EV Charging & Energy Solutions
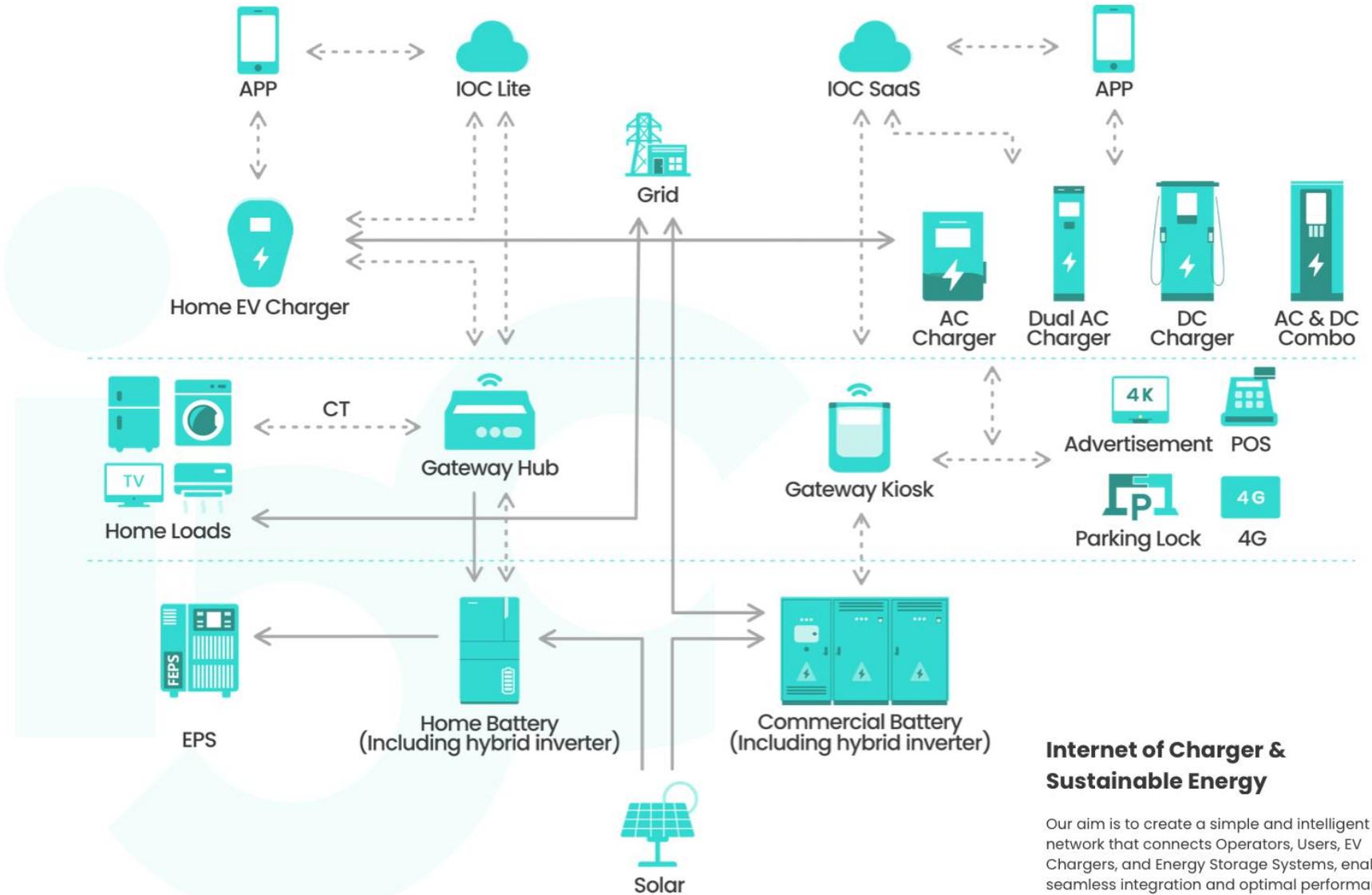
OCPP 2.0.1

IOCHARGER INTRODUCTION

io iocharger

iocharger, a registered brand of Xiamen Galaxy Camphol Technology, is a state level High-tech company in the renewable energy sector, with R&D centers and production bases in Xiamen, Suzhou, and Luoyang. We provide premium one-stop solution for OCPP EV charging & Energy management, including CE&UL certified AC/DC EV Charging Stations, CSMS(Charging Station Management System), ESS(Energy Storage System) and EMS(Energy Management System), with reliable hardware & software design.

As a member of OCA(OCPP) & OCPI, we were presented as one of the first OCPP 2.0.1 certified companies in June 2023. iocharger is committed to innovation, quality, and contribution to a greener, more sustainable world.

