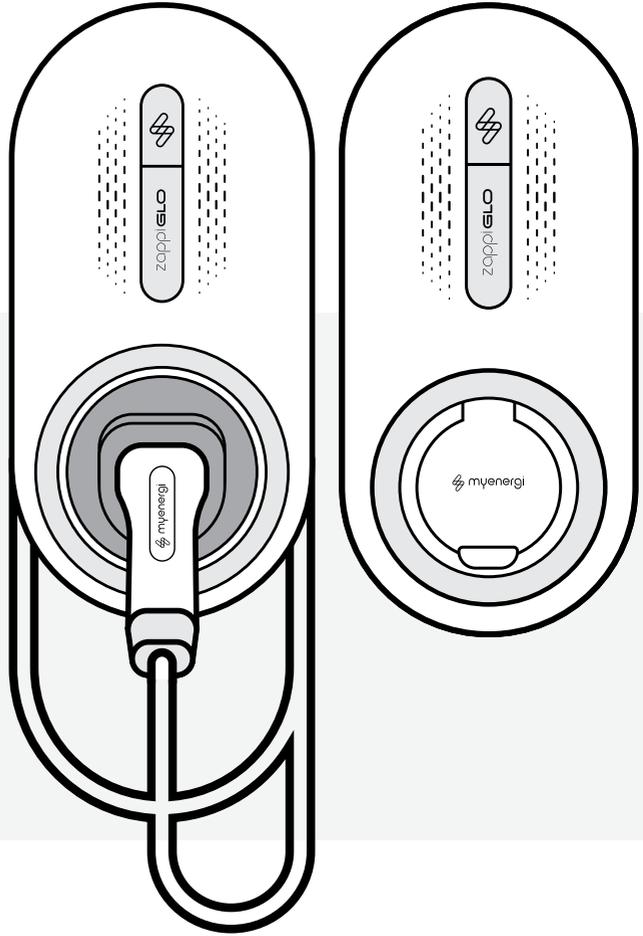


# Zappi iELC



## Installation Manual





# zqppiplo

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# Legal Notices

## Introduction

zappi GLO is an EV Charge Point. It can be used in conjunction with Solar PV, or other microgeneration systems, to utilise surplus generation and prevent exporting it to back to the grid. Choose whether you want zappi to charge 100% green energy or a mixture of green and grid. zappi will work without microgeneration connected and will just operate as a normal charger and use 100% grid energy.

## Copyright

Copyright of these instructions remains with the manufacturer. Text and images correspond to the technical level at the time of going to press. We reserve the right to make changes. The content of the installation instructions shall not give rise to any claims on the part of the purchaser. We are grateful for any suggestions for improvement and notices of errors in the installation instructions. myenergi libbi, myenergi zappi, myenergi eddi, myenergi harvi and myenergi hub are registered trademarks of myenergi Ltd.

## Liability Limitation

myenergi do not accept any direct or indirect liability for product damage or property loss caused by the following conditions:

- Product modified, design changed or parts replaced without authorisation
- Changes, repair attempts and erasing of serial numbers or seals by an unauthorised person
- System design and installation were not in compliance with standards and regulations; fail to comply with the local safety regulations
- Damage caused by any transportation of the products by the installer
- Failure to follow any and/or all user manuals, installation guides and maintenance regulations
- Improper use or misuse of the device
- Force majeure (stormy weather, lightning overvoltage, fire etc)
- Damage from external factors

## Safety

Read all these safety instructions. Failure to install and operate the unit in accordance with these instructions may cause inefficient operation, damage to the unit and invalidate the manufacturer's warranty, or result in injury or death.

The device should only be operated in strict accordance with these instructions. Ensure this manual is retained for future reference and for any maintenance and repairation.



