

OCULAR



DC TITAN USER MANUAL

IOC030HY1 / IOC060HY2

Version 2.0

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ABOUT THIS MANUAL

This manual provides the requirements and procedures for the installation, commissioning, operation, and basic maintenance of the Ocular Titan IOC030HY1/IOC060HY2 DC EV Charger.

This charger is designed for use with electric vehicles equipped with lithium-ion traction batteries. It delivers DC output up to the unit's rated power and is designed to maintain accurate output voltage and current regulation within its specified operating range. The display is the primary user interface and provides operating status and information, including charging status, vehicle/battery communication status, and fault/alarm indications.

Read this manual in full before commencing any work. All personnel must understand the safety notices, installation prerequisites, and operating instructions prior to installation to ensure safe operation and successful deployment.

This document is intended for:

- **Owner / Site Operator** (responsible for routine operation and basic checks)
- **Installation and Commissioning Personnel** (licensed/qualified electricians and authorised installation engineers)

Revision History

Version	Date	Description
V1.0	15/May/2023	Initial Version
V2.0	1/January/2026	Comprehensively revised and expanded

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The specifications, descriptions, and illustrations in this document are based on information available at the time of publication.

Ocular reserves the right to modify product features, specifications, and documentation at any time without notice.

SERVICES AND SUPPORT

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1. SAFETY AND OPERATING CONDITIONS

1.1 SAFETY INFORMATION

All safety instructions are mandatory. Failure to follow the requirements in this manual may result in injury, equipment damage, and/or warranty invalidation.

1.2 PERSONNEL REQUIREMENTS

The charger is electrical equipment and presents electrical hazards. Installation, electrical works, commissioning, and internal service activities shall be performed only by authorised and suitably qualified personnel. It is the responsibility of the installer to adhere to all local and relevant standards and regulations.

- Installation and electrical works (including selection/installation of circuit breaker and power distribution infrastructure) shall be performed by a certified electrician or other qualified person as required by local regulations.
- Persons who are not certified to handle low-voltage electrical equipment (expected voltages 15V AC and 100-1000VDC) are not permitted to open the charger, access internal components, or modify any part of the charger infrastructure without authorisation.
- Prior to any installation or service work, apply Lockout/Tagout (LOTO) and verify isolation (“prove de-energised”) in accordance with site safety procedures.
- Use appropriate PPE as required for the task and site (e.g., insulated gloves, eye protection, arc-rated clothing where applicable).

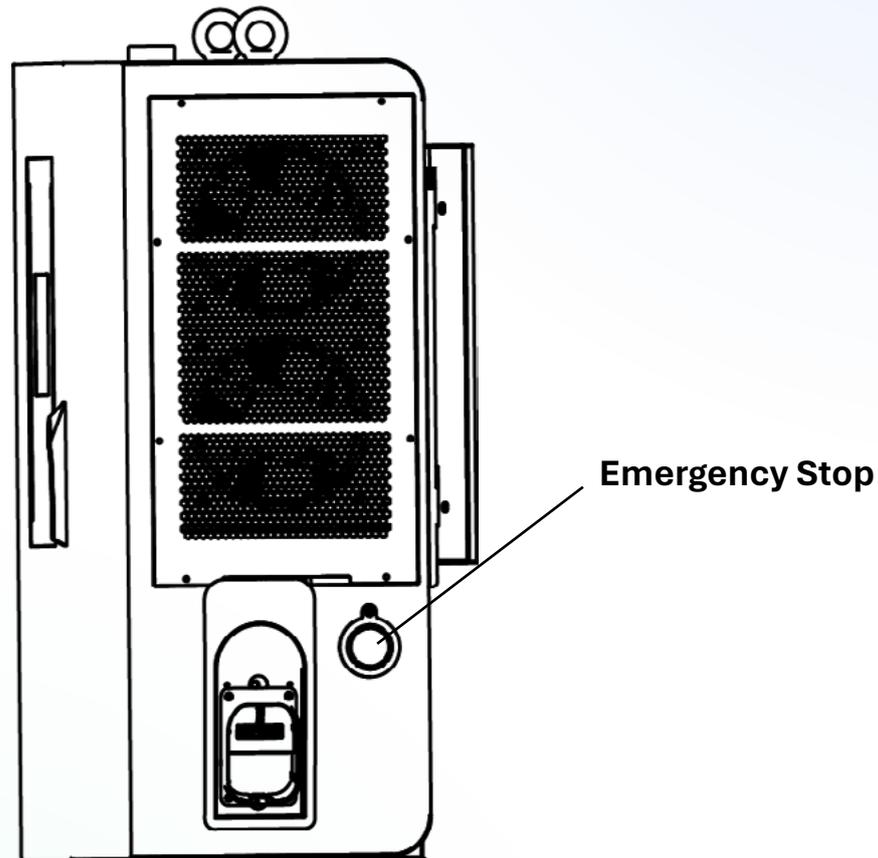
DANGER: Before energising the charger, ensure a reliable connection between the equipment enclosure (shell) and protective earth (PE/ground). Inadequate earthing may create an electric shock hazard.

1.3 EMERGENCY STOP

The charger is equipped with a red Emergency Stop (E-Stop) button to stop charging under urgent conditions.

Emergency Stop:

In urgent circumstances, press the red **Emergency Stop button** (if it is safe to do so) to stop the charging session immediately



If any of the following occurs, isolate power and contact qualified service personnel:

- Abnormal sound inside the charger
- Abnormal smell or smoke inside the charger
- No indication or response on the display screen
- An unrecoverable failure alarm on the charger

After an emergency stop or abnormal condition, do not return the charger to service until the cause has been identified and the charger is confirmed safe for operation by authorised personnel (such as site manager, charger operator etc.)

To reenale the charger after the emergency and the e-stop has been activated, rotate the button clockwise to unlock it and return to normal operation.

2. PRODUCT OVERVIEW

2.1 PRODUCT IDENTIFICATION

This manual covers the **IOC030HY1** and **IOC060HY2** integrated DC EV chargers. The two models are differentiated primarily by their **rated output power**:

- **IOC030HY1** — **30 kW** DC charger with single charging cable.
- **IOC060HY2** — **60 kW** DC charger with either single or dual charging cable.

Depending on the configured variant, the charger may be supplied with a **CCS2 (European standard)** DC charging interface and/or a **CHAdeMO (Japanese standard)** DC charging interface. The applicable connector type is identified by the connector assembly and interface labelling provided on the unit.

For confirmation of the installed configuration, refer to the **model designation** (IOC030HY1 / IOC060HY2) and the **rating information** provided with the product.

The Ocular Titan supports both **wall-mounted** and **free-standing pedestal** installations. This installation guide provides instructions for each configuration.



2.2 PRODUCT DESCRIPTION AND KEY FUNCTIONS

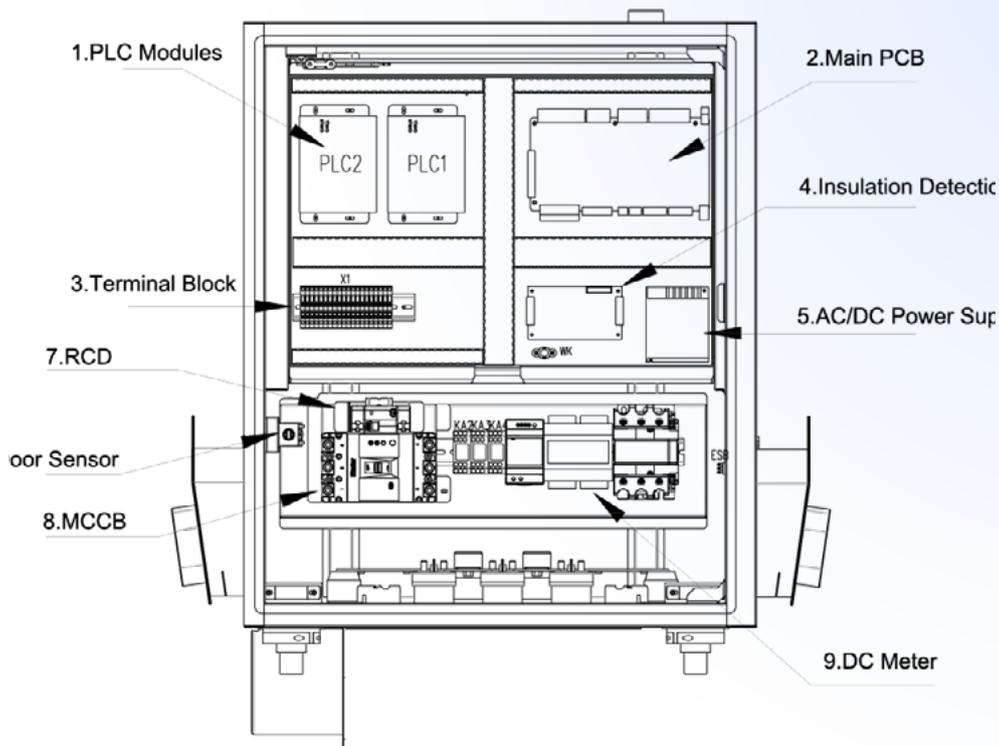
The Ocular Titan series is a DC charger designed to provide controlled DC output for electric vehicles equipped with lithium-ion traction batteries.

Key functional characteristics described in the existing manual include:

- **DC fast charging capability** within the charger's rated output range.
- **Single-connector full output operation:** when one connector is in use, the charger can deliver the maximum available charging power to a single vehicle (subject to vehicle/BMS limits).
- **Dual-connector operation with power sharing** (where two cables are fitted): when two connectors are used simultaneously, the charger can allocate/split available power between two vehicles (subject to configuration and system limits).
- **Display** providing operational status, charging status, and fault/alarm indications.
- **Emergency Stop button (E-Stop)** — used to stop charging in an emergency (not intended for normal power-off).
- **Indicator light(s)** — provide visual indication of power status, charging status, connector status, and fault/alarm status.

2.3 CHARGER INTERNAL LAYOUT

The charger is a cabinet-type DC charger comprising a power enclosure and a display/door assembly. The internal architecture is divided into a **control and protection compartment** (signal processing, control PCB, metering, auxiliary supply, and protective devices) and a **front-door display compartment** (display control, communications, and indicator/LED assemblies).

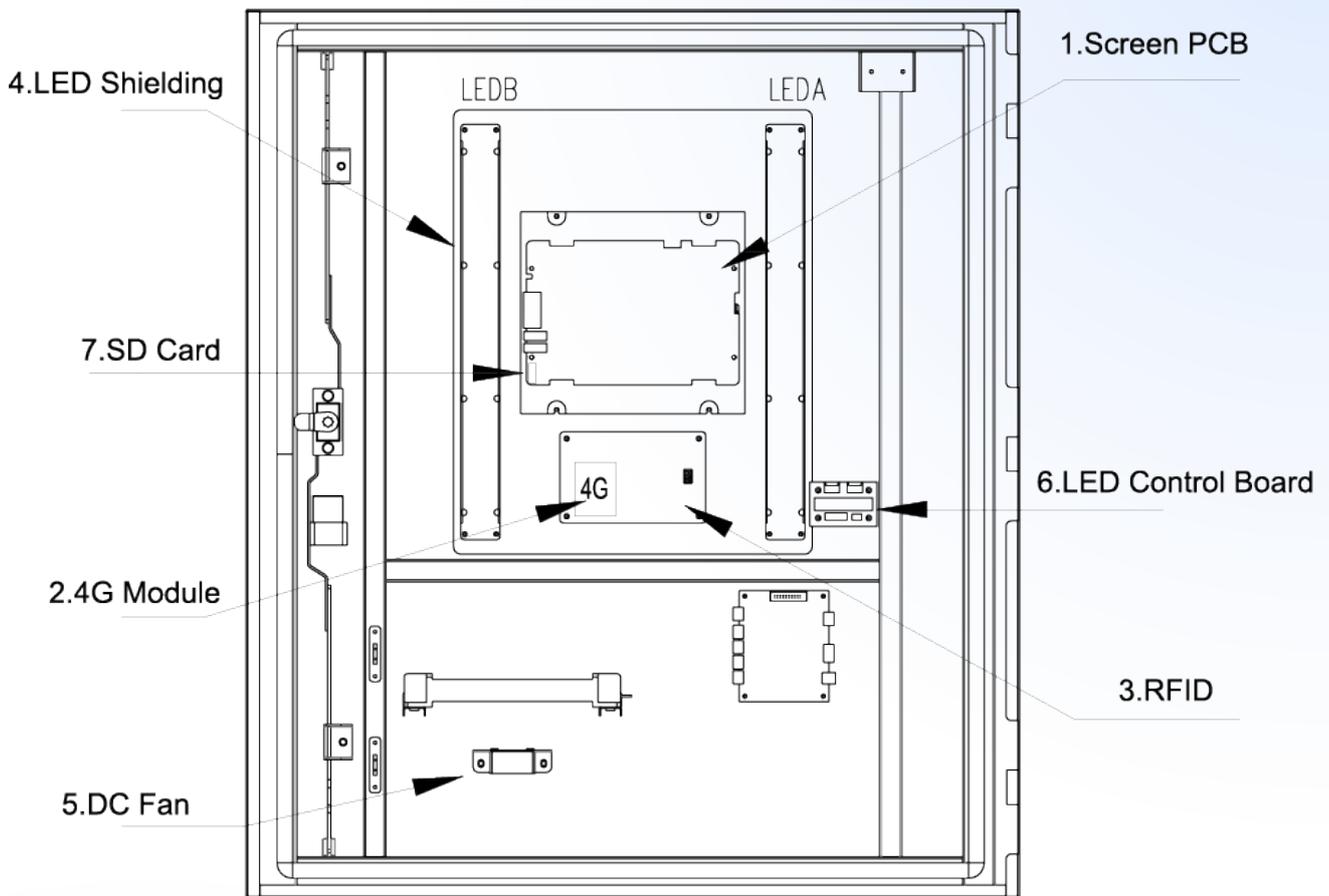


Internal component layout - Charger

Power and control enclosure (main cabinet):

The main cabinet houses the PLC modules, main PCB, terminal block, insulation detection circuit, AC/DC auxiliary power supply, door-open sensor, RCD, MCCB, and DC meter.

Component Name	Function
1. PLC Modules	Translates readings from DC charging cable for the main PCB
2. Main PCB	Coordinates all functions of DC Charger
3. Terminal Block	Junction for wiring between different components
4. Insulation Detection	Checks charging parameters before engaging contactor to start charging
5. AC/DC Power Supply	Circuit Breaker for microelectronic components
6. Open Door Sensor	Detects if the door is open
7. RCD	Overcurrent protection for microelectronics
8. MCCB	Overcurrent Protection for charging circuitry
9. DC Meter	Monitors power, current and voltage going through charger



Front-door assembly (Display and communications):

The front-door assembly contains the screen PCB, 4G module and RFID PCB, LED shielding and DC cooling fan, SD card, and the LED strip control board.

