

VOOL

Full-Scale EV
Charging Solutions
that Raise the Bar

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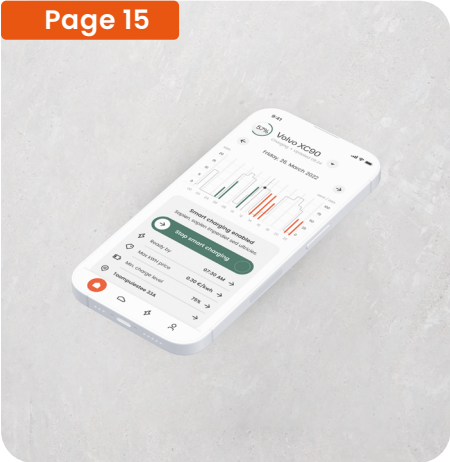
Smart EV Charger
Charge with confidence

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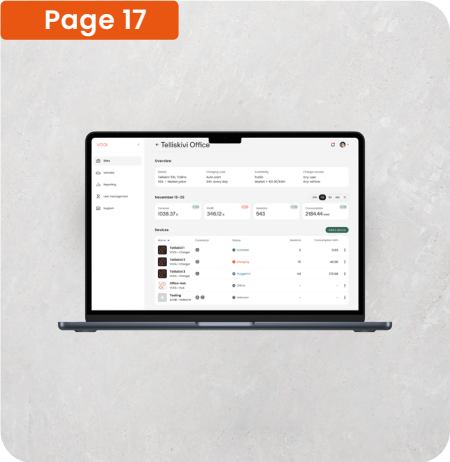
Load Management Controller
Get the full grid connection

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VOOL App
Save up to 90% on your EV charging costs

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VOOL Portal
Full control of any charging facility

VOOL EV Chargers:
Charge with
Confidence

Our carefully crafted EV Chargers conquer the failures of lesser chargers. They're right at home at residential and commercial properties, and perfectly suited for EV fleets and public charging as well.

VOOL Chargers are easy on the eyes. They come in a diverse range of charismatic face plates to add flair, elegance, or a modest accent to your property.

Beauty is power.





4G Connectivity



1.3-22 kW



WiFi



OCPP
Compliant



Bluetooth



2x Ethernet

FEATURES

| | |
|---------------------------|----------------------|
| User identification | RFID, VOOL APP |
| Dynamic load management | DLM (2) and DPM (2) |
| DLM response time | Below 50ms (2) |
| Compatible EVSE protocols | OCPP 1.6, OCPP 2.0.1 |
| Energy metering | Integrated |
| Firmware update | OTA, USB, CAN |

(1) 2-Phase charging only available with compatible EV models; 3-phase grid connection required
 (2) Connection with VOOL Hub is required (3) Various material / colour or fully customised faceplates are available

EXTERNAL INTERFACES

| | |
|-----------------------|------------------------------------------------|
| Internet connectivity | 4G, Wi-Fi (IEEE 802.11 b/g/n), Ethernet 10/100 |
| External modbus meter | RS485 |
| Local device network | CAN |

SAFETY

| | |
|-----------------------------------|------------------------------------------------------------------|
| Residual Current Detection | 6mA DC / 30 mA AC |
| Overvoltage category | CAT III |
| Compliance | LVD, RoHS |
| Protection against electric shock | CLASS |
| Extra safety features | Welded contact detection, power-on self-test, thermal throttling |

GENERAL SPECIFICATIONS

| | |
|--------------------------------|------------------------------------------------------------------------|
| Dimensions (H x W x D) | 310 x 186 x 90 mm |
| Weight | 4 kg |
| Mounting options | Bolt mounted to the wall, mounting pole |
| Front panel | Prebuilt and interchangeable (3) |
| Operating temperature | -25...+65 ¼C |
| Ambient temperature range | -40...+70 ¼C |
| Enclosure environmental rating | Outdoor / IP54 |
| Standards | EMCD 2014/30/EU, IEC 61851-1:2017, IEC 61851-21-2:2018, IEC 62955:2018 |
| Standard warranty | 36 months |
| Operating voltage | 90-265 VAC |
| AC frequency | 50Hz or 60Hz |
| Charging options | 1 Phase, 2 phase (1), 3 Phase |
| Current | 6A-32A |
| Power | 1,3 Ɔ 22kW |
| Output cable | Type 2 socket or fixed cable with plug |

Quick and Scalable
Installation

Quick and Scalable Installation

VOOL Chargers can be installed on most walls and any of our stylish mounting posts. With VOOL, it's quick and hassle-free.

If you don't need a VOOL charger just yet but want to make your property ready for full installation, we've thought of that too.

Our modular design allows you to mount the casing first and complete the setup at a later stage by snapping in VOOL's EV Charging Controller.





1. Choose your surface. You can install the VOOL charger on a wall or a VOOL mounting pole.



2. Insert the EV Charging Controller - or don't. The VOOL EV Charging Controller can be inserted later if all you need right now is EV-charger readiness.