*Indicates a hazardous situation which, if not avoided, could result in death or serious injury.*

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## ATTENTION

This device has been manufactured in accordance with the state of the art and the recognised safety standards. However, incorrect operation or misuse may result in:

- Inefficient operation of the device
- Damage to the device and other property
- Injury or death to the operator or third parties

Any persons involved in commissioning, maintaining and servicing this device must:

- Be suitably qualified
- Have knowledge and experience in dealing with electrical installations
- Do not install or operate the device in potentially explosive atmospheres or areas containing highly flammable materials or gases
- Only operate this device in an ambient temperature between -25°C to +40°C
- This device is intended for a fixed location with a permanent AC supply
- This device may be installed indoors or outdoors and shall be mounted in the vertical orientation only to a flat wall or surface
- The device must be earthed through a permanent earth conductor, correctly installed and reliably connected
- The supply final circuit should be protected by an overcurrent device sized to 120% of the Design Current and in accordance with local regulation requirements. zappi incorporates 6mA DC residual current protection. RDC-DD tripping characteristics in accordance with EN 62955. Local regulations may require 30mA Type-A RCD protection to be installed upstream.
- To secure the device to the wall or surface, ensure suitable fixings are selected
- To maintain the IP rating of the unit, ensure the grommets and plugs provided are fitted. Ensure the cover O-ring is seated correctly and that all cables are fitted with an appropriate gland
- Always disconnect the device from the supply before removing the cover

- Do not insert foreign objects into any part of the zappi or cable and connectors
- Use of cable conversion adapters or cord extensions with this product are not permitted
- Never spray or submerge the zappi with water
- The product is not to be used by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they are supervised or have been given instruction concerning use of the device by a person responsible for their safety
- Do not rest heavy objects on top of this device
- Ensure chemicals used for cleaning the unit are compatible with the materials used in the construction. If in doubt please consult myenergi technical support for further details
- Stop using the device if it is found to be defective, or if any part is cracked, broken or damaged
- Do not attempt to disassemble, tamper, modify or repair the device, as it has no user serviceable parts. Servicing and repair must only be carried out by a suitably qualified installer, with approved myenergi parts

### Regulatory Information

This product complies with the applicable EU and UK directives/regulations:

- Radio Equipment (RED Directive 2014/53/EU & SI 2017 No. 1206)
- Low Voltage (LVD Directive 2014/35/EU & SI 2016 No. 1101)
- Electromagnetic Compatibility (EMC Directive 2014/30/EU & SI 2016 No. 1091)

A copy of the Declaration of Conformity is available through the myenergi help centre.

[www.myenergi.com/compliance](http://www.myenergi.com/compliance)

### Radio Equipment (RED)

This device incorporates a 868/915MHz radio, 13.56MHz NFC reader and 2.4GHz wireless transmitter, and complies with EN62311 for risks to human exposure.

- Radio operates in bands between 868–870MHz / 915–916.3MHz – 37.6 V/m max
- Wi-Fi operates between 2412-2484 MHz (802.11 b/g/n) - 47.6V/m max
- NFC/RFID operates at 13.56MHz - 0.7 V/m
- Bluetooth Low Energy operates between 2402-2480MHz - 22.7 V/m

### Privacy

External CTs within the myenergi ecosystem are used to measure electrical current and provide data for minute-level energy monitoring. When your device is connected to the internet, it will automatically send minute-by-minute data to our servers. This includes information about its status, performance, charging events, schedules and energy usage, so we can show you useful information in the myenergi app or myenergi myaccount. Data on the servers can be accessed by myenergi in order to understand how your device is working, improve our services and resolve Customer or Technical Support queries. We will only know who you are if you or your installer has registered the device on the myenergi app, myenergi myaccount or myenergi Installer Assistant app.

For more information, please visit [www.myenergi.com](http://www.myenergi.com).

### Security Measures

To keep your device secure, a lockout will happen if a password or PIN is entered incorrectly:

#### Bluetooth Pairing PIN

- Condition: 5 incorrect attempts in a row
- Result: Locked for 3 minutes

#### Installer Device PIN

- Condition: N/A

#### RFID Access Key

- Condition: 7 incorrect attempts in 10 minutes
- Result: Locked for 5 minutes
- Note: Using a valid card resets the counter  
different cards still count towards the 7 attempts

### Electromagnetic Compatibility (EMC)

This device has been designed and tested to fulfil applicable standards for:

- Radio frequency emissions when installed according to the instructions and used in its intended environment
- Immunity to electrical and electromagnetic phenomena when installed according to the instructions and used in its intended environment

This device generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this instruction manual, may cause harmful interference to radio communications. Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under UK or EU regulations.

