

IDEV

Electric Vehicle Chargers



Installation and Operation Guide

We're on your side.

Please read and understand this guide before installation and use. If you do not understand any information do not use and contact IDE for advice.

Safety Warnings

The Onsite+ should be connected to a 63 A 3 Phase supply with suitable overload and 30 mA earth leakage protection

Standards:

The IDE Onsite+ EV has been designed to comply with the following standards:

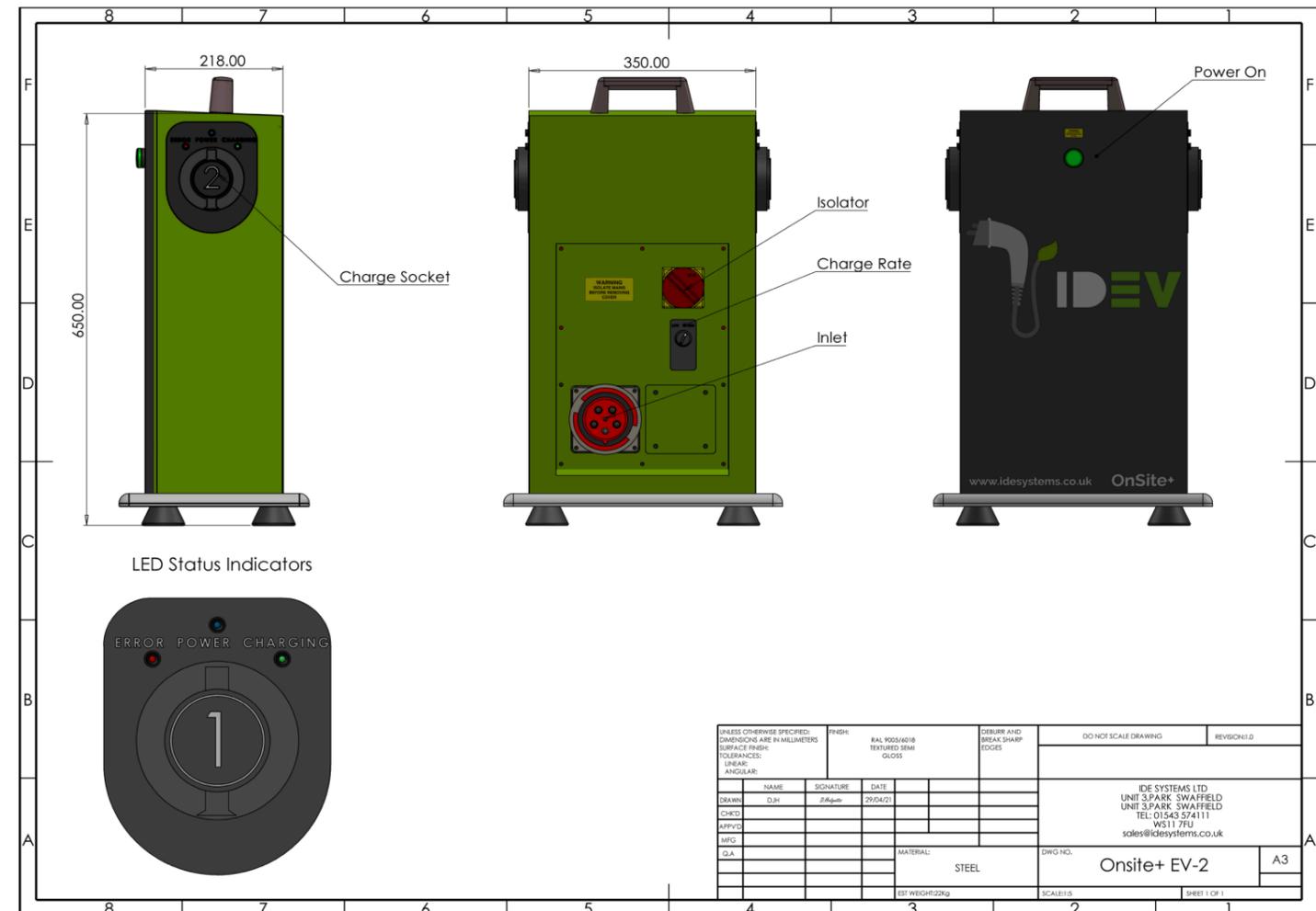
IEC 61439 - 7. Low-voltage switchgear and control gear assemblies - Part 7: Assemblies for specific applications such as marinas, camping sites, market squares, electric vehicle charging stations

IEC 62196-2 Plugs, socket-outlets, vehicle couplers and vehicle inlets

BS EN IEC 61851-1:2019. Electric vehicle conductive charging system.

General requirements:

Can be installed in compliance with BS 7671:2018 Amendment 1 (EMC) Directive 2014/30/EU. EMC compliance.



Installation Guide

The Onsite+ has been designed to be installed in a temporary power distribution network, however any such network should be certified to locally applicable safety standards.



