



Guidance to Installers of Viridian EV Charging Stations



This guide is intended to instruct in the proper installation of a Viridian EV Charging Station. Please note that when installing this equipment care must be taken to ensure that all, local and national safety and planning requirements are met.

INSTALLATION OF THIS EQUIPMENT SHOULD ONLY BE CARRIED OUT BY A FULLY QUALIFIED INDIVIDUAL. VIRIDIAN EV ACCEPTS NO RESPONSIBILITY FOR DAMAGE CAUSED BY IMPROPERLY INSTALLED EQUIPMENT.

Cautions and Dangers

This guide contains several instructions to which the following symbols have been attached. Failure to comply with instruction could result in:



DANGER Indicates where failure to comply with instructions will cause death or serious injury.



WARNING Indicates where failure to comply with instructions could lead to death or serious injury.



CAUTION Indicates where failure to comply with instructions could lead to minor or moderate injury.

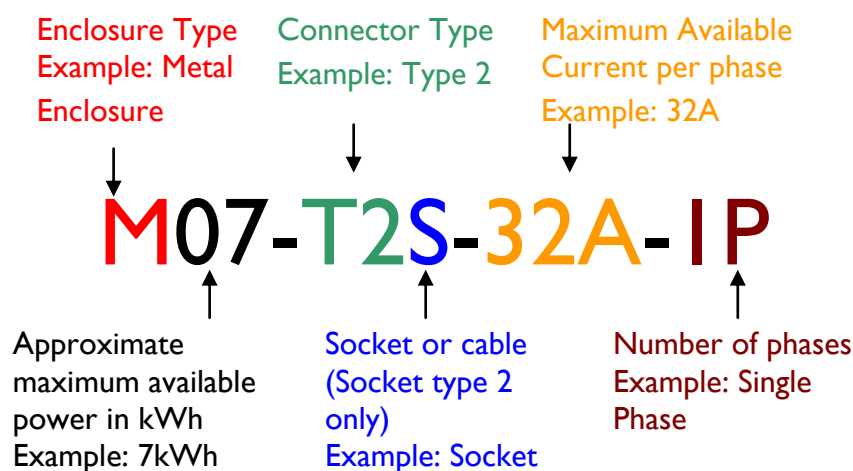
This document is intended to instruct in the installation of all models of Viridian manufactured charging stations (current model numbers at the time of writing listed below). Instructions specific to particular models will be highlighted and clearly marked.

M03-T1C-16A-IP
M03-T2C-16A-IP
M03-T2S-16A-IP

M07-T1C-32A-IP
M07-T2C-32A-IP
M07-T2S-32A-IP

M12-T2C-16A-3P
M12-T2S-16A-3P
M22-T2C-32A-3P
M22-T2S-32A-3P

Understanding the model number of your charging station





WARNING

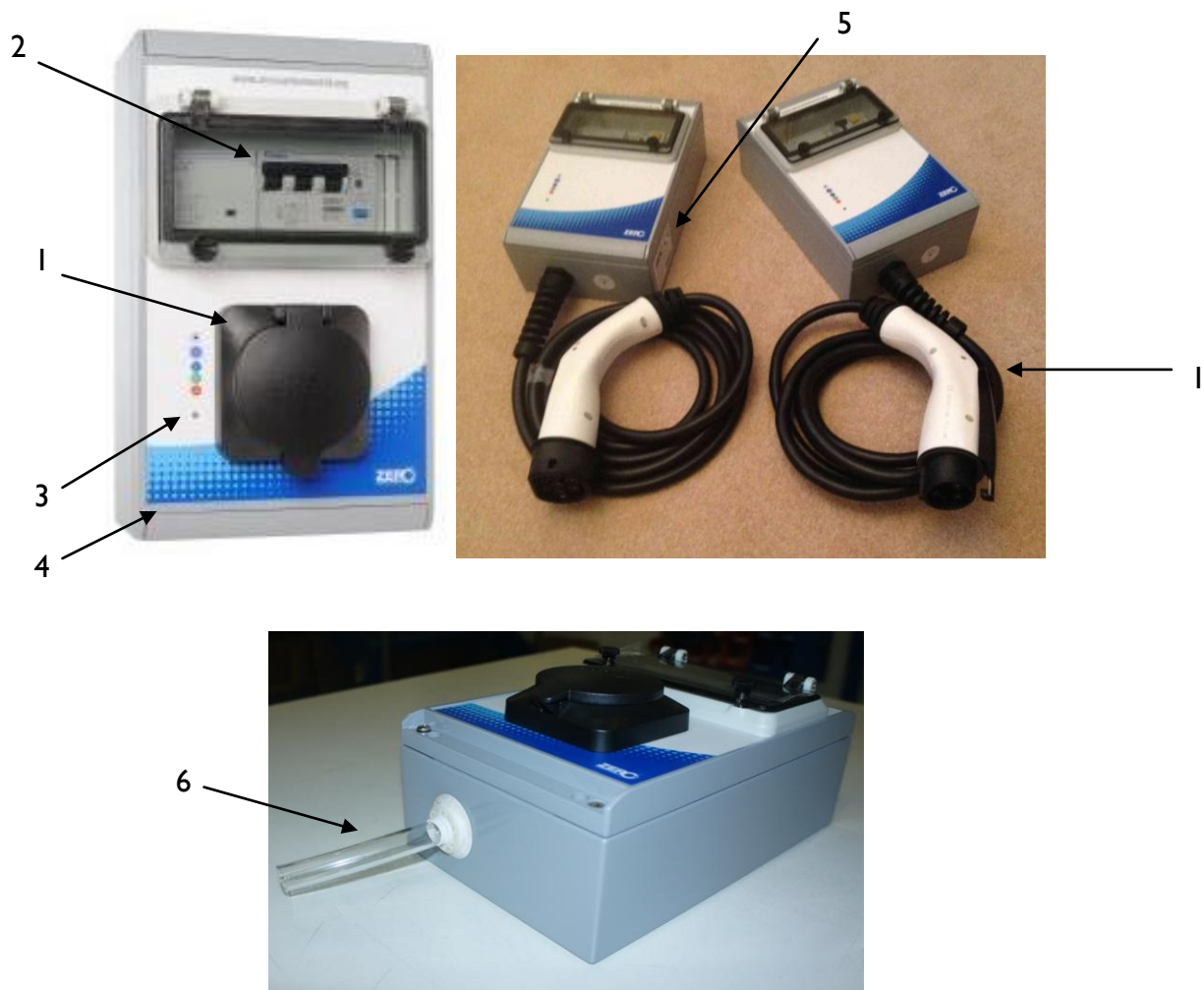
The charging station is designed for electric vehicle (EV) charging only. It is designed to only allow the flow of electricity once an EV is connected and correct communication is established. Any tampering of the charging station to allow the flow of electricity at any times other than this will present a risk of electric shock.



