# Dynamic Load Balancing for Electric Vehicles

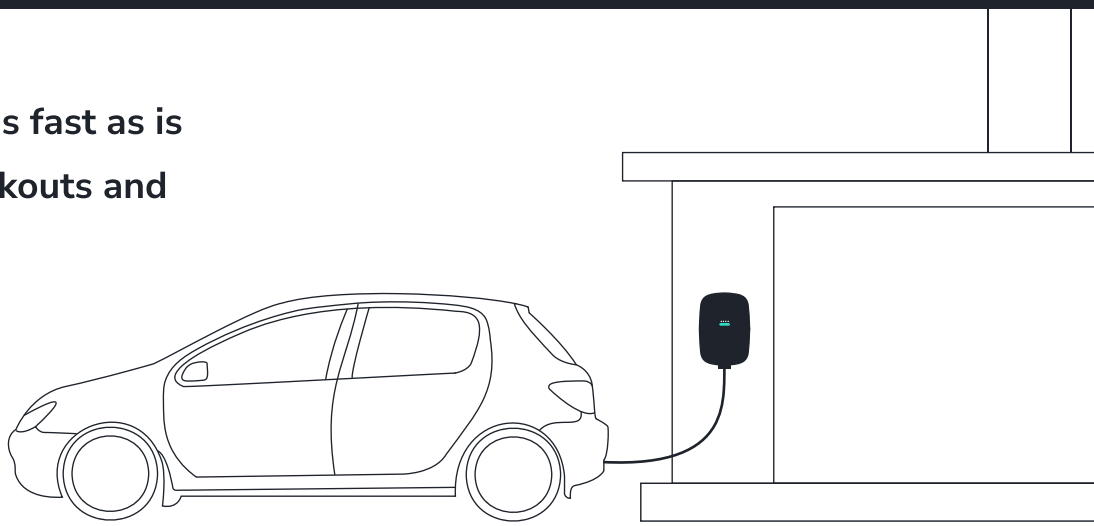
Dynamic load balancing safely distributes the energy between an EV and other home appliances. This ensures that when charging a vehicle, you never exceed your home's maximum power consumption.

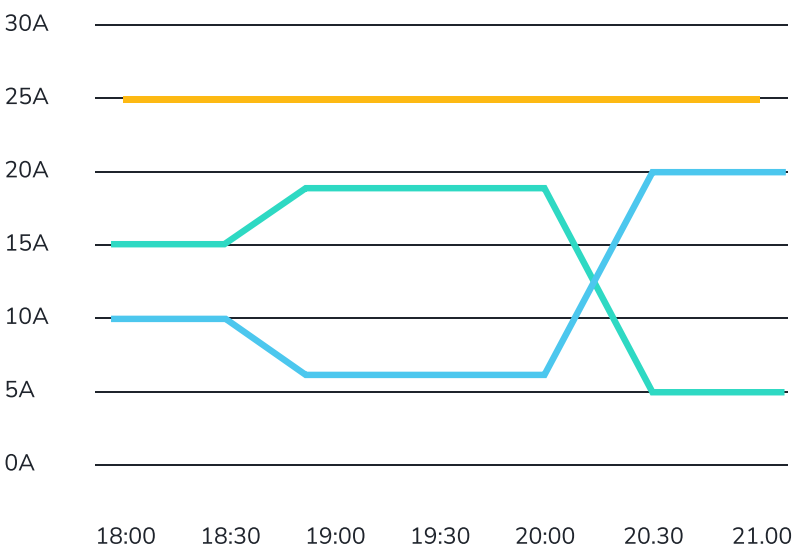
Prevent expensive grid upgrades

Measure and control energy usage in real-time

Optimize charging speeds

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






## How does it work?

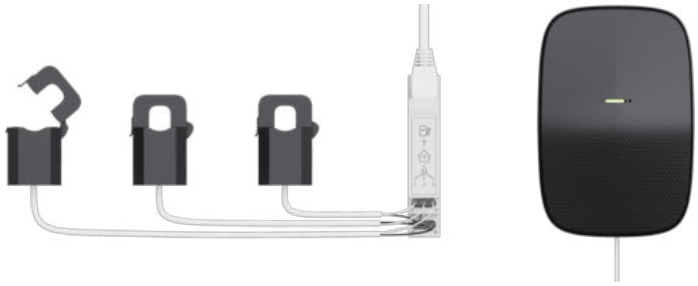
Dynamic load balancing constantly monitors changes in your home's energy use and automatically allocates available capacity to your charging station. In response to changes in electricity load, it instantly adjusts the power output for charging an EV. As a result, you'll never exceed your home's maximum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

**Grid connection limit**

**EV Charging output**

**Home power usage**

# 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 ± 10% or 400 V ± 10% |
| Maximum output current | 100 mA |
| Output voltage | 300 mV peak |
| Primary current | 50 A 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 |