The Onsite+ has 6 mA DC residual current detection and PEN loss detection in the unit. It should be connected to a 63 A 3 Phase supply with suitable overload and 30 mA earth leakage protection.

- ✓ The Onsite+ should be placed on stable ground to prevent falling over, and is suitable for both indoor and outdoor applications. Temperature range -10 C to 40 C, avoid direct sunlight if possible.
- ✓ Place the charger next to the parking space, but ensure it is not intruding such that a vehicle may make contact.
- ✓ The inlet is an IEC 62196 socket and a matching plug should be used, rated IP 44 or IP67. It is advisable to minimise cable runs, and ensure any trip hazards are removed, such as using cable ramps. Ensure the isolation switch is OFF before connection.
- ✓ Once connection to the unit has been made, but before connecting a vehicle, switch on the isolator. The LED's next to each socket will go through a start-up sequence, and once ready the blue POWER light will remain on.
If the error light remains lit, or no lights are lit contact IDE for support.
- ✓ The power light on the front remains on when power is connected to help find the unit in the dark, and prevent vehicle impact.

Charge rate Selection

The Onsite + has a charge rate selector on the rear panel that selects between 16A and 32A charging. This is useful where there is limited power available for the number of chargers in use. Consult an electrician to ensure there is sufficient power available for all charge points.

The rate can be changed at any time, even when charging, and operates on both charge points at the same time. The following charge rate table shows power availability.

Rate	1 Phase Charging	3 Phase Charging
High	7.4 kWh	22kWh
Low	3.2kWh	11 kWh

The vehicle and cable determine single or 3 phase charging, consult the manual for the vehicle for available charge rates.

Charging the Vehicle.

Your step by step guide on how to use IDEV Chargers.



1

Checks

Ensure the installation section above has been followed and the isolator has been switched on, and the blue POWER light is on.

Fault Finding

Sometimes a charger may not start correctly, and either the Onsite+ ERROR LED is lit, or the vehicle charge lights show an error. This is often due to cables not plugged in correctly at either or both ends. To try again, remove the cable from both the Onsite+ and vehicle, plug into Onsite+ first, then into the vehicle. If this does not work, switch off the Onsite+ via the isolator, wait 5 seconds and try again. If this still does not work, try charging from the other Onsite+ port.

Cable Stuck Handling

In the event a cable is stuck in either the vehicle or charger after charging is stopped by the vehicle, turn off the isolator and the lock will release after 1 -2 seconds.

Repairs

Repairs are not permitted. Defective devices must be disposed of in compliance with environmental requirements.

2

Plug in Cable

Plug the EV Type 2 cable (not supplied) into one of the charge ports.

3

Plug in Vehicle

Plug the EV Type 2 cable into the vehicle. The Onsite+ will communicate with the vehicle and initiate the charge. If correct charging is achieved the CHARGE LED will be lit.

If the **ERROR LED is on**, the EV charger has failed to successfully communicate and start charging.

If the error occurs, remove the cable from the vehicle and re-insert fully. If the vehicle still does not charge revert to fault finding section.

On successful charge start, the cable will be locked in place at both ends to prevent removal.

4

End Charge

Different vehicles end charge differently and the user guide for it should be consulted.

Usually this is done by unlocking the vehicle to end charge and release the cable lock.

Remove the cable from the vehicle first, and then the Onsite+

The Onsite+ can remain switched on waiting for the next charge.

EV Troubleshooting

LED COLOUR	STATUS (ILLUMINATION TYPE)	Indication
Blue only "Power"	Slow Pulsing	Power on – ready to charge
Green only "Charging"	Steady	Charging in progress
Blue "Power"	Steady	Electric vehicle connected, electric vehicle is not ready for charging (State B)
All	Flashing	Lock is obstructed.
Blue + Red "Power" + "Error"	Steady	PEN Loss detected. The EPC 2.0 has disconnected the EVSE. Contact DNO or the utility company responsible for the supply
Blue + Red "Power" + "Error"	Pulsing	Supply voltage out of limits (207-254 V AC 50Hz)
Red Only "Error"	Steady	Electric vehicle requires ventilation, charging deactivated (State D) - EPC 2.0 does not support this functionality so charging discontinued
Red only "Error"	Slow Pulsing	State E Communication or Power fault to EV EVSE Fault—Maintenance or repair required QUALI-FIED PERSONNEL
Red only "Error"	Fast Pulsing	RCM Fault: 6mA DC current detected Diode Check Fail



WARNING: DANGERS ASSOCIATED WITH UNAUTHORIZED OPENING OF THE DEVICE

Unauthorized opening of the device might place the user in danger or result in substantial damage to property.

CAUTION: INVALIDATION OF THE MANUFACTURER'S WARRANTY DUE TO UNAUTHORIZED ALTERATIONS TO THE DEVICE

Alterations to the devices are not permitted. Failure to observe this requirement shall constitute a revocation of the manufacturer's warranty.

Technical Support

Contact IDE Systems on:

T: +44 (0) 1543 574 111

E: enquiries@idesystems.co.uk

W: www.idesystems.co.uk