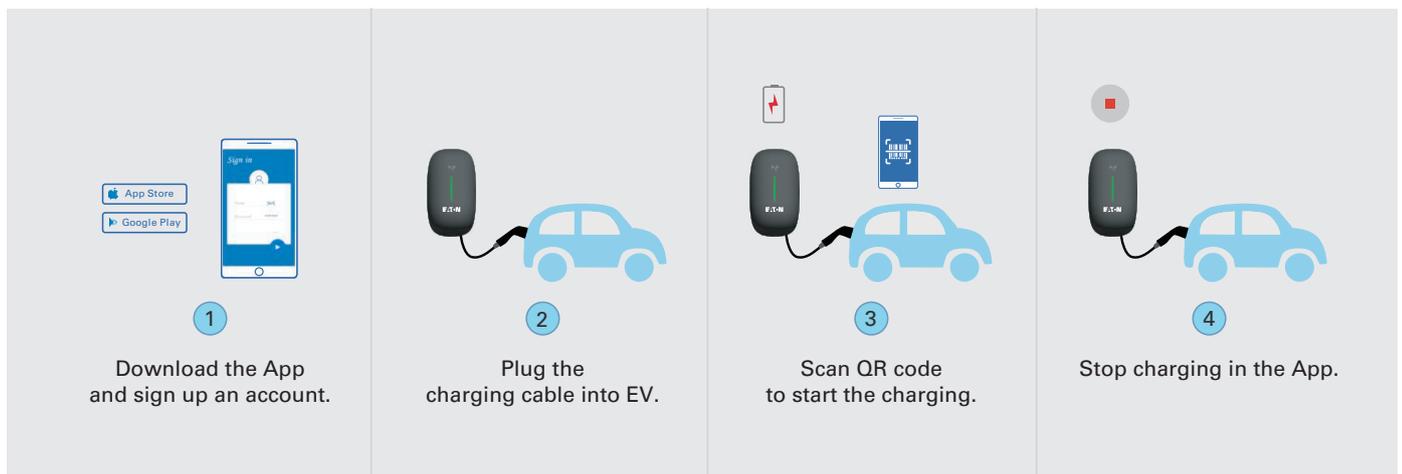
### Flexible Option

- Type 2 cable / Type 2 socket options
- Wall-mount / floor-stand installation
- RFID authentication / Plug & Play / APP options to start
- Three colors options



## CARO Smart Home Series

Datasheet	Model	EVXI-A7000H BETA	EVXI-A011KH BETA
Input	Power Supply	1P+N+PE	3P+N+PE
	Rated Voltage	230V AC	400V AC
	Rated Current	32A	16A
	Frequency	50/60Hz	50/60Hz
Output	Output Voltage	230V AC	400V AC
	Maximum Current	32A	16A
	Output Power	7kW	11kW
User Interface	Charge Connector	Type2 cable(Type 2 socket optional)	
	Cable Length	4m (7m optional)	
	Housing Material	Plastic PC940	
	LED Indicator	Green/Yellow/Red	
	RFID Reader	Mifare ISO/IEC 14443 A	
	Start Mode	Plug&Play/RFID card/App	
Communication	WiFi	WiFi (2.4GHz)	
	Bluetooth	Optional	
	3G/4G	Optional	
	Ethernet	Optional	
	Protocol	OCPP 1.6 Json (OCPP 2.0 optional)	
Safety	RCD	30mA TypeA + 6mADC	
	Ingress Protection	IP65	
	Impact Protection	IK10	
	Electrical Protection	Over current protection, Residual current protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection	
	Designed Standard	EN IEC 61851-1:2019, IEC 61851-1:2017, IEC 62955:2018	
Environment	Installation	Wall-mount/Pole-mount	
	Work Temperature	-30°C~+50°C	
	Work Humidity	5%-95%	
	Work Altitude	<2000m	
Size	Product Dimension	344*201*100mm (H*W*D) Cable Series	344*201*135mm (H*W*D) Socket Series



## Business AC Series

### Innovativeness

- Temper glass panel, modern design
- Business use with intelligent App control
- WiFi Mesh technique, saving cost on wire installation

### Intelligent Control

- Wireless communication (WiFi/Bluetooth), Ethernet/4G optional
- OCPP communication protocol with CMS
- Intelligent operation by App and cashless payment

### Flexible Option

- Universal Type 2 socket, optional with Type 2 charging cable
- App operation / RFID authentication / plug & play
- Wall-mount / floor-stand installation

### Secure and Safe

- RCD Type A and 6mA DC residual current protection
- MID certified energy meter with accurate measurement



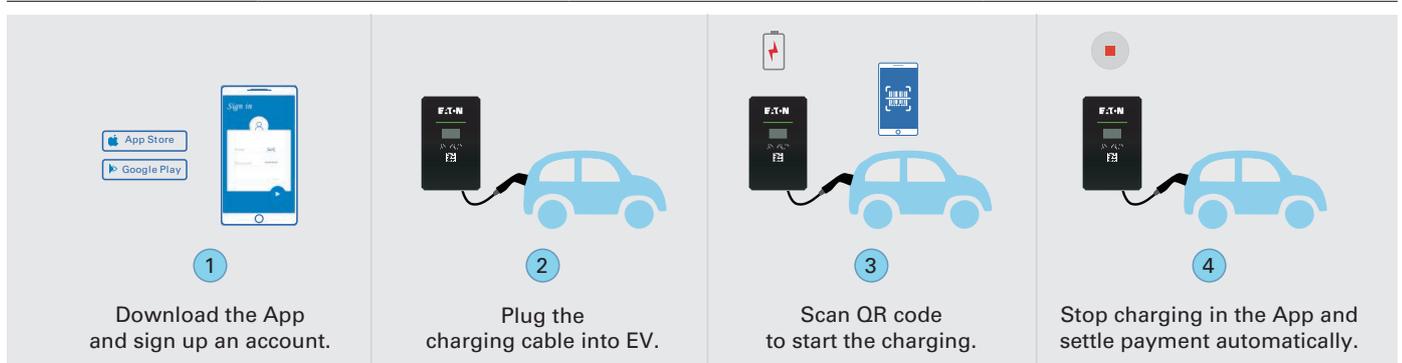
7kW



22kW

## Business AC Series

Datasheet	Model	EVXI-A7000B	EVXI-A022KB
Input	Power Supply	1P+N+PE	3P+N+PE
	Rated Voltage	230V AC	400V AC
	Rated Current	32A	32A
	Frequency	50/60Hz	50/60Hz
Output	Output Voltage	230V AC	400V AC
	Maximum Current	32A	32A
	Rated Power	7kW	22kW
User Interface	Charge Connector	Type 2 Charging Cable / Type 2 Socket	
	Enclosure	Plastic PC940	Galvanized steel
	Front Panel	Temper glass	
	LED Indicator	Green/Yellow/Red	
	LCD Display	27"black & white LCD/4.3" color touch LCD	
	RFID Reader	Mifare ISO/IEC 14443A	
	Start Mode	Plug&Play/RFID card/App	
Communication	Emergency Stop	No	
	WiFi	Yes	
	Ethernet	Optional	
	3G/4G	Optional	
Safety	OCPP	OCPP 1.6 Json(OCPP 2.0 optional)	
	Energy Meter	MID certified	
	RCD	30mA Type A + 6mA DC	
	Ingress Protection	IP54	
	Impact Protection	IK08	
	Electrical Protection	Over current protection, Residual current protection, Short circuit protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection	
	Certification	CE/CB	
Environment	Certification Standard	ENIEC 61851-1:2019, IEC 61851-12017, IEC 62955:2018	
	Installation	Wall-mount/Pole-mount	
	Work Temperature	-30°C~+50°C	
	Work Humidity	5%-95%	
Package	Work Altitude	<2000m	
	Product Dimension	353*218*138mm (H*W*D)	452*295*148mm (H*W*D)
	Package Dimension	490*340*210mm (L*W*H)	570*390*220mm (L*W*H)
	NetWeight	3.2kg	10.0kg
	Gross Weight	4.2kg	12.5kg
External Package	Carton	Carton	



