

## Introducing the new zappi

Eco-smart charging station for electric vehicles



A stunning new design, meeting the new standards for UK charge points and with straightforward installation

The new Zappi builds on the success of our existing product and provides new features, including

- ⚡ Untethered & tethered versions
- ⚡ 22 kW 3-phase charging
- ⚡ Advanced safety features which mean that new zappi can be installed without the need for additional and expensive protection devices as now required in the new standards for EV charging equipment installations
- ⚡ It's also “smart” – dynamic load balancing, different ECO and boost charging modes are still built in, but you can now control zappi using our new app and it can work with new grid demand response services as these are introduced in the future.<sup>1</sup>

The first new zappi units will start to be shipped in June to meet the demand for pre-orders, with volume manufacture following on very quickly through July and August.

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<sup>1</sup> Demand response is where loads are reduced automatically if the demand on the electricity supply system is too great. It is expected that demand response will be very important in the future with energy suppliers paying for customers to reduce their load as we rely more on renewable generation and more people drive electric vehicles.

## The new zappi at a glance

Power Rating - Single Phase	32A – 7kW
Power Rating - Three Phase	32A – 22kW
Tethered Option	Type 2: 6.5m cable Integrated holster for plug
Untethered Option	Type 2 socket
Front Status LED	Multicolour
Enclosure Colour	Grey body. White or Black Front
Integral RCD	Type A 30 mA + 6mA DC (IEC 62955)
Current Sensor Inputs	3 Optional remote current measurement using Harvi wireless sensor (additional item)
PME Earthing (BS 7671:2018)	Allowed in most installations without additional earth rod
Earth Fault Detection	Yes
Loss of PEN Conductor Detection	Yes
Safety Requirements: Nissan / Renault	Pending
Dynamic switching between 1-ph and 3-ph charging	Yes (for the 22 kW model)
3 Year Warranty	Yes
Remote Control & Monitoring Option	Yes
Advanced load balancing	Yes
RRP (Including VAT)	From £695 (1-ph) From £795 (3-ph) Hub (for OLEV funded installations + remote control via app) £85

## Questions & Answers

**Q : Is there any additional smart functionality in the new zappi ?**

*A : Yes ! New RCD, new safety standards, compatible with PME earthing, 3-phase option, 3 CTs instead of 2...*

**Q : What are the installation requirements for the new zappi?**

*A : Miniature Circuit Breaker (MCB) 40A 1-pole curve B (1-ph version), 40A 3-pole curve B (3-ph version)*

**Q : How many CTs will be provided ?**

*A : One for the single-phase version & three for the 3-phase version*

**Q : Will the new zappi be compatible with other myenergi devices ?**

*A : Yes of course ! You will be able to connect the new zappi with a harvi, an eddi, a hub & an existing zappi.*

**Q : Will the new zappi get the approval for use under the OLEV Homecharge Scheme?**

*A : Yes ! The new zappi is currently being reviewed by OLEV against the new requirements which come into force from 1<sup>st</sup> July 2019*

**Q : How does the “PEN conductor loss” detection works ? How can I avoid installing TT earthing system with an earth rod ?**

*A : In case of a PEN fault, zappi becomes completely isolated from the input supply. That means that all conductors present at the output socket or cable - including protective earth and control signals - will be safe removing any risk of potential electric shock. zappi meets the requirements of BS 7671:2018, 722.411.4.1 (iii).*

**Q : What is the minimum charging level on the 3-phase zappi?**

*A : In all cases, the EV is the limiting factor. Some EVs cannot be charged using 3-phases, hence they will only be charged using 1-phase. The charging current is limited by the EV as well, usually it's 16A, 30A or 32A. If your EV cannot be charged using 3-phases, then the 3-phase version of Zappi has the capability to charge at a low rate using only 1-phase.*

- 1-phase charging range : 1.4 kW → 7 kW
- 3-phase charging range : 4.1 kW → 22 kW

**Q : Can I charge at different current rate across the phases in 3-ph charging ?**

*A : No, when charging with 3-phase, the current drawn by the EV will be the same on all phases.*

