

Dynamic Load Balancing

FOR ELECTRIC VEHICLES

Dynamic load balancing safely distributes the energy between an EV and other home appliances.

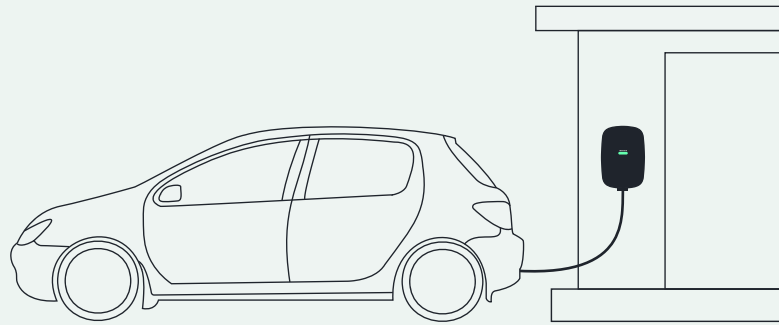
This ensures that when charging a vehicle, you never exceed your home's maximum power consumption.

01 Prevent expensive grid upgrades

02 Measure and control energy usage in real-time

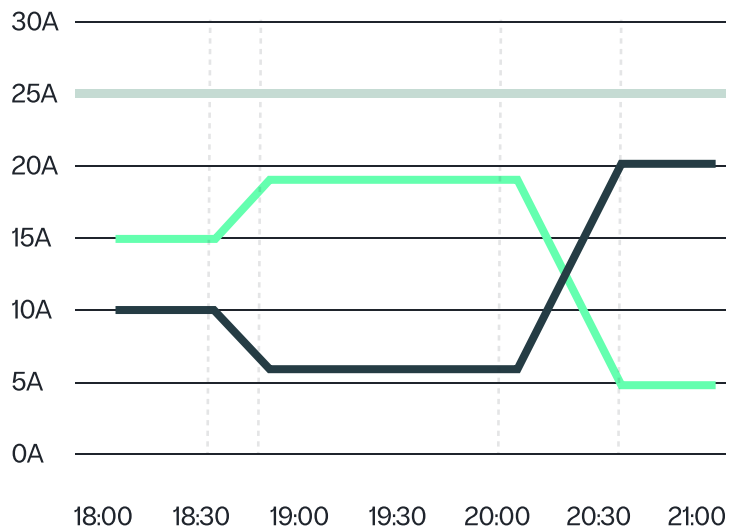
03 Optimize charging speeds

Vehicles will charge *as fast as is safe*, while avoiding blackouts and circuit overloads.



HOW DOES IT WORK?

Dynamic load balancing constantly monitors changes in your home's energy use and automatically allocates available capacity to your charging station. In response to changes in electricity load, it instantly adjusts the power output for charging an EV. As a result, you'll never exceed your home's maximum power consumption.



Grid connection limit
 Home power usage
 EV Charging output

EVBox's Dynamic Load Balancing kit

Our Dynamic Load Balancing kit is a hardware accessory sold with EVBox Livo, our next generation home charging station.



TECHNICAL SPECIFICATIONS

The DLB kit sits inside your power supply cabinet and connects to the electricity meter. The DLB kit's current sensors monitor your home's power consumption and an adaptor sends information about available capacity to the charging station.

Based on inputs from the DLB kit, the charging station reduces the charge rate to ensure that total power consumption stays within the preset limits.

Feature	Description
Maximum circuit voltage	230 V \pm 10% or 400 V \pm 10%
Maximum output current	100 mA
Output voltage	300 mV peak
Primary current	50A and 100A
Working frequency	50/60 Hz
Normal environmental conditions	Indoor use
Maximum installation altitude	3000 m above sea level
Operating temperature	-20 °C to +50 °C
Storage temperature	-40 °C to +80 °C
DLB adapter dimensions	89.2 x 17.5 x 53 mm (D x W x H)
Ethernet port	RJ45
Number of terminals	3 x 2
Maximum network cable length	30 m unshielded 150 m shielded