Component Name	Function
1. Screen PCB	Controls what is displayed on LED Display
2. 4G Module	Enables 4G Connectivity for the charger
3. RFID	RFID PCB
4. LED Shielding	Protects LEDs
5. DC Cooling Fan	Remove heat from components
6. LED Control Board	Indicates the colour and flashing speed commanded by the main PCB.
7. SD Card	Store charger logs

2.4 TECHNICAL SPECIFICATIONS

Specification		
Model Number	IOC030HY1	IOC060HY2-EE
Rated Power Output	30kW	60kW
Number of Charging Ports	1	2
Plug Type	CCS2 as standard, other options available on request	
Rated Input Voltage	3-Phase 400V ± 15%	
AC Input Current @400V (Amps/phase)	47	92
Max AC Input Current (Amps/phase)	55	108
Frequency (Hz)	50/60Hz	
Power Factor	≥0.99	
Efficiency	94%	
Input Cable Type	3P + N + PE	
Output Voltage	150V-1000V DC (vehicle dependent)	
Output Current	Max 100 Amps DC per port	Max 200 Amps DC per port
Display	8" TFT LCD Touch Screen (IK08)	
Charging Cable Length	5m Cable as standard. Other cable lengths available on request	
User Authentication	Mobile app, physical button, RFID, Autocharge	
RFID Reader	ISO14443 Type A cards compatible	
Credit Card Payment Module	Optional Nayax credit card module upgrade	
Emergency Stop	Push Button	
OCPP	OCPP1.6J, OCPP2.0.1	
Communication Interfaces	Ethernet, 4G (Standard size sim), Modbus (TCP/IP)	
Load Control	Compatible with Ocular Load Controller or OCPP smart profiles	
Ambient Air Temperature for Operation	-30°C to +50°C	
Ambient Air Temperature for Storage	-40°C to +75°C	
Working Humidity	95% relative humidity, non-condensing	
Altitude	Up to 6000 feet (2000 m)	
Protection Rating	IP54, IK10	
Cooling	Forced Air	
Mounting Type	Wall or floor via optional pedestal	
Dimensions (H x W x D mm)	770 x 690 x 355	
Net Weight	75 kg	85 kg
Electrical Protection	Over current, Short circuit, Over voltage, Under voltage, Ground fault, Lightning surge, Over temperature	
Certification	CE, IEC/EN 61851-1, IEC/EN 61851-23, IEC/EN 61851-21-2, RCM	
Supported Language	Language Selectable by user on screen - English, French, German, Spanish, Italian, Portuguese, Russian, Cestina, Finnish, Chinese, Japanese, Romanian, Thai, Arabic, Turkish	
Warranty	2 Years (Extended warranties available)	

The charger is designed to meet the applicable requirements of the following standards:

- **IEC 62196-3:2014** — Plugs, socket-outlets, vehicle connectors and vehicle inlets — Conductive charging of electric vehicles
- **IEC 61851-1:2019** — Electric vehicle conductive charging system — Part 1: General requirements
- **IEC 61851-23:2014** — Electric vehicle conductive charging system — Part 23: DC electric vehicle charging station
- **IEC 61851-24:2014** — Electric vehicle conductive charging system — Part 24: Digital communication between a DC EV charging station and an electric vehicle for control of DC charging

2.5 RECEIVAL INSPECTION

Upon delivery, the shipment shall be inspected before signing acceptance and before moving the unit into storage or the installation area.

Packaging and shipment condition

- Verify the shipping crate/packaging is intact and shows no evidence of impact, puncture, water ingress, or mishandling.
- If tilt/inversion indicators or shock indicators are fitted to the shipment packaging, check their status and record any abnormal indication on the delivery receipt (do not discard the indicators or packaging). Report to your supplier and do not open packaging without further instruction.

Visual condition of the charger

After opening the packaging, inspect the charger for:

- External damage (deformation, dents, scratches, paint damage).
- Damage to the connector/cable assembly (cuts, crushing, kinked sections, damaged pins, or damaged strain relief).
- Damage to doors/panels, seals/glands, and external interfaces.

Labels and documentation

- Confirm that identification and safety labels are present and legible.

Completeness

- Verify delivered items match the **purchase order / packing list** and any included accessory list.
- If any damage, missing items, or inconsistencies are found, **do not install or energise** the charger. Record the issue and contact authorised service/support.

Packing List

No.	Item	Specification	Qty
1	30/60KW EV Charging Station (including charging wiring)	IOC030HY1/IOC060HY2	1 Set
2	Test Report		1 Pcs
3	Product Certificate		1 Pcs
4	Drawing		1 Pcs
5	Packing List		1 Pcs
6	RFID Card		2 Pcs
7	Key		2 Pcs
8	Product Manual		1 Pcs
9	L Wrench		1 Pcs
10	Nut	M4*10 pan head torx, flat washer, spring washer	6 Pcs
11	Expansion Bolt	M10*100	4 Pcs
12	Tubular Bare Terminal	HEN35-25	5 Pcs
13	Tubular Bare Terminal	HEN50-25	5 Pcs
14	Wall-mounted Structure		1 Pcs
15	Thread Plug		2 Pcs

Packing List (Pedestal)

No.	Item	Specification	Qty
1	Ocular Titan charger pedestal (including charging wiring)		1 Set
2	Packing List		1 Pcs
3	Washer (M12)		4 Pcs
4	Nut (M12)		4 Pcs
5	L wrench		1 Pcs
6	M4*10 pan head torx, flat washer, spring washer		6 Pcs
7	M4*8mm countersunk screws		4 Pcs
8	Bottom cover plate		2 Pcs
9	Wire box		1 Pcs
10	M5*10mm combination screw		1 Pcs

2.6 HANDLING AND UNPACKING

The Ocular Titan is heavy electrical equipment; incorrect handling and unpacking can cause serious injury and equipment damage.

Safety

- Keep clear of suspended loads; never stand, reach, or pass beneath a lifted charger.
- Use PPE in line with site requirements (at minimum: safety footwear, gloves, and hard hat during lifting operations).
- Use only rated lifting equipment (forklift, crane, hoist, straps) suitable for the charger mass as given in the technical specifications.

Handling and unpacking

- Move the packaged charger as close as practicable to the intended installation location before unpacking.
- Keep the charger upright during all transport and handling; avoid drops, impacts, and excessive vibration.
- Where possible, keep the charger on its pallet/base before installation and secure it against movement.
- Carefully remove external packaging or crate panels; avoid using tools in a way that could puncture or scratch the enclosure or cable assembly.
- Remove and retain protective foams, wraps, and restraints until installation is complete.
- Immediately after unpacking, carry out the Receiving Inspection as described in the previous section.

Modules and sensitive components

- Keep any separate or removable components (e.g. power modules, accessories) in dry, dust free protective packaging until the charger is in its final position and ready for installation.

2.7 STORAGE REQUIREMENTS

If the charger is not installed immediately, store it in a controlled environment to prevent moisture ingress, corrosion, and insulation degradation.

General storage

- Store the charger in its packaging in a dry, well ventilated location.
- Storage temperature: -35 °C to $+55\text{ °C}$.
- Monthly average relative humidity: $\leq 90\%$.
- Storage area must be free of corrosive and explosive gases.
- Protect the charger from rain, direct sun, condensation, and frost.
- Do not store the product in the same area as corrosive materials.

3. SITE PREPARATION

This section defines the minimum site conditions that shall be met before delivering the charger to the final position and commencing installation works. Correct site preparation reduces safety risks, prevents water ingress and overheating, and improves long-term reliability.

3.1 SITE RESPONSIBILITIES AND PRE-REQUISITES

- The site owner (or responsible party) shall ensure the installation location is suitable for a DC charging station and that access can be controlled during installation and commissioning.
- All electrical infrastructure work (including selection and installation of upstream protection devices, supply cabling, and switchboard modifications) shall be performed by certified/qualified electrical personnel in accordance with local regulations and site procedures.
- The charger shall be installed only on a suitable foundation and in an environment that supports safe operation and normal heat dissipation.

3.2 LOCATION SELECTION (ACCESS, USER SAFETY, VISIBILITY/SECURITY)

Select an installation location that:

- Allows safe access for users and maintenance personnel.
- Minimises the risk of impact damage from vehicles and site traffic.
- Avoids low-lying areas where water may pool.
- Supports effective cable management to reduce trip hazards and cable strain.

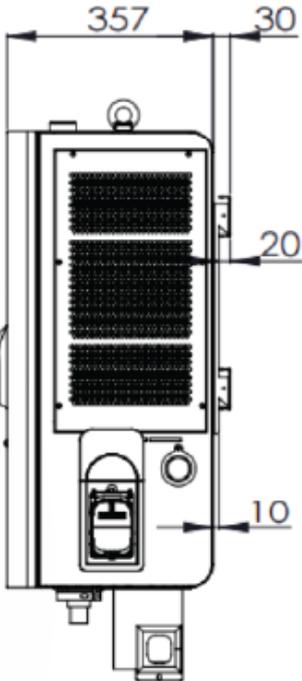
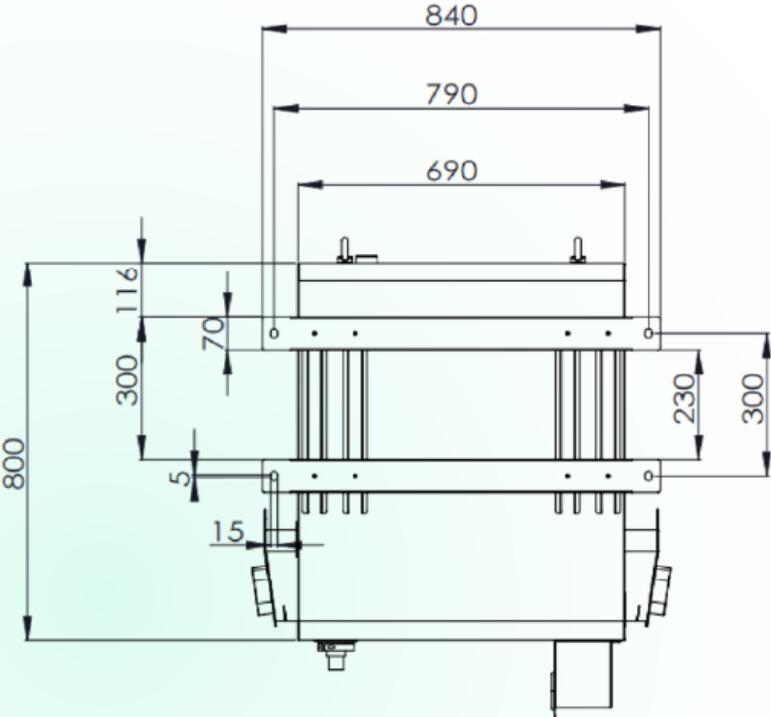
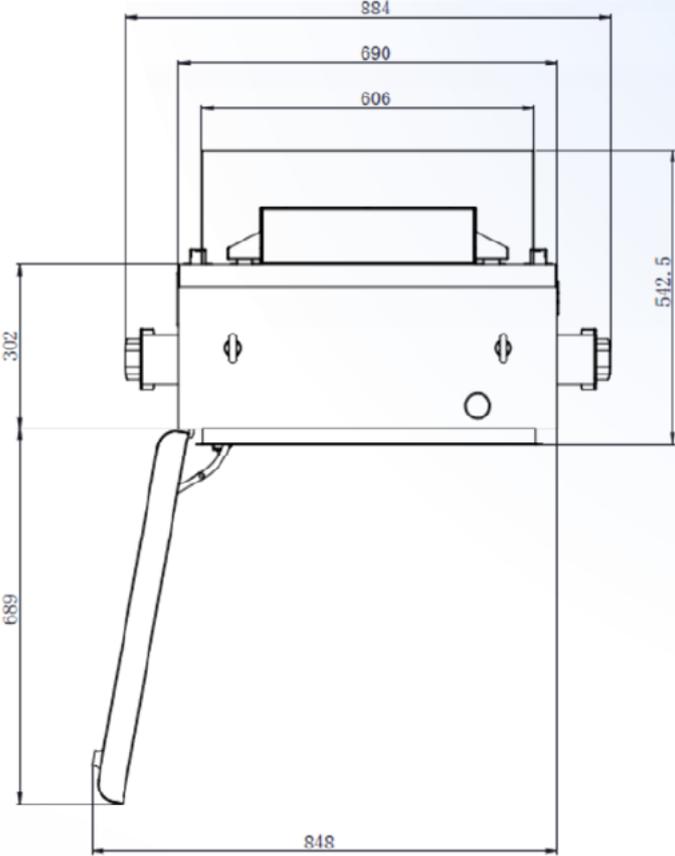
Where the charger is installed in publicly accessible or vehicle-accessible areas, protective measures shall be considered (refer to 3.7).

3.3 SPACE AND CLEARANCE REQUIREMENTS

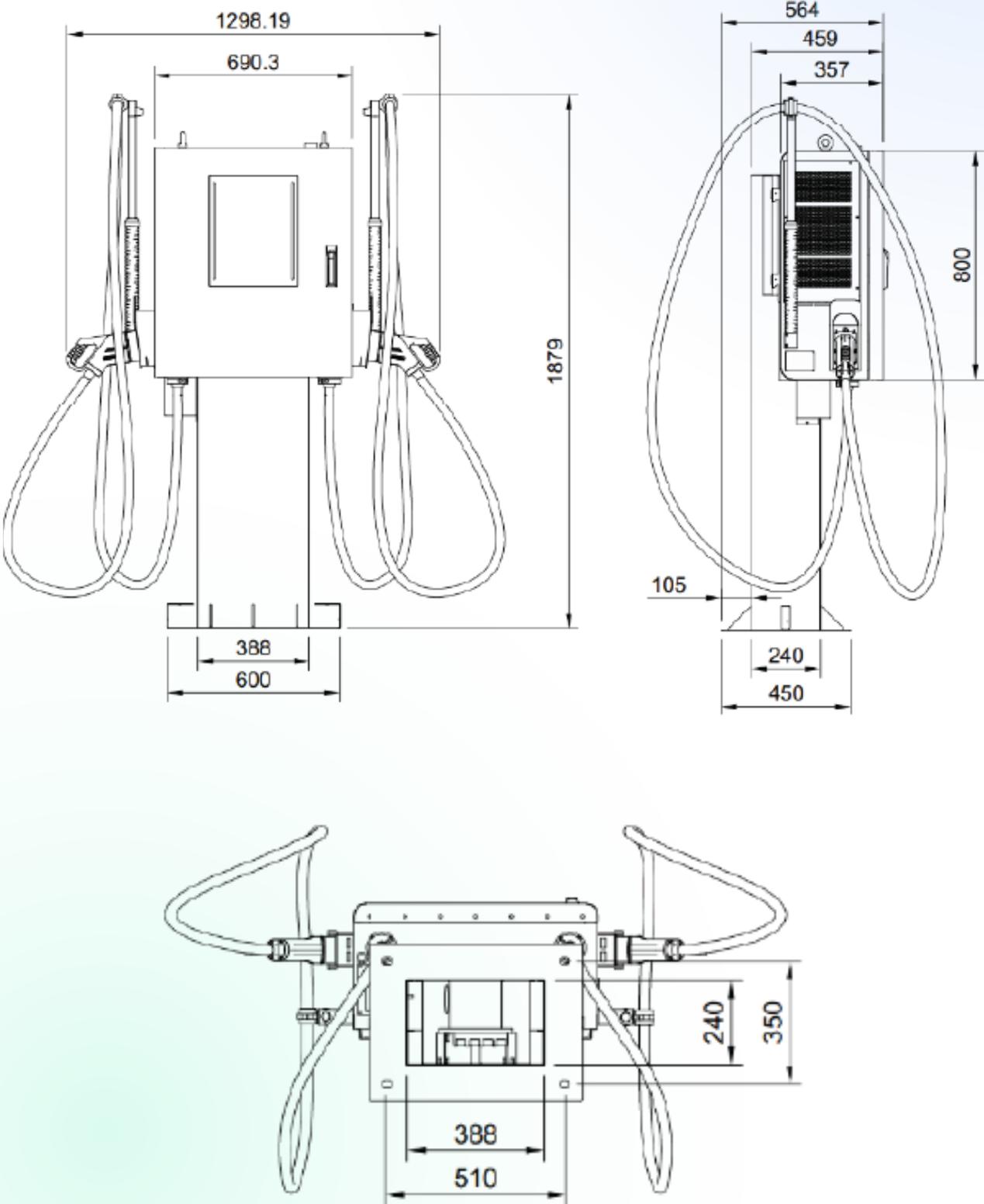
To ensure adequate cooling and maintenance access:

- The site shall be prepared so that there are no obstacles/objects within 2 metres on the left and right sides of the charger that may affect heat dissipation from the unit.
- Sufficient space shall be reserved in front of the charger to facilitate operation and routine service access. A diagram showing dimensions with an open door are shown below.

