

OCULAR






LTE

# USER MANUAL & INSTALLATION GUIDE

OC20-BA-7KW / OC20-BC-7.2KW  
OC20-BA-22KW / OC20-BC-22KW

Version 2.3

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## IMPORTANT!

**Read this entire document before installing or using the charger. Failure to do so or to follow any of the instructions and warnings in this document can result in fire, electrical shock, serious injury, or death.**

**The charger must be installed by a qualified electrician.**

**The entire installation must comply with the latest “AS/NZS3000:2018 & AS/NZS:3008 standards”**

# Welcome to your Ocular LTE!



[Resource Library](#)



[FAQs](#)

Follow the links or scan to QR codes to access all our user manuals and technical documents. You will also find answers to the most common questions we receive.

# USER MANUAL

## SECTION 1

### HOW TO CHARGE - LTE

#### 1. STARTING A CHARGING SESSION

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##### LTE socket model

1. Grab a charging cable and plug each end into their respective ports.
2. The charging session will start automatically once it has been plugged in.



##### LTE tethered model

1. Plug the attached charging cable into your car port.
2. The charging session will start automatically once it has been plugged in.



#### 2. STOPPING A CHARGING SESSION

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The charging sessions can be terminated either by the car or the charger.

- To stop charging via the car please consult your car manual.
- To stop charging via the charger, simply press the silver button on the side of the charger.

#### 3. CHANGING THE CHARGING SPEED

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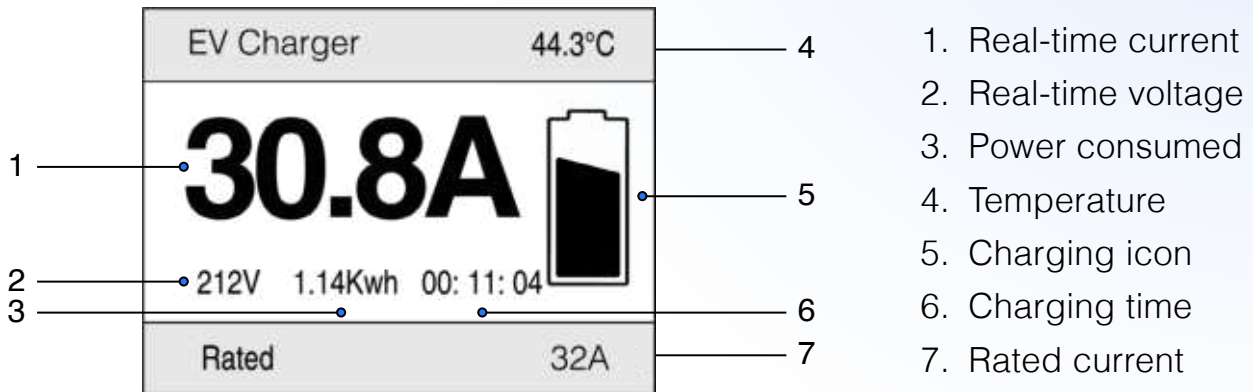
The charging speed of the charger can be changed by pressing the silver button on the side of the charger before plugging the cable into the car. Charging speed will be shown on the screen of the charger when the button is pressed.

## SECTION 2

# FUNCTIONALITIES OF THE CHARGING SCREEN

### SINGLE PHASE

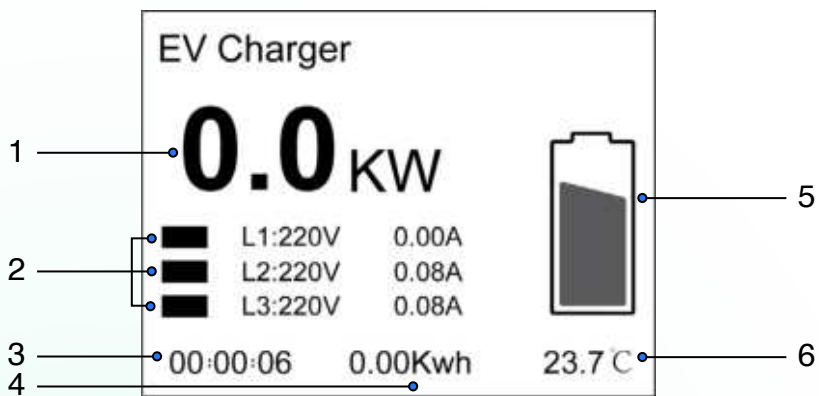
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1. Real-time current
2. Real-time voltage
3. Power consumed
4. Temperature
5. Charging icon
6. Charging time
7. Rated current