3. Snap on the front panel. It has an LED light guide to indicate charger status.



4. Install the VOOL LMC in the electrical cabinet for Dynamic Load Management and Uninterrupted Phase Switching.



5. Easy and intuitive setup via the VOOL App or VOOL Portal

VOOL LMC:
Get the Full
Grid Connection

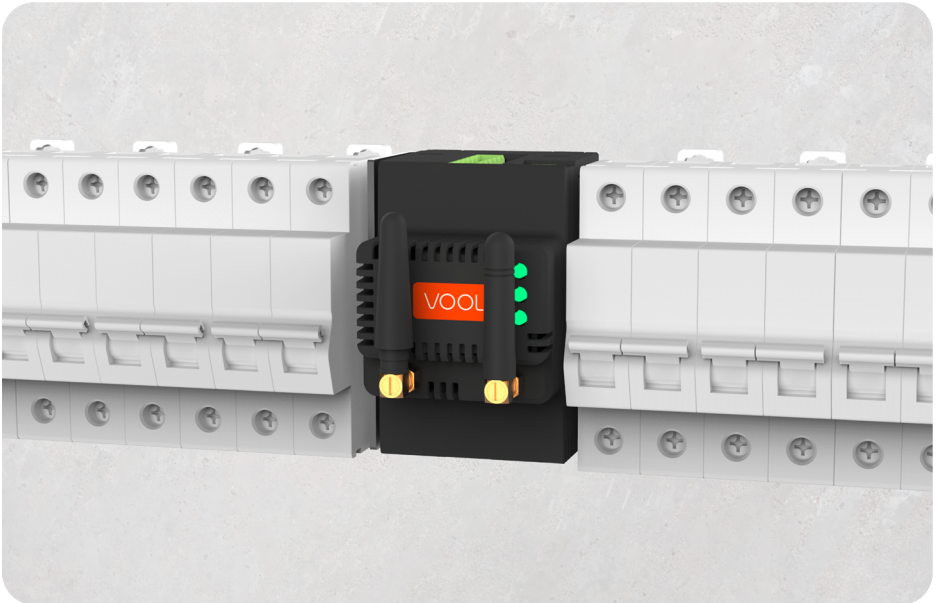
As electric car adoption soars, the grid faces challenges in meeting the surge in EV charging demand.

A dedicated home charging station can deliver between 7.4 and 22 kilowatts (kW) of power. In comparison, a dishwasher uses between 1.05 and 1.5 kW of power.

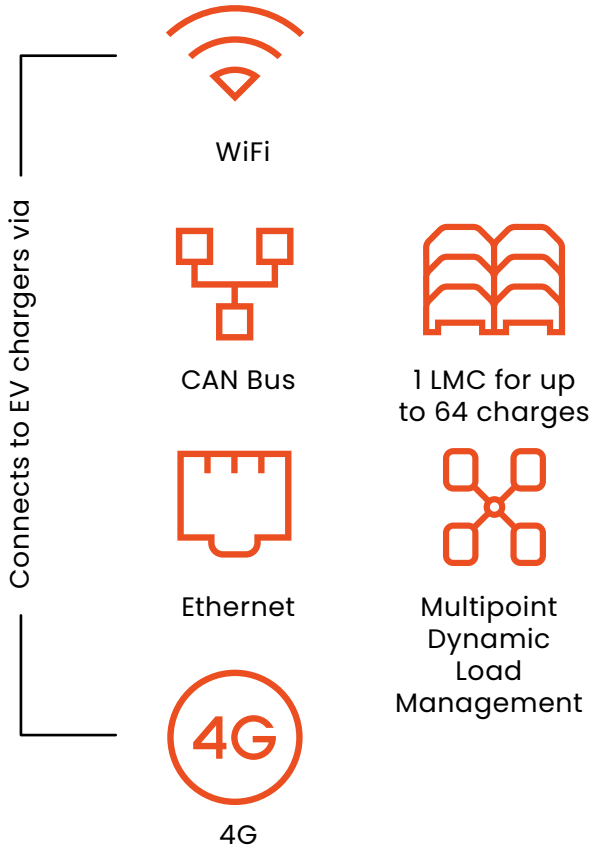
The current power grid simply can't handle the demand. Unless you go with VOOL.

The VOOL Load Management Controller is installed in your electrical cabinet, and it automatically balances the total energy level between your EV Charger and your building.

VOOL's patent-pending technology enables you to cost-effectively extract the full power of the grid. Now you can charge up to three times more cars with the same grid connection.



VOOL LMC: Get the Full Grid Connection





Autonomous Charging - Uninterrupted Phase Switching

Seamlessly transfer between the three phases to reach full grid connection and get the most dependable and efficient EV charging experience.



Electrical Equilibrium - Dynamic Load Management

DLM monitors and balances the electrical loads in each of the three phases so the switchboard doesn't overload.



Reliable Power - Multipoint Load Balancing

During peak power demand, each apartment, row house, or property shares a stable electrical load. The main connection point never becomes overburdened.