Wall mounted



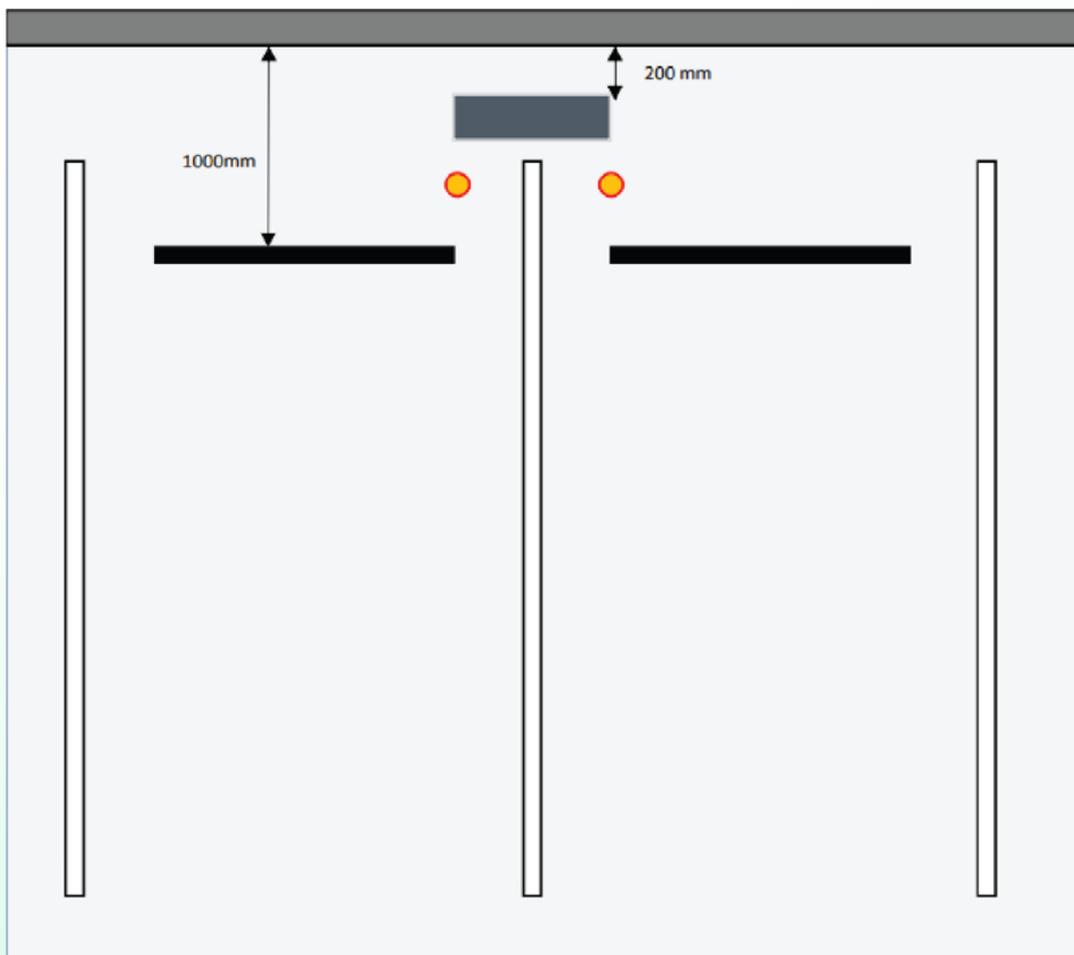
Floor mounted



3.4 PROTECTIVE INFRASTRUCTURE

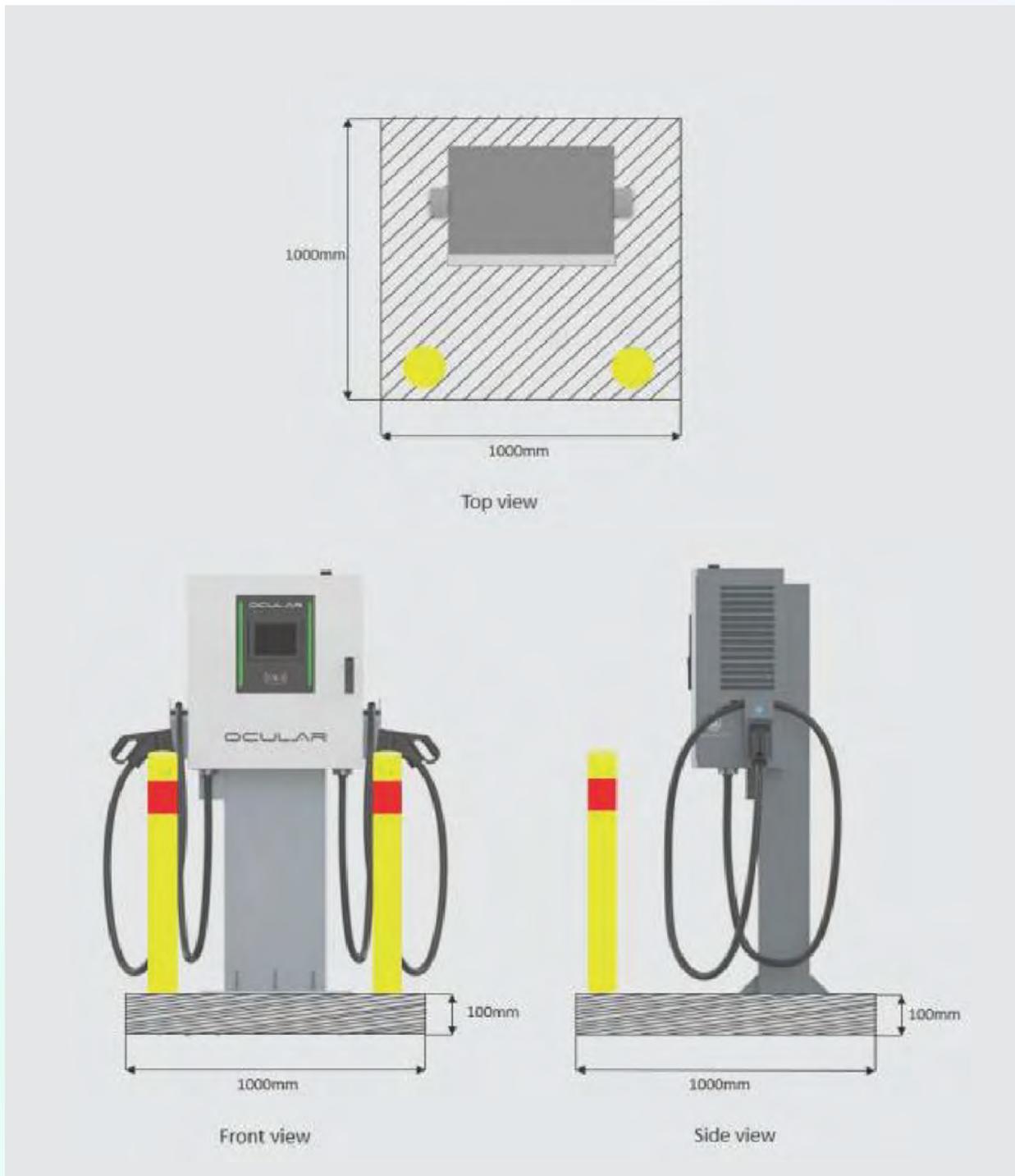
Protective infrastructure shall be positioned to prevent direct vehicle strikes while maintaining safe user accessibility, cable movement, and full access to the charger for serving and maintenance.

- Provide a minimum of **2 bollards** in front of the charger (or pedestal) where vehicle impact risk exists.
- Install bollards with minimum 1,000 mm centre-to-centre spacing (or greater), aligned parallel to the charger face, so the connector and cable path remain unobstructed.
- Maintain sufficient offset so the bollards do not obstruct ventilation openings or service clearances.
- Vehicle wheel stops are recommended as they limit vehicle overrun during parking and maintain a safe distance from the charger.



Bollard height

- Bollards shall be installed so they do not restrict opening of the charger door.
- Where bollards are located within the door swing path, the maximum bollard height shall be below the lowest door edge during opening (i.e., the door must clear the bollard throughout its full travel).
- If the final door swing path is not confirmed, locate bollards outside the door opening envelope or use wheel stops to control vehicle approach distance.

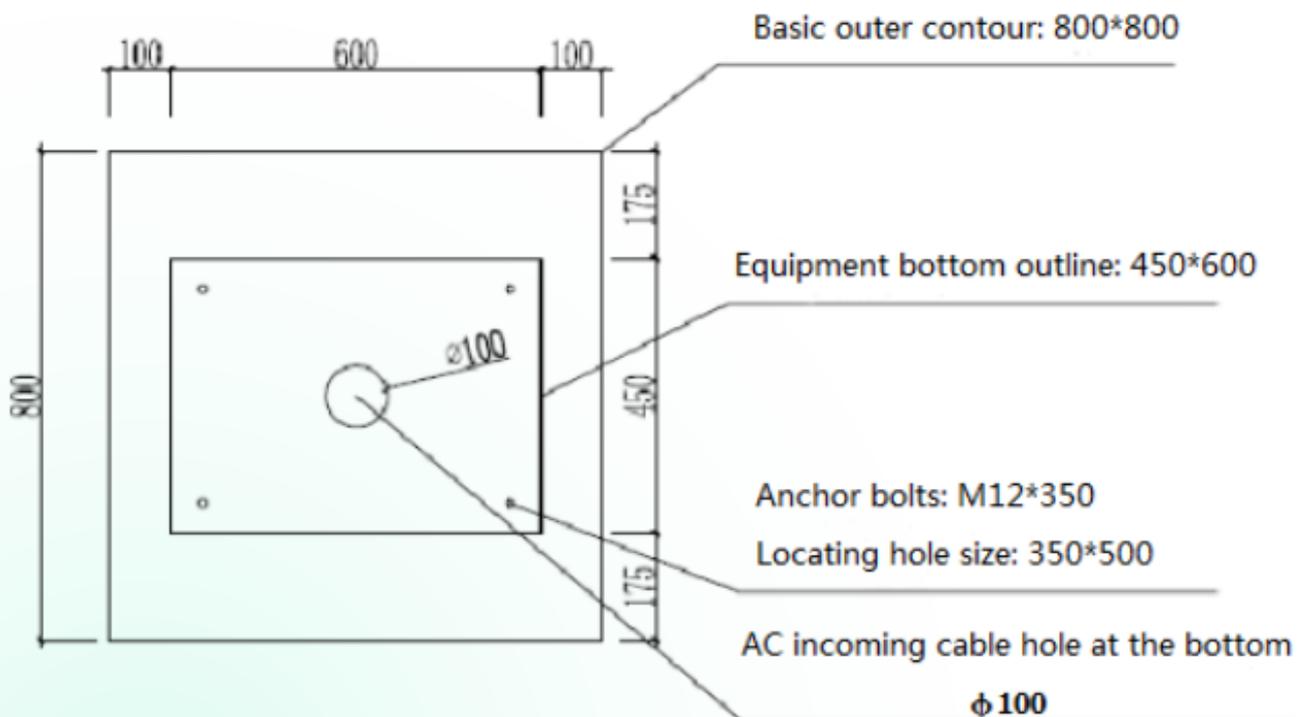


3.5 PEDESTAL MOUNTED REQUIREMENTS

The charger is installed on the ground and requires a stable, level foundation. Prepare the foundation in accordance with the foundation drawing for the ordered configuration.

Minimum foundation requirements include:

- The foundation shall be poured using C25 concrete.
- M12 stainless steel anchor bolts shall be pre-buried in the foundation
 - The exposed part of the anchor bolt shall be 40 mm and kept vertical.
 - Fasteners shall include (minimum): large washer (C-grade), spring washer, and M12 nut (8.8 grade); corrosion resistance shall be ensured for long-term service.
 - The recommended torque for the fittings is **28.5 N·m**.
- Alternatively holes can be drilled into the concrete after it sets and DynaBolts can be used to fix the charger pedestal.
- The flatness of the installation surface (concrete pad/slab or equivalent) should be considered; the variation in the surface flatness should not be greater than 3 mm.

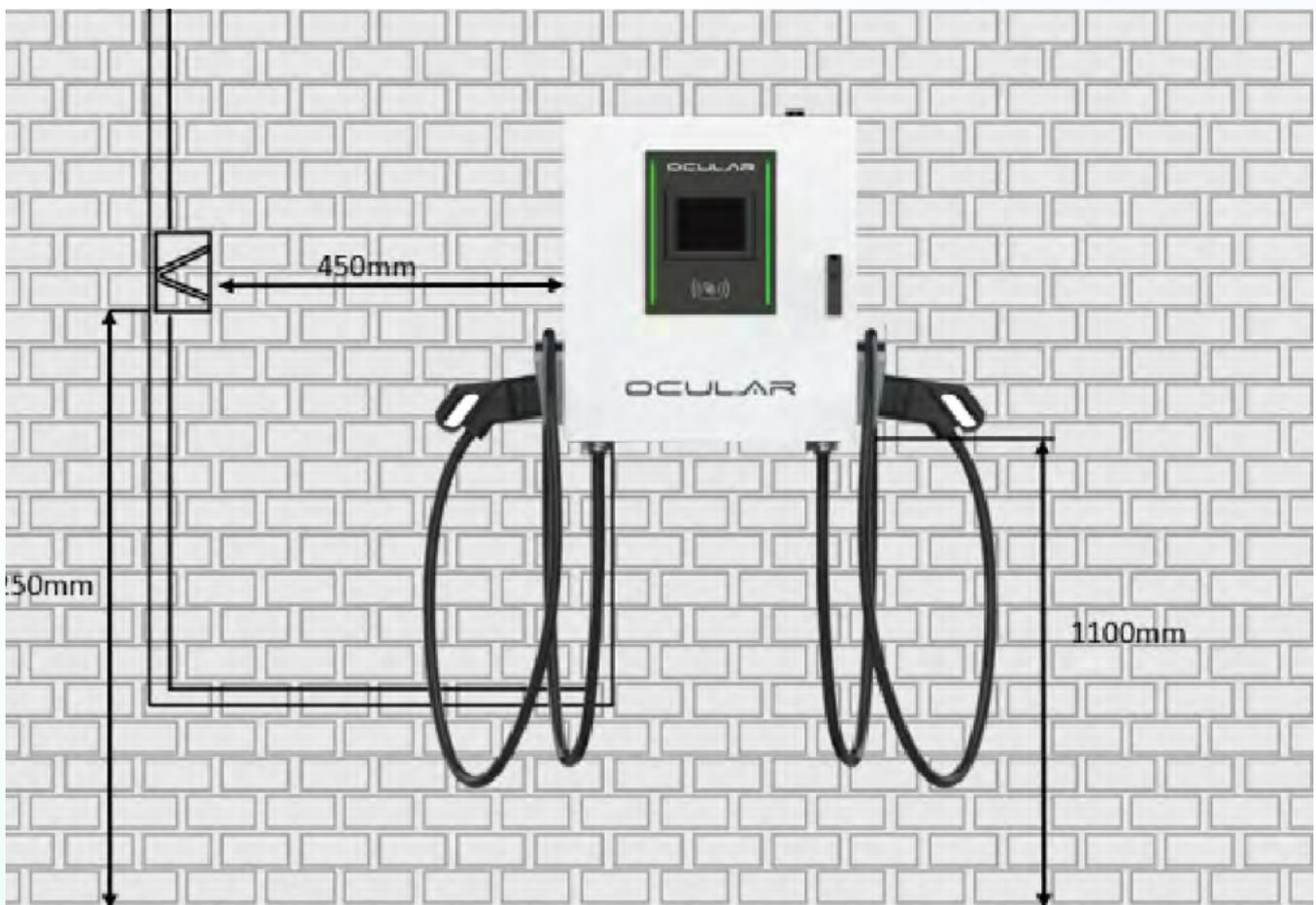


Spacing requirements for charger pedestal foundation

3.6 WALL MOUNTED REQUIREMENTS

- Verify the wall structure is suitable for the charger load and anchoring method. The mounting needs to support 150kg.
- Install the charger at the specified mounting height such that the **bottom of the charger is approximately 1100 mm above finished floor level.**
- Provide a local isolator accessible to service personnel; the isolator is typically installed at **approximately 1250 mm above finished floor level.**
- Ensure the mounting arrangement maintains IP rating of the system.