## Electrical Safety

- This device is a Class 1 electrical item in accordance with IEC 61140
- Installation shall be  $\leq 2000\text{m}$  above sea level
- The supply for single-phase devices shall have a voltage of  $230\text{ AC } \pm 10\%$
- The installer should consider voltage requirements of the unit and account for any likely voltage drop on conductors
- The cross sectional area of the supply conductors shall be between  $4\text{mm}^2$  and  $10\text{mm}^2$ . Wiring shall be installed without stress and free from being scratched by sharp objects

## G100 Compliance

zappi supports the Customer Import and Export Limitation Scheme (CLS), in accordance with G100 issue 2. Where G100 is required as part of an installation, then the installer must adhere to the G100 Commissioning Guidance document which can be located here: [support.myenergi.com/hc/en-gb](https://support.myenergi.com/hc/en-gb)

Once the CLS is setup correctly, the master device within the myenergi ecosystem will monitor the maximum import and export, and if necessary, instruct other devices to increase or decrease import or export if these maximum thresholds are ever exceeded.

## Electric Vehicle (Smart Charge Points) Regulations 2021

EV chargers installed, from 30th June 2022, in a private setting i.e. home or workplace, in England, Scotland and Wales, must conform to this regulation. This device conforms to this UK regulation.

For further information about this requirement, please refer to the help centre: [support.myenergi.com/hc/en-gb](https://support.myenergi.com/hc/en-gb)

## National Usage Restrictions

GB – Product model codes with “-G” suffix include an additional automatic disconnection device which satisfies the requirements of BS7671:2018 Amendment 1:2020 722.411.4.1(v) (18th Edition IET Wiring Regulations).

Equipment installed in public areas and car park sites shall be protected against mechanical damage (impact of medium severity). Protection of the equipment shall be ensured by one or more of the following:

- Position or location shall be selected to avoid damage by any reasonably foreseeable impact
- General mechanical protection shall be provided

## Disposal

In accordance with European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in national law, used electrical devices must be collected separately and recycled in an environmentally responsible manner. In the UK these requirements are covered by The Waste Electrical and Electronic Equipment (WEEE) Regulations 2013.

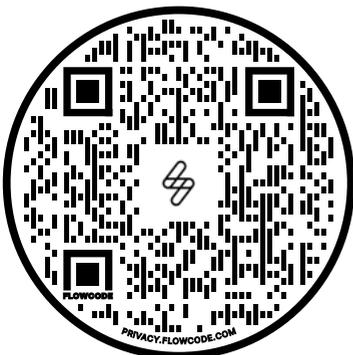
Ensure that you return your used device to your dealer or obtain information regarding a local, authorised collection and disposal system. Failure to comply with these legislation may result in a negative impact on the environment. This is because electronic waste can contain hazardous substances that harm the environment if not disposed of correctly, while also containing valuable materials that can be recovered and reused.

In compliance with the UK WEEE Regulations, myenergi are registered as a producer with the WEEE recycling scheme (WEE/MM4752AA) allowing disposal of our products with local authorised collection, processing and disposal systems.

Packaging should be disposed of in accordance with local recycling guidelines.

## Help Centre

Scan the below QR code for further assistance or visit [support.myenergi.com/hc/en-gb](https://support.myenergi.com/hc/en-gb)