## Twin AC Series Pedestal

### Innovativeness

- One charger with two output sockets
- Business use with intelligent App control
- Vandal resistant and anti-corrosion

### Intelligent Control

- Ethernet/4G/WiFi communication all supported
- OCPP communication protocol with CMS
- Intelligent operation by App and cashless payment

### Flexible Option

- App operation / RFID authentication / plug & play

### Secure and Safe

- RCD Type A and 6mA DC residual current protection
- MID certified energy meter with accurate measurement



Left



Right



Back

## Twin AC Series Pedestal

Datasheet	Model	EVCI-A014kB	EVCI-A044KB
Input	Power supply	1P+N+PE	3P+N+PE
	Rated Voltage	230V AC	400V AC
	Rated Current	64A	64A
	Frequency	50/60Hz	50/60Hz
Output	Output Voltage	230V AC	400V AC
	Maximum Current	2x32A	2x32A
	Rated Power	2x7kW	2x22kW
User Interface	Charge Connector	Type 2 socket	
	Enclosure	Galvanized steel	
	Left/Right Panel	Temper glass	
	LED Indicator	Green/Yellow/Red	
	LCD Display	2.7" black & white screen	
	RFID Reader	Mifare ISO/IEC 14443 A	
	Start Mode	Plug & Play/RFID card/App	
	Emergency Stop	No	
Communication	WiFi	Yes	
	Ethernet	Yes	
	3G/4G	Yes	
	OCPP	OCPP 1.6 Json (OCPP 2.0 optional)	
Safety	Energy Meter	MID certified	
	RCD	30mA Type A + 6mA DC	
	Ingress Protection	IP54	
	Impact Protection	IK08	
	Electrical Protection	Over current protection, Residual current protection, Short circuit protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection	
	Designed Standard	ENIEC 61851-1:2019, IEC 61851-1:2017, IEC 62955:2018	
Environment	Installation	Floor-stand	
	Work Temperature	-30°C~+50°C	
	Work Humidity	5%~95%	
	Work Altitude	<2000m	
Package	Product Dimension	1200*290*230mm (H*W*D)	
	Package Dimension	1360*460*470mm (L*W*H)	
	Net Weight	28.5kg	
	Gross Weight	48.5kg	
	External Package	Wood case	



### DC30

#### Innovativeness

- Anti-theft lock design, special tool needed to unlock
- Intelligent operation by CMS
- Faster charge, smaller installation space

#### Secure and Safe

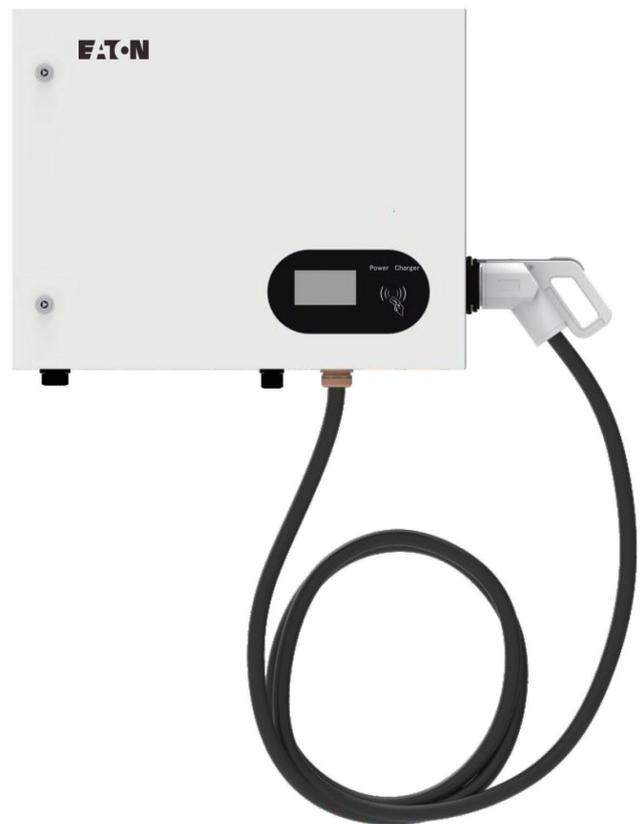
- Modular design, easy to repair and replace
- Emergency stop switch, improve the safety

#### Flexible Option

- On-line: RFID card / APP start
- Off-line: Plug & Play (Password)
- Wall-mount / floor-stand installation

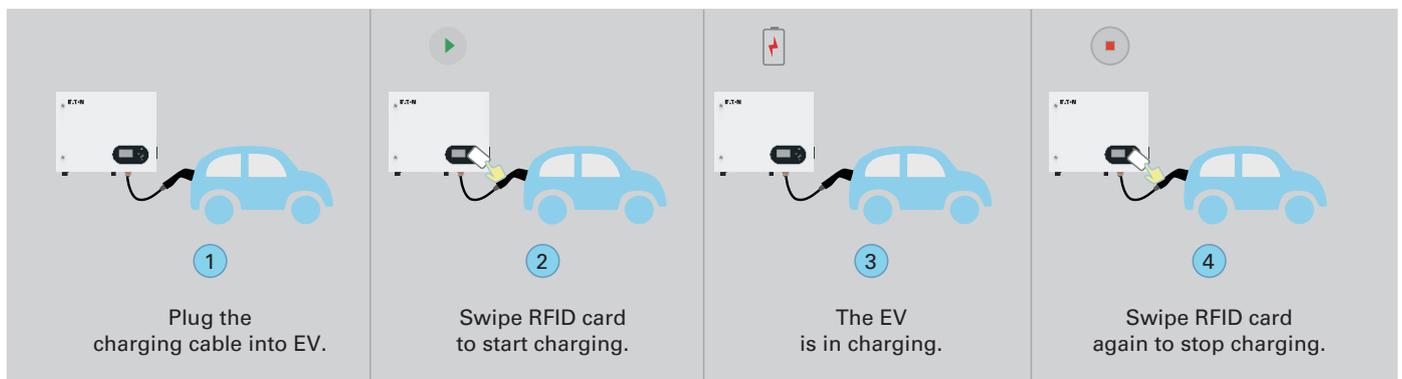
#### Intelligent Control

- Load balance control, balance the total power
- OCPP communication protocol with CMS supported



