

# Smart EV charging with guaranteed overload protection.



Smappee Infinity ensures that your electric vehicle (EV) gets fully charged while it cleverly manages your energy flows so you can live, work and relax without compromising on comfort.



The growing success of EV adoption and the expanding network of residential and office charging stations raises a key question: ‘How will this new “electrical appliance” be integrated into the overall energy management of the building?’ With anything more than a few vehicles on charge, current infrastructure cannot cope with the additional demand. That can blow fuses and damage circuits. Reinforcing the existing grid infrastructure is expensive and disruptive. A more rational approach is to focus on more effective management of the various demands via smart energy management systems such as Smappee Infinity.



Smappee's smart energy management technology works from inside the breaker panel to monitor, control and harmonize all the energy flows within any building. Domestic dwellings, for example, usually have a connection with a 40 A peak power limit. An EV charging will typically draw 32 A. This leaves only 8 A for everything else. It's a tall order with perhaps washing machines, kettles, lighting and entertainment all on simultaneously. Smappee automatically controls the power to the EV charger to avoid potential overloads and still keep all domestic functions running seamlessly.

In larger buildings, Smappee's dynamic load balancing performs the same functions but also offers an opportunity to install more EV charging stations than would otherwise be possible. A building with a 630 A main connection can install up to 40 EV chargers rated at 22 kW, well over the 17 chargers that would be available using this kind of rated connection. Smart management of the loads allows each of the vehicles to be charged, even in order of preference, whilst the building's demands are met and the system is maintained well within maximum power limits.

Smappee Infinity is ready for the coming smart grid (r)evolution. Incorporating state-of-the-art technology and allowing over-the-air updates, it is able to adapt to any demand scenarios and all applications. In the meantime, it already offers homeowners and businesses cost-effective and convenient overload protection, as EV chargers are incorporated into existing electrical installations.



- Peace of mind thanks to autonomous blackout protection
- Real-time and historical energy data in both kWh and cost
- Dynamic load balancing with optimized self-consumption
- Cost savings thanks to energy insights and smart control
- Quick and easy installation, very low maintenance
- Works with all inverter types and most distribution panels worldwide
- Future-proof thanks to over-the-air updates and modularity

[smappee.com](https://smappee.com) – [info@smappee.com](mailto:info@smappee.com)

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