Wall mounted



3.7 CONDUIT AND CABLE PATH PLANNING

Plan cable routing and conduit placement before civil works are finalised.

- Select the AC input cable in accordance with the recommended cable sizing table (refer to Section 5.2) and route it through suitable protective conduit.
- Route the cable through $\phi 100$ insulation and flame-retardant electrical conduit/penetration.
- Cable glands and conduits shall be designed/installed to prevent rainwater from entering the cable entry zone/s.
- Conduit should be installation with sufficient radius to reduce cable bending strain and to prevent water ingress.

3.8 COMMUNICATIONS REQUIREMENTS

If the installed configuration requires network connectivity:

- Provide one network connection per charger (typically **Ethernet Cat 6** or equivalent from an Internet source). The Internet source may be the site network or an external 4G modem depending on requirements.
- Where multiple chargers are installed, a network switch may be used. Communication equipment (e.g., modem, switch) shall be installed in a communications cabinet located near the EV distribution board to minimise cable runs.
- The charger comes with a built in 4G modem. Where networking is used, prepare and install a standard SIM card (15mmx25mm) with data allowance ≥ 300 MB per month. Confirm signal strength quality at the installation location before using this method.

3.9 SIGNS, LINES AND LIGHTING.

Ensure the charger location is adequately illuminated for safe use during all intended operating hours, including visibility of the display, connector holster, and emergency stop.

It is recommended that security cameras are fitting in the area to prevent cable theft or vandalism of the charger. Ensure that the presence of cameras is advertised near the charger.

Install clear signage and pavement markings as required to:

- identify EV charging bays and traffic flow
- warn of electrical equipment and restricted access areas
- discourage vehicle contact with the charger and cable routing zones.



4. MECHANICAL INSTALLATION

4.1 CHARGER INSTALLATION

This section defines the mechanical installation requirements for the Ocular Titan DC charger. Mechanical installation shall be completed before electrical termination and commissioning.

Complete mechanical installation in the following order:

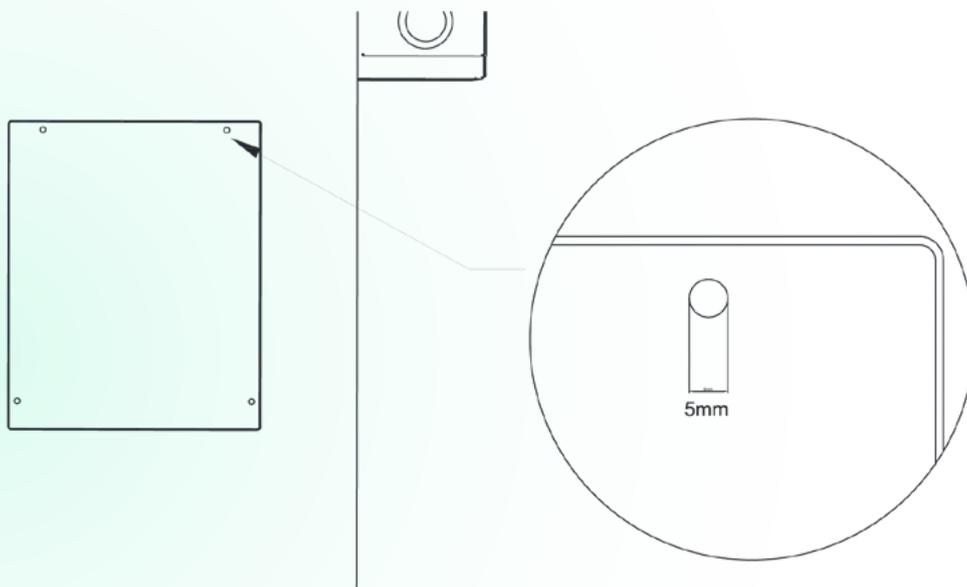
1. Verify the site is ready for installation (foundation, conduits, clearances, and impact protection) in accordance with Section 3.
2. Remove packaging and transport restraints in accordance with Section 2.6.
3. Position the charger at the final location using suitable handling equipment.
4. Fix the charger to the prepared foundation (floor-mounted) or structural wall (wall-mounted, where applicable).
5. Install bollards and/or wheel stops where required as discussed in Section 3.8.
6. Install cable management hardware and verify service access.

For outdoor installations, provide suitable protection from direct weather exposure (sun and rain) where required by site conditions.

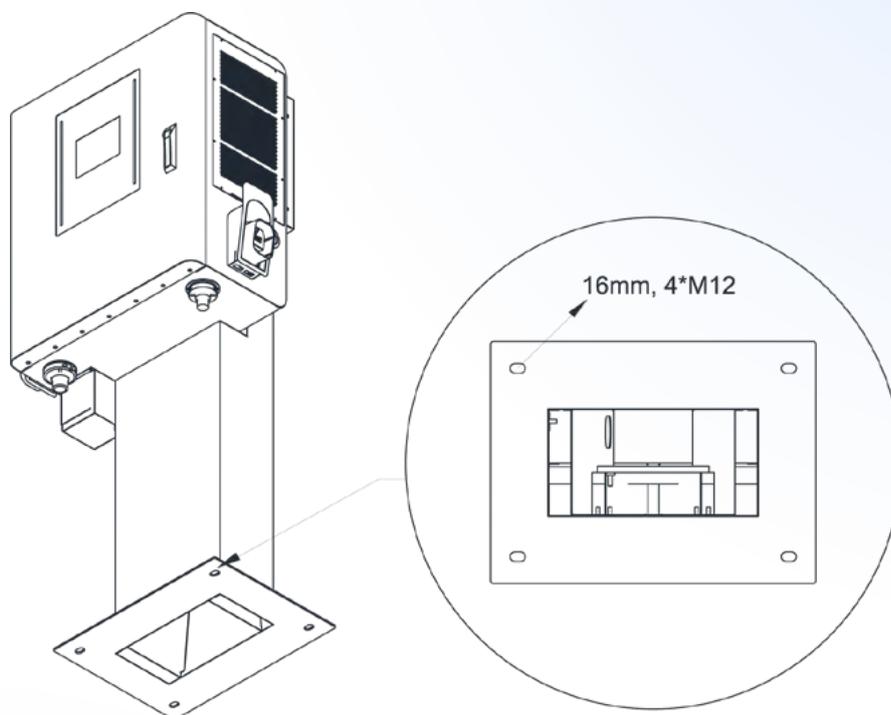
4.2 MOUNTING AND ANCHORING

4.2.1 Floor-mounted installation

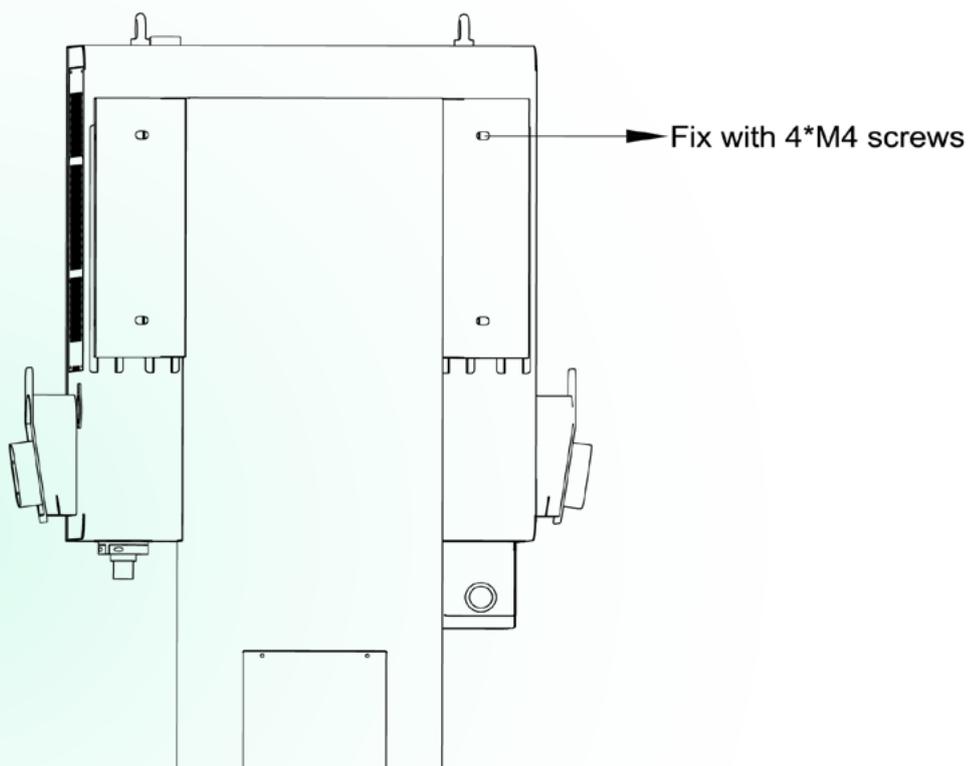
1. Open the rear cover of the pedestal by removing the screws.



2. Place the pedestal on the concrete foundation/mounting surface and feed cables from the foundation conduit through the bottom entry.
3. Align the baseplate holes with the anchor bolts and secure using spacers/washers and nuts. Level the pedestal and tighten fixings.



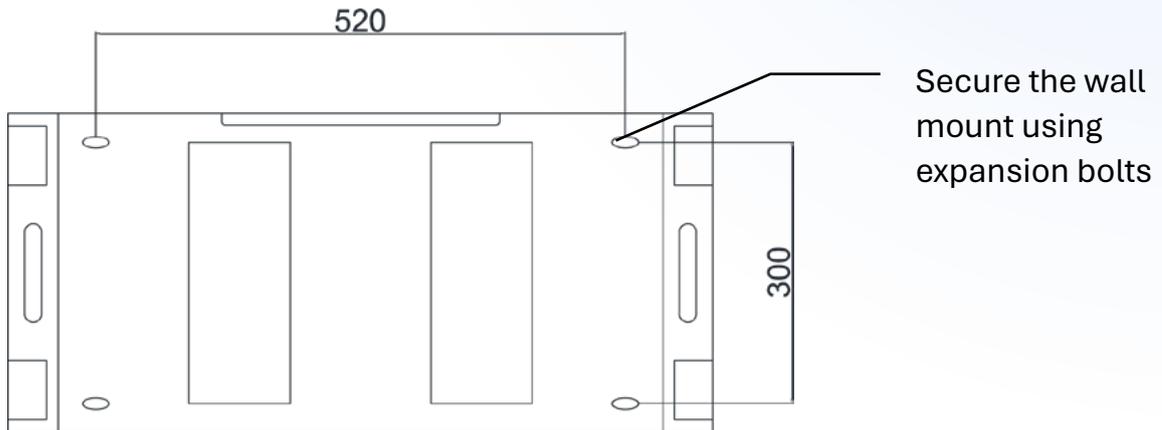
4. Position the charger on the pedestal mount.
5. Secure cabinet to pedestal using M4 screws.



4.2.2 Wall-mounted installation

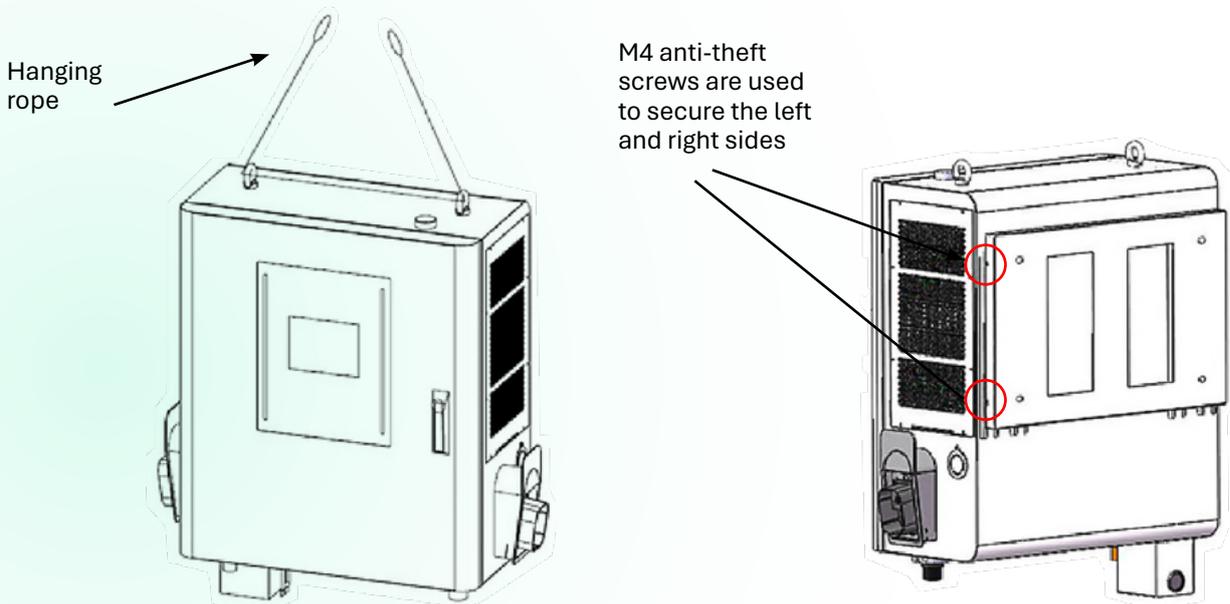
Prepare the wall fixing points

Mark the four mounting-hole positions on a structural wall with a minimum load capacity of 150 kg. The hole pattern shall be 520 mm × 300 mm. Drill four Ø14 mm holes and install M10 × 100 expansion anchors. Ensure the exposed length of each anchor bolt does not exceed 30 mm from the wall surface, and confirm all anchors are securely seated before mounting the bracket.



Hang and secure the charger cabinet

Using a suitable lifting arrangement, lift the charger cabinet with a rated hanging rope/sling (minimum 1 tonne rating, 3 m length). Hang the cabinet onto the wall mounting bracket using the cabinet lifting hooks/eyes. Once correctly seated, secure the cabinet to the wall mounting bracket using the supplied M4 anti-theft screws from both the left and right sides. Ensure all fasteners are tightened and the cabinet is stable prior to proceeding with electrical installation.



4.3 INSTALLATION OF CABLE MANAGEMENT

This procedure describes installation of the spring balancer cable management system and securing the charging cable/connector lead using the supplied components.