## DC30

Datasheet	Model	EVXI-D030KB
Input	Power Supply	3P+N+PE
	Rated Voltage	400V AC
	Rated Current	45A
	Frequency	50/60Hz
Output	Output Voltage	150V~1000V DC
	Maximum Current	75A
	Rated Power	30kW
User Interface	Charge Connector	CCS2
	Cable Length	5m
	Enclosure	Galvanized steel housing and Temper glass screen
	LED Indicator	Green/Red/Yellow
	LCD Display	4.3' color touch screen
	RFID Reader	Mifare ISO/IEC 14443 A
Communication	Start Mode	RFID card/APP/Plug&Play
	WiFi	Yes
	Ethernet	Yes
	4G	Yes
	Bluetooth	Yes
Safety	OCPP	OCPP 1.6 Json (OCPP 2.0 optional)
	RCD	Type A
	Emergency Stop	Yes
	Ingress Protection	IP54
	Impact Protection	IK08
	Electrical Protection	Over current protection, Residual current protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection
Environment	Designed Standard	EN IEC 61851-1:2019, IEC 61851-1:2017, EN 61851-23:2014, EN 61851-24:2014
	Installation	Wall-mount/Pole- mount
	Cooling Method	Fancooling
	Noise	≤60dB
	Work Temperature	-30°C~+50°C
	Work Humidity	5%~95%
Work Atitude	<2000m	



## DC60

### AC & DC Integration

- One charger with multiple outputs, simultaneously charging
- One AC connector: Type 2, with output up to 22kW
- Two DC connectors: 2CCS2 / CCS2 and CHAdeMO, with output up to 60kW

### Flexible Option

- App operation / RFID authentication / plug & play
- High protection grade as IP54, with IP65 optional

### Intelligent Control

- Ethernet/4G/WiFi communication all supported
- OCPP communication protocol with CMS
- Intelligent operation by App and cashless payment

### Secure and Safe

- Type A RCD for residual current protection
- MID certified AC meter
- ISO15118 prepared for advanced feature of Plug & Charge

Three Connectors

CHAdeMO	AC	CCS2
---------	----	------



Two Connectors

CHAdeMO	CCS2	/	CCS2	CCS2
---------	------	---	------	------



## DC60

Datasheet	Model	EVXI-D060KB		
Input	Power Supply	3P+N+PE		
	Rated Voltage	400V AC		
	Frequency	50/60Hz		
Output	Output Voltage	200~500V DC	400V AC	200~ 1000V DC
	Maximum Current	125A	32A	200A
	Rated Power	60kW	22kW	60kW
User Interface	Charge Connector	CHAdeMO	Type 2 cable	CCS2
	Cable Length	5m		
	Enclosure	Galvanized steel		
	LED Indicator	Green/Yellow/Red		
	LCD Display	10" color touch screen		
	RFID Reader	Mifare ISO/IEC 14443 A		
	Start Mode	Plug& Play/RFID card/App		
	Emergency Stop	Yes		
Communication	POS Terminal	Optional		
	WiFi	Yes		
	Ethernet	Yes		
	3G/4G	Yes		
Electrical Parameter	OCPP	OCPP 1.6 Json (OCPP 2.0 optional)		
	Efficiency	Max 95%		
	Power Factor	≥0.99 @ 50% ~100% loading		
	THD	≤5% @ 100% loading		
Safety	Ripple Factor	≤±1%		
	RCD	TypeA		
	Ingress Protection	IP54		
	Impact Protection	IK08		
	Electrical Protection	Over current protection, Residual current protection, Short circuit protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over/Under temperature protection		
	Certification	CE/CB		
Environment	Certification Standard	EN IEC 61851-1:2019, IEC 61851-1:2017, EN 61851-23:2014, EN 61851-24:2014		
	Installation	Floor-stand		
	Cooling Method	Fan cooling		
	Noise	≤60dB		
	Work Temperature	-30°C~+50°C		
	Work Humidity	5%~95%		
Package	Work Altitude	<2000m		
	Product Dimension	750* 525*1830mm (W*D*H)		
	Package Dimension	1020*750*2020mm (L*W*H)		
	Net Weight	228kg		
	Gross Weight	268.5kg		
External Package	Wood case			

# DC120

### High Efficiency

- One charger with multiple outputs, simultaneously charging
- Two CCS2 DC connectors, with output up to 120kW
- Constant power from 300~1000V voltage, less heat with smaller current

### Intelligent Control

- Ethernet/4G/WiFi communication all supported
- OCPP communication protocol with CMS
- Intelligent operation by App and cashless payment

### Flexible Option

- App operation / RFID authentication / plug & play
- High protection grade as IP54, with IP65 optional
- Optional POS terminal for contactless credit card payment

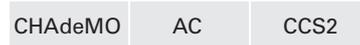
### Secure and Safe

- Type A RCD for residual current protection
- MID certified AC meter
- ISO15118 prepared for advanced feature of Plug & Charge

Two Connectors



Three Connectors



## DC120

Datasheet	Model	EVXI-D120KB		
Input	Power Supply	3P+N+PE		
	Rated Voltage	400V AC		
	Frequency	50/60Hz		
Output	Output Voltage	200~500V DC	400V AC	200~ 1000V DC
	Maximum Current	125A	32A	200A
	Rated Power	60kW	22kW	120kW
User Interface	Charge Connector	CHAdeMO	Type 2 cable	CCS2
	Cable Length	5m		
	Enclosure	Galvanized steel		
	LED Indicator	Green/Yellow/Red		
	LCD Display	10" color touch screen		
	RFID Reader	Mifare ISO/IEC 14443 A		
	Start Mode	Plug& Play/RFID card/App		
	Emergency Stop	Yes		
Communication	POS Terminal	Optional		
	WiFi	Yes		
	Ethernet	Yes		
	3G/4G	Yes		
Electrical Parameter	OCPP	OCPP 1.6 Json (OCPP 2.0 optional)		
	Efficiency	Max 95%		
	Power Factor	≥0.99 @ 50% ~100% loading		
	THD	≤5% @ 100% loading		
Safety	Ripple Factor	≤±1%		
	RCD	TypeA		
	Ingress Protection	IP54		
	Impact Protection	IK08		
	Electrical Protection	Over current protection, Residual current protection, Short circuit protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over/Under temperature protection		
	Certification	CE/CB		
Environment	Certification Standard	EN IEC 61851-1:2019, IEC 61851-1:2017, EN 61851-23:2014, EN 61851-24:2014		
	Installation	Floor-stand		
	Cooling Method	Fan cooling		
	Noise	≤60dB		
	Work Temperature	-30°C~+50°C		
	Work Humidity	5%~95%		
Package	Work Altitude	<2000m		
	Product Dimension	750* 525*1830mm (W*D*H)		
	Package Dimension	1020*750*2020mm (L*W*H)		
	Net Weight	228kg		
	Gross Weight	268.5kg		
External Package	Wood case			

## Power Module

### Multiple Options

- High power as 30kW
- Output voltage up to 1000V

### Low Energy Consumption

- Unique sleep mode, less than 2W power
- High conversion efficiency up to 96%
- Intelligent parallel mode, working with the best efficiency

### High Reliability

- Overall temperature monitoring
- Defenses of moisture, salt spray and fungus
- MTBF > 100,000 hours

### Secure and Safe

- Wide input voltage range 260~470V AC
- Wide working temperature range -30°C~+50°C