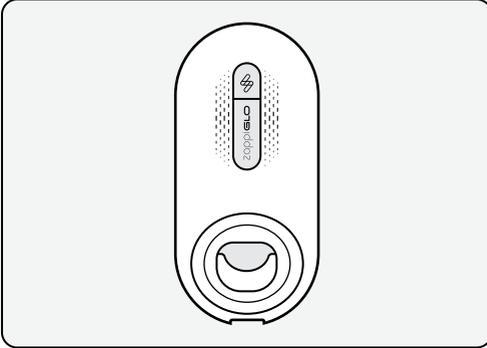
## Installation

### MODEL

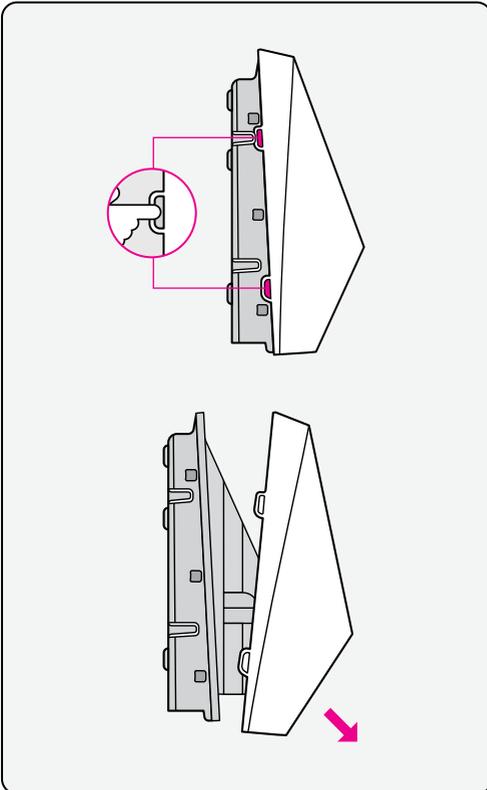
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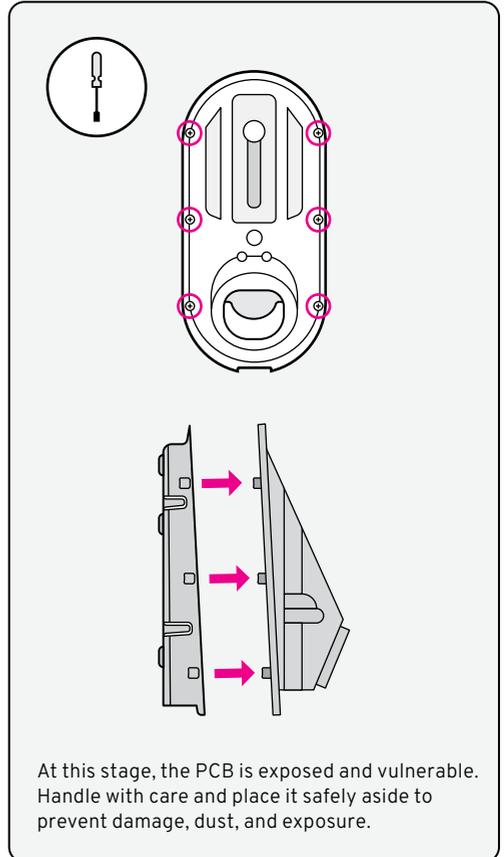
1. Remove zappi from packaging.



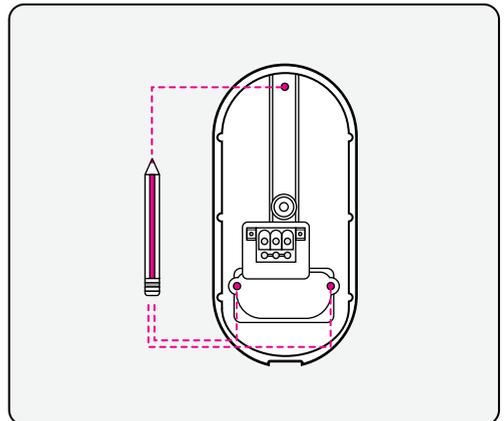
2. Press 2X fascia clips inward from one side, Unhook the other, and pull fascia forward.



3. Loosen 6X cover screws and remove the front cover assembly from the back box.



4. Use the backplate against the mounting surface to mark all the mounting hole locations and then drill mounting holes.



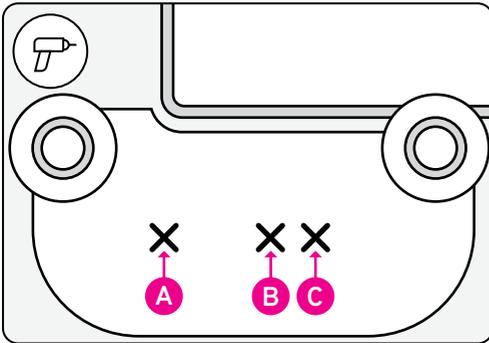
## Cable and Gland Requirements

The cross sectional area of the mains supply cable used should be between  $4\text{mm}^2$  and  $10\text{mm}^2$ . The gland size should be a minimum of 16mm and a maximum of 25mm. Generally, a weatherproof gland can be used for armoured cable. The size of cable and gland used is the responsibility of the installer and should be determined on an install-by-install basis dependant upon install specifics.

5. Drill hole (X) for appropriately rated gland. Fit supply gland in accordance with gland manufacturer instructions. Use drill locations denoted below for bottom or back entry. Consider drilling CT gland entry at this stage if required.