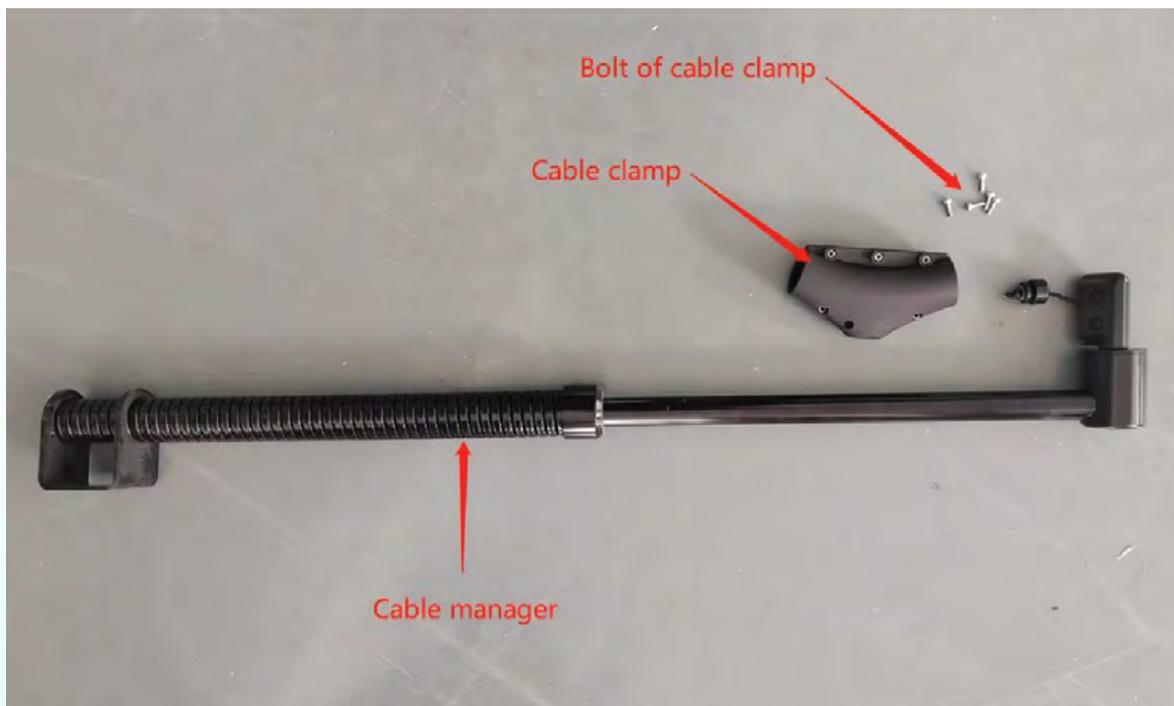
Tools and Materials

Supplied components in Cable Management Kit:

- Spring balancer / balance arm assembly
- M8 fixing screws × 4
- Cable clamp / slot assembly (1 set)
- Associated fasteners (as supplied)

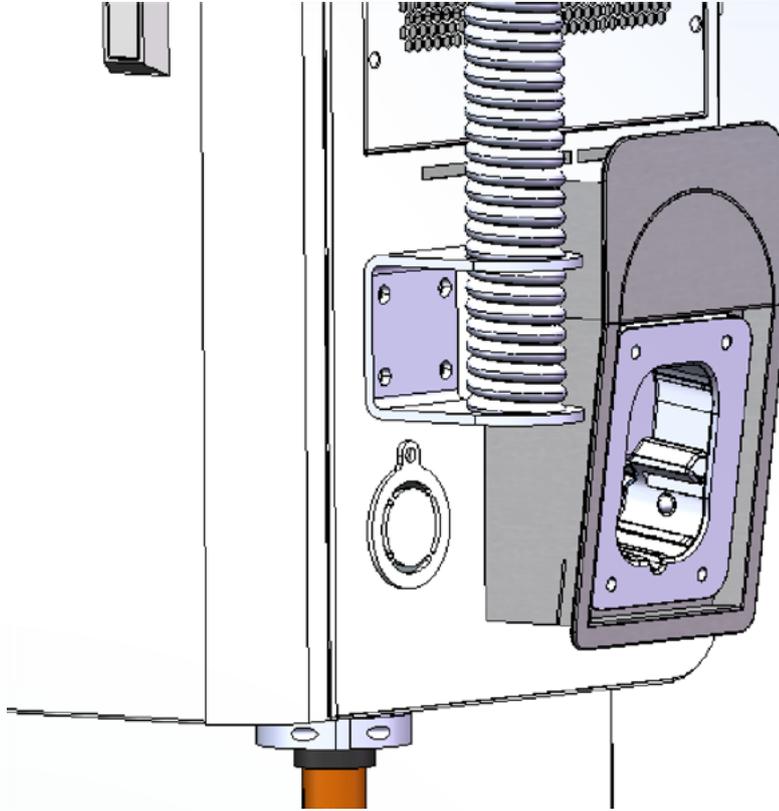
Tools (installer-supplied):

- M6 hex key
- M3 hex key



Installation Procedure

1. Place the cable management arm assembly at the selected mounting position.
2. Secure the arm using 4 × M8 screws.
3. Verify the arm is vertical and stable. If adjustment is required, reposition slightly and retighten the fasteners to prevent loosening during operation.



Install the cable clamp

1. Using an M3 hex key, remove the six (6) screws from the cable clamp/slot assembly.
2. Install one half of the clamp/slot onto the balancer as shown below



Secure the charging cable

1. Place the charging cable into the clamp/slot channel.
2. Fit the second half of the clamp/slot over the cable.
3. Reinstall and tighten the six (6) M3 screws in sequence to secure the clamp.
4. Pull the cable gently to confirm it is retained firmly and will not loosen during use.



Post-installation Checks

1. Confirm the balancer is firmly mounted and remains vertical.
2. Confirm the cable is clamped securely, with no pinch points or abrasion risks.
3. Confirm that the cable is clamped in a position that allows maximum reach of the plug and prevents the cable from touching the ground when stored.

5. ELECTRICAL INSTALLATION

Electrical installation shall be performed only by a licensed and suitably qualified electrician. Incorrect installation may result in electric shock, fire, equipment damage, and irrecoverable charger faults.

5.1 ELECTRICAL SAFETY

- Isolate the upstream supply at the distribution board and apply Lockout/Tagout (LOTO) in accordance with site procedures and local regulations.
- Verify isolation (“prove de-energised”) using an approved test instrument before any covers are removed or terminations are made.
- Ensure the work area is controlled and safe for electrical work (barriers/signage as required).
- Prior to energisation, confirm the charger enclosure (device shell) is correctly bonded to the protective earth (PE).

5.2 SUPPLY REQUIREMENTS AND PROTECTION

- The upstream circuit breaker and power distribution infrastructure required for the charger shall be selected, installed, and operated by qualified electrical personnel.
- The AC input shall be wired to match the markings on the terminal block. The neutral and phase conductors shall not be reversed. Incorrect polarity may result in irrecoverable failure of the charger.
- Incoming cable sizing and protective device selection shall be validated for the specific installation method, derating factors, voltage drop, and applicable local requirements.

Recommended cable planning values:

Charger Rating	Recommended AC Cable (for underground wiring systems)	Recommended Upstream Protection
30 kW (IOC030HY1)	16 mm ² 4C + E, PVC V-90	63 A 4-pole RCBO
60 kW (IOC060HY2)	35 mm ² 4 × 1C + E, XLPE X-90	125 A MCB/MCCB

Cable Entry Specifications

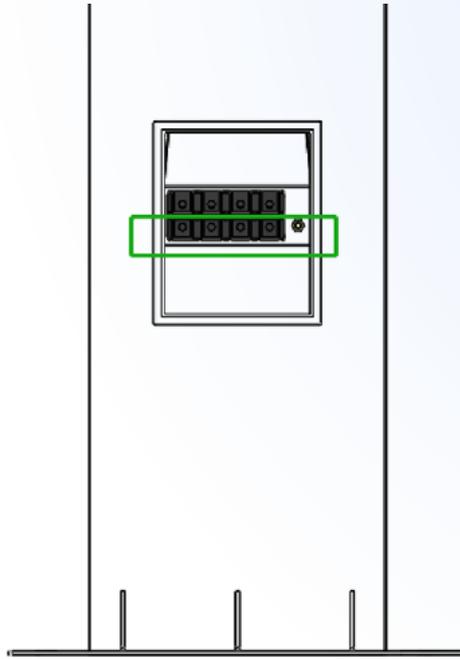
No.	Charger Model	Power Rating	Cable Entry Size	Terminal Specification	Connection Tools
1	IOC030HY1 / IOC060HY2 (Wall-mounted)	30–60 kW	Ø35 mm	Incoming terminal type: PPAC-50 Terminal lug type: HEN35-25 (30 kW) Terminal lug type: HEN50-25 (60 kW)	5 mm hex key
2	IOC030HY1 / IOC060HY2 (Floor-mounted)	30–60 kW	Ø100 mm	Incoming terminal type: TC-1504 Terminal screw size: M8	1. Torque wrench 2. M13 socket

5.3 AC POWER CABLE TERMINATION

- The exposed part of the terminal joint shall be insulated using heat-shrink sleeve or insulation tape.
- Terminate the protective earth conductor to the designated PE/ground terminal inside the charger.

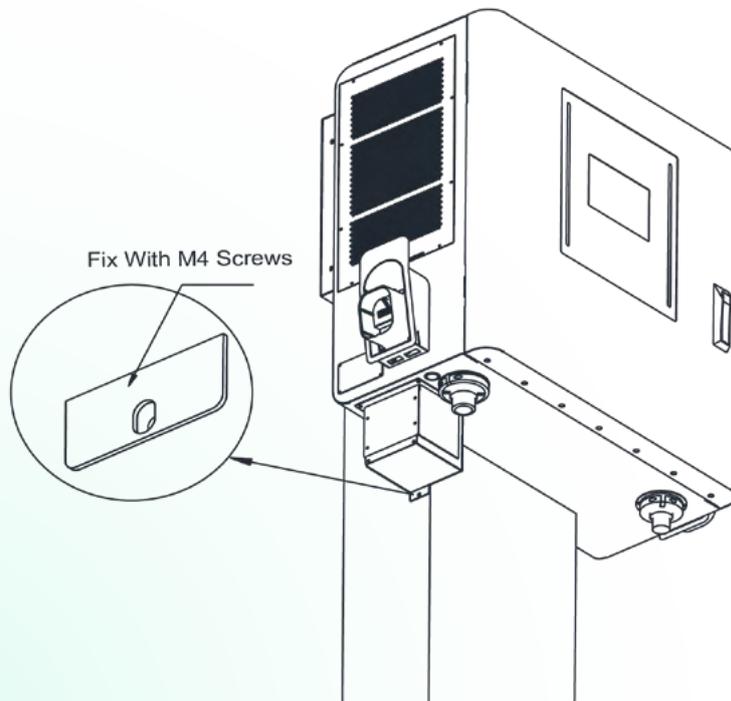
5.3.1 Pedestal Mounted

- 1. Route cable from foundation into pedestal (Bottom Entry via Pedestal).**
Feed the AC supply cable from the bottom conduit into the pedestal and up to the rear pedestal terminal block.
- 2. Terminate at the pedestal AC terminal block.**
Crimp lugs as required and terminate the AC conductors and PE to the rear pedestal AC terminal block. Ensure correct phase identification and secure all terminations.



3. Route pedestal-to-charger AC feeder.

From the pedestal terminal block, route the internal AC cable up the pedestal to the side cable box (junction box) and into the charger cable entry path.

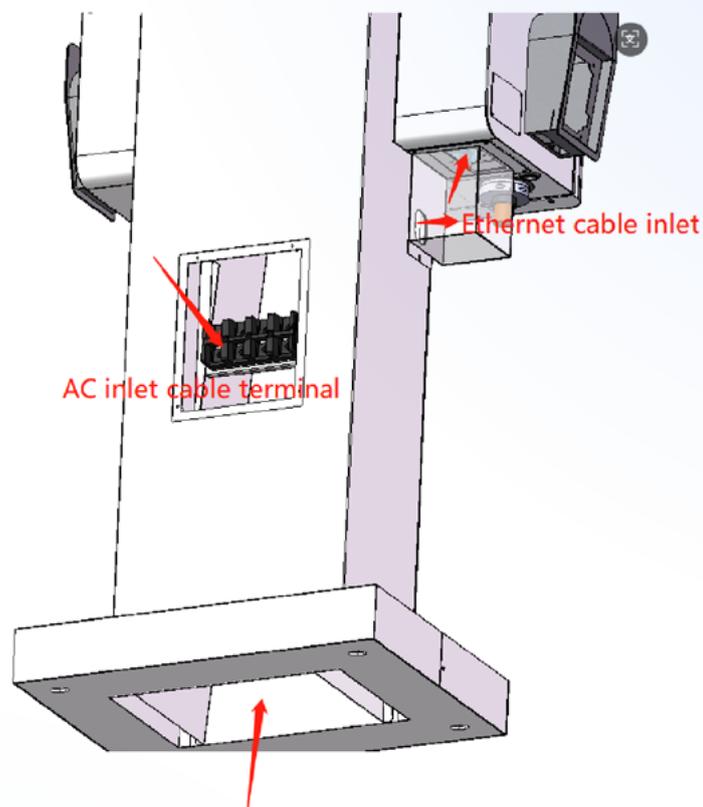


Junction box dimensions and specifications may vary. Two junction box types are used:

- **Wall-mounted junction box:** Supplied with the charger for wall-mounted installations. It can be opened and includes AC input terminals.
- **Pedestal-mounted junction box:** Used for floor-mounted installations. It cannot

4. Enter the charger via the cable box.

Pass the AC cable through the **Pedestal-mounted junction box** and into the charger.

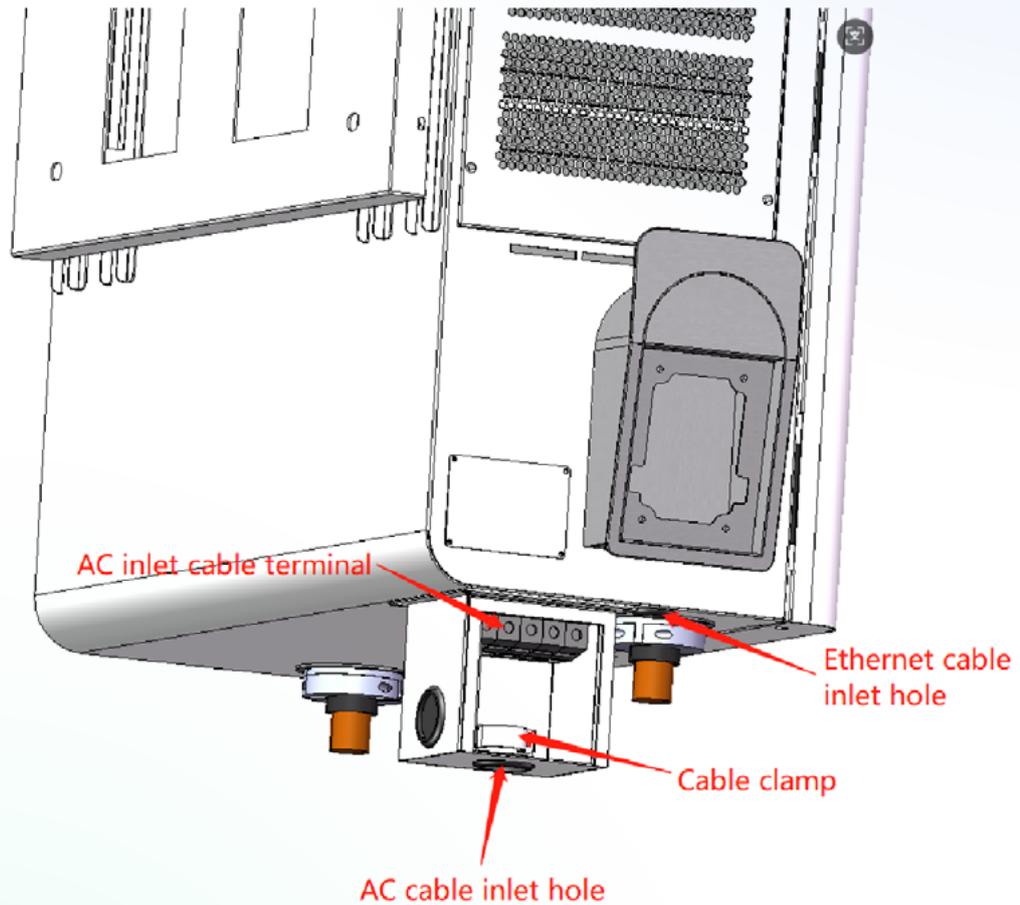


5. Terminate at the charger AC terminals.

Route the power cabling to the charger's **AC input terminal area** through the base of the pedestal and terminate to the designated AC input terminals and PE point. Tighten to the specified torque and confirm conductor seating and insulation clearances.

