

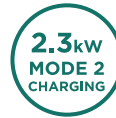


ELECTRIC VEHICLE CHARGING

DOMESTIC ELECTRIC VEHICLE CHARGING SOLUTION

FEATURES

- For use with Mode 2 EV charging cables (UK 3 pin to Type 1 or Type 2)
- 13A unswitched socket with 16A B type compact RCBO, for added localised safety protection during prolonged charging
- Space for a Surge Protection Device as required in the 18th edition
- Water and dust protection to IP66, with covers for each compartment
- Gives 8 miles per charging hour
- Compatible with all mode 2 EV charging cables
- Meets housebuilder EV specification
- Suitable for use a regular outdoor power socket

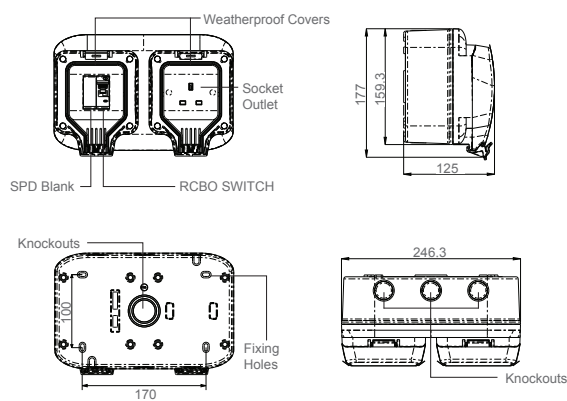


PRODUCT IMAGES



EVH132S1SP

LINE DRAWING



PRODUCT INFORMATION

Part Number	EVH132S1SP
Product Dimensions (W x H x D) mm	246 x 177 x 125
Socket	3 pin unswitched domestic socket

TECHNICAL SPECIFICATIONS

Standard(s)	This product is certified to applicable British safety standards BS1363-2, BS EN 60335-1 and Wiring Regulations - BS 7671
Rated Output	2.3kW when used with mode 2 charging cable
Rated Current	10A When used with mode 2 charging cable
Charge Protocol	Mode 2
EV Charging Compliance	BS EN 62752, BS EN 61851-21-1
Input Voltage	230V AC 50Hz (Single Phase)
Optional Surge Protection Device	EN/IEC 61643-11 BS 7671 Wiring Regulations Section 443 and Section 534
Overload & Fault Current Protection	16A 30mA Type B RCBO
Gland Entry Positions	3 x M20 top, 3 X M20 bottom, 1 x M20/M25 on rear

IF IN DOUBT CONSULT A QUALIFIED ELECTRICIAN





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MODE 2 RCD INSTALLATION IET REQUIREMENTS

The IET Code of Practice for Electric Vehicle Charging Equipment Installation (3rd Edition) states that mode 2 charging equipment should be protected by a

- 1) **Type A RCD** and appropriate equipment that provides disconnection of the supply in case of DC fault current above 6mA or
- 2) **Type B RCD**

For the installation to conform to IET requirements, the appropriate RCD should be selected by the electrician and fitted at the incoming source.

The Masterplug EVH132S1SP mode 2 charging unit is fitted with a type B RCBO for additional local protection.

A type B RCBO is a combination of two functions, a type B MCB and type AC RCD.

Type B MCB devices are generally suitable for domestic applications. They may also be used in light commercial applications where switching surges are low or non-existent. Type B devices are designed to trip at fault currents of 3-5 times rated current (In).

For example, a 10A device will trip at 30-50A.

Type AC RCD devices are for general purpose use, RCD can detect & respond to AC sinusoidal wave.

EV MODE 2 CHARGER

The Masterplug EVH132S1SP EV mode 2 charging unit can be classed as being EV Ready.

The EV ready unit provides the homebuilder with a low cost, future proof solution that, as well as providing EV charging in Mode 2 format to satisfy planning, can also be used as an outdoor IP66 rated domestic 13 Amp socket.

This unit is ideal for the homebuilder.

The mode 2 EV charger is a safe, compact electric vehicle charging unit ideally suited for home installation.

Mode 2 (AC) charging is performed via a 3 pin socket and cable with an inbuilt control pilot function and system of protection against electric shock.

The mode 2 charger comprises a robust wall-mounted polycarbonate enclosure with durable unswitched 3 pin socket and adjacent RCBO with individual weatherproof covers for both components.

The enclosures are IP66 rated, which means that when the front cover is securely closed, the sealed construction provides a very high level of protection against the ingress of both water & dust.

Access to the socket and RCBO is by means of the hinged front cover.

The unit provides safe and reliable charging with localised RCBO protection making it suitable for prolonged use.