30kW Power Module

Size: 455mm(D)\*300mm(W)\*94mm(H)

## Power Module

Datasheet		
Input	Power Supply	3P+PE
	Input Voltage	260-470V AC
	Max. Input Current	60A
	Startup Impulse Current	≤66A
	Input Frequency	50/60Hz
	Standby Power	<4.5W
Output	Output Voltage	150~1000V DC
	Maximum Current	100A
	Rated Power	30kW
	Constant Power	Yes @ 300~1000V DC
Electrical Parameter	Power Factor	≥0.99 @ 50%-100% loading
	THD	≤3% @ 100% loading
	Efficiency	Max 96%
	Steady Voltage Accuracy	≤±0.5%
	Steady Current Accuracy	≤±1%
	Voltage Deviation	≤±0.5%
	Current Deviation	≤±0.15A @ load current<15A, ≤±1% @ load current≥15A
	Ripple Factor	Peak factor<1%, RMS factor<0.5%
	Current Imbalance	≤5% @ 50%~ 100% loading
	Soft Start Time	≤6S
	Power Overshoot	No
	Sleep Function	Yes
User Interface	Enclosure	Aluminized Zinc plate (SGLCC)
	LED Indicator	Green/Yellow/Red
Communication	Configuration	Manual/Auto
	Protocol	CAN
Environment	Installation	Slots
	Cooling Method	Smart air cooling
	Noise	≤60dB @25°C 100% loading
	Work Temperature	-30°C~+55°C
	Work Humidity	5%~95%
Work Altitude	<2000m	
Package	Product Dimension	455*300*94mm (D*W*H)
	Package Dimension	564*380*172mm (L*W*H)
	Net Weight	17kg
	Gross Weight	18kg
	External Package	Carton

## Prefabricated EV Charging Station

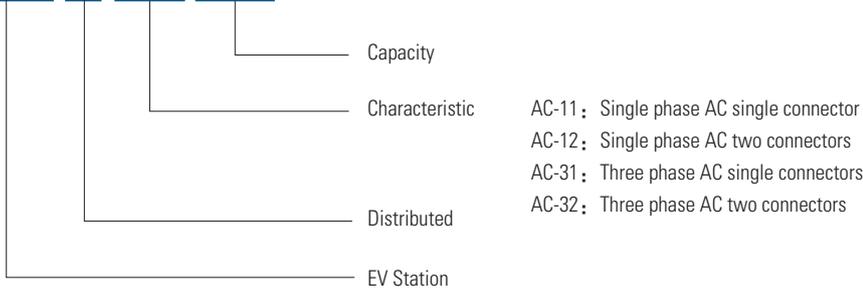
Eaton offers the prefabricated EV charging station solution, which combines Eaton's power distribution and charging technologies. It can power up on-site EV charger and electric facilities surrounded.

- Integrating EV charging stations and substations to offer a one-stop solution
- Helping customers to efficiently construct EV charging infrastructure
- Compact package solution meets variable application scenarios
- Provide power distribution for whole service area not only EVCI

### The prefabricated EV Charging Station Type Definition

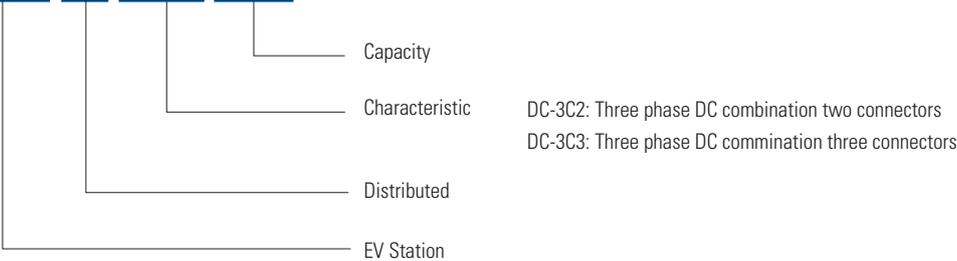
#### The Distributed EV Charging Station

##### EVPACK DIS AC-xx-xxkVA



#### The Centralized EV Charging Station

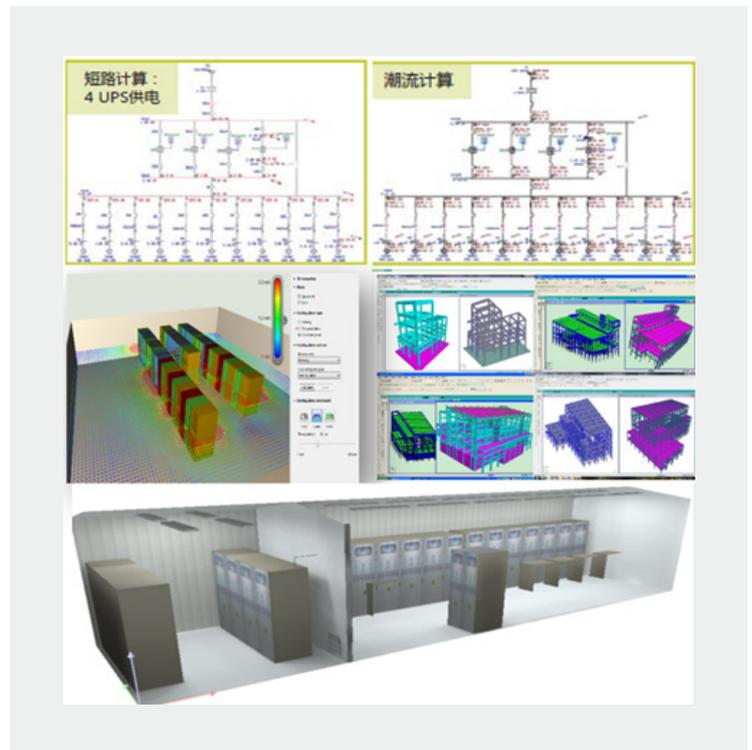
##### EVPACK CEN DC-xxx-xxkVA



## Engineering Design

- Working conditions analysis
- Electric architecture analysis
- Distribution equipment design
- Charger design
- The management platform design
- The cloud communication design
- Electric layout design
- Modular design
- Structure calculation and design
- Thermal insulation design
- Architecture design
- The IP degree design
- The painting specification
- The welding specification
- Architecture distribution design
- Lighting calculation and design
- HVAC calculation and design
- The fire protection design
- CCTV design
- The door monitoring design
- Grounding calculation and design
- Cable schedule design
- The cable tray and routing design
- The integration processing design
- The interface design
- The inspection test plan
- The factory acceptance test plan (FAT)
- The integrated FAT plan
- The transportation and package plan

- The lifting and jobsite installation plan
- The jobsite commissioning plan
- The jobsite acceptance test plan
- The jobsite repair and maintenance



## Supply

- RMU
- Distribution Transformer
- Busway
- LV Switchgear
- Charger
- The management platform
- The cloud communication platform
- Measure and Control
- Protection devices
- Gateway
- Container
- Skid
- Architecture
- Lighting
- Wall switch
- Interior socket
- Exterior socket
- HVAC
- The fire protection alarm system
- The fire suppression system
- The VESDA
- CCTV
- Door monitoring
- Cables and Wires
- Cable tray and Wire conduit
- The equipotential grounding
- The lightning protection(option)
- ...