5.3.2 Wall Mounted

- Form a suitably sized conduit entry penetration in the base of the junction box on the required side. Ensure glands are used to prevent ingress of water or dust.
- Route the power cable through the conduit into the junction box.
- Terminate the cable conductors within the junction box in accordance with the wiring diagram and applicable standards.



5.4 COMMUNICATIONS AND INTERNET CONNECTION

Refer to section 3.7 for more information about connectivity options.

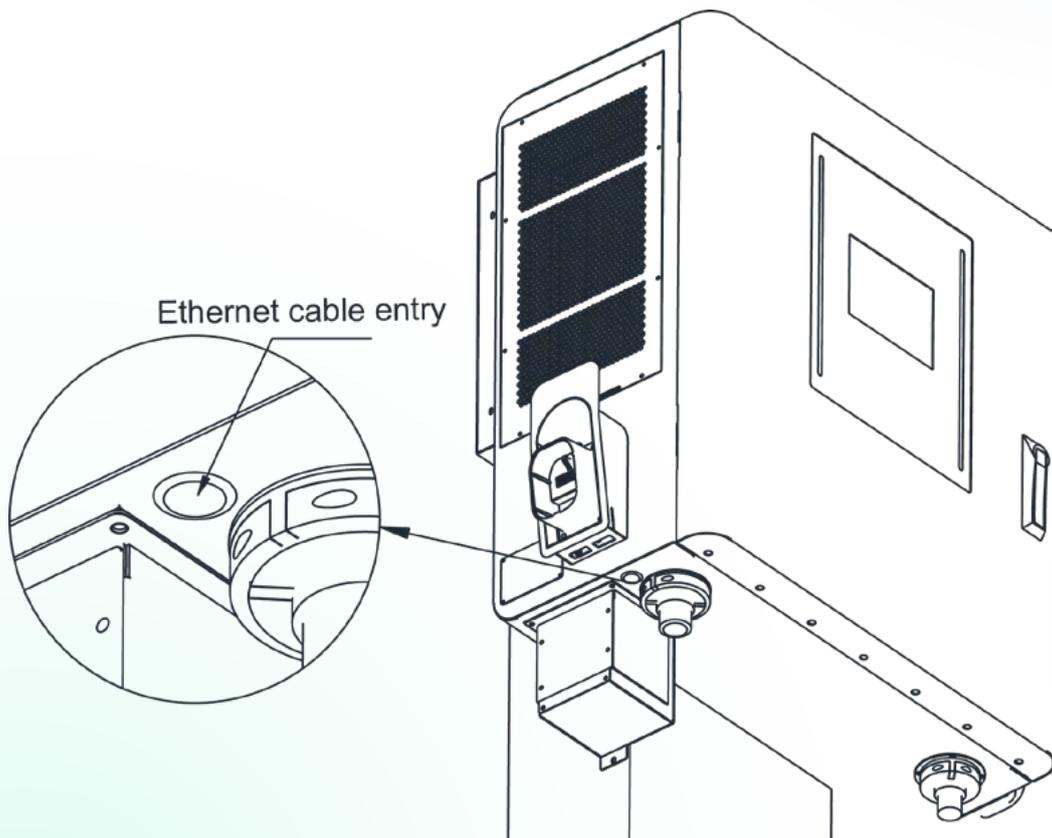
5.4.1 Ethernet Cable Installation

1. Route Ethernet cable to charger base.

Bring the Ethernet cable to the charger/pedestal interface area and provide sufficient slack in cable for access and ease of installation.

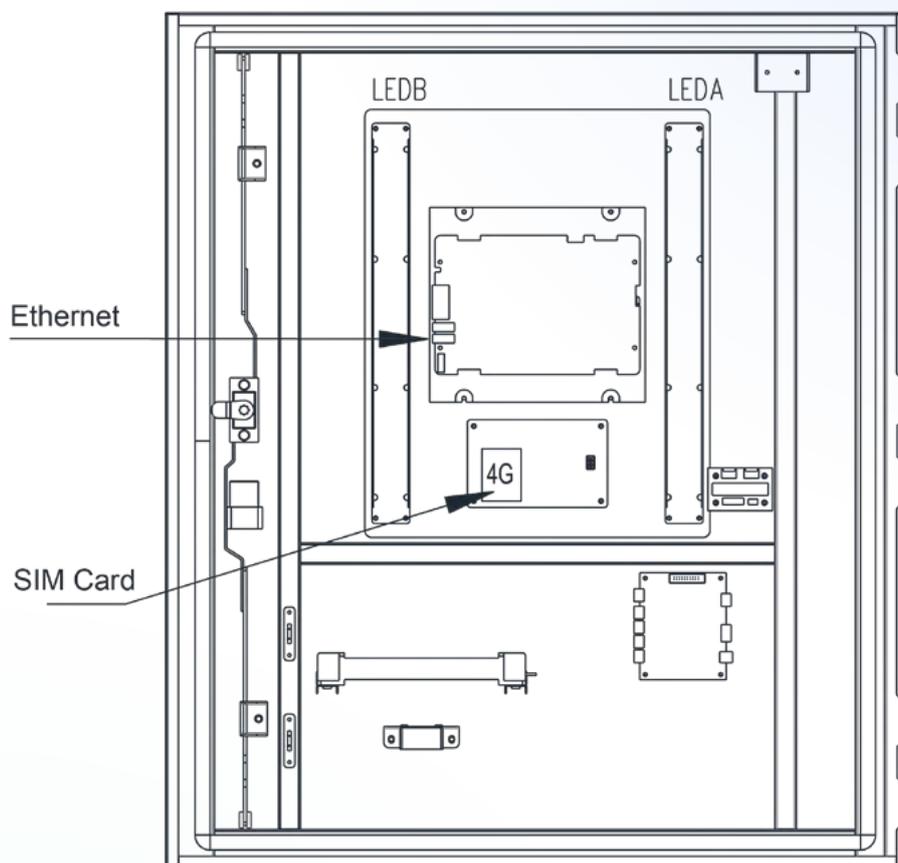
2. Pass Ethernet through the communications entry hole.

Feed the Ethernet cable through the dedicated hole adjacent to the cable box (communications entry), and route it into the charger. Depending on the installation, additional conduit may be required. Ensure appropriate glands are used to maintain IP rating of the installation.



3. Connect and secure.

Connect the Ethernet cable to the designated RJ45 network port inside the charger. Secure the cable to prevent strain on the connector and ensure the entry point remains sealed.



5.4.2 Sim Card Installation

Typically, the system will be delivered with a Sim card already installed. If not, the Sim card installation location can be found in the diagram above. If a sim card has not been provided by Ocular, then additional configuration may be required. Contact Ocular support for more information.

6. COMMISSIONING AND PRE-ENERGISATION CHECKS

Commissioning shall be performed only after mechanical installation (Section 4) and electrical installation (Section 5) are complete and verified.

6.1 PRE-ENERGISATION CHECKLIST

Complete the following checks before applying power:

1. Internal condition (cabinet inspection)

- Inspect the inside of the cabinet for damage, loose parts, or foreign objects.
- Confirm all connection terminals are secure and show no damage, overheating, or burning.

2. Electrical safety

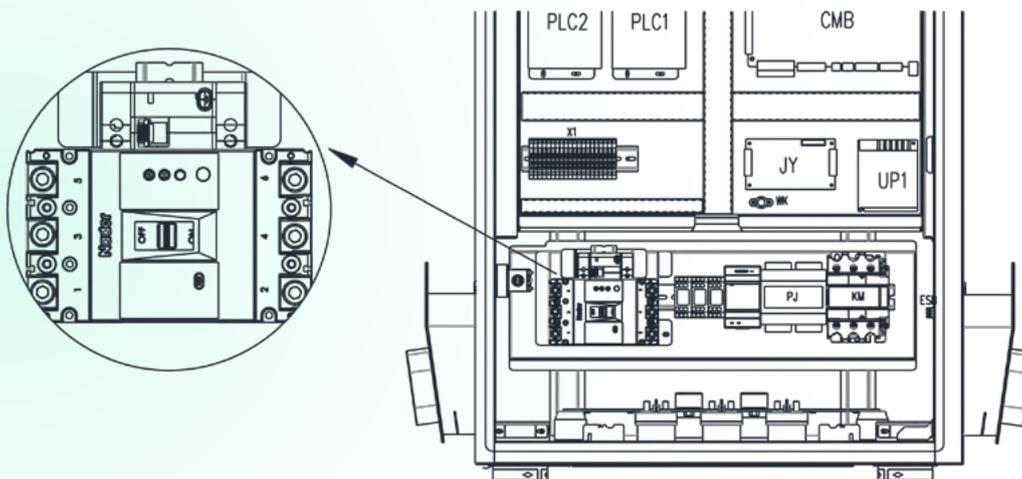
- Confirm protective earth (PE) bonding is installed and secure.
- Confirm upstream isolation/LOTO controls remain applied until energisation.

3. Internal MCCB/RCD reset - The internal MCCB and RCD need to be manually reset prior to powering on the charger for the first time.

- Open the service access door/panel as required.
- Switch the MCCB to ON and operate the RCD to perform an on/off functional check and confirm there is no short-circuit indication.
- Switch the MCCB to OFF, switch the RCD OFF, and ensure the AC inlet/supply is correctly connected and ready for energisation.
- Turn **ON** the circuit breaker on EVDB for the charger, then switch **ON** the MCCB and RCD.

4. Charging connector inspection

- Inspect the charging connector, socket insulator, pins and pin holes for contamination or foreign matter. Clean if required.



6.2 INITIAL POWER-ON PROCEDURE

The initial energisation should be performed by a suitably qualified person, such as a licenced electrician (refer to local regulations). Perform initial energisation in the sequence below:

- Ensure the Emergency Stop is released (Rotate to disengage).
- Energise the upstream AC supply (distribution board / isolator).
- Allow the charger to complete its self-check and boot sequence. The display will show the main interface after startup.

6.3 FUNCTIONAL CHECKS

After the charger boots to the main interface, verify:

- **Display operation:** display is active and responsive; no abnormal messages preventing operation.
- **Status indication:** indicator lights show normal status (no active fault indication).
- **Emergency Stop:** where permitted by site procedures, press E-Stop as a controlled test; confirm the charger transitions to a safe stop state and requires reset before returning to service.
- **Connector status:** connector type and rated power (KW) display correctly on the main screen. If values do not match expectation, contact Ocular support.



If an unrecoverable alarm, abnormal sound, smell, smoke, or display non-response is observed, **isolate the power** and contact authorised service personnel.

6.4 INTERNET CONNECTION VERIFICATION

The network status indicators can be found in the bottom right-hand corner of the screen. Verify that the method of internet connection is showing that the connection is active.

Connected and active	Disabled	Enabled but not connected
		
Meter Active	Meter Inactive	Meter Error
		
Server Active	Server Inactive	Server Error
		
Ethernet Active	Ethernet Inactive	Ethernet Error
		
RF Card Active	RF Card Inactive	RF Card Error
		
Wi-Fi Active	Wi-Fi Inactive	Wi-Fi Error
		
4G Active	4G Inactive	4G Error

6.5 TEST CHARGE AND HANDOVER

Perform a charging session using a compatible test vehicle to verify the installation:

1. Plug charging connector into vehicle.
2. Start charging using the configured authorisation method (e.g., RFID card or QR code, as configured).
3. Stop charging using the normal stop method and confirm the session ends correctly before disconnecting.

Handover

- Confirm the charger is left in a normal standby/ready state.
- Provide the owner/operator with the manual and basic operating instructions, including normal stop and emergency stop use.
- Record commissioning results and site configuration details required by the project and distribute to relevant stakeholders.

7. USER GUIDE

The Ocular Titan can be configured in numerous different ways. It is likely that your system has been pre-configured based on the requirements communicated throughout the sales process.

This section describes normal user operation via the charger display, including how to start and stop a charging session, how to interpret charging information shown on-screen, and how to access user-available settings.

Operation and authorisation methods vary by site configuration. Common configurations include:

- **Start Charging on Plug** - Charging starts as soon as the vehicle is plugged in. No authorisation takes place.
- **RFID authorisation** - User starts and stops by using an RFID card.
- **Backend-connected operation via OCPP** - charger status and sessions managed through an OCPP - compatible management platform. This typically involves the user starting a session with a phone application or linked RFID card.

7.1 OPERATING STATES AND SCREEN

While the charger is powered on, it performs a self-check and then displays the home screen. The home screen provides, as applicable:

- Charging connector type and connector status
- Station code
- QR code for user authorisation (where enabled)
- Network information and connection status icons
- IP address (displayed at the lower left of the screen, where applicable)

If the screen shows an error, a connector unavailable state, or a connection failure message, do not start charging until the cause has been addressed (refer to Section 9).



7.2 CHARGING PROCEDURE

7.2.1 Start charging

1. Park the vehicle so the charging port is within reach of the selected connector.
2. Insert the charging connector into the vehicle inlet.
3. Start the charging session by either:
 - Using the configured OCPP application, either by:
 1. Scanning the QR code on the screen
 2. Finding the charger on the OCPP application
 - Tapping an RFID card



Charger Home Screen



Charger screen showing a session starting

7.2.2 Charging

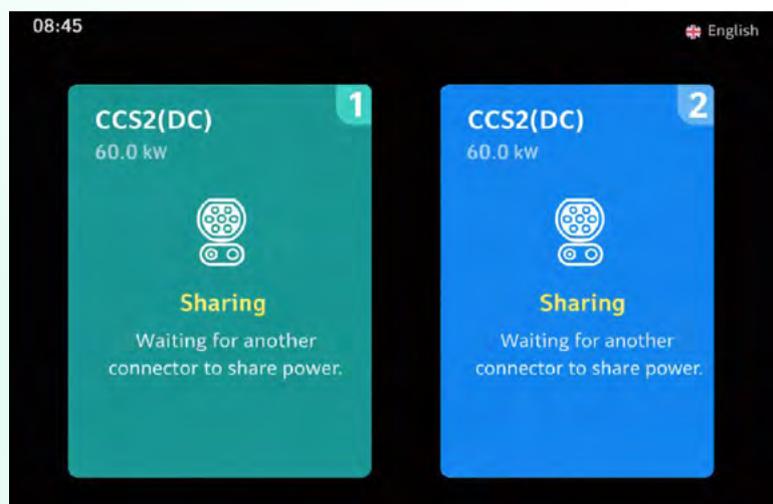
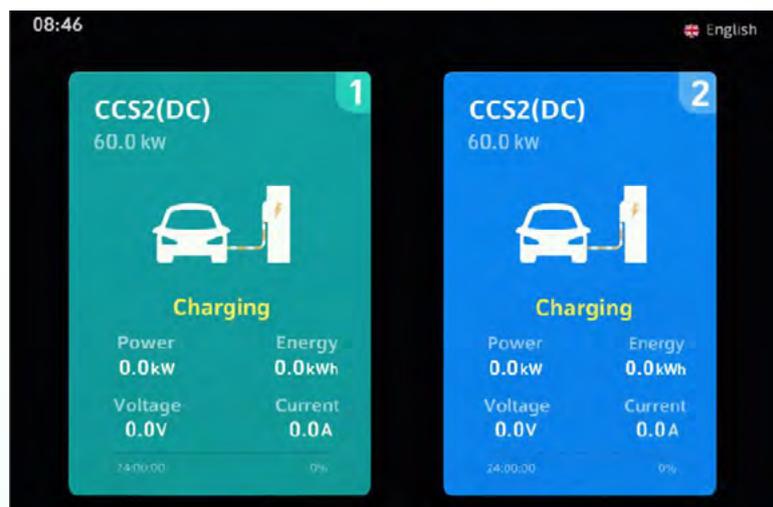
During charging, the screen displays charging parameters including:

- Power
- Voltage
- Current
- Energy
- Duration
- Vehicle State of Charge %

Additional details may be displayed by selecting the charging page again (detail view). To access the detailed view, tap of the coloured box representing the port and the detailed view will open.