### THREE PHASE

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1. Real-time power
2. Three Live Wire data
3. Charging Time
4. Power Consumption
5. Charging Icon
6. PCB Temperature

# SECTION 3

## TROUBLESHOOTING

PROBLEMS	SOLUTIONS
The charger will not charge the car	<ol style="list-style-type: none"> <li>1. Unplug the charger from the car and then plug it back in, making sure that the plug is pushed all the way into the socket.</li> <li>2. Check if your car is fully charged or if there's a charging limit set on your car.</li> </ol>
Leakage protection warning	<ol style="list-style-type: none"> <li>1. Check if there is any foreign objects or water in the charging plug or in the vehicle socket.</li> <li>2. Switch the charger off and on again, if the fault persists, please stop using the charger and contact Ocular Charging immediately.</li> </ol>
Over temperature warning	The current temperature is too high for the charger to safely operate, charging session will restart automatically once the temperature returns to normal operating range.
CP error warning	<ol style="list-style-type: none"> <li>1. Unplug the charger from the car and then plug it back in, making sure that the plug is pushed all the way into the socket. Make sure that the plug head and pins are clean and free of debris.</li> <li>2. If the fault persists, please contact us for further information.</li> </ol>
Over current warning/ Short circuit warning	Contact your installer or Ocular charging for more information.
My car charges slower than expected	<ol style="list-style-type: none"> <li>1. The current limit may be set incorrectly on the charger.</li> <li>2. View the current rated Amps on the charger screen.</li> <li>3. While the charger is not plugged into a vehicle, press the silver button on the right side of the charger to cycle through the available charging rates.</li> <li>4. Double check if there's a charging current limit on your car.</li> <li>5. EVs can draw up only a certain kW. It depends on the car itself, but most of the cars available today are only drawing up to 11kW but the EV chargers we have can be up to 22kW for future purposes.</li> </ol> <p>Please note: There may have been a hard limit set by the electrician according to the power available at your house.</p>