## Project Management

- Contract management
- The Battery Limits
- Purchase Order
- Financial Management
- Quality management
- Safety management
- Compliance management
- Project schedule

## Integration

- Integrated Installation
- Factory Commissioning
- Factory Acceptance Test (FAT)
- Integrated FAT
- Transportation and Package
- Lifting and Position
- Jobsite Installation
- Jobsite Commissioning
- Site Acceptance Test (SAT)
- Customer training
- As Built Drawing
- Spare parts
- Special tools
- Warranty Service

## The Prefabricated EV Charging Station Datasheet

Item	Subitem	EVPACK DIS AC				EVPACK CEN DC				
		EVPACK DIS AC-11	EVPACK DIS AC-31	EVPACK DIS AC-12	EVPACK DIS AC-32	EVPACK CEN DC-3C2		EVPACK CEN AC/DC-3C3		
Electric Condition	Input Voltage	Substation	AC 10kV/0.4kV				AC 10kV/0.4kV			
		Charger	AC 230V	AC 400V	AC 230V	AC 400V	AC 400V			
	Substation Frequenc		50Hz/60Hz				50Hz/60Hz			
	Charger Output Volgtge		AC 230V	AC 400V	AC 230V	AC 400V	DC 200V-500V/DC 200V-1000V		AC 400V/DC 200V-500V/DC 200V-1000V	
	Rated Capacity of EV Station		315kVA,400kVA,500kVA,630kVA,800kVA,1000kVA,1250kVA				315kVA,400kVA,500kVA,630kVA,800kVA,1000kVA,1250kVA			
	Uint Charger Active Power		7kW	11kW/22kW	2x7kW	2x22kW	60kW/60kW	60kW/ 120kW	22kW/60kW/ 60kW	22kW/60kW/ 120kW
	Uint Charger Rated Current	Single Connector	32A	16A/32A	NA	NA	NA	NA	NA	NA
		Two Connectors	NA	NA	2x32A	2x32A	125A/ 200A	125A/ 200A	NA	NA
		Three Connectors	NA	NA	NA	NA	NA	NA	32A/125A/ 200A	32A/125A/ 200A
	Cabling of substation		Recommendation incoming cable and ougoing cable from bottom, or by customer.							
Environment Conditions	Working Environment		Outdoor							
	Working Temperature		-30 +50				-30 +50			
	Working Humidity		5%-95%				5%-95%			
	Working Altitude		2000m				2000m			
	IP Degree		IP65		IP54		IP54			
	Charger Installation Type		Outdoor Pole Mounted and Floor Standing		Outdoor Floor Standing		Outdoor Floor Standing			
Safety	RCD		By customer		30mA Type A + 6mA DC		Type A			
	Certificate		CE/CB		CE		CE			
	Standard		ENIEC 61851-1:2019, IEC 61851-1:2017, IEC 62955:2018				EN IEC 61851-1:2019, IEC 61851-1:2017, EN 61851-23:2014, EN 61851-24:2014			
	Protyection		Over current protection, Residual current protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection		Over current protection, Residual current protection, Short circuit protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection		Over current protection, Residual current protection, Short circuit protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection			
Function	Charger Connector		1	1	2	2	2	2	3	3
	LED		Green/Yellow/Red				Green/Yellow/Red			
	LCD Display		By customer		2.7" black & white screen		10" color touch screen			
	RFID Reader		Mifare ISO/IEC 14443 A				Mifare ISO/IEC 14443 A			
	Start Modle		Plug&Play/RFID card/App				Plug&Play/RFID card/App			
	Communication		By customer		Wifi/Ethernet/3G/4G/OCPP		Wifi/Ethernet/3G/4G/OCPP			

## Prefabricated Centralization EV Charging Station

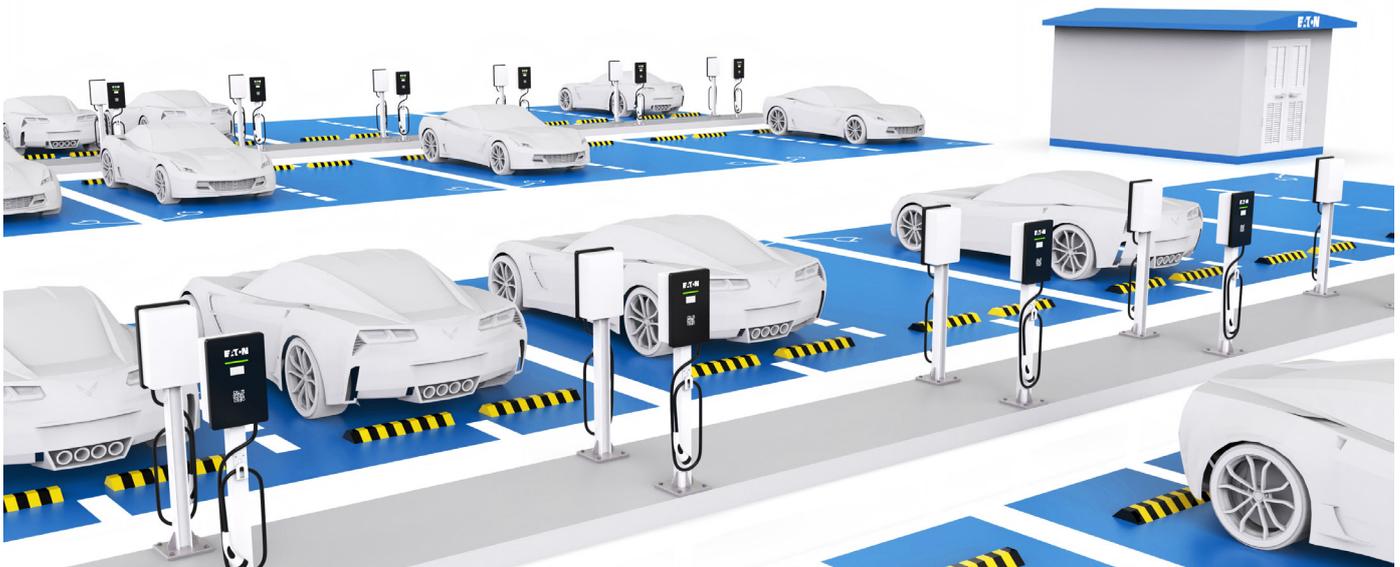
The prefabricated substation and EV charger will be designed and mounted on the skid, which is named prefabricated centralized EV charging station, and the centralized EV charging station will be installed near the electric vehicle park.



## Prefabricated Distribution EV Charging Station

The substation and EV charger are be separately installed in different areas, the substation will be prefabricated type, and EV chargers will be mounted on the skid modules.