APP

IOC Lite

IOC SaaS

APP

Grid

Home EV Charger

AC Charger

Dual AC Charger

DC Charger

AC & DC Combo

CT

Gateway Hub

Gateway Kiosk

4K

Advertisement

POS

Parking Lock

4G

Home Loads

TV

EPS

Home Battery (Including hybrid inverter)

Commercial Battery (Including hybrid inverter)

Solar

Internet of Charger & Sustainable Energy

Our aim is to create a simple and intelligent network that connects Operators, Users, EV Chargers, and Energy Storage Systems, enabling seamless integration and optimal performance.

IOCAH15

Multiple color options

- Design with black, white, red, orange, green and blue options

Small and stylish

- Elegant curved design and as small as an iPad Pro

Multiple protocols and standards support

- OCPP 1.6 J & OCPP 2.0.1 full profiles support
- IEC 62196, IEC 61851-1, IEC 61851-21-2, IEC 61000-3-11, IEC 61000-3-12, IEC 62955, IEC 61008-1, UL 2594, UL 2231, IP55, IK10

Dynamic Load Balancing

- Dynamic power distribution to make sure of a safe and effective network for EV Chargers, solar, grid system and energy storage system
- Live monitoring and configuration via IOC Lite App

Various charging options

- Mobile App control via internet or bluetooth
- Plug and charge
- Charge via button

SPECIFICATION

Model	IOCAH29-32/40(UL)	IOCAH15-7S/7T/11S/11T(CE)
RCD	Integrated, 20mA CCID(UL)	30mA AC & 6mA DC(CE)
Current Output	1-Phase 32A/40A Max	1-Phase 32A/3-Phase 16A Max
Protocol	OCPP 1.6J, OCPP 2.0.1, ISO15118 Plug&Charge	
Mounting Type	Wall Mount (default) / Floor post (optional)	
Dimension(mm)	288x208x128	
Application	Residential	
Color	● Black ○ White ● Red ● Orange ● Green ● Blue	

Breathing Light

Customize your favorite color and style

● ● ● ● ● ● ● ○

Socket or Tethered

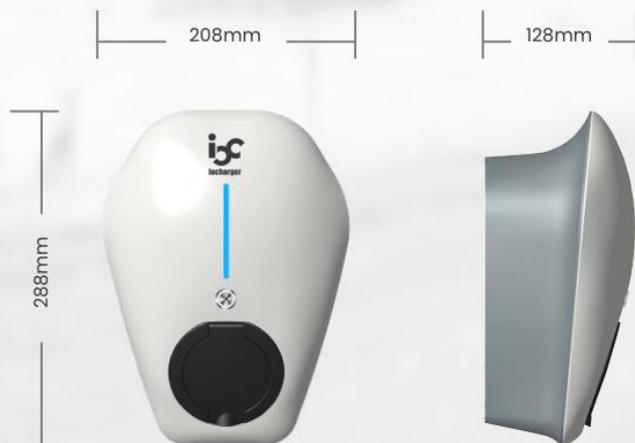IEC 62196 Type-2 socket
IEC 62196 Type-2 5m cable
Type-1 SAE J1772 5m cable

Logo

White label support

Multi-Functional Physical Button

Program the button for different functions like start/stop charging

208mm · 128mm · 288mm · 208mm · 1325mm

ACCESSORIES

Pole-mount Pedestal
Cable Holder

IOCAH10

Elegant design

- Unique curved shape and highlighted UV to make it more attractive

Easy and fast installation

- Independent backplate design for cable connection and fast deployment, available with a waterproof protection cover
- Easy installation to save time and cost

Multiple protocols and standards support

- OCPP 1.6J & OCPP 2.0.1 full profiles support
- IEC 62196, IEC 61851-1, IEC 61851-21-2, IEC 61000-3-11, IEC 61000-3-12, IEC 62955, IEC 61008-1, UL 2594, UL 2231, IP55, IK10

Safe and stable

- IEC 62955, IEC 61008, UK PME and other local regulations compliant
- Protection against high temperature via charging power auto limitation to run, run safely and stably

Various connection methods

- Plug and charge
- Charge via button
- Charge via RFID card
- Mobile App control via internet or bluetooth

SPECIFICATION

Model	IOCAH10-32/40/50(UL)	IOCAH10-7S/7T/22S/22T(CE)
Current Output	1-Phase 32A/40A/50A Max	1-Phase/3-Phase 32A Max
RCD	Integrated, 20mA CCID(UL)	30mA AC & 6mA DC(CE)
Protocol	OCPP 1.6J, OCPP 2.0.1, ISO15118 Plug&Charge	
Mounting Type	Wall Mount (default) / Floor post (optional)	
Dimension(mm)	380x288x141	
Application	Residential / Commercial	
Color	● Black	

2.8' LCD Screen
800/1000nit ultra-high brightness for live EV Charger status display

Breathing Light
Customize your favorite color and style

● ● ● ● ● ● ● ○

Socket or Tethered
IEC 62196 Type-2 socket
IEC 62196 Type-2 5m cable
Type-1 SAE J1772 5m cable