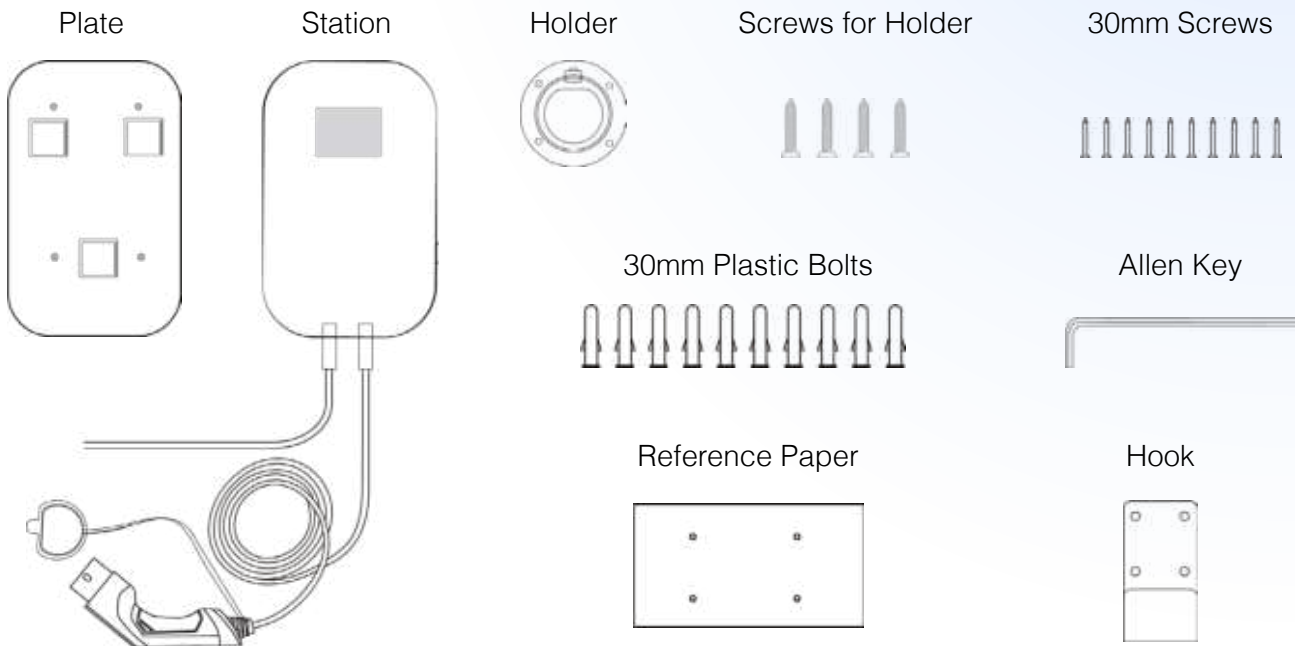
# INSTALLATION GUIDE

SPECIFICATIONS				
Model Number	OC20-BA-7.2kW	OC20-BC-7.2kW	OC20-BA-22kW	OC20-BC-22kW
Power Output	7.2kW (1- Phase)		22kW (3- Phase)	
Charging Connector	Type-2 Socket	6m Type-2 Cable	Type-2 Socket	6m Type-2 Cable
Display	3.5" LCD Screen + LED indication lights			
Frequency (Hz)	50Hz			
Input and Output Voltage	230V ± 20% per phase			
Input and Output Current	32A MAX per phase			
Operating Temperature	-30 to +55 in operation			
Storage Temperature	-40 to +75 in storage			
Working Humidity	95% relative humidity, non-condensing			
IP Performance	IP66			
Internal RCD	Type A RCD + 6mA DC			
Electrical Protection	Over current, Short circuit, Over voltage, Under voltage, Ground fault, Lightning surge, Over temperature, Earth leakage			
Meter	Integrated Energy Meter			
Standby Power Consumption	<8W			
Mounting	Wall mountable			
Dimension (H x W x D, mm)	295 x 195 x 65 mm			
Net Weight	5.5 kg	7.7 kg	5.5 kg	7.7 kg
Recommended Cable Size (50m run)	40A single phase type A RCBO		40A three phase type A RCBO	
Recommended Circuit Breaker	10mm <sup>2</sup> 2C+E		10mm <sup>2</sup> 4C+E	
Certification	CE, TUV, FCC, CSA, RoHS, RCM			
Warranty	2 years			