CAUTION

The Charging station is covered by a manufacturers parts and labour warranty. Alterations to the charging station that are not permitted will invalidate this warranty.

Fig. A - Charging Station Features



1. The charging station connects to an EV via the attached vehicle coupler (shown right) or via the socket (shown left). Models fitted with sockets allow the use of a range of approved interconnecting cables.
2. Integrated RCBO
3. Status LED
4. Cover strips
5. Identification label
6. Socket drainage tube

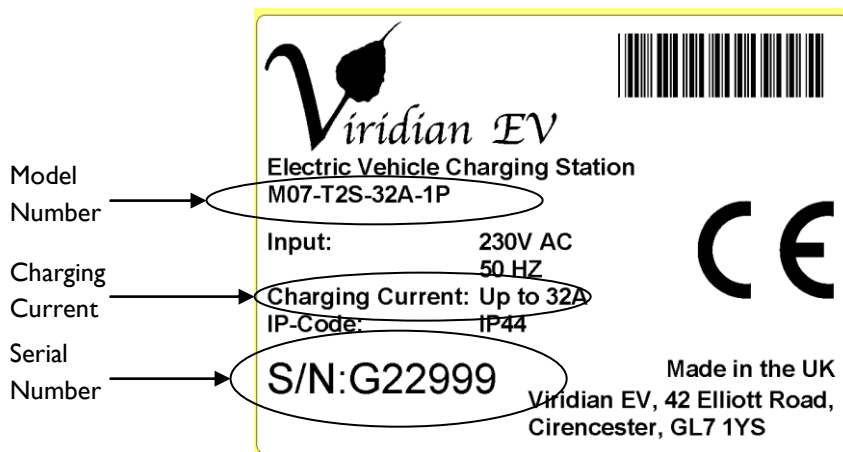


Fig. B - Identification label breakdown

Mounting of the charging station

The charging station should be mounted vertically on either a post or a wall. The position of the charging station should allow all main functions of the charging station to be accessible between 750mm and 1200mm of the ground in accordance with BS8300:2009, unless otherwise instructed not to. The charging station has four integrated mounting holes that are accessible by removing the cover strips (Fig. A - 4).

Internal components

1. Contactor
2. RCBO
3. EPC
4. Mains input Earth terminal
5. Main charging station earth point.
6. Label stating the equipment must be earthed

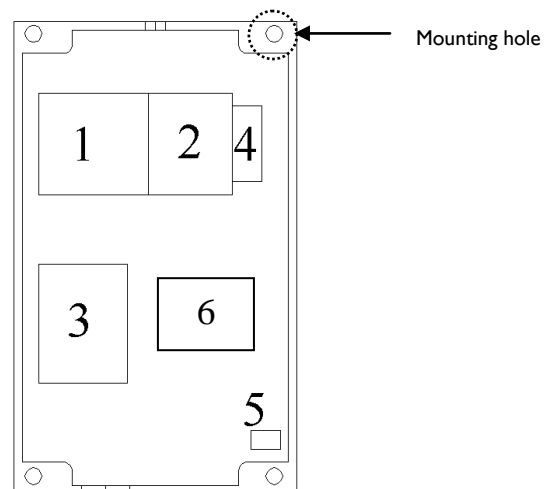


Fig. C – Inside the box

Installation method



DANGER

Installation requires access to the properties electrical consumer unit. Ensure that power to it is isolated before commencing any work.



