

# ICAPIA AC Charging Pile

## User manual

SAPPHIRE SMART CHARGER



icapia

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### Welcome to ICAPIA - Empowering Your Electric Journey!

Congratulations on your new ICAPIA Home EV Charger! We're thrilled to welcome you and to help you fuel your electric adventures.

### Thank You!

Thanks for selecting ICAPIA as your charging solution. We are dedicated to ensuring you enjoy a seamless and dependable charging experience for your electric vehicle.

### Explore and Connect

To enhance your charging experience, scan the QR code on this page to visit our website for our tools, apps, and updates to help you make the most of your EV journey.



### Need Assistance or Have Feedback?

For any questions or feedback, reach out to us at **[support@icapia.com](mailto:support@icapia.com)**.

## Symbol meaning



"Non-recyclable" mark: located on the product, instruction manual or package, indicating that electrical and electronic equipment and its accessories should be treated separately from ordinary household waste. When scrapped, it should be treated as industrial waste, otherwise it may cause accidents.



Warning sign: indicates danger. Pay attention to the personal injury that may be caused by operation procedure or incorrect operation. Actions after the "warning" mark can only be performed when the conditions indicated by the condition are fully understood and satisfied.

The company is committed to the continuous improvement and update of the product, product hardware and software will continue to upgrade, the information provided is subject to change without prior notice.

# Product overview



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## Product function

1. Plug-n-charge and swiping card activated charging.
2. Scheduled charging: set up specific daily and hourly schedule according to your needs. It will automatically end when fully charged.
3. Status screen: real-time display of charging information and estimated time to full charge.
4. Safety features: overload protection, overvoltage and undervoltage protection, short circuit protection, overheating protection, emergency stop.

## Basic parameters

### Parameter

Working voltage	240V(L+N/L2+PE)
Frequency	60HZ
Maximum rated power	11kW
IP Rating	IP67

### Use environment

Working temperature	-22°F—+122°F
Working humidity	5%~95%HR
The cooling way	Natural air cooling

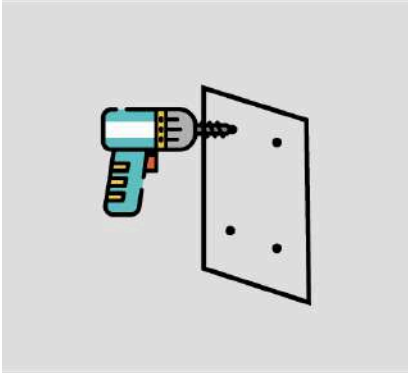
### Display function

Display parameters	Charge voltage, charge current, charge quantity, fault code
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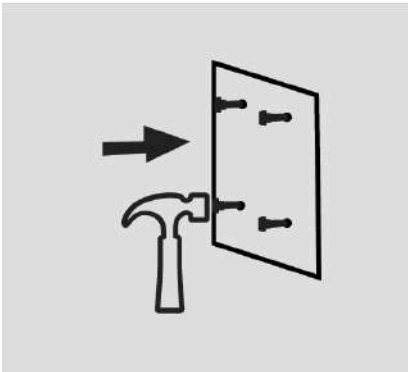
### Physical size

Fuselage size	9*13*4 inches
Installation mode	wall mounted

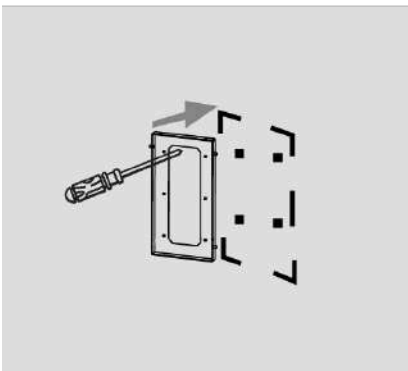
## Installation steps



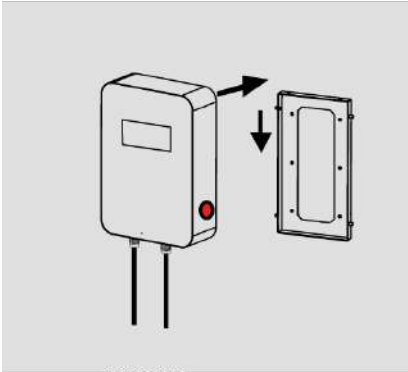
1. Drill holes using the drilling template.



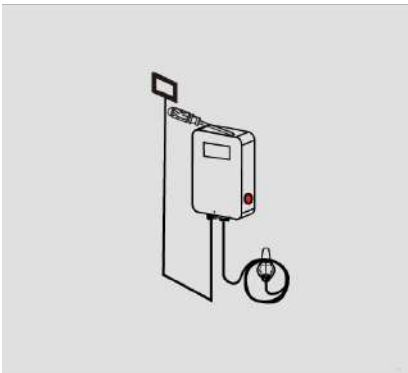
2. Hammer the M6.0 expansion tubes into the wall holes.



3. Use the screwdriver to fix the M4.0 self tapping screws to the backplane on the wall.



4. Install the charging pile on the backplane on the wall, insert the plug into the electric socket.



5. Lock the anti-theft screw on the top of the charging pile, and place the plug seat in an appropriate place.



## Wire Connection Instructions (for professional use only)

### Power input specifications:

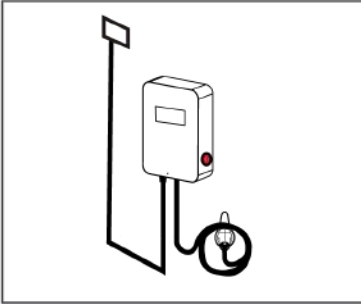
- The power distribution box at the input end of each AC charging pile shall be equipped with a leakage air switch with rated current no less than 50A.
- Select an adaptive molded case circuit breaker according to the current of the AC charging pile (50A required for a single ac pile).
- Power cables for AC charging piles (cables between air breakers and AC piles) must meet the rated capacity of at least 48A single-phase power is recommended. The recommended voltage range is  $AC230V \pm 10\%$ .
- 60Hz power supply, use 10AWG copper core cable; When installing AC charging piles, ensure that the PE cables are properly grounded.

### Note:

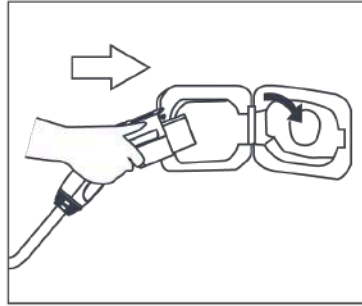


If a power distribution box is used, the L, N, and PE ends of the input cable of the plug correspond to the L, N, and PE ends of the circuit breaker respectively.

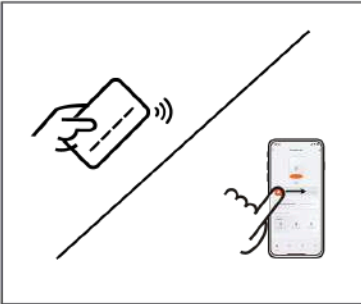
# Charging instructions



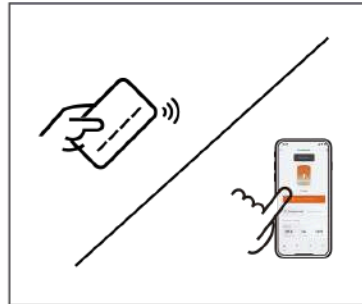
1. Make sure the charging device is properly connected to the power supply.



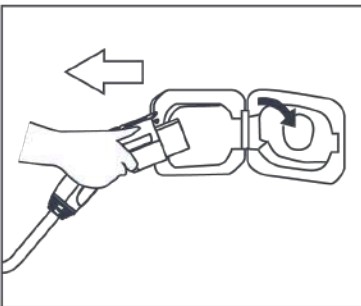
2. Plug the charging gun into your EV. Open the charging port via the on-board charging interface.



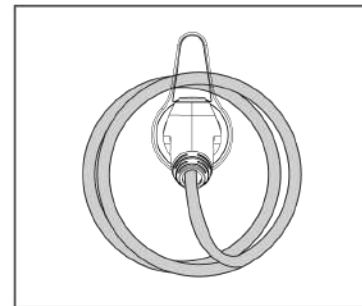
3. Use swipe card or APP to start.



4. Click the APP or swipe the card to end.



5. Unplug the charging gun from the EV.



6. Unplug the charging gun and put it into the holder

# Troubleshooting

(for professional use only)

The fault name	Possible causes
AC overvoltage	AC input voltage too high

- Rule out advice
1. If the voltage exceeds the set limit for a short time, wait for the power grid to restore itself to the normal voltage range.
  2. In case of long-term overvoltage, adjust the input overvoltage protection point by configuring software.

AC undervoltage	AC input voltage too low
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Rule out advice

If the voltage in this area is permanently low, the protection point of input undervoltage can be adjusted to as little as 90VAC by configuring software.

AC overcurrent

Excessive AC input current

Rule out advice

1. Immediately turn off the leakage/overcurrent protection circuit breaker of the power distribution box.
2. Check whether there is low impedance or short circuit between the output lines of the AC charger.
3. After the fault is rectified, power on the device again. If the fault persists contact us.

Overheating

The temperature in the AC charger is too high

Rule out advice

Check the AC charger installation environment. Check whether there are other heating devices nearby. Ensure that the ambient temperature is below 122 °F.

Excessive leakage current

High leakage current to the ground

Rule out advice

1. Immediately turn off the leakage/overcurrent protection switches in the power distribution box.
2. Check whether the output line of AC charger is damaged or has low impedance to the ground.
3. After the fault is rectified, power on the device again. If the fault persists, contact us.

Ground fault

The input/output is improperly grounded or the input L/N is inversely connected

Rule out advice

1. Immediately turn off the leakage/overcurrent protection switches in the power distribution box.
2. Check whether the input and output cables of the AC charger are grounded properly and whether the input L/N cables are connected in normal sequence.
3. After the fault is rectified, power on the device again. If the fault persists, contact us.

Communication fault  
(Internet mode)

Poor background communication of the AC charger

Rule out advice

1. Check whether the network cable is properly connected.
2. Check whether charging piles are correctly configured in the background.

Charging cable/gun connection fault

Charging cable/gun Connection exception

Rule out advice

1. Check whether the charging gun is connected correctly and reliably.
2. If the fault persists, contact us.

# Fault indicator prompt

Operating state	Red	Green	Blue
Standby		Stays On	
EV connected			Stays On
Charging			Flashing
Metering communication error	1 flash		
Under-voltage alarm	2 flashes		
Overvoltage alarm	3 flashes		
Ground fault	4 flashes		
Over current protection	5 flashes		
Permanent overcurrent protection	6 flashes		
Leakage protection	7 flashes		
Over temperature protection	8 flashes		
Emergency stop button	9 flashes		
RFID failure	10 flashes		
Relay failure	11 flashes		
Plug lock fault	12 flashes		
Memory failure	13 flashes		
Clock exception	14 flashes		

# Fault code

## Fault display

## Possible causes

Overheating fault	<ol style="list-style-type: none"><li>1. The ambient temperature exceeds the operating temperature specification.</li><li>2. AC power input voltage too high.</li><li>3. Internal charger failure.</li></ol>
Device overvoltage	<ol style="list-style-type: none"><li>1. AC power input voltage too high.</li><li>2. Internal charger failure.</li></ol>
Device undervoltage	<ol style="list-style-type: none"><li>1. AC power input voltage too low.</li><li>2. Internal charger failure.</li></ol>
Meter unconnected	<ol style="list-style-type: none"><li>1. Metering module failure.</li></ol>
Emergency fault	<ol style="list-style-type: none"><li>1. Emergency stop button pressed.</li><li>2. Emergency stop button damaged.</li></ol>
Electric leakage fault	<ol style="list-style-type: none"><li>1. Residual current monitoring sensor failure.</li><li>2. Residual current leakage occurs.</li></ol>
RFID unconnected	<ol style="list-style-type: none"><li>1. Card reader failure.</li></ol>
Grounding Fault	<ol style="list-style-type: none"><li>1. Ground Fault.</li></ol>
Overcurrent fault	<ol style="list-style-type: none"><li>1. Overload protection.</li></ol>