RFID Card Reader
ISO14443 Mifare RFID card support

Multi-Functional Physical Button
Program the button for different functions like start/stop charging

Logo
White label support

288mm

141mm

288 mm

380mm

1325mm

ACCESSORIES
Pole-mount Pedestal
Cable Holder

IOCAW05C

Robust design

- Robust metal casing for semi-public/public deployment

Safety protection

- RCCB Type B, Emergency button(optional) and other safety protections

MID Meter

- EN50470 certified MID meter for accurate power metering

Multiple network connections

- Ethernet, Wi-Fi and 4G
- Support cascade mode, multiple EV Chargers share network connection

Dynamic Load Balancing

- Dynamic power distribution to make sure of a safe and effective network for EV Chargers, solar, grid system and energy storage system
- Live monitoring and configuration via Mobile APP

SPECIFICATION

Model	IOCAW05C-7S/7T	IOCAW05C-22S/22T
Current Output	1-Phase 32A Max	3-Phase 32A Max
Protocol	OCPP 1.6J, OCPP 2.0.1, ISO15118 Plug&Charge	
Mounting Type	Wall Mount (default) / Floor post (optional)	
Dimension(mm)	400x270x130	
Application	Residential / Commercial	
Network Connectvity	Ethernet, Wi-Fi, 4G	
Color	● Grey ○ White	

7' LCD Screen
EV Charger live status display, as well as advertising information with pictures, videos, texts, etc.

LED Indicator
Breathing LED indicator to show live EV Charger status

Socket or Tethered
IEC 62196 Type-2 socket
IEC 62196 Type-2 5m cable
Type-1 SAE J1772 5m cable

RFID Card Reader
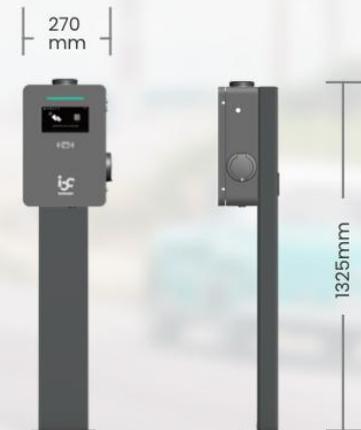ISO14443 Mifare RFID card support

Multi-Functional Physical Button
Program the button for different functions like start/stop charging

Wi-Fi & 4G Antenna
Multi-direction network antenna

270mm

130mm

400mm

270mm

1325mm

ACCESSORIES
Pole-mount Pedestal
Cable Holder

IOCAP06C

Multiple protocols and standards support

- OCPP 1.6 J & OCPP 2.0.1 full profiles support
- IEC 62196, IEC 61851-1, IEC 61851-21-2, IEC 61000-3-11, IEC 61000-3-12, IP55, IK10

OCPP backend integration

- OCPP integration with Iocharger CSMS or other 3rd party platforms

Dual independent power input design

- Each charging connector can work independently without interfering with each other, and support simultaneous charging and Dynamic Load Balancing
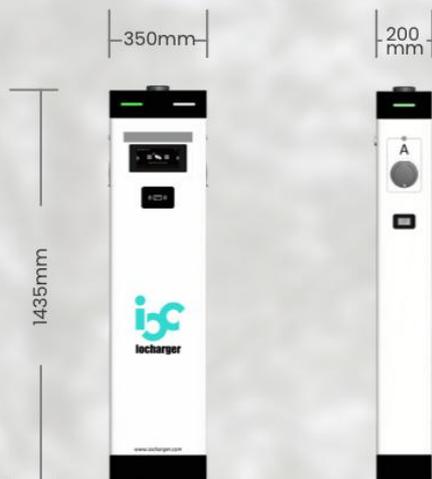
POS terminal integration (optional)

- Nayax, Payter, PAX integration to support local credit card payment
- Credit card, RFID card, Mobile app, Plug&Charge(ISO15118) payment

Safety protection

- RCCB Type B, Emergency button(optional) and other safety protections

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SPECIFICATION

Model	IOCAP06C-7S/7T	IOCAP06C-22S/22T
Current Output	32A Max ×2	
Mobile App	IOS/Android	
Dimension(mm)	1435x350x200	
Application	Commercial	
Network Connectvity	Ethernet, Wi-Fi, 4G	
Meter	MID Certified Meter x 2	
RCD	Type-B RCCB x 2	
Color	● Grey ○ White ● Blue	

350mm — 200mm

1435mm

7' LCD Screen

EV Charger live status display, as well as advertising information with pictures, videos, texts, etc.