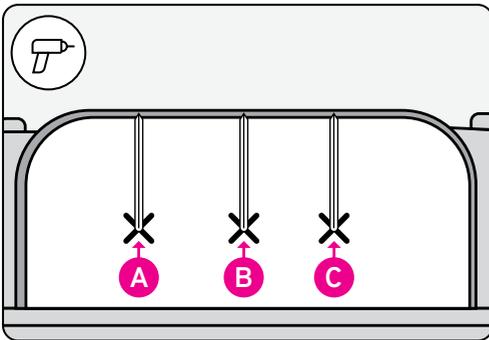
### Rear Entry

- (A)  $\leq \varnothing 20\text{mm}$
- (B)  $\leq \varnothing 25\text{mm}$
- (C)  $\leq \varnothing 25\text{mm}$

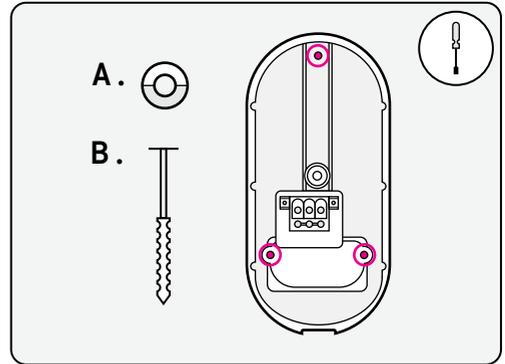


### Bottom Entry

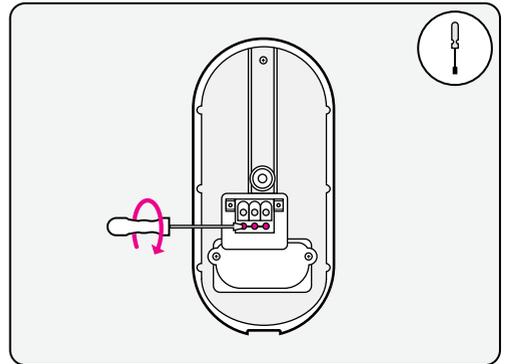
- (A)  $\leq \varnothing 20\text{mm}$
- (B)  $\leq \varnothing 25\text{mm}$
- (C)  $\leq \varnothing 25\text{mm}$



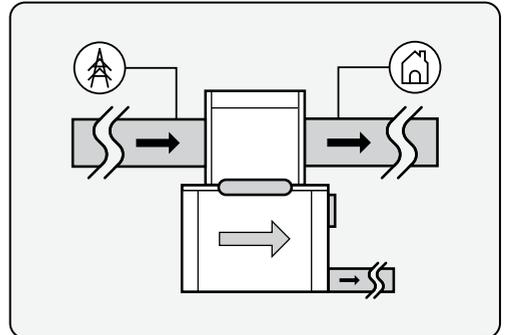
6. Secure the zappi to the structure using appropriate fixings, ensuring that the provided sealing washers (A) are used with all fixings (B) to maintain the IP rating.



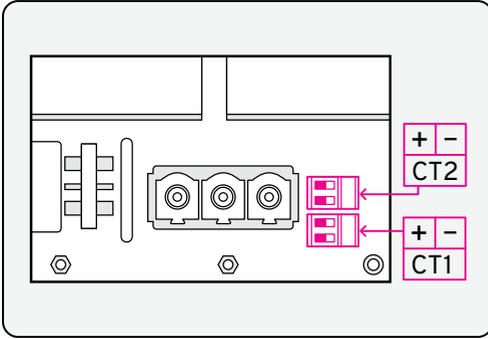
7. Ensure that the supply cable meets the requirements of the local wiring regulations. Strip cable length of 12mm. Then torque 1.2 to 1.5Nm on each screw.



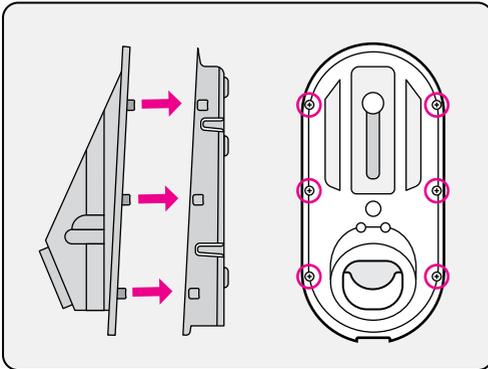
8. Fit CT(s) to live conductors as necessary, with arrow marked (I) in direction of the consumer unit. The CT Golden Rules must be followed