Simultaneous Charging:

When one charging connector is already in use, the charger displays load-sharing information if a second charging session is initiated on another connector.

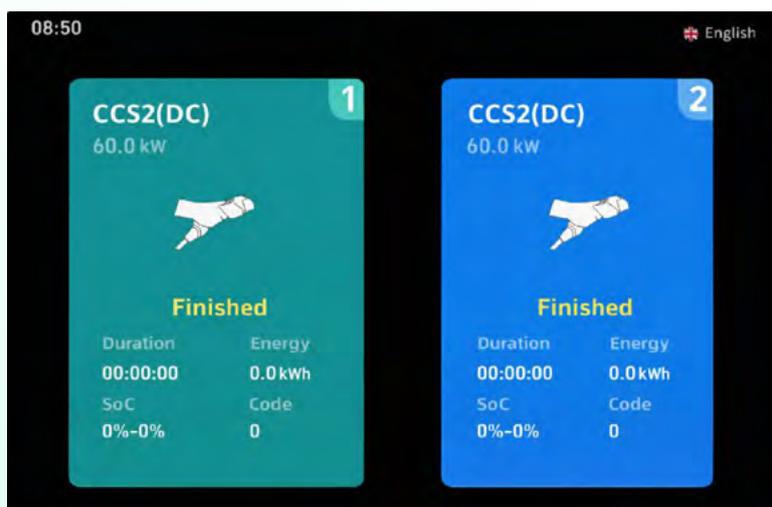
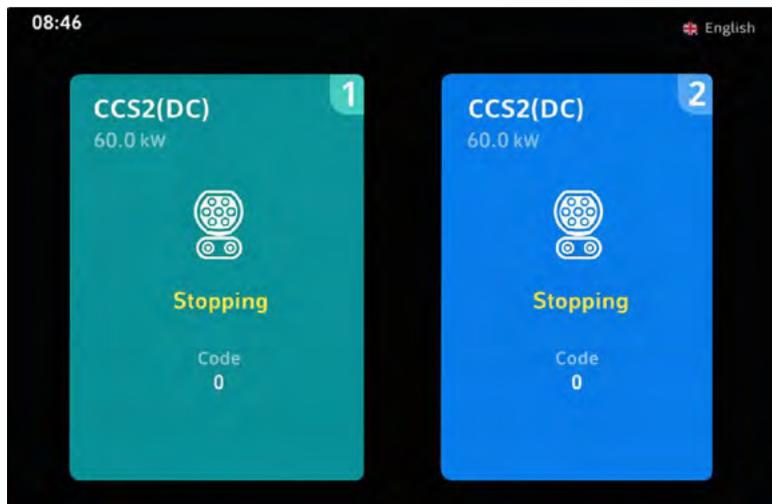


7.2.3 Stop charging and disconnect

Stop the charging session using the configured stop method:

- Swipe the **RFID card** again, or
- Stop via the **mobile application** (where configured)
- Press the stop button on the screen (where configured). To access the stop button, tap the coloured box representing the port that is in use to open up the detailed view, and then tap the stop button.

After the charging session is finished, disconnect the charging connector from the vehicle and return it to the holder.

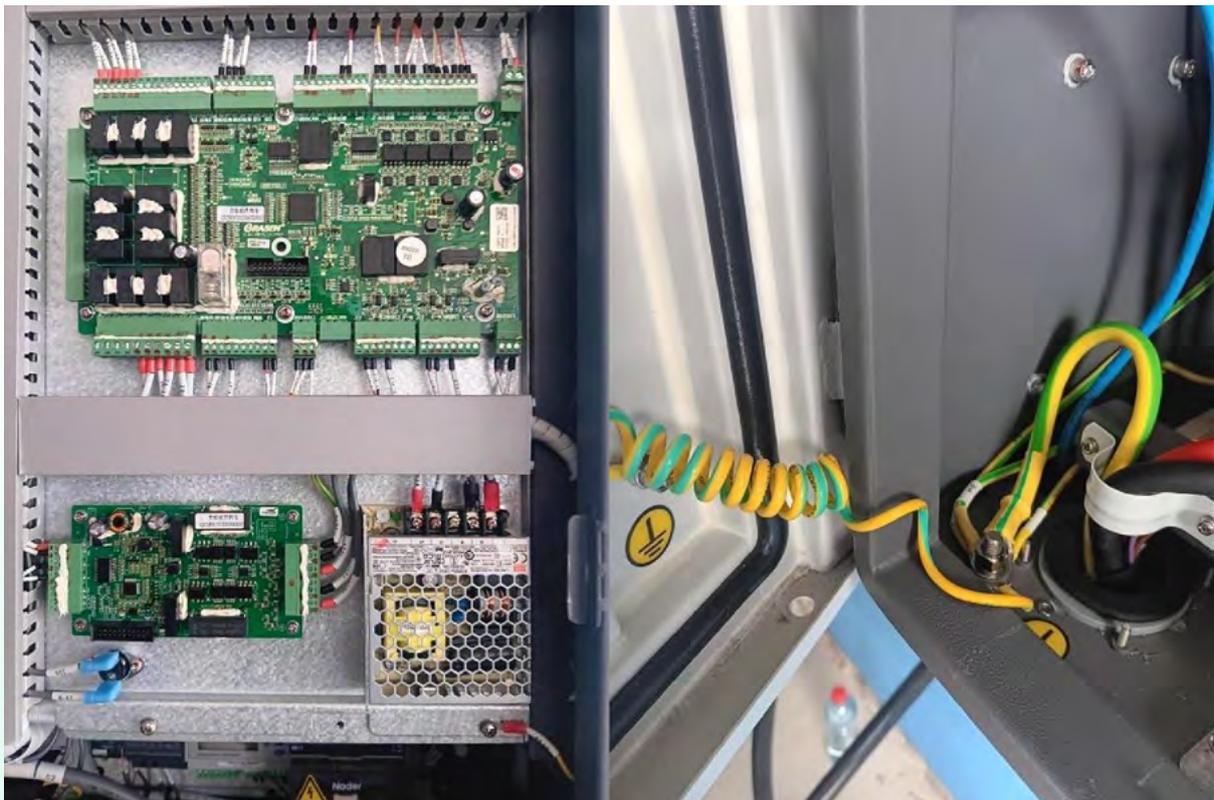


8. PREVENTIVE MAINTENANCE AND ROUTINE INSPECTION

Preventive maintenance is required to keep the IOC030HY1 / IOC060HY2 charger safe, reliable, and compliant with site electrical requirements. This section defines **minimum maintenance tasks, recommended intervals, and role separation** between user-performed checks and licensed electrical service activities.

8.1 RESPONSIBILITIES AND GENERAL REQUIREMENTS

- Routine external checks (visual inspection, basic cleaning, connector cleaning) may be performed by the site owner/operator (refer to local regulations).
- Any task requiring **opening the charger enclosure**, internal inspection, internal cleaning, or electrical measurements shall be performed only by **authorised, suitably qualified personnel**.
- Unauthorised persons shall not dismantle equipment assemblies.



8.2 MAINTENANCE SAFETY REQUIREMENTS

Before any maintenance activity:

1. Stop any active charging session and ensure the connector is returned to the holder.
2. Isolate the upstream supply and apply site isolation controls (LOTO where required) before any internal work or internal cleaning.
3. Keep unauthorised personnel at a safe distance during maintenance activities.
4. Use appropriate PPE in accordance with site requirements.

8.3 MAINTENANCE INTERVALS

Minimum intervals are as follows (adjust for severe environments—dust, coastal corrosion, high traffic, or construction sites):

- **Weekly:** Charging connector and socket cleaning (or after contamination/drop event).
- **Monthly:** Routine visual inspection.
- **Quarterly (or more frequently in severe environments):** Internal dust removal; ventilation system inspection; dust screen cleaning.
- **Annually (licensed electrician):** Preventive electrical service and verification per site requirements (including checks of incoming supply and internal wiring).

8.4 WEEKLY ROUTINE INSPECTION

Weekly connector and socket cleaning (and after contamination/drop event)

- When the connector is idle, fit a dust cover or insert the connector into the charger socket to prevent foreign matter ingress.
- Clean the charging connector and socket weekly using a **high-pressure air gun and brush**; if not available, use a **non-dusting cloth or swab**.
- Do not use solvents or water for connector head cleaning.



8.5 MONTHLY ROUTINE INSPECTION (OPERATOR/SITE STAFF)

Perform the following checks at least monthly:

A. External condition

- Wipe the exterior surfaces regularly with a clean damp cloth to remove dust/dirt and reduce corrosion risk.
- Inspect enclosure surfaces for damage or early signs of corrosion and report if found.

B. Cable and connector condition

- Check charging cables are not frayed, cut, kinked, or crushed.
- Check connector pins for corrosion and confirm the connector housing is not cracked or damaged.
- Ensure the connector fits securely in the holder and does not rest on the ground.

C. Display

- Check the display is not cracked/damaged and responds normally during operation.
Cable and winding tube check

D. Housekeeping

- Keep the charger area clear of debris and ensure ventilation openings are not obstructed.

E. Cable and winding tube check

- Regularly check the charging cable and winding tube for aging or wear; replace as required to ensure safe use.
- If the charging connector becomes loose, tighten it promptly.



8.6 QUARTERLY ROUTINE INSPECTION

1. Internal Dust Control (Qualified Personnel Only)

Dust accumulation can reduce insulation performance and affect cooling. At least every three months (or more frequently in severe environments):

- Isolate the charger and confirm safe access conditions before opening any panels.
- Inspect the cabinet cavity for dust and clean the internal bottom, sides, and internal parts using a **vacuum cleaner or air compressor**.
- Inspect internal wiring/terminations for looseness and any evidence of overheating/burning; rectify only by qualified personnel.

2. Ventilation System, Dust Screens, and Filters (Qualified Personnel Only)

Maintain airflow to ensure stable thermal performance.

A. Ventilation inspection

- Inspect cabinet ventilation condition regularly and remove dust build-up from ventilation paths and fan areas.
- Clean the inside of the cabinet at least every three months; reduce the interval for severe environments.

B. Side-door dust screen cleaning (procedure)

1. Open the **left side door**, remove the **black filter**, remove the **ventilating shutter** and **metal dust screen**, and clean them with water.
2. Open the **right-side door**, remove the thumbscrew fastening the fan, open the fan section, remove the **black filter**, **ventilating shutter**, and **metal dust screen**, and clean them with water.
3. Allow all parts to dry completely, then reinstall the metal dust screen, ventilating shutter, and black filter, and secure fasteners.



C. Cleaning precautions (general)

- Do not apply high-pressure water jets to the charger enclosure and prevent water ingress into the cabinet during cleaning.
- Do not use caustic solvents, sprays, abrasives, or unsuitable cleaning chemicals.

3. Protective Earthing, Cooling Fans, and Surge Protection

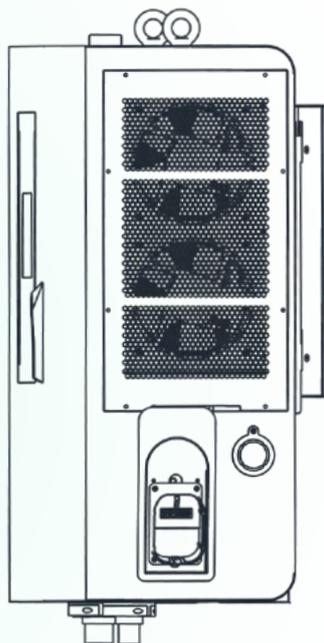
A. Protective earthing

- Regularly verify the ground wire is reliably connected; check grounding bolts and nuts are fastened.



B. Cooling fans

- Regularly confirm cooling fans operate normally.
- If a fan is damaged, replace it with the same model (or approved equivalent) in a timely manner.



C. Surge protection

- Regularly check surge protection device (SPD) inlet/outlet cable terminations for looseness to reduce risk of faults associated with cable aging or loosening. Check the SPD status indicator. If the indicator window changes from **green** to **red**, the SPD **shall be replaced**.



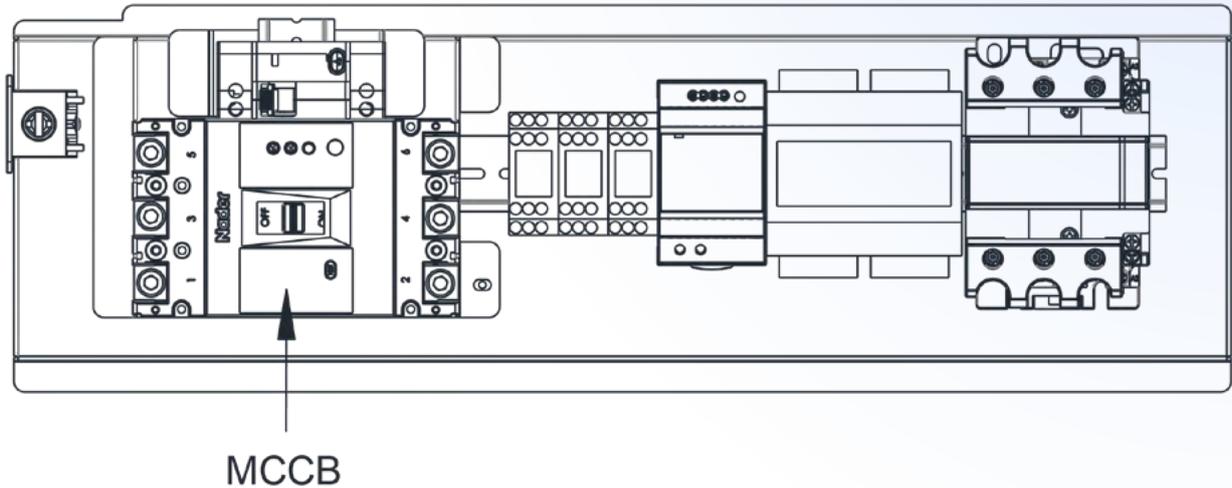
8.7 ANNUAL PREVENTIVE ELECTRICAL SERVICE (LICENSED ELECTRICIAN)

At least annually, perform a preventive service by a licensed electrician. The minimum scope includes:

- Checking incoming supply cable condition and terminations.
- Checking incoming supply voltage. Perform the following voltage checks on the power connection for the charger with a multi-meter.
 1. Line to Line Voltage Test (VL-L)
 2. Line to Neutral Voltage Test (VL-N)
 3. Ground to Neutral Voltage Test



- Checking main circuit breaker and internal wiring, perform the internal breaker test as required.