**Q : Can the new 3-phase zappi be connected to one phase only ?**

*A : Yes, it will act like a standard single phase zappi. However, only 1 CT input will be used.*

**Q : Can I swap an existing 7kW charger with the zappi?**

*A : Yes, with the single phase zappi. The supply is very similar, just make sure you connect the extra CT sensor provided.*

**Q : Can I have my existing charger and a zappi installed together without overloading my supply ?**

*A : It really depends on your installation setup. You can install zappi using a dedicated circuit from your main consumer unit and set a “Grid Limit” to make sure you will not blow your main fuse. Or you can install your zappi from a secondary consumer unit (a garage feed for example) and connect a sensor to act like a “Group Limit”, to make sure that your secondary supply will not be overloaded as an addition to the “Grid Limit”. But don't forget to ask your DNO if you are allowed to install a second charge point.*

## Performance

Mounting Location	Indoor or outdoor (permanent mounting)
Charging Mode	Mode 3 (IEC 61851-1 compliant communication protocol)
Display	Graphical backlit LCD
Front LED	Multicolour, according to charge status and current
Charging Current	6A to 32A (variable)
Dynamic Load Balancing	Optional setting to limit current drawn from the supply to the unit or from the grid
Connector Type	Type 2 tethered cable (6.5m) or Type 2 socket with locking system
Compliance	LVD 2014/35/EU, EMC 2014/30/EU, EN 61851-1:2017, EN 62196, EN 62955:2018 CE Certified

## Charging Modes

<b>ECO</b>	Charge power is continuously adjusted in response to changes in generation or power consumption elsewhere in the home. Charging will continue until the vehicle is fully charged even if power is drawn from the grid.
<b>ECO+</b>	Charge power is continuously adjusted in response to changes in generation or power consumption elsewhere in the home. Charging will pause if there is too much imported power, continuing only when there is surplus free power available.
<b>FAST</b>	In this mode the vehicle will be charged at maximum power. This is just like an ordinary Mode 3 charging point.

## Electrical Specifications

Rated Power	7kW (1-phase) or 22kW (3-phase)
Rated Supply Voltage	230V AC Single Phase or 400V AC 3-Phase (+/- 10%)
Supply Frequency	50Hz
Rated Current	32A max.
Standby Power Consumption	3W
Earth Leakage Protection	Integral 30mA Type A RCD (EN 61008) + 6mA DC protection (EN 62955)
Economy Tariff Sense Input	230V AC sensing (4kV isolated)
Wireless Interface	868MHz (proprietary protocol) for wireless sensor and remote monitoring options
Grid Current Sensor	65A max. primary current (RMS), 16mm max. cable diameter
Supply Cable Entry	Rear, bottom or side

## Mechanical Specifications

Enclosure Dimensions	439 x 282 x 122mm
Protection Degree	IP65 (weatherproof)
Enclosure Material	ASA 6 & 3mm (UL 94 flame retardant)
Colours	White RAL 9016 and grey RAL 9006
Operating Temperature	-25°C to +40°C

## Installation Requirements

Circuit Breaker Power	40A curve B (1-pole 1-ph or 3-pole 3-ph)
Earthing Arrangement	TN: Can be connected to the PME supply. Complies with BS 7671:2018, 722.4.1 (iii) TT: Earth resistance < 200 Ω according to BS 7671:2018, or <100Ω for some vehicles

## Model Variations

Model No.	Rating	Connector	Colour
ZAPPI-207UW	7kW	Untethered	White
ZAPPI-207TW	7kW	Tethered	White
ZAPPI-207UB	7kW	Untethered	Black
ZAPPI-207TB	7kW	Tethered	Black
ZAPPI-222UW	22kW (3-phase)	Untethered	White
ZAPPI-222TW	22kW (3-phase)	Tethered	White
ZAPPI-222UB	22kW (3-phase)	Untethered	Black
ZAPPI-222TB	22kW (3-phase)	Tethered	Black

# Wiring Overview Diagram