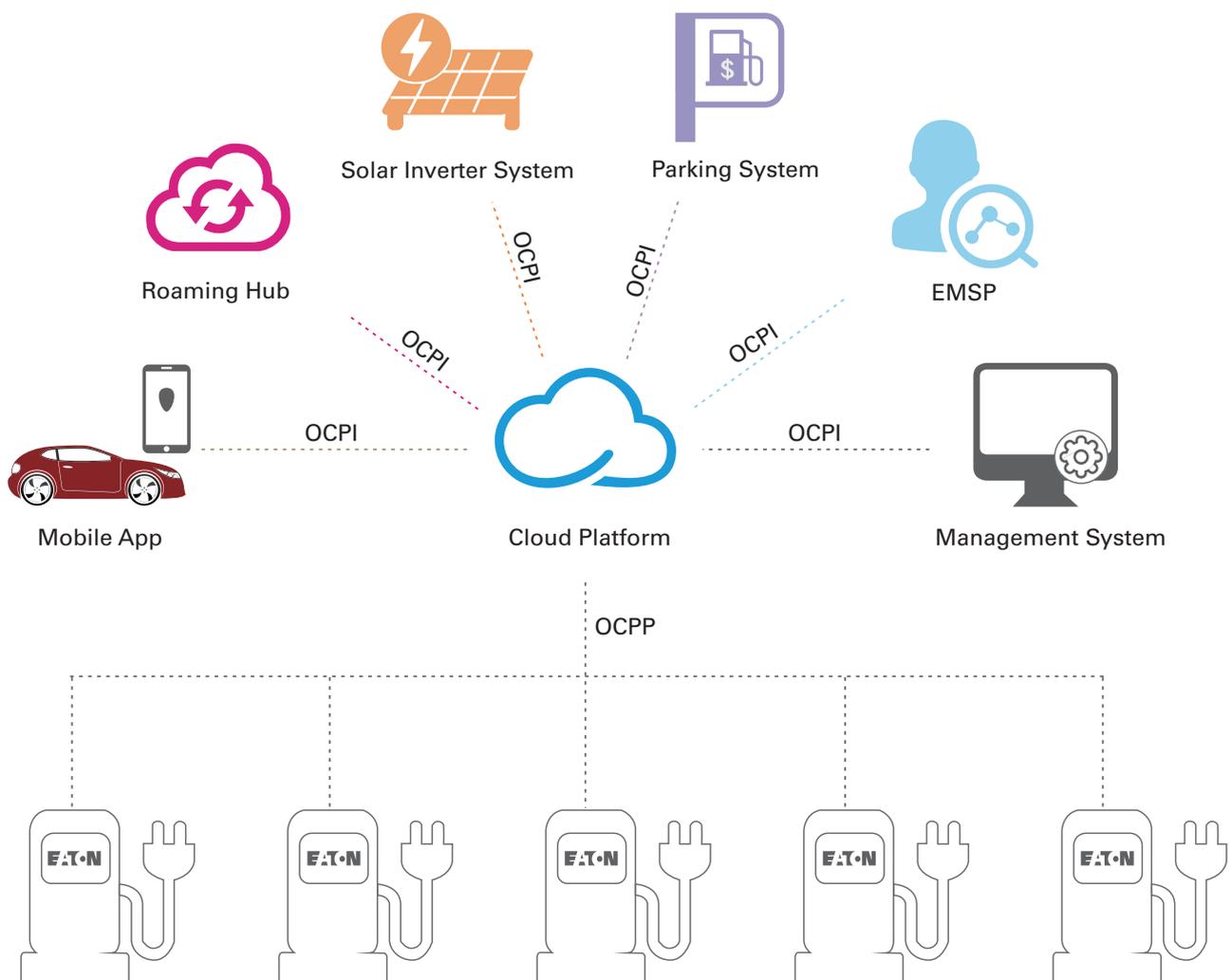
The EV charger skid modules are be installed in different space electric vehicle parks, and the prefabricated substation will be laid in the center space of EV charger skid modules.



## Cloud Platform

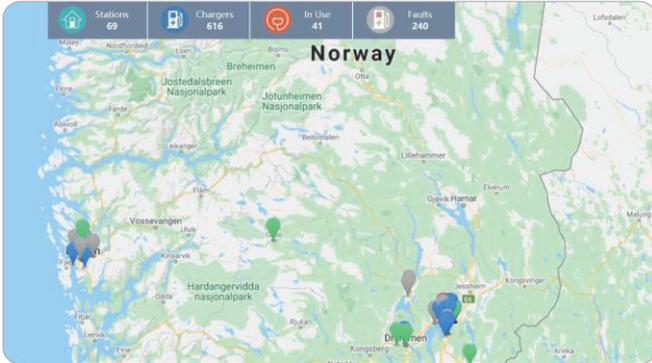
Dedicated to enable the future of e-Mobility by providing the most open, secure and robust charging network everywhere, a charging platform based on the cloud server makes it simple and convenient to meet the diverse demands of charger operators, charging users and e-Mobility service providers. We provide everything you need to offer a complete EV charging solution.

- **Management System:** A central system for charger operators to manage charge points and monitor charging service. Status monitor, charge record, prices management, firmware upgrade, remote diagnose, and load balance are offered in one capable system.
- **Mobile App:** A charging App for EV drivers who needs charging service. Prices, locations, availability, start/stop charging, and auto billing are available in an easy way.
- **Interoperability:** Connections with e-Mobility Service Providers who have EV drivers as customers are viable through the open charge point interface protocol (OCPI).



# Management System

The management system is designed for operators to manage the charge points and the charging service to all users. The future of charging is smart, and our management system is equipped with future-proof features. The system works on the cloud, which enables us to update new features rapidly.



## Remote Management

At the management system, you can monitor your chargers, set prices, limit usage, and manage your stations remotely, for example remote upgrade and remote diagnose. Manage your charging stations with ease.

## Smart Charge

The load balance feature enables you to limit the maximum charging power of chargers remotely, or set a maximum charging load for a group of chargers. It eliminates the risks of overloading and EVs can charge with possible maximum power.



Online Status	Charger SN	Charger Type	EN-GATE SN	Address	Phase	Action
Online	SN1000184329909	AC	SN02405185280003	16 - D.Johansen	Three-Phase	[Icons]
Online	SN10005188160004	AC	SN02405185280003	19 - S. Haave	Three-Phase	[Icons]
Online	SN10005188160003	AC	SN02405185280003	34 - Ly Pham	Three-Phase	[Icons]
Online	SN10005188160002	AC	SN02405185280002	111 - L.Kambal	Three-Phase	[Icons]
Online	SN10005188160001	AC	SN02405185280001	100 - K.Brakke	Three-Phase	[Icons]
Online	SN10005188290001	AC	SN02405185280001	44 - Kassel	Three-Phase	[Icons]
Online	SN10005188290002	AC	SN02405185280002	108 - S.Gerhardsen	Three-Phase	[Icons]
Online	SN10005185280012	AC	SN02405185280003	32 - I.Wagnerus	Three-Phase	[Icons]
Online	SN10005185280011	AC	SN02405185280003	7 - P.Skaalgaard	Three-Phase	[Icons]
Offline	SN10005185280010	AC	SN02405185280002	145 - J.Odegaard	Three-Phase	[Icons]
Online	SN10005185280008	AC	SN02405185280001	50 - T.Holm	Three-Phase	[Icons]
Online	SN10005185280008	AC	SN02405185280003	26 - K.Fossum	Three-Phase	[Icons]
Online	SN10005185280007	AC	SN02405185280002	148 - D.Sarlsen	Three-Phase	[Icons]
Online	SN10005185280006	AC	SN02405185280003	13 - E.Nettestad	Three-Phase	[Icons]
Online	SN10005185280005	AC	SN02405185280002	104 - O.Petersen	Three-Phase	[Icons]

## Payment & Billing

You can set the prices for charging in the management system, based either on the amount of electricity charged, the duration of charging events or both. The revenue from charging events is transferred to your bank account automatically.