Connectivity and Integration

The VOOL LMC and EV Charger both feature wireless and wired connections. Easily integrate with solar power systems for peak efficiency.

FEATURES

| | |
|-------------------------|---------------------------------------------------|
| Gateway functionality | OCPP 1.6, OCPP 2.0 |
| Energy metering | On-line and off-line energy metering and tracking |
| Integration | PV panels, batteries |
| Smart price monitoring | EU markets |
| Station master | 64 chargers + other smart appliances |
| Dynamic load management | DLM (1) and DPM (1) |

(1) In combination with Charger and/or Multiphaser, LMC enables dynamic load management and dynamic phase management for 100% grid utilization.

| | |
|-------------------|------------|
| DLM response time | Below 50ms |
| Firmware updates | OTA |

EXTERNAL INTERFACES

| | |
|-----------------------|------------------------------------------------|
| Internet connectivity | 4G, Wi-Fi (IEEE 802.11 b/g/n), Ethernet 10/100 |
| External modbus meter | RS485 |
| Local device network | CAN |
| Current input | 3x external current transformer |

SAFETY

| | |
|-----------------------------------|-----------|
| Overvoltage category | CAT III |
| Compliance | LVD, RoHS |
| Protection against electric shock | CLASS |

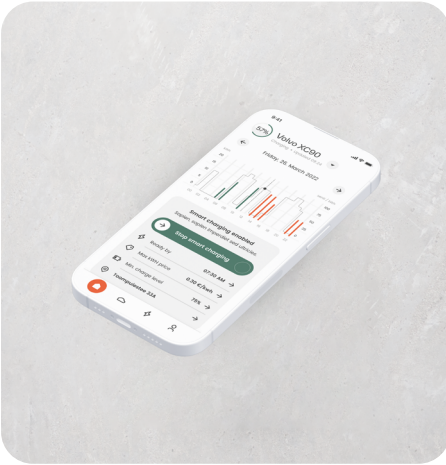
GENERAL SPECIFICATIONS

| | |
|--------------------------------|---------------------------------|
| Operating voltage | 90–265 VAC |
| AC frequency | 50 or 60Hz |
| Dimensions (WxHxD) | 85 x 85 x 59 mm |
| Weight | 0.3 kg |
| Mounting options | DIN-rail, bolt mounted |
| Operating temperature | -25...+65 C |
| Ambient temperature range | -40...+55 C |
| Cooling | Natural convection |
| Enclosure environmental rating | Indoor / IP22 |
| Standards | LVD 2014/35/EU, EMCD 2014/30/EU |
| Standard warranty | 36 months |

VOOL App:
Save up to 90% on
Charging Costs



VOOL App: Save up to 90% on Charging Costs



Automatic detection and charging in sync with the lowest market rates across Europe.

Authenticate users via mobile or RFID.

Works with all major EV car brands



Works with all OCPP 1.6 & 2.0 compatible chargers

Display your EV's charging session status.

Get a monthly overview of electricity consumption and extract reports.

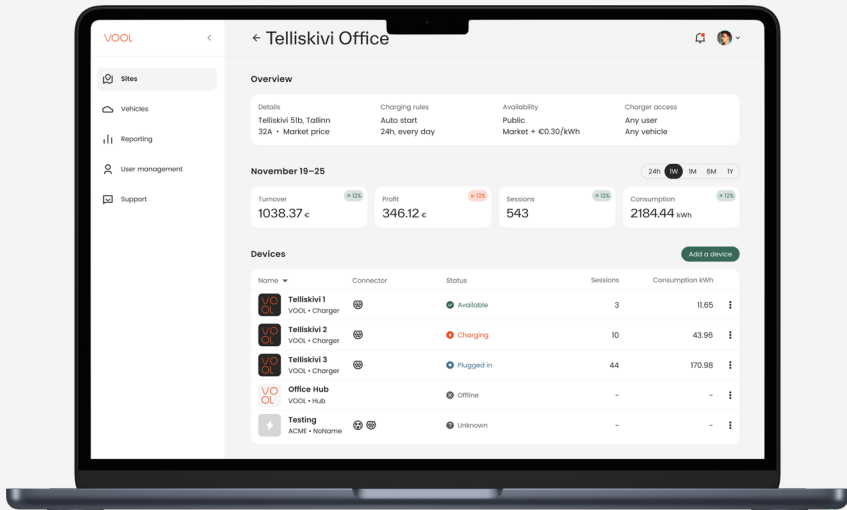


**VOOL Portal:
Full Control of any
Charging Facility**

We have another secret weapon in our arsenal designed to reinvent how you handle your EV charging operations. The VOO Portal is the intuitive, versatile, and user-friendly web application you need to prepare for the EV revolution.

The VOO Portal allows for easy administration of any charging facility:

- Seamlessly integrate with 1.6 and 2.0 OCPP-compliant chargers
- Measure consumption by the user and for entire facilities
- Authenticate user with RFID
- Set electricity prices and margins
- Generate reports of electricity consumption by user
- Enable payment flow
- Add chargers and make them public