The faceplate can also be adapted to accommodate a surge protection device adjacent to the RCBO if required as stated in the BS 7671 Wiring Regulations Section 443 and Section 534.

SAFETY WARNING

BEFORE USE PLEASE READ CAREFULLY AND USE IN ACCORDANCE WITH THESE SAFETY WIRING INSTRUCTIONS.

Before commencing any electrical work ensure the supply is switched off at the mains.

Either by switching off the consumer unit or by removing the appropriate fuse.

Wiring should be in accordance with the latest edition of the IEE regulations (BS7671).

Wire Identification – Twin & Earth Cable EARTH = Green/Yellow

Sleeving NEUTRAL = Black (pre Apr 04) / Blue (after Apr 04)

LIVE = Red (pre Apr 04) / Brown (after Apr 04).

The ends of the individual conductors should have the insulation removed by approx. 12mm.

Any bare earth conductors should be sleeved to within 12mm of the ends.

(These details are for general information only and conductor lengths may need to be trimmed in certain installations)

ENVIRONMENTAL PROTECTION

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist.

Check with your Local Authority or retailer for recycling advice.



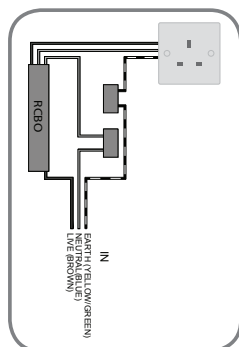


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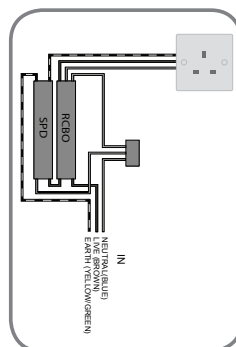
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WIRING DIAGRAM

Note: Charging unit is pre-wired.
Connect incoming cables to corresponding terminal block and RCBO as shown.



Wiring diagram with surge protection protecting Live and Neutral.
For surge protection device (SPD), remove blank and connect SPD to din rail wire as shown.



INSTALLATION GUIDE

Ensure Safety Instructions have been read first. Drain hole positions are provided in relation to conduit positions.
Note position of earth terminal.

1. The unit should be mounted on a clean, rigid vertical surface suitable to accept screw type fixings. Surface should be reasonably flat as unevenness could cause product damage or affect operation.

2. For cable entry, decide if conduit is being used & entry positions.

For side, top or rear entry the lowermost drain hole position **MUST** be drilled out using 5mm drill. **ONLY ONE** drain hole position must be drilled.

For bottom entry a drain hole **MUST NOT** be drilled in rear box, but a drain hole **MUST** be drilled at lowermost point of conduit run.

For rear entry, cut or drill out rear knock-out. For extra sealing protection, a channel around knock-out is provided to accept a bead of sealant (not supplied) when fixing to mounting surface.

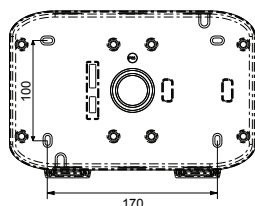
NOTE

The drilling out of a drain hole or removing rear knock-out will reduce the IP rating of the product.

3. Mounting the rear box using No.8 screws in all four positions on the fixings shown.

The fixing holes are slotted to enable some rotation adjustment if required. Fit supplied bungs over all used fixing screw positions to seal aperture recesses.

4. Determine final lengths of cables and cut to suit. Strip outer insulation as required and then trim insulation on individual wires 10 -12mm to expose conductor ends.



5. Connect the incoming cable to corresponding terminal block and RCBO as shown.

See diagram overleaf.

(Note: charging unit is pre-wired)

Connect LIVE wire to BROWN LIVE (L) terminal
Connect NEUTRAL wire to BLUE NEUTRAL (N) terminal
Connect EARTH wire to GREEN/YELLOW (E) terminal

Note - the colours of the wires will be dependant on the type of cable used.

6. All earth connections **MUST** be made & continuity maintained.

7. Where any earth conductor is a bare wire, it **MUST** be sleeved with GREEN/YELLOW sleeving.

8. Ensure all terminal screws are tight and all wires are neatly routed & not unduly stretched or pinched

9. After wiring, refit front assembly onto rear box using fixing screws

- DO NOT OVERTIGHTEN.

10. Fit screw covers to complete installation.

11. Switch power back on, check socket is working & ensure cover & catch operate correctly. The unit is now ready to use.

12. During life of product, any cleaning should only be carried out with a damp cloth using a mild solution of detergent & warm water. **DO NOT USE** solvent based cleaners as these may cause damage. It is recommended to **ONLY** clean the external surfaces with cover closed. **DO NOT** get any water on socket if cover is open.