## Statistics & Administration

Statistics on used kWh, duration of charging event, amount of payment etc. can all be viewed in the management system. If an issue can't be resolved, you can report it and allow our professionals to take care of it for you.



## Mobile App

The charging App connects EV drivers with charging stations, so that they can easily find a charger and enjoy the charging service. It enables users to do location search, charging monitor and payment settlement. All is done in a mobile phone.



### Account Signup

Easy signup with a mobile phone number



### Location Search

Quick search for available charging facilities



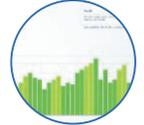
### Charging Operation

Friendly interface and convenient operation



### Real Time Monitor

Real time presentation of charging consumption



### Cashless Payment

Mobile payment from credit card, like Nets, PayWay



### Auto Billing

Secure billing through registered account



App Store

Google Play



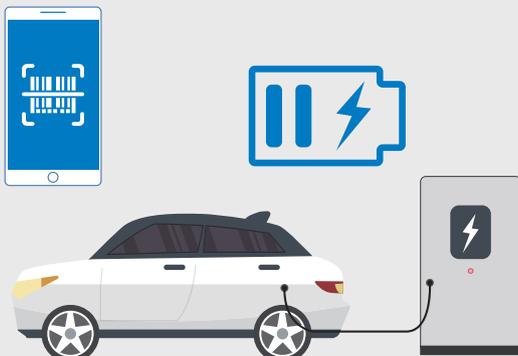
1

Download the App and sign up an account.



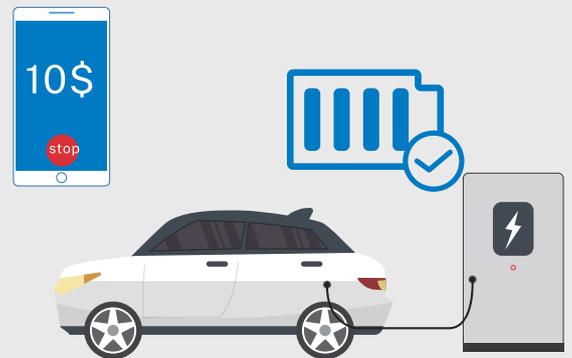
2

Plug the charging cable into EV.



3

Scan QR code to start charging.



4

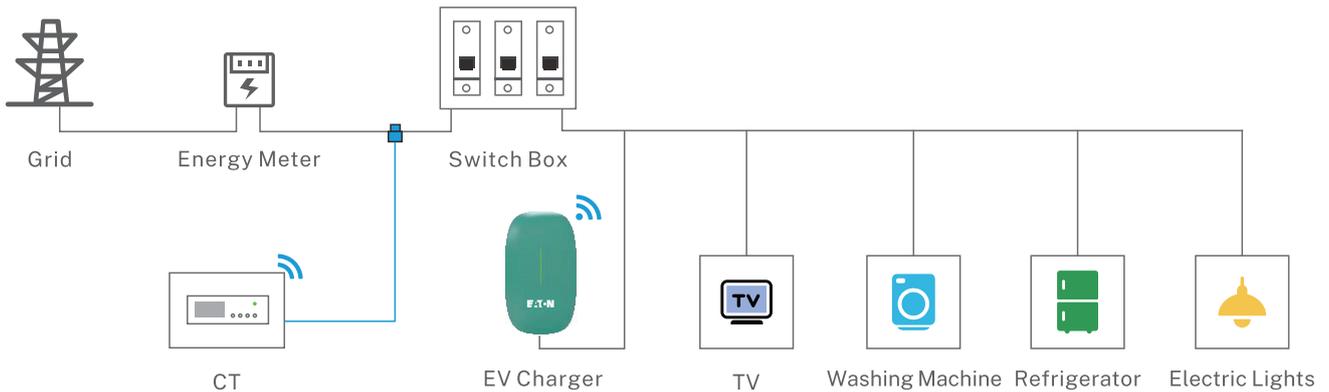
Stop charging in the App and settle payment automatically.

## Load Balance Solution

### Dynamic Load Balance

Dynamic Load Balance is a smart charging feature which balances the distribution of the total available power between chargers and other loads within the building in real time. It not only protects appliances, but also ensures EVs are fully charged at the lowest cost.

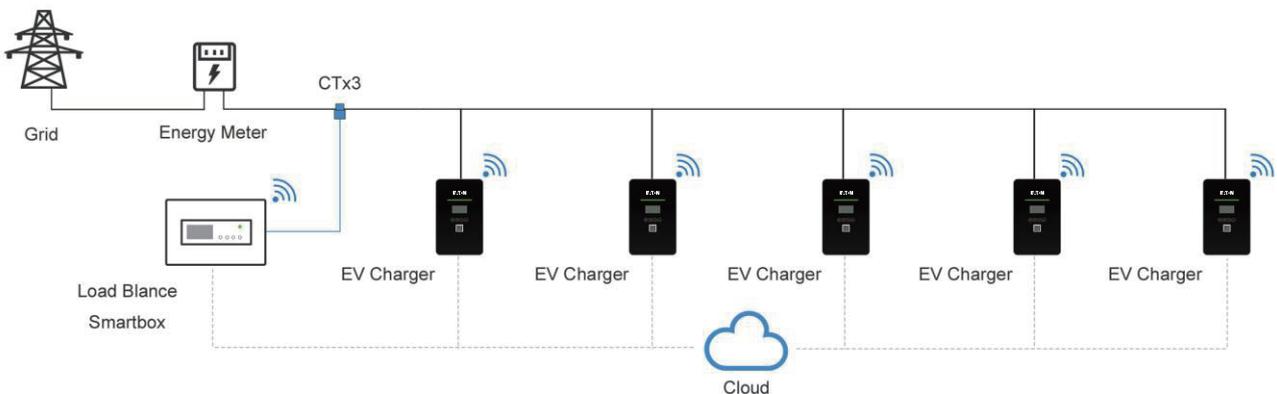
CT monitors the total energy consumption and reports to the management system. The system controls the charging power of each individual charger automatically to avoid overloading when chargers and other loads are being used simultaneously.



### Static Load Balance

Static Load Balance is a smart charging feature which balances the distribution of the total available power for multiple chargers at a specific location. It enables you to set a maximum power for multiple chargers in the management system and distribute the charging power evenly between the individual active chargers.

Load balance helps you to protect the local grid within the capacity limit in peak hours of electricity consumption. EVs can charge with maximum power when possible, but the charging power will drop as more EVs begin to be charged simultaneously. For example, the parking lot has a maximum of 32A available. When the first EV charges, it charges at 32A – the maximum capacity. When more EVs start charging, the charging capacity will be distributed evenly over the EVs.