WARNING

Due to the high and constant current draw, the charging station must be installed on a dedicated spur within the consumer unit.



CAUTION

The charging station must be installed in accordance with all current safety and legislative requirements relevant to the location to which it is being installed. If any of the actions listed by the installation method described below contravene current safety and legislative requirements, they **MUST** be adjusted to meet the required standard. If that is **NOT** possible they **MUST NOT** be done.

THE INSTALLER MUST ENSURE THE CHARGING STATION IS EARTHED

It is recommended but not required that an isolation switch should be located near the charging station.

Plastic hinges have been provided with the charging station for optional fitting to the two rightmost slots under the cover strips (Fig. A - 4). These hinges allow the front panel of the charging station to hinge to the right of the rear casing allowing work to be carried out on the unit without removal of the front panel.

- Install a MCCB within the consumer unit that is appropriately rated for the charging station(s) that is being installed.
- Drill an appropriate sized hole on the side of the charging station for a cable gland, ensuring that no damage is done to any internal components or wiring and removing any burrs and swarf that may have been generated in the process. The cable gland used must be suitably rated for the location of the charging station.
- The charging station should be secured to a wall or post as described on page 4.
- Pass a suitably rated cable for the current draw, cable length and cable chasing method directly* from the consumer unit through the gland and connect LIVE and NEUTRAL to the correct terminals of the RCBO (Fig. C - 2). The terminals should be tightened to between 2.5 and 3Nm. For three phase charging stations ensure that all 3 LIVE are connected to the correct terminals

*If you are carrying out an OLEV approved install, an external energy meter is required between the charging station and consumer unit. It is recommended that you use an Emlite ASLH 382. The Emlite must be positioned in a suitable location to receive a GSM signal

- Connect the EARTH to the mains input earth terminal (Fig. C - 4) **THE INSTALLER MUST ENSURE THE CHARGING STATION IS CORRECTLY EARTHED.**

- Inspect ALL other connections as these may have become loose in transit.
- For all **T2S** type chargers connect the drain tube supplied to the bottom of the socket (Fig. A – 6) pulling the excess liquid through to the outside of the charging station.
- Close and secure the lid using the four supplied captive screws.
- Replace the cover strips.
- Ensure all cables connected to the charging station are suitably secured.
- Re-establish the electrical connection and test the RCBO for correct operation.
- The status LED should be flashing blue to indicate that the charging station is ready to charge
- Test the operation of the charging station on an EV simulation box and if possible the customers EV.
- It is recommended that you notify the local DNO that you have completed a charging station install. This **MUST** however be done on an OLEV approved install. If this is a second charging install, you must state both this and the combined current rating of both chargers.
- If at any time during the install the charging station is damaged you **MUST** stop the current installation and restart it using a new charging station.
- On completion of the install, please ensure
 - The customer receives the *User Guide for Viridian EV Charging Station* leaflet.
 - The customer receives a demonstration on how to use the charging station and its features.
 - You demonstrate the RCBO test function and instruct them to do this monthly.
 - The customer is shown how to isolate the power to the charging station in the event of an electrical fault.
 - The customer receives information on the warranty and what to do in the event of a claim.
 - The customer receives your contact details in case of any issues that may arise within the warranty period. (A space has been provided at the back of the *User Guide for Viridian EV Charging Station* leaflet)
 - For OLEV installations: A note is taken of the Emlite meter serial number and the charging station serial number (optionally: the customer's name and address). Direct these to team@viridianev.energy at your earliest convenience. (Forwarding the photos taken for OLEV's requirements is suitable method).
 - For OLEV installations: Permission is obtained if passing the customer's name and address back to us, the manufacturer, for the purpose of record keeping and identifying the installations.¹

¹The information will never be passed on to any other party or company. The information will also enable us to produce usage data for users of our charging stations if requested.

Service and maintenance



DANGER

Contact with live components can result in serious injuries. Isolate the power before commencing any work.

THERE ARE NO USER SERVICEABLE COMPONENTS WITHIN THIS CHARGING STATION.

Please note that even though every care has been taken to select only the highest quality components, in the event that you should experience problems with this unit servicing should only be carried out by a suitably qualified individual. As the charging station is modular in design the affected component can be replaced on site with the defective part being sent back to the manufacture for analysis.

Procedure

- Isolate all power to the charging station.
- Disconnect the wiring from the affected component by loosening the terminals.
- Remove the device by pulling the locking slider and swivel the device away from the DIN rail.
- Install a new device by placing it over the DIN rail and firmly pushing it down until it clicks into place.
- Reconnect all wiring and check that **all** connections are tightened to the required torque.
- Re-establish the power supply to the charging station.

Cleaning

It is recommended that cleaning of the outside of the charging station should be performed using a damp cloth and a mild cleaning solution.



CAUTION

Cleaning the charging station with a high-pressure water hose is not permitted and could cause water build up within the charging station.

The charging station should not be opened and cleaned internally.

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