- Cleaning the internal of the charger (with isolation applied).
- Performing troubleshooting if issues are identified and confirming equipment is returned online.
- Update firmware (if required), if firmware update is required for annual maintenance, please contact Ocular support for assistance.

Maintain records of test results and corrective actions per site requirements.

8.8 SPECIAL INSPECTIONS AFTER ABNORMAL EVENTS

Do not return the charger to service until inspection is complete if any of the following is suspected:

- Lightning strike event in the area affecting the charger.
- Impact/accident damage or fire exposure.
- Flooding at the installation site.

9. TROUBLESHOOTING AND FAULT CODES

This section provides a structured, field-ready troubleshooting workflow. If a corrective action requires enclosure access, electrical testing, or component replacement, it shall be performed only by suitably qualified personnel.

9.1 IMMEDIATE SAFETY ACTIONS AND ESCALATION CRITERIA

Stop charging immediately and isolate the upstream supply if any of the following occur:

- Abnormal sound inside the charger
- Abnormal smell or smoke
- No indication or response on the display
- Unrecoverable failure alarm

In urgent circumstances, press the **Emergency Stop** to stop the charging session. Do not return the charger to service until the cause has been identified and the charger is confirmed safe by authorised personnel.

9.2 COMMON FAULTS AND CORRECTIVE ACTIONS (CONSOLIDATED TABLE)

Fault / condition	Possible cause	Corrective measure
Screen Displays incorrect power rating or plug type	Charger configuration is incorrect	Contact Ocular support
Charger does not power on	Power supply protection tripped	Reset breakers in switchboard and charger
Charger does not power on after breaker trip	Emergency stop button still pressed	Rotate the emergency stop button to unlock it
Charger does not power on after breaker trip	Breaker left in tripped state after abnormal shutdown	Manually reset the breaker to OFF, then switch it to ON.
Display screen does not turn on	Power supply cable loose	Tighten the display power supply cable.
Display keys do not respond	Display screen mounted too tightly	Loosen the mounting screws at the back of the screen.

Fault / condition	Possible cause	Corrective measure
Display image distorted or deformed	Front door deformed and stressing the display	Inspect the front door for deformation and correct or replace as required.
Display screen damaged	Physical damage to screen	Replace or repair the display screen.
All fans do not start	Contactors not energised	Check control circuit continuity and contactor operation.
All fans do not start	Loose fan power cable	Check and tighten the fan power supply cable.
Communication/control lines disabled	Cable pinched or disconnected	Check that cables are not pinched and are fully connected.
Fan fault	Fan damaged	Replace the fan.
Charging handshake not successful	Vehicle BMS not started / vehicle not ready	Check that the vehicle is ready for charging and that 12/24 V is present at the charging connector. Unplug and re-plug connector and try again.
Charging handshake not successful	Communication cable loose	Check and secure all communication cable connections inside the cabinet.
Charging voltage is 0	Charging module fault	Contact the manufacturer for service or module replacement.
Charging voltage is 0	Output contactor not closed	Inspect and repair/replace the output contactor
Charging current is 0	Charging module fault	Contact the manufacturer for service or module replacement.
Charging current is 0	Fuse open circuit	Replace the fuse with one of the correct type and rating.
Charging connector has no 12 V output	Cable fault	Check the associated cable for open circuit or loose connection.
Charging connector has no 12 V output	Contactors control line open circuit	Use a multimeter to check control line voltage and repair/ tighten the cable.
Charging connector has no 12 V output	Contactors coil open circuit	Replace the contactor.

Fault / condition	Possible cause	Corrective measure
Output contactor does not close	Cable fault	Check the associated cable for open circuit or loose connection.
Output contactor does not close	Contactor control cable open circuit	Use a multimeter to check controlline voltage and repair/ tighten the cable.
Output contactor does not close	Contactor coil open circuit	Replace the contactor.
Charging stops unexpectedly	Overtime protection activated	Restart the charging session.
Charging stops unexpectedly	Vehicle BMS reports overtemperature	Allow the battery to cool, then restart charging.

9.3 FAULT CODE REFERENCE

Fault codes may be displayed on the Display. Use the table below to identify the fault and determine corrective action.

Fault code	Fault causes
0	No fault
1	Suspended By EVSE
2	Suspended By EV
10	Cable Lock Failure
12	BMS communication overtime. Battery Recognition Message from the BMS is not received by the charger within the timeout period
16	Emergency Stop Pushed
17	Vehicle BMS has suspended charging, but a reason has not been received
19	Charger contactor fault
21	Communication fault between power adaptor and main control panel

Fault code	Fault causes
22	Temperature sensor inside the charger detects an overtemperature inside the charger
23	Proximity Pilot Pin is not making contact correctly
24	Abnormal connection of charging connector
25	Module fault
26	Communication fault between charging connector controller and main control panel
27	Low voltage auxiliary power supply abnormal
28	Charger output current over limit
29	Charger voltage output abnormal
30	Charger AC input abnormal
31	The module group has no output or insufficient output capability
33	Battery reverse connection fault
40	Charger communication overtime
47	Vehicle BMS parameter abnormal
64	Battery parameter abnormal
74	Device door open
75	Charging connector over temperature and jump
76	Charger insulation resistance abnormal
79	Insulation test failure
150	Vehicle BMS suspends charging due to not receiving correct communication from charger
151	Vehicle Battery Handshake error
152	Vehicle BMS has not initiated the next stage in charging
153	Battery Ready Option stage has not progressed due to the Vehicle BMS not responding

Fault code	Fault causes
154	Battery Charging Demand from Vehicle BMS has not been received by the charger within the timeout period
155	Battery Charging State from Vehicle BMS has not been received by the charger within the timeout period
156	The Vehicle BMS communication connection is lost
157	General charging session failure. Normally related to Vehicle-Charger communication.
158	The battery voltage reported by the vehicle does not match the measured one
159	Generic EV Charger Failure

9.4 TECHNICAL SUPPORT

Contact technical support if:

- The fault is not resolved after applying the checks and corrective actions in Section 9.2.
- A **module fault** is indicated (e.g., fault code 25) or charging voltage/current remains 0 after basic checks.
- **Insulation-related faults** occur (e.g., insulation resistance abnormal, insulation test failure) and do not clear after safe isolation and verification.
- The charger has been exposed to abnormal events such as flooding, fire, or suspected lightning impact and requires inspection before return to service.

When requesting support, record:

- Model (IOC030HY1 / IOC060HY2)
- Serial number
- Fault code(s) and on-screen message(s)
- Recent events (breaker trip, E-Stop activation, connector removal, weather events)
- Site supply details and network status (if applicable)

10. WARRANTY AGAINST DEFECTS

In this Warranty:

We, us, or our means EVE Australia Pty Ltd t/as EVSE (ACN 614 095 644) and our contact details are set out at the end of this warranty.

You, or **your** means the purchaser or the original end-user of the Goods and Services.

Goods means the product or equipment supplied to you by us, pursuant to the Terms and Conditions and which were purchased in Australia; and

Services means services supplied by us pursuant to the Terms and Conditions.

Our goods and services come with guarantees that cannot be excluded under the Australian Consumer Law. For major failures, you are entitled to:

- Reject the goods, pursuant to which we must provide you with (at your discretion) either a refund of any money and the value of any other consideration paid for the goods, or a replacement of the rejected goods with goods of the same type and of similar value.
- cancel your service contract with us; or
- compensation for the goods or services' reduced value.

If a failure does not amount to a major failure, you are entitled to have the failure rectified within a reasonable time. If this is not done you are entitled to recover all reasonable costs incurred in having the failure remedied, or reject the goods (as to which, see the first dot point above), or terminate the service contract.

10.1 WARRANTY

10.1.1 We provide this Warranty to you in addition to any rights or remedies you have under the Australian Consumer Law or any other applicable law (Consumer Law Rights).

10.1.2 Subject to the terms of this Warranty, if during the first 2 years from the date of dispatch of the Goods or Services by us (Warranty Period) the Goods and Services prove defective by reason of improper workmanship or materials, we will repair the Goods or resupply the Goods and Services or issue a full or partial refund to you with respect to any amount paid for the defective part (or all) of your Goods and Services. Your Consumer Law Rights may extend beyond the Warranty Period.

10.1.3 If any materials, parts or features required to facilitate any repair or replacement pursuant to clause 1.2 are unavailable or no longer in production, or your model of Goods is no longer available or in production, we will use our best endeavours to use appropriate equivalent materials, parts, features or model.

10.2 MAKING A VALID WARRANTY CLAIM

10.2.1 To claim the benefit of this Warranty, you must:

- a. notify us by email or over the phone as soon as you become aware that the Goods and Services are defective and, in any event, within 30 days of when you become aware that the Goods and Services are defective with evidence of proof of purchase of your Goods and Services from us and a description and photographs of the claimed defect;
- b. allow us sufficient access to your site to inspect your Goods and Services;
- c. if we ask you to, you must return the Goods together with all packaging, parts, accessories and documentation (the guides and product manuals included in the box) to the contact details set out below; and
- d. provide any other information reasonably required by us to assess your claim.

10.2.2 Where you return the Goods as part of a Warranty claim under this clause 2.1, you will need to cover any associated costs of you returning the Goods to us, and where we find the Goods are covered by this Warranty, we will refund the associated costs of you returning the Goods to us.

10.2.3 Where we accept your claim under this Warranty, clause 1.2 will apply.

10.2.4 Our technicians are available between 9:00am and 5:30pm AEST on business days (not including Saturday, Sunday or a public holiday) (Service Availability). We will use commercially reasonable endeavours to acknowledge receipt of your Warranty claim within the Service Availability window which we receive your request. Where your request is received outside of our Service Availability Window, we will endeavour to acknowledge receipt of your Warranty claim in the next Service Availability Period (i.e. the next business day).

10.3 WHEN THIS WARRANTY APPLIES AND WHEN IT DOES NOT

10.3.1 This Warranty does not cover any defect which is caused (or partly caused) or contributed to, by any:

- a. act or omission, accident, or negligence by you or any third party not engaged by us (including any third-party installer of your Goods).
- b. failure on your part to follow any instructions or guidelines (including any manual) provided by us or the manufacturer in relation to your Goods or properly maintain your Goods in accordance with any of our instructions or guidelines (including any manual).
- c. use of your Goods and Services otherwise than for any application or use specified by us or the manufacturer.
- d. continued use of your Goods and Services (where such use is not reasonable) after any defect in your Goods and Services becomes apparent or would have become apparent to a reasonably prudent person.
- e. incorporation or installation of fixtures, appliances or other items into your Goods.
- f. failure by you to notify us of any defect in your Goods and Services within a reasonable period of time after you become aware of or ought to have reasonably become aware of the relevant defect.
- g. reasonable wear and tear of your Goods.
- h. act of God or force majeure event (including but not limited to war, riot, invasion, act of terrorism, contamination, earthquake, flood, fire, or other natural disaster, or any other event or circumstance beyond our or the manufacturer's reasonable control); or
- i. installation, repair, replacement, maintenance, altering, overhauling or otherwise compromise of the Goods by you or any person other than us or the manufacturer.

10.3.2 This Warranty does not cover any third-party products or accessories that the customer obtains separately from us, that are not supplied or manufactured by us.

10.3.3 Additional Expenses: Any works or services requested by you to be performed by us (including any work or services that are additional to repairs carried out by us pursuant to clause 10.2 and deemed by us to not be covered under this Warranty) may incur additional charges, which we will advise you of prior to commencing those additional work or services. We are under no obligation to perform any additional work or services that you may request.

10.3.4 After Hours Support: Any works or services requested by you to be performed by us outside of our Service Availability window may incur additional charges, which we will advise you of prior to commencing the after-hours work or services. We are under no obligation to perform any work or services outside of our service availability window.

10.4 GENERAL

10.4.1 Terms and Conditions prevails: This Warranty is subject to the Terms and Conditions and in the event of any inconsistency or ambiguity between this Warranty and the Terms and Conditions, the Terms and Conditions will prevail.

10.4.2 Governing Law: This Warranty is only valid and enforceable in Australia and is governed by the laws of New South Wales.

10.4.3 No third-party reliance: The benefit of this Warranty is for you only, and no other person or third party can rely on or make a claim under this Warranty.

10.4.4 No Assignment or transfer: This Warranty or the benefit under this Warranty cannot be assigned or transferred to any other person or third party.

10.4.5 Severance: If any provision of this Warranty is held to be void, invalid or illegal or unenforceable in any jurisdiction, that provision is to be read down as narrowly as necessary to allow it to be valid or enforceable, failing which, that provision (or part of that provision) will be severed from this Warranty without affecting the validity or enforceability of the remainder of that provision or the other provisions in this Agreement.

APPENDICES A: SITE PREPARATION CHECKLIST FORM (PRE-INSTALLATION)

Project / Site Details

Project name: _____

Site address: _____

Charger model(s): IOC030HY1 IOC060HY2 Quantity: _____

Installation type: Floor-mounted Wall-mounted (if applicable)

Planned installation date: ____ / ____ / ____

Completed by (name): _____ Company: _____

Signature: _____ Date: ____ / ____ / ____

A. Environment and Location

Item Requirement		Yes/No	Notes/Actions
A1	Drainage measures in place to prevent flooding/water pooling around charger location.	Y N	
A2	Location avoids direct sunlight where practicable.	Y N	
A3	For outdoor installs, sunshade / rainproof shelter installed where required.	Y N / N/A	
A4	Noise sensitivity assessed (near residential/noise-sensitive areas). If required, noise test completed or mitigation planned (e.g., acoustic treatment).	Y N / N/A	

B. Clearances and Access

Item Requirement		Yes/No		Notes/Actions
B1	No obstacles within 2 m on the left side of the charger (heat dissipation).	Y	N	
B2	No obstacles within 2 m on the right side of the charger (heat dissipation).	Y	N	
B3	Front access space reserved for normal operation and service access.	Y	N	

C. Civil Works and Foundation

Item Requirement		Yes/No		Notes/Actions
C1	Concrete foundation poured to specification (C25 concrete).	Y	N	
C2	M12 stainless steel anchor bolts preburied; exposed length 40 mm ; bolts vertical.	Y	N	
C3	Conduit / cable pathway provision includes inclination and rainwater-ingress protection at entry points.	Y	N	

D. Safety Controls (Vehicle Impact / Marking)

Item Requirement		Yes/No		Notes/Actions
D1	Vehicle impact protection installed where required (bollards / railings / wheel stops).	Y / N/A	N	
D2	Hazard marking installed where required (yellow/black warning lines on exposed foundation edges).	Y / N/A	N	

E. Electrical Provisioning (Pre-Installation Readiness)

Item Requirement		Yes/No		Notes/Actions
E1	Cable route planned and prepared (conduit/tray complete; no trip/mechanical damage risk).	Y	N	
E2	Isolation point location confirmed and accessible.	Y	N	
E3	Upstream protection selected/ready (breaker type/rating per design).	Y	N	
E4	Switchboard capacity confirmed (supply and space available).	Y	N	

F. Communications (If Applicable)

Item Requirement		Yes/No		Notes/Actions
F1	Communications method confirmed: <input type="checkbox"/> Ethernet <input type="checkbox"/> Cellular/4G <input type="checkbox"/> Other: _____	Y	N	
F2	If cellular: SIM available with data allowance \geq 300 MB .	Y / N/A	N	
F2	If cellular: signal quality verified at charger location.	Y / N/A	N	
F4	If Ethernet: network outlet/cabling available at charger location.	Y / N/A	N	

Pre-Installation Status

Site preparation complete — installation can be scheduled

Site preparation incomplete — outstanding actions listed above must be closed before scheduling

Outstanding Actions Summary:

OCULAR

DC TITAN

ocularcharging.com.au

sales@ocularcharging.com.au

1300 912 650