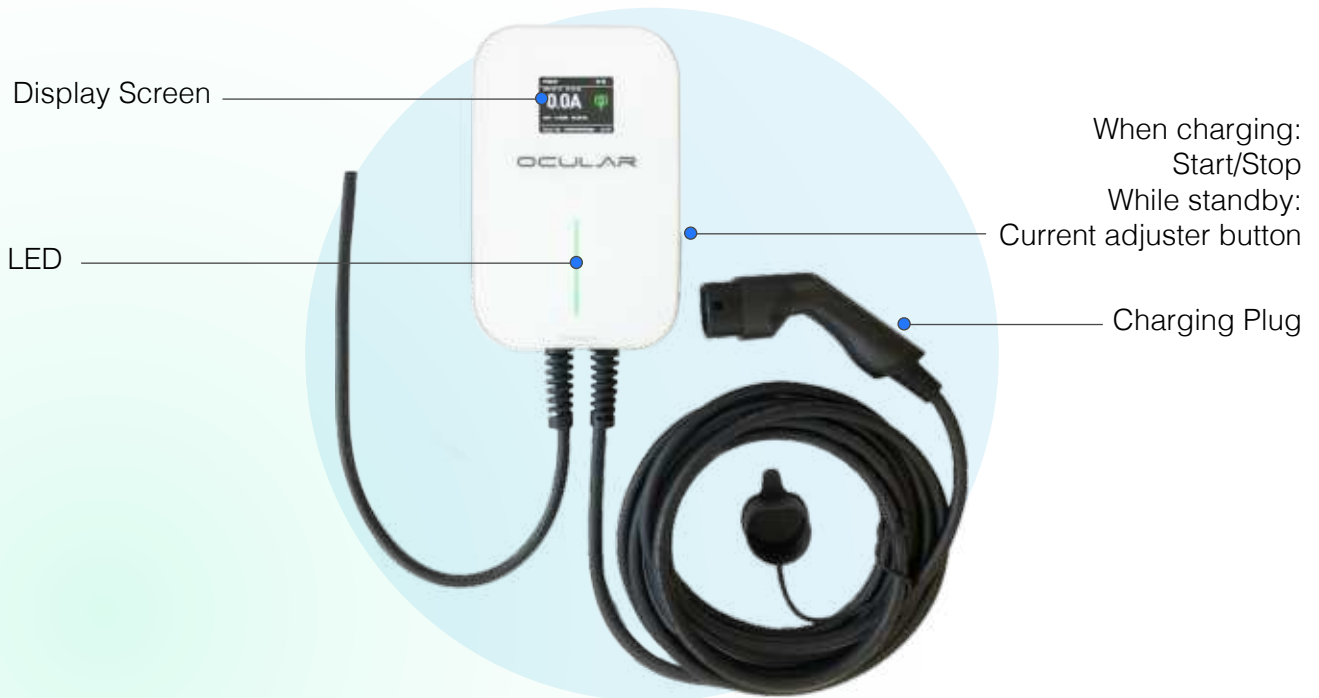
# OCULAR LTE OVERVIEW

## ACCESSORIES OF TETHERED MODEL

It is the installer's responsibility to provide and install a suitable RCBO, cabling and isolator switch to complete the installation.



## PRODUCT OVERVIEW





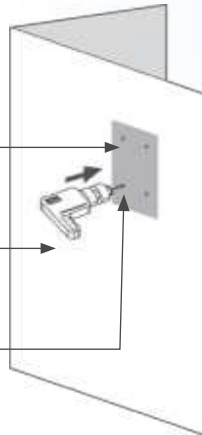
# INSTALLATION GUIDE

1

Place **reference paper** on wall

Wall

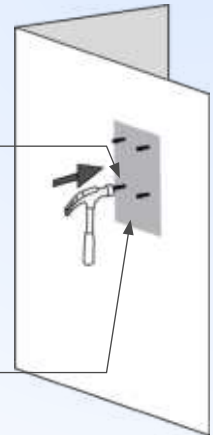
Drill the holes according to the **reference paper**



2

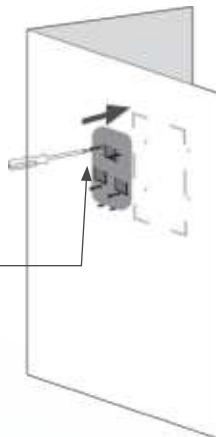
Hammer the **30mm plastic bolts** into the holes

Take down the **reference paper** from the wall



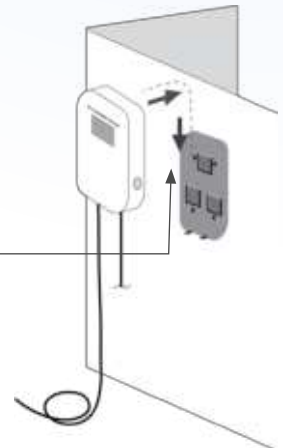
3

Fix the **plate** with **30mm screws** on the wall



4

Mount charger onto the **plate**



5

Isolation switch

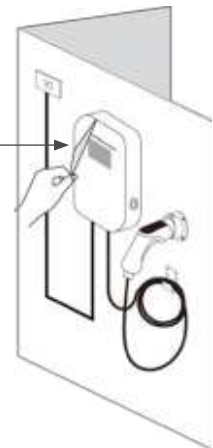
This is what the charger, holder and isolator should look like after installation.