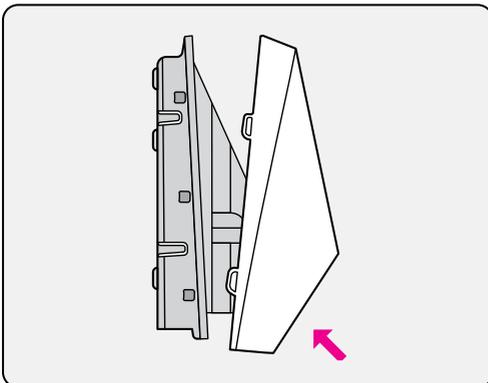
9. Inside the zappi, the PCB has removable CT connection plugs (2 PIN). These accept the CT Cable (RED / BLACK), Terminate the CT cable(s) and route to one of the glands defined in step 5. Leave some excess length to allow easy reassembly of zappi.



10. Refit the front cover and evenly torque 6X cover screws at 1.2Nm.



11. Refit the enclosure assembly ensuring clips on both sides make a positive fit to the back box



12. Carry out all relevant tests and inspections in accordance with local regulations, before applying power. Scan the below QR to download the Installer Assistant app and follow the steps to commission the zappi.



#### CT Golden Rules

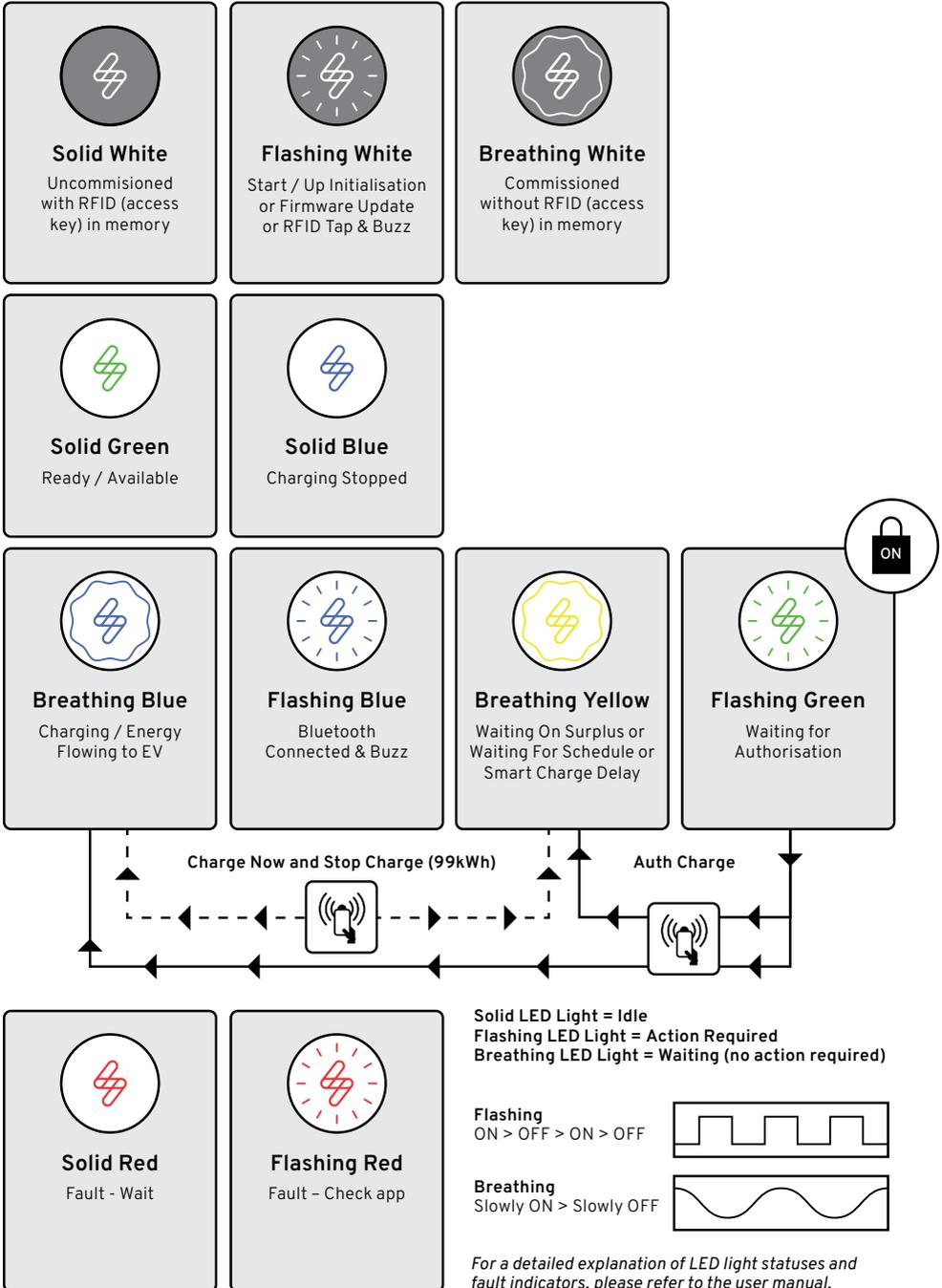
- One CT must be set to GRID.
- There must be only ONE GRID CT.
- If the GRID CT is connected to a harvi, make sure that you have turned off the hardwired CT
- Arrow pointing in direction of import (e.g. towards consumer unit if on Live cable)