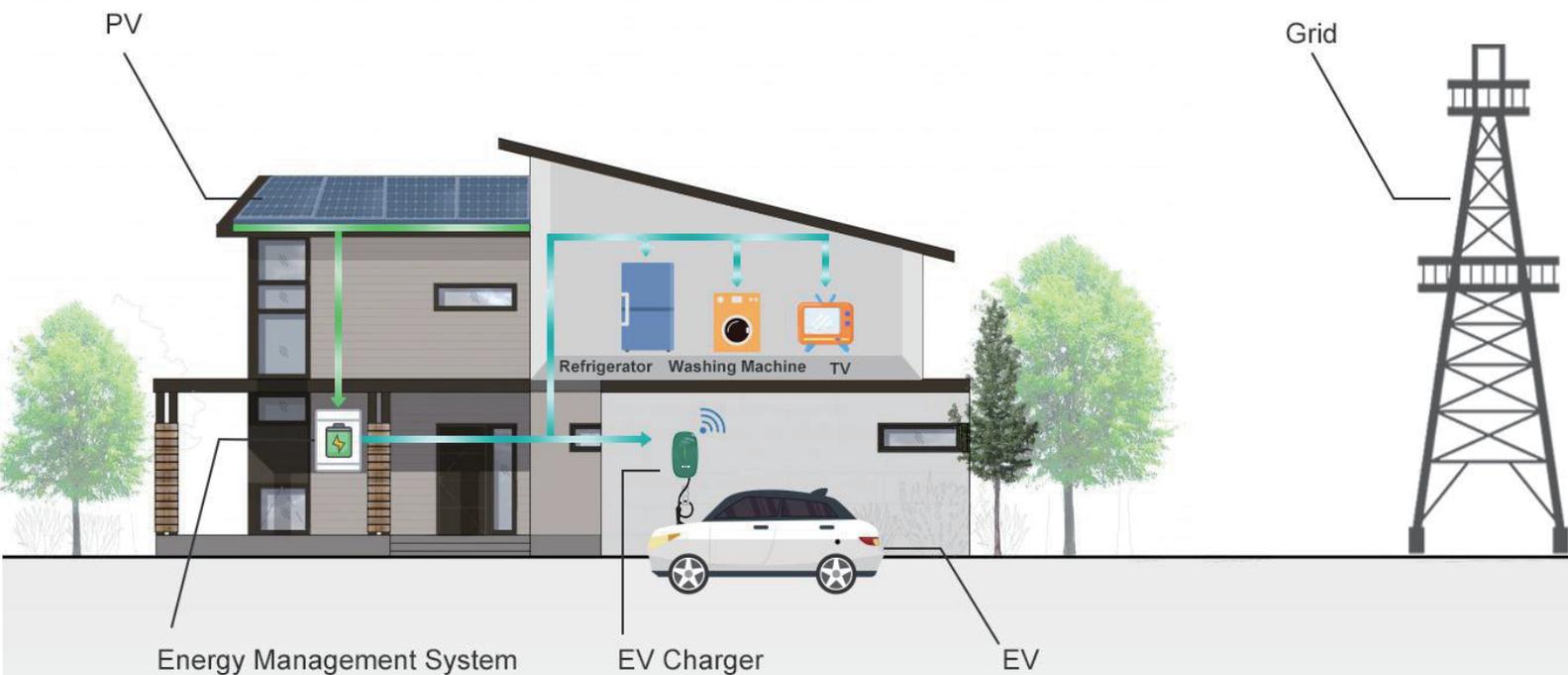


## Compatible with PV System

PV system has been very popular in the green energy industry. EATON charger can be integrated to PV systems to achieve a basic balance between local energy production and grid energy load.

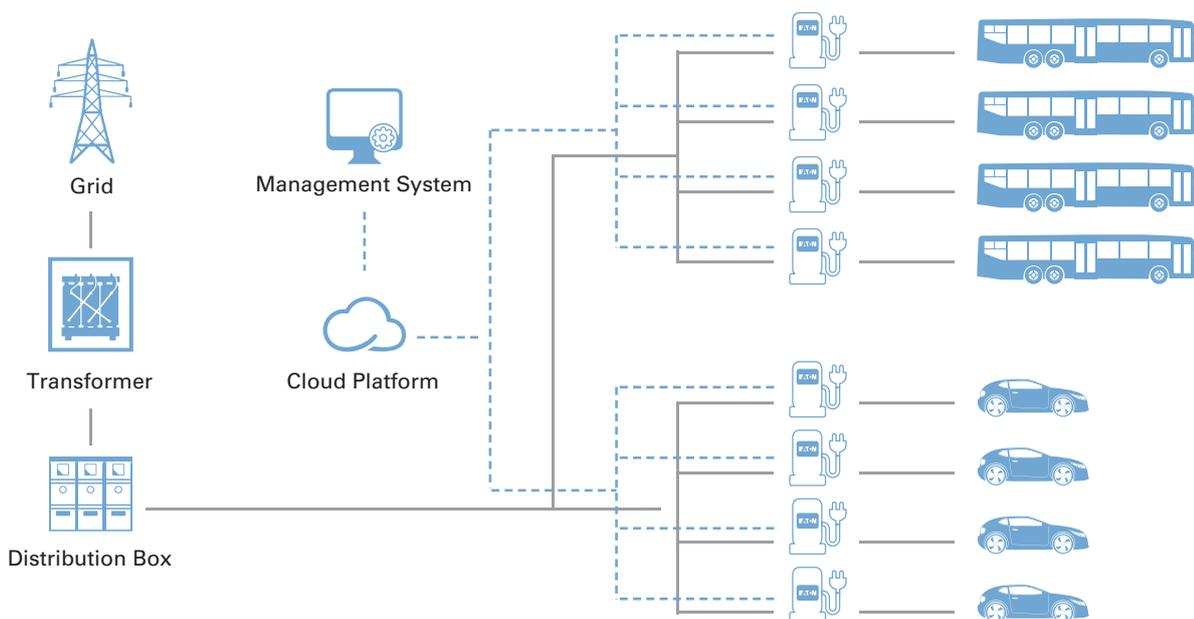
The AC charger can be connected to PV system via RS485, also the AC charger can be equipped with an AC smart meter to perform AC charging measurement and communicate with platform. The metering information will be uploaded to the energy management system and cloud platform via RS485, user can view and manage the energy management system through app and cloud platform.

### Green Charging Connection Diagram



## Charging Solution

We provide everything that's needed to build a charging business, from charging facilities to customer services and smart energy management solutions. You can either manage your own network of charging stations or provide the service for other charger operators. All solutions are whitelabelled and can be customized to meet your customers' needs.



At home, at work, or on the go, we have the electric vehicle charging solution for you. Our solution is suitable for multiple scenarios. We help you to connect with your customers. EATON offers all you need for running a robust charging business.

Eaton is an intelligent power management company dedicated to improving the quality of life and protecting the environment for people everywhere. We are guided by our commitment to do business right, to operate sustainably and to help our customers manage power- today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're accelerating the planet's transition to renewable energy, helping to solve the world's most urgent power management challenges, and doing what's best for our stakeholders and all of society. Founded in 1911, Eaton has been listed on the NYSE for nearly a century. We reported revenues of \$19.6 billion in 2021 and serve customers in more than 170 countries.

Eaton entered the Chinese market in 1993, and has grown significantly since then. In 2004, Eaton moved its Asia-Pacific headquarters from Hong Kong to Shanghai. Today, Eaton has nearly 8,000 employees and 19 manufacturing facilities in China.

For more information about Eaton China, visit [www.eaton.com.cn](http://www.eaton.com.cn)  
Follow Eaton China WeChat account: **Eaton\_China**