Install the **hook** and **holder** nearby the charger.



6

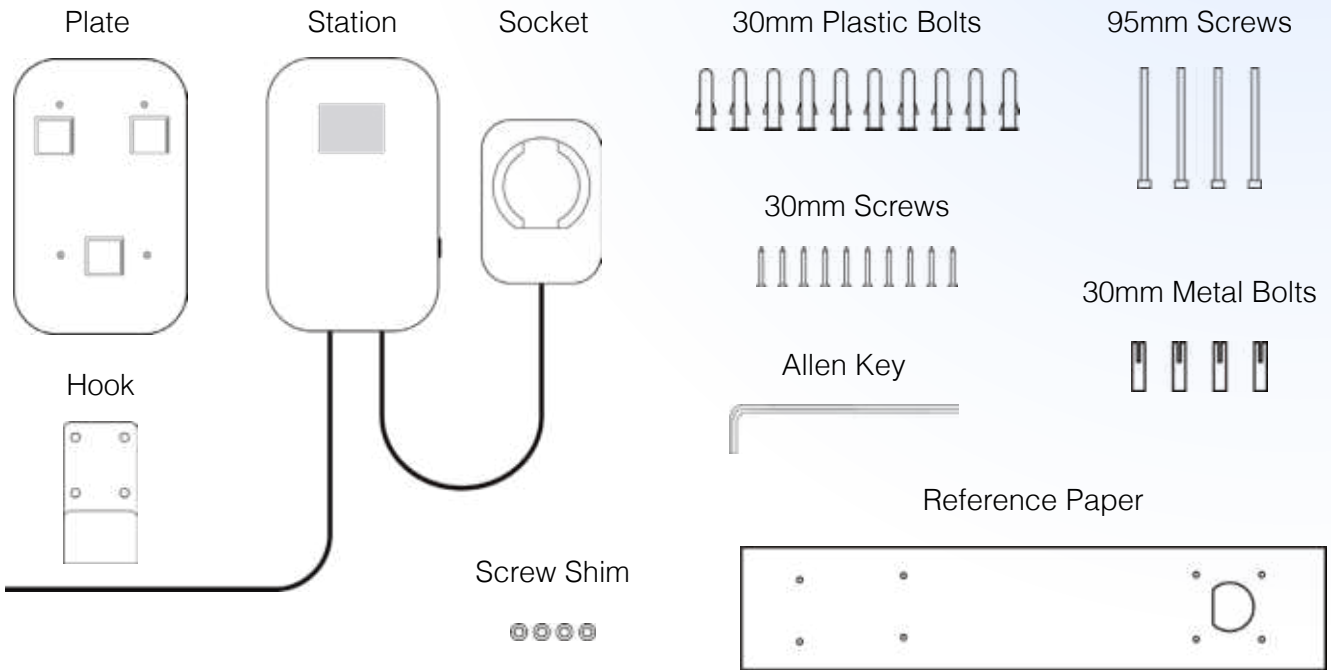
Peel off the plastic protector



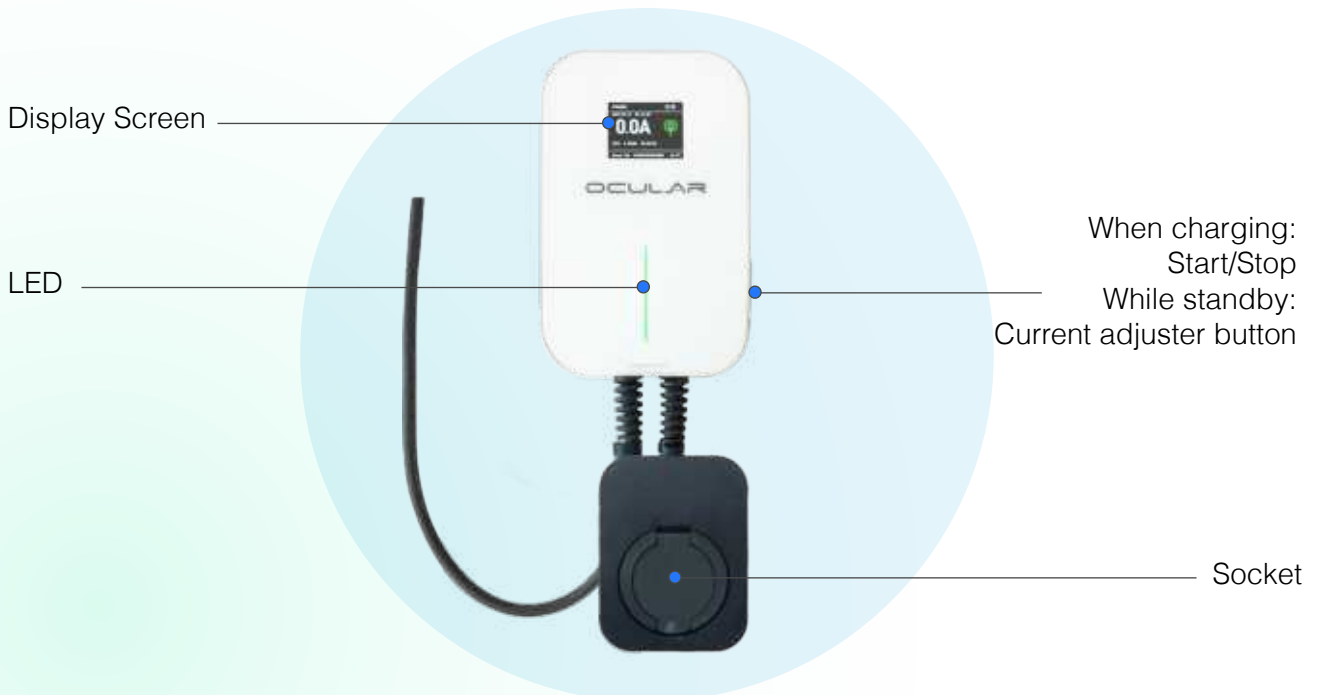
# OCULAR LTE WALLBOX OVERVIEW

## ACCESSORIES OF UNIVERSAL MODEL

It is the installer's responsibility to provide and install a suitable RCBO, cabling and isolator switch to complete the installation.



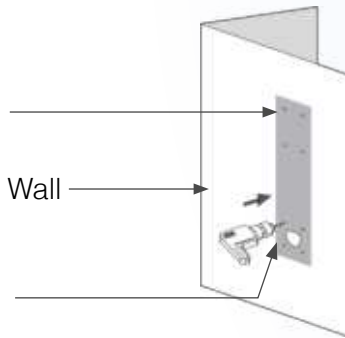
## PRODUCT OVERVIEW



# INSTALLATION GUIDE

1

Place **reference paper** on wall



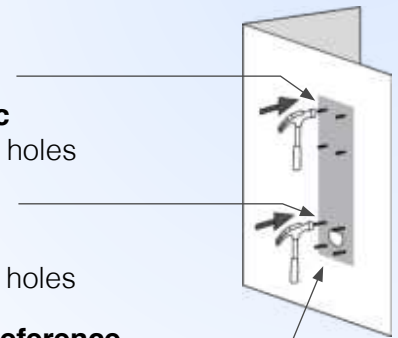
Drill the holes according to the **reference paper**

2

Hammer the **30mm plastic bolts** into the holes

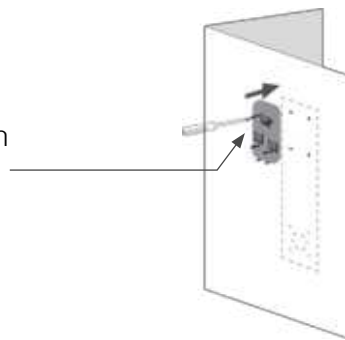
Hammer the **30mm metal bolts** into the holes

Remove the **reference paper** from the wall



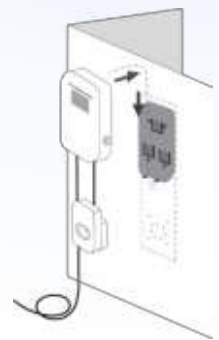
3

Fix the **plate** with **30mm screws** on the wall



4

Mount charger onto the back **plate**



5

Take out the **plate** from the body of charging **socket**



6

Fix the **socket** on the wall with **95mm screws** by **allen key** and put the **plate** back onto the body of the **socket**