#### Commissioning

Before leaving the site:

- Follow all steps outlined within the installer app including but not limited to: Wi-Fi, Pairing (if applicable), Device limit, Import limit, Export Margin, G100 commissioning.
- Verify that the Electric Vehicle is charging. If the vehicle is not available, the installer should use an emulator to ensure all functionality tests are successfully passed.
- If you have access to the myenergi app, ensure the Grid Power reading is as expected, with power flow displaying in the correct direction.

# LED Status Lights



# Technical Specification

## Mechanical Specification

<b>Enclosure Dimensions</b>	350 x 170 x 160mm
<b>Weight</b>	4.1kg (tethered) 3.1kg (untethered)
<b>Protection Degree</b>	IP65
<b>Enclosure Material</b>	Polycarbonate
<b>Operating Temperature</b>	-25 °C to +40°C (current derates at 50°C)
<b>Impact Resistance</b>	IK10
<b>Tamper Detection</b>	Microswitch

## Performance

<b>Mounting Location</b>	Indoor or outdoor (permanent mounting)
<b>Charging Mode</b>	Mode 3 (IEC 61851-1 Compliant Communication Protocol)
<b>Charging Current</b>	6A to 32A (variable)
<b>Dynamic Load Balancing</b>	An optional feature that regulates the current drawn from the power supply or grid, helping to prevent overload.
<b>Connector Type</b>	Type 2 (EN 62196-1, EN 62196- 2) socket with locking system or tethered plug and cable (6.5m)
<b>Metering Accuracy</b>	Load and external CTs designed in accordance with Class B (1%) of EN 50470 <ul style="list-style-type: none"> <li>• Load: 0.25 - 5(32)A</li> <li>• Ext CTs: 0.25 - 5(100)A</li> </ul>
<b>LED Illumination</b>	Multicolour LED, changing according to charge status
<b>OCPP Support:</b>	OCPP 1.6J supported via myenergi backend (not available for offline/local use)

## Electrical Specification

<b>Rated Power</b>	7kW
<b>Rated Supply Voltage</b>	230V AC ±10%
<b>Supply Frequency</b>	50Hz
<b>Rated Current</b>	32A max.
<b>Standby Power Consumption</b>	3W
<b>Integral Protection</b>	6mA DC residual current protection. RDC-DD tripping characteristics in accordance with EN 62955
<b>Sound</b>	Buzzer
<b>Wireless Interface</b>	868MHz (radio proprietary protocol)
<b>Wi-Fi Connectivity</b>	2.4GHz 802.11 b/g/n connection up to 150 Mbps
<b>Bluetooth Connectivity</b>	Bluetooth Low Energy (BLE) v4.2
<b>NFC/RFID</b>	Card reader: 13.56MHz ISO/ IEC 14443 (Mifare Classic) RFID card supplied.
<b>Grid Current Sensor</b>	100A max. primary current, 16mm max. cable diameter. Supports up to 2x external CTs.
<b>Cable Entry</b>	Supports up to 25mm dia. entries
<b>Supply Cable Size</b>	Up to 6mm <sup>2</sup> (flexible), Up to 10mm <sup>2</sup> (solid)
<b>Supply Termination Type</b>	Screw
<b>PEN Fault Protection</b>	Integrated on -G models only. Compliant with BS 7671

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