Advantages

in combination with Smart Energy Hub

- Optimal use of solar PV for **cost-effective and environmentally friendly** EV charging.
- **Works with all PV systems** (regardless of manufacturer)
- Dynamic load management **for up to 252 EVtap® wallboxes**
- Prevents **grid overload** and avoids **costly power peaks**
- **Master and slave mode** for EV fleets and small businesses
- **Three intelligent charging modes:**

  Full Power
  maximum charging power from PV, grid, or both

  Solar Assist
  minimizes grid use, capped at 6 A; power increases only with surplus PV energy

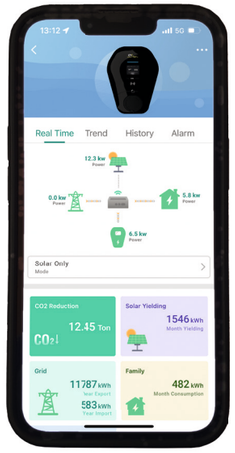
  Solar Only
  charges exclusively from PV surplus; pauses charging if insufficient surplus is available
- **User-friendly Android and iOS app** with intelligent and energy management functions
- OCPP 1.6 and OCPP 2.0.1 interface for remote monitoring

EVtap Smart Products

Order.-No	
758138	EVtap Smart Energy Hub

Order.-No	
753842	EVtap Smart Wallbox 11/22kW

Order.-No	
758139	Measuring sensor CT100A
758140	Measuring sensor CT800A



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Data Sheet EN

EVtap

■ e-mobility solutions

HISENERGY

■ empowering tomorrow smartly

EVTAP SMART

Wallbox 11/22 kW

scan me

Key Features

- **Three charging modes:** Solar Only, Solar Assist, Full Power
- Vehicle-to-Home (V2H) & Vehicle-to-Grid (V2G) capable**
- Surplus charging for PV self-consumption optimization*
- Dynamic load management *
- EV fleet and business solution with master & slave load balancing topology
- OCPP 2.1 (can be integrated with OCPP based backends)
- 2.8“ LCD display
- Built-in RCD protection
- Easy control with Android and iOS app
- RFID authentication

* Smart EVTap® Hub required
**optional V2H & V2G

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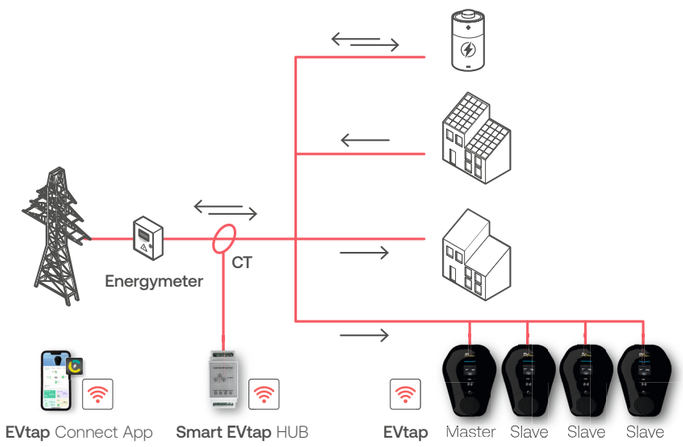
Use your PV to charge your EV

PV self-consumption optimization through the integration of smart wall boxes from EVtap



Photovoltaic excess charging – charge electric vehicles efficiently with up to 100% solar energy

As electricity prices rise and PV feed-in tariffs fall, charging your EV with your own solar power becomes more attractive. With the EVtap Hub, the Smart Wallbox enables PV self-consumption optimization and efficient solar-based EV charging.

Charge multiple vehicles at one location using Dynamic load management

Dynamic load management ensures optimal distribution of charging power across multiple EVs. This reduces costly grid upgrades and prevents peak loads.

The Smart Wallbox allows:

- PV surplus charging with up to 100% solar energy
- Multi-vehicle charging at one location with dynamic load balancing
- Flexible fleet and business installations with master/slave configurations

3 Intelligent Charging Modes

Full Power

In this mode the EV will be charged at maximum power. This power can come from PV, simply from the grid or a combination of both.

Solar Assist

This mode minimizes the use of grid power. The charging from grid power would be capped at 6A. The charging power would only increase if surplus energy from PV is available.

Solar Only

This is the greenest charging mode and would only use the surplus PV power. No grid power is used and the charging goes in suspended mode if not enough surplus PV power is available.

EVtap Wallbox 11/22 kW - Technical specifications

Performance Specifications

Input	1-phase	3-phase
Nominal voltage	230 V	400 V
Frequency	50/60 Hz	
Output Voltage	400V AC	
Max. Current	up to 32 A	
Nominal Power	7,2 kW (can be throttled)	22 kW (can be throttled)
Standby Power Consumption	2 W	

Communication

Wi-Fi	Yes, 2,4 GHz
LAN	Yes, RJ-45
OCPP	OCPP 2.0.1

App Connection	Yes, with EVtap Connect App
Web Portal	Yes
Software Update	Web, App, USB

Safety

Residual current operated device / RCD	30mA AC & 6mA DC
Electrical Protection	Overcurrent, lightning protection, over/undervoltage, over/undertemperature, residual current protection
Protection Type	IP54
Shock Resistance	IK10
MID Meter	optional

Interface

Charging port	Type 2 (IEC 62196-2)
Screen	2.8“ LCD display
Indicator	RGB LED strips
Access Protection	RFID (ISO/IEC 14443A/B)
Button	Multifunctional configurable button
Accessories	EVtap Hub | CT 3 phase 100 A | CT 3 phase 800 A
Charging Cable optional	3m, 5m and 7m
V2G & V2H	Optional

Product Number	753842
Body Colour	Black
Lifetime	> 10,000 switching cycles
Weight	5kg
Dimensions HxWxD (mm)	360 x 269 x 146
Mounting Method	Wall or stand mounting
Guarantee	2 years
Operating temperature	-30°C to +50°C
Air Humidity	5% to 95% (non-condensing)
Certificates	CE, RoHS
Standards	IEC 61851-1, IEC 62196-2, IEC 14443A/B

PV Self-Consumtion Optimization

Integration of EVtap Smart Wallboxes

EVtap wallboxes enable charging of electric vehicles with up to 100% solar power while optimizing self-consumption. In addition, EVtap dynamically adjusts its charging power to grid connection limits and the total power consumption of all connected devices – made possible by the EVtap Load Management Hub.

App for iOS / Android

OCPP 2.0.1

Load Management System

PV Surplus Charging

The **EVtap Smart Energy Hub**, supplied with current transformer clamps, measures consumption and flow direction in real time. It communicates to the charging station the maximum current available for EV charging. The Smart Energy Hub also creates its own Wi-Fi access point, allowing simple local configuration via smartphone, tablet, or PC. It is fully compatible with EVtap Smart Wallbox charging stations; an RS485 connection is also available.

With Master & Slave mode, additional charging points can be installed flexibly without costly grid upgrades – an ideal solution for companies and fleet operators.