**95mm screws**

**Screw shim**

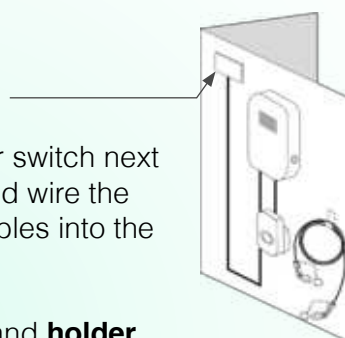


7

Isolation switch

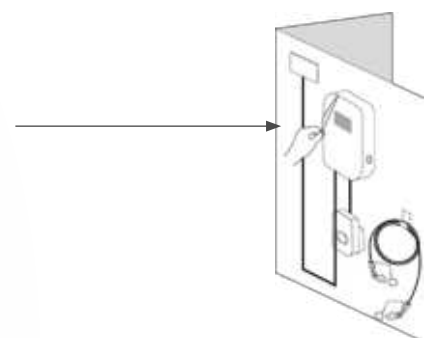
Install the isolator switch next to the charger and wire the power supply cables into the isolator

Install the **hook** and **holder** nearby the charger.



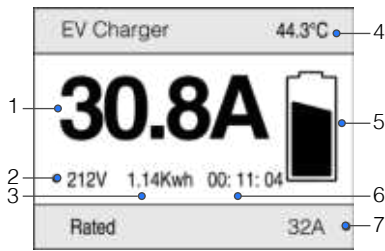
8

Peel off the plastic protector

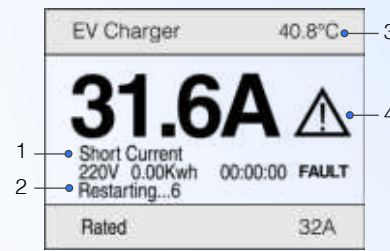


# ILLUSTRATION OF SCREEN AND LED

## Single Phase

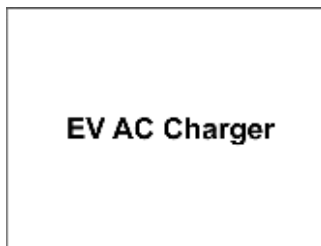


1. Real-time current
2. Real-time voltage
3. Power consumed
4. Temperature
5. Charging icon
6. Charging time
7. Rated current

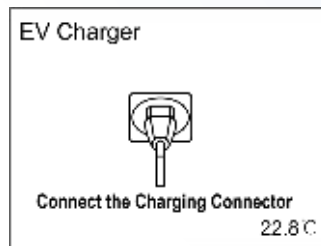


1. Cause of fault
2. Automatic restart
3. Temperature
4. Fault icon

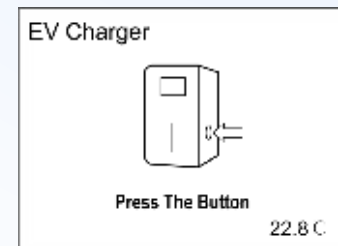
## Three Phase



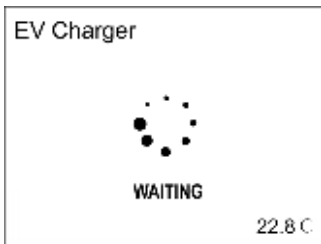
Start-up screen  
(the version no. is for reference only)



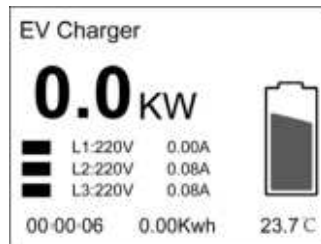
The charger is ready to be connected to the car