LED Indicator

Breathing LED indicator to show live EV Charger status

Socket or Tethered

IEC 62196 Type-2 socket
IEC 62196 Type-2 5m cable
Type-1 SAE J1772 5m cable

RFID Card Reader

ISO14443 Mifare RFID card support

Multi-Functional Physical Button

Program the button for different functions like start/stop charging

Wi-Fi & 4G Antenna

Multi-direction network antenna

MID Meter Window

MID meter window display to meet local regulations

Nayax, Payter POS terminal integration on charger

IOCAP25C

Robust and modern design
- Robust metal casing for semi-public/public deployment
- Dual independent power input design supporting simultaneous charging and dynamic load balancing

Advertising system integrated
- With 2500 nits high-brightness 55' 1080P LED display & IP66 protection, enables you to generate revenue from outdoor advertising sales
- Implement targeted advertising campaigns by delivering personalized ad content to each individual EV charger

Multiple protocols and standards support
- IEC 62196, IEC 61851-1, IEC 61851-21-2, IEC 61000-3-11, IEC 61000-3-12, EN55032, EN55035, ENIEC61000-3-2, EN61000-3-3, EN 62368-1
- OCPP 1.6J & OCPP 2.0.1 full profiles support

Multiple network connections
- Ethernet, Wi-Fi and 4G
- 'Cascade' mode supporting network sharing

Collaboration with other businesses
- Identify and collaborate with businesses frequented by EV users, such as malls, restaurants, hotels, and tourist spots, to install charging stations, enhancing customer convenience and boosting brand visibility through revenue-sharing or branding agreements

Internet of Charger & Sustainable Energy

- OCPP 1.6J & OCPP 2.0.1
- ISO 15118 Plug&Charge
- Powering with Solar & Battery
- Dynamic Load Balancing
- POS Terminal Integrated

iocharger

Loudspeaker
Video or audio player

LED indicator
Breathing LED indicator to show live EV Charger status

RFID card reader
ISO14443 Mifare RFID card support

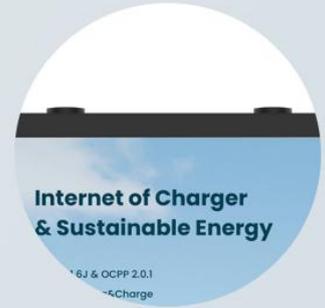**Charging Connector**
IEC 62196 Type-2 socket

Wi-Fi & 4G Antenna
Multi-direction network antenna

Internet of Charger & Sustainable Energy

· OCPP 1.6J & OCPP 2.0.1
· ISO 15118 Plug&Charge
· Powering with Solar & Battery
· Dynamic Load Balancing
· POS Terminal Integrated

55' LCD screen
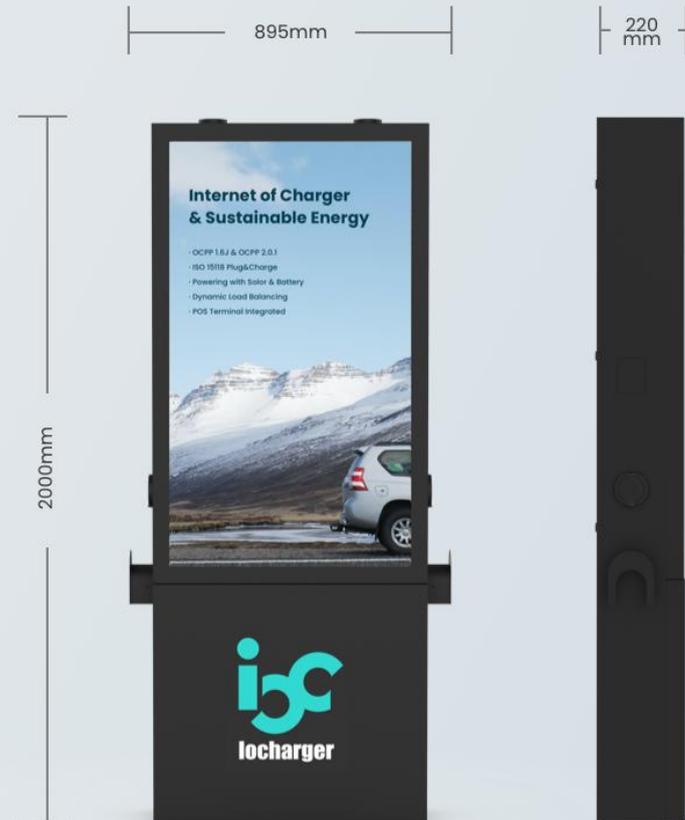EV Charger live status display, as well as advertising information with videos, pictures, texts, etc

Cable holder
Hanging charging cable

ioc
iocharger

Internet of Charger & Sustainable Energy

6J & OCPP 2.0.1
&Charge

SPECIFICATION

Model	IOCAP25C-7(AD)	IOCAP25C-22(AD)
Application	Commercial	
Frequency (Hz)	50/60Hz	
Current Output	32A Max	
Charging Connector	Type-2 socket x 2	
Network Connectivity	Ethernet, WLAN, Celluar	
Data Protocol	OCPP1.6J, OCPP2.0.1, ISO15118 Plug&Charge	
DLB	Dynamic Load Balancing	
RFID	ISO 14443 A/B	
Resolution	1920x1080	
Brightness	2500 nits	
Working Humidity	< 98% relative humidity, non-condensing	
Ingress Protection	IP66	
Mobile App	iOS/Android	
Certification	CE, IEC 61851-1, IEC 62196-2	
Dimension(mm)	2000x895x220	
Color	● black	

895mm

220 mm

2000mm

Internet of Charger & Sustainable Energy

- OCPP 1.6J & OCPP 2.0.1
- ISO 15118 Plug&Charge
- Powering with Solar & Battery
- Dynamic Load Balancing
- POS Terminal Integrated

ioC
iocharger

IOCHY2

Online remote maintenance system

- Online remote maintenance Independent remote monitoring and maintenance system to manage and diagnose the chargers even if it's connected to any 3rd party OCPP backend system

Multi-payment

- Credit card, RFID card, Mobile app, Pin-Code(OTP) and Plug&Charge (ISO15118)

OTA technology

- Firmware update via OTA

OCPP 1.6 J & OCPP 2.0.1

- Via 4G LTE/ Ethernet

CE TUV certified

- Fully compliant with EU regulations

Flexibility

- Available with single or dual connectors

POS terminal integration

- Nayax, Payter, PAX terminal integrated on chargeror separate installation

SPECIFICATION

Output Power	30kW-60kW
Output Voltage	150-1000V DC
Efficiency	≥94%
Mounting Type	Wall Mount (default) / Floor post (optional)
Dimension(mm)	355×690×770
Protection Class	IP54
Cooling	Forced air
Charging Connector Capacity	200A/1000V for CCS, 125A/500V for CHAdeMO, 250A/750V for GBT

8' TFT Touch Screen

EV Charger live status display

Status Indicator

Customize your favorite color and style

Charging Interface

CHAdeMO and GB/T, CCS1, CCS2

Door Opening Handle

Convenient inspection and maintenance of internal components

RFID Card Reader

ISO14443 Mifare RFID card support

Independent POS payment gateway

690mm

355mm

1600mm

iocharger

iocharger

IOC750T08

Online remote maintenance system

- Independent remote monitoring and maintenance system to manage and diagnose the chargers even if it's connected to any 3rd party OCPP backend system

Multi-payment

- Nayax, Payter, PAX terminal integrated on charger or separate installation
- Credit card, RFID card, Mobile app, Pin-Code(OTP) and Plug&Charge (ISO15118)

OTA technology

- Firmware update via OTA

OCPP 1.6 J & OCPP 2.0.1

- Via 4G LTE/ Ethernet

Smart charging

- Power output configuration and smart charging support

CE TUV certified

- Fully compliant with EU regulations

SPECIFICATION

Output Power	60kW-420kW
Output Voltage	150-1000V DC
Efficiency	≥94%
Dimension(mm)	1816x1007x640
Protection Class	IP55
Cooling	Forced air
Charging Connector Capacity	375A/1000V for CCS, 125A/500V for CHAdeMO, 250A/1000V for GBT

8' TFT Touch Screen

EV Charger live status display

Status Indicator

- Connector A charging
- Connector B charging
- Power
- Fault

Emergency Stop Button

Stop the EV Charger in an emergency to ensure the safety

Charging Interface

CHAdeMO and GB/T, CCS1, CCS2

RFID Card Reader

ISO14443 Mifare RFID card support

Installed on charger

Independent POS payment gateway

1007mm

640mm

1816mm

(Different power model with different size)

IOCHY3

Optimized for every location
- Charge up to 4 vehicles simultaneously

Multi-payment
- Credit card, RFID card, Mobile app, Pin-Code(OTP) and Plug&Charge(ISO15118)

OTA technology
- Firmware update via OTA

OCPP 1.6 J & OCPP 2.0.1
- Via 4G LTE/ Ethernet

Distribute power via load balancing
- Adjustable operating current & power

Online remote maintenance system
- Independent remote monitoring and maintenance system to manage and diagnose the chargers even if it's connected to any 3rd party OCPP backend system.

POS terminal integration
- Nayax, Payter, PAX terminal integrated on charger or separate installation

SPECIFICATION

Output Power	60kW 120kW DC	22kW-43kW AC
Output Voltage	150-1000V DC	
Efficiency	≥94%	
Dimension(mm)	1850x750x640	
Protection Class	IP54	
Cooling	Forced air	
Charging Connector Capacity	200A/1000V for CCS, 125A/500V for CHAdeMO, 250A/1000V for GBT	

8' TFT Touch Screen
EV Charger live status display

Status Indicator
- Connector A charging
- Connector B charging
- Connector C charging
- Power
- Fault

Emergency Stop Button
Stop the EV Charger in an emergency to ensure the safety

Charging Interface
CHAdeMO, CCS1, CCS2, GB/T

RFID Card Reader
ISO14443 Mifare RFID card support

Connector Identification
A: CHARGING PLUG DC
B: CHARGING PLUG DC
C: CHARGING PLUG AC

Installed on charger

Independent POS payment gateway

750mm

640mm

1850mm

Seamless Modular Design

- Unified design of hybrid inverter and battery storage
- Modular stacking up to 6 batteries

Easy Installation

- Easy one man handling
- Fast connector design

Extreme Safety

- Safer and longer life-span LFP batteries
- Individual cell level monitoring
- 6 points temperature detection & built-in Aerosol fire suppression module
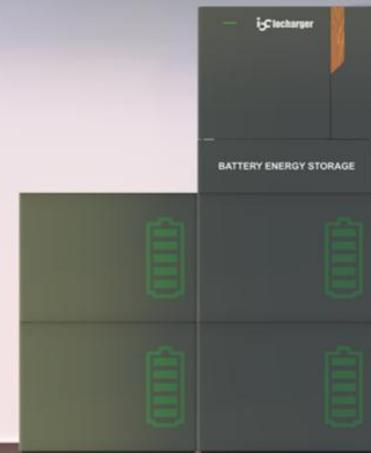
Cloud System

- Monitor and manage via Mobile App/backend system

High Efficiency

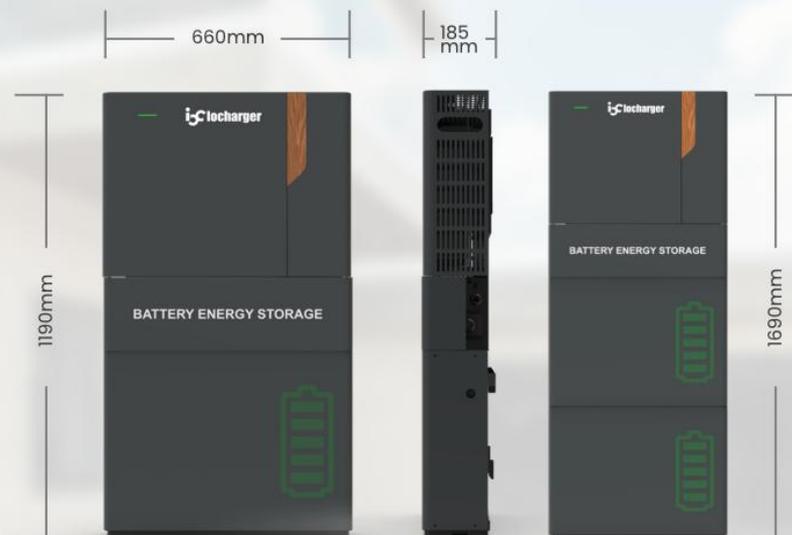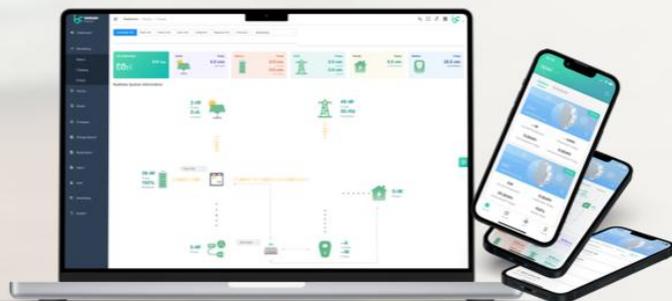- Integration with EV Charger for energy management

Maximize the energy efficiency and cost savings

- Recharge from free sunshine or low cost electricity
- Use stored energy when electricity price is higher
- Intelligent control of energy flows during peak/off-peak time
- Optimize EV charging efficiency and cost
- One-stop energy management via Mobile App

BATTERY ENERGY STORAGE

SPECIFICATION

Model	IOC ESS
Max. Charging	90%
Max. Discharge	≥95%
Dimension(mm)	1190x660x185(one set)
Protection Class	IP65
Cycle Life	10000 Cycles
Warranty	10 Years Product Warranty
Certificate	CE, UN38.3
Single Battery Capacity	5.12 kWh
Color	● Grey

Status Indicator
● Blue: Always on, Blinking
● Green: Always on, Blinking
● Red: Always on, Blinking 1.5s/2s

Hybrid inverter

Switch box

Battery storage system

660mm

185 mm

BATTERY ENERGY STORAGE

BATTERY ENERGY STORAGE

1190mm

1690mm

All-in-one
On-grid Lihub

All-in-one on-grid
- On-grid connection only
- High performance 3-level topology PCS, max efficiency 99.3%

Long Cycle life
- Integrated high-quality LFP cell with high cycle life > 6000 cycles
- Optimized thermal design, accurate temperature control, and air duct design ensure every cell always works in the most appropriate temperature range

Easy to expand
- Seamless and modular design
- Each independent working cabinet can be connected in parallel to expand the total capacity of the energy storage system

Intelligent BMS
- Use efficient and intelligent algorithms
- More accurate SO-X prediction function

Active safety system
- Multi partition, defect isolation
- Pack & Double level whole cabinet fire protection technology

Intelligent distribution system
- Integrated AC/DC power distribution system
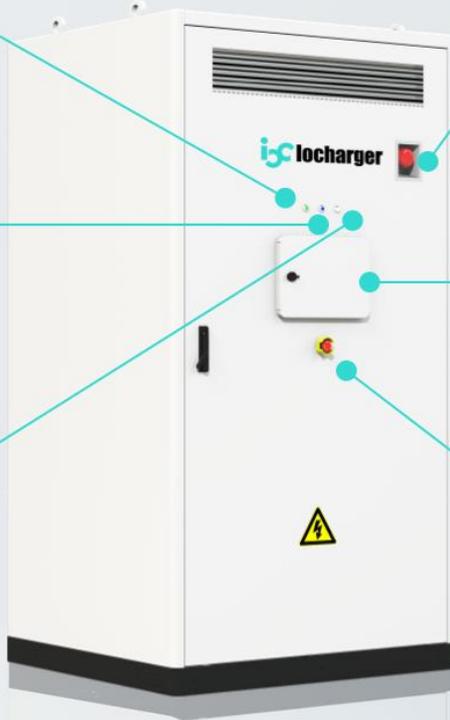- 4-level controllable switch & passive protection

Operation/
Alarm indicator

Charging indicator

Discharge indicator

Fire alarm
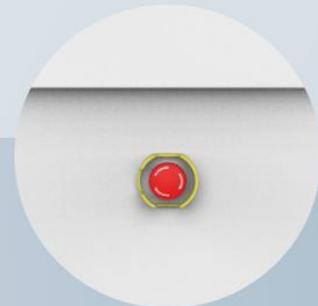
EMS

Emergency stop button

SPECIFICATION

Model	IOC120EP225	IOC60EP225	IOC30EP102
Power Rating	120kW	60kW	30kW
Cabinet Capacity	225kWh		102kWh
Cabinet Voltage Rating	806.4Vdc		512Vdc
Cell Parameters	LFP 3.2V/280Ah		LFP 3.2V/100Ah
Fire Protection System	Aerosols+ Heptafluoropropane		Aerosols
Dimensions(mm)	1250x1150x2360		1100x1150x2100
Rated Grid Voltage	400V (-15%~+10%), 3P+N+PE		
Protection Class	IP55		
Maximum Efficiency	≥90%		
Cooling Method	Industrial Air Conditioning		
Discharge Depth	95%DOD		
Operating Temperature	-25°C~55°C		
Communication Protocol	ModBus-TCP		

1250mm

1150mm

2360mm

iocharger

(Different model with different size)

All-in-one Hybrid Lihub

All-in-one hybrid
- On-grid, off-grid, solar connection available
- High performance 3-level topology PCS, max efficiency 99.3%

Long Cycle life
- Integrated high-quality LFP cell with high cycle life > 6000 cycles
- Optimized thermal design, accurate temperature control, and air duct design ensure every cell always works in the most appropriate temperature range

Easy to expand
- Seamless and modular design
- Each independent working cabinet can be connected in parallel to expand the total capacity of the energy storage system

Versatile application
- Built-in functionalities such as peak shaving, demand management, demand response, power expansion, emergency backup power, etc
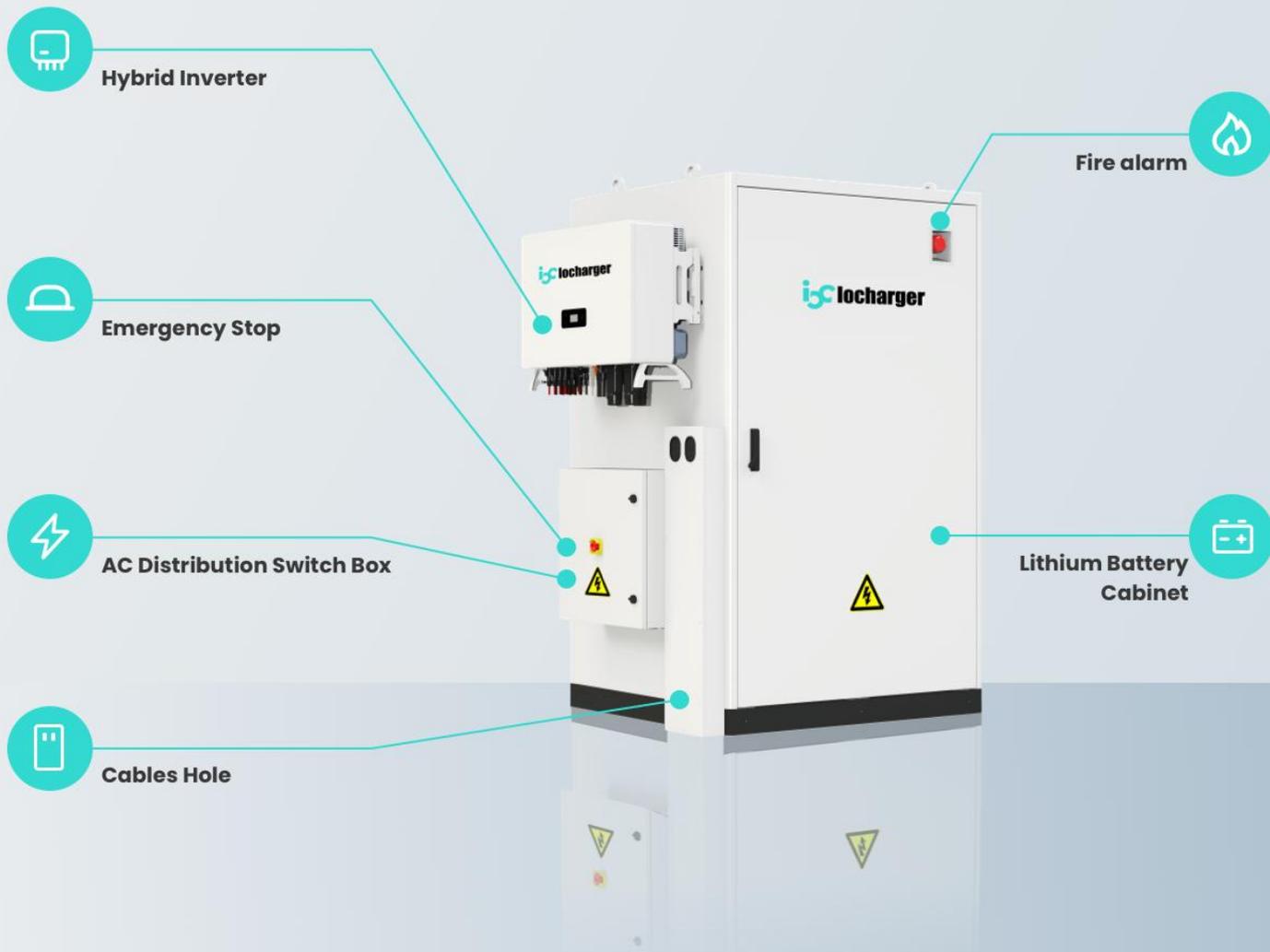- Low noise, suitable for populated areas

Safe & Efficient
- Independent cabinet and modular battery design for increased safety
- Higher efficiency and longer life cycle. Double layer fire protection system with intelligent temperature control.

Easy to operate & maintain
- All-in-one modular solution allows for quick installation time and minimizes maintenance required for local failures
- Cloud EMS allows easy remote monitoring and control of all LiHub units.

Hybrid Inverter

Emergency Stop

AC Distribution Switch Box

Cables Hole

Fire alarm

Lithium Battery Cabinet

iscIocharger

iscIocharger

SPECIFICATION

Model	IOC50EPH102	IOC50EPH193
Cabinet Capacity	102kWh	193kWh
Cabinet Voltage Rating	512Vdc	806.4Vdc
Cabinet Voltage Range	448~560Vdc	706~907Vdc
Dimensions(mm)	800x1150x2100+ 800x600x620	1250x1150x2100+ 800x300x620
Weight	1800kg	2500kg
Fire Protection System	Aerosols	Aerosols+ Heptafluoropropane
Max.Input Power	50kW	
MPPT Voltage Range	200~800V(Rated 620V)	
Max. Short-Circuit Current	30A/30A/30A/30A	
Power Rating	50kW	
Rated Grid Voltage	230V/400V	
AC Syetem	3P+N+PE	
Apparent Power	50kVA	
Voltage Distortion Rate	<3%(Linear Load)	
Overload Capacity	60kW/60s	
Maximum Efficiency	≥90%	

Discharge Depth	95%DOD
Protection Level	IP55
Cooling Method	Industrial Air Conditioning
Operating Temperature	-25℃~55℃
Communication Interface	RS485(WIFI/4G/GPRS Optional)

1150 mm

2100mm

1250mm

1150 mm

2100mm

800 mm

(Different model with different size)

IOC LITE & IOC CSMS

Smart EV Charging & Energy Management Platform
Optimize and scale your EV charging networks

IOC LITE

A non-commercial platform with energy management, Family/Group management and device management

- Device management including charging station, gateway and Energy Storage System, etc.
- Advanced Energy Management Solution
- Separate web portal for operator and user

IOC Lite mobile app for one-stop management

- Family and Company group management
- Charging schedules and reservation management
- Integration with Solar & Battery
- Plug and play support
- Bluetooth offline management
- Fast, Eco, Eco+ EV charging mode available

IOC CSMS

A powerful commercial platform based on OCPP 1.6 J and SaaS structure

- Cloud-based platform
- Flexible billing system
- Lower maintenance costs
- Load balancing and smart charging management
- Operator and Sub-operator management
- Charging station sharing externally to increase revenue
- Vehicle management to separate private and company vehicle billings
- Multiple voucher options
- Multiple price plans

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