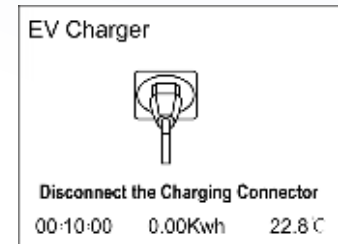
Start charging from App or Button



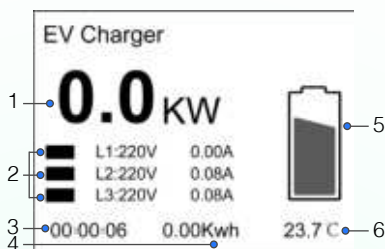
Charging process is starting



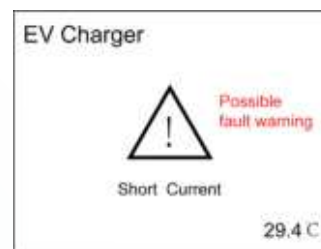
Data displayed during the charging process



Charging has stopped and car can be unplugged



1. Real-time power
2. Three Live Wire data
3. Charging Time
4. Power Consumption
5. Charging Icon
6. PCB Temperature



1. Emergency stop
2. Over Current
3. Over Temperature
4. Leakage protection
5. Short Current

Instruction of LED status	Idle	Connected	Charging	Finished	Error
	Off	Continuous light	Rolling	Continuous light	Red flashing

**Note:** The Ocular LTE will automatically restart when minor problems occur.

For serious failures, the system cannot automatically recover. In order to remind user of this failure, the system will automatically countdown 10 seconds to restart.

## ADJUSTMENT OF MAXIMUM CHARGE RATE

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The maximum charge rate of the charger can be permanently set. This is useful when the charger is installed at a location where the default maximum of 32amps cannot be safely supplied, or in areas where the maximum rate is restricted by local regulations. Once the maximum charge rate has been set, it will remain set even when the charger is turned off and on again. The user will still be able to select a charge rate between the minimum rate (8A) and the maximum rate. They can do this by pressing the button on the side while not plugged into a vehicle.

To permanently set the maximum charging rate of the charger:

1. Switch off the charger using the isolation switch.
2. Switch on the charger using the isolation switch.
3. Wait for the system self-check to complete (5 second countdown timer in green text).
4. Within 20 seconds of the charger turning on, press the button on the side of the charger 12 times in quick succession. On the 12 button press, do not release but hold the button down for 5 seconds.

Note: If you miss the window, start the process again from Step 1.

5. A new screen will be displayed showing a warning that only licensed electricians are authorized to set the maximum charging limit.
6. You will have twenty seconds to select a new maximum charging speed. Press the button on the side of the charger to cycle through the available options. The options include, 8A, 15A, 20A, 24A, 32A.
7. Once the required maximum rate is selected, wait 20 seconds and the selection will be automatically confirmed.
8. Verify that the maximum rate has been correctly selected by checking the bottom right-hand corner of the screen. It should read "MAX xxA" with the selected maximum Amp value being displayed.

Caution: The maximum charging rate can only be set and modified by an authorised and licensed electrician.

Changing the maximum charging rate without authorisation will void warranty and may go against local regulations.

## SAFETY WARNING

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Failure to follow instructions may result in danger!

- Regularly check whether the charging station has visible damage.
- Make sure that all safety facilities are available at all times and are tested regularly to ensure they can operate normally.
- If a ground fault occurs, it must be assumed that the cable carries voltage. Isolate the charger from power, via circuit breaker or isolator, before inspecting the charging station.
- Persons who install and use charging stations must obey the principles and regulations mentioned to ensure personal and equipment safety.
- Before powering on the device, please confirm that the device is properly grounded to avoid unnecessary accidents.
- All tools' unnecessarily exposed metal parts should be insulated to prevent them from touching the metal frame to avoid short circuits.
- Do not modify, retrofit, or change any part by yourself under any circumstances.
- To ensure the service life and stable operation of the charging station, the operating environment should be kept clean as possible with a relatively stable temperature and humidity. The charging station must not be used in a flammable environment or environments with volatile gas.
- Be sure to confirm that the input voltage, frequency, circuit breakers and other conditions of the device meet the specifications before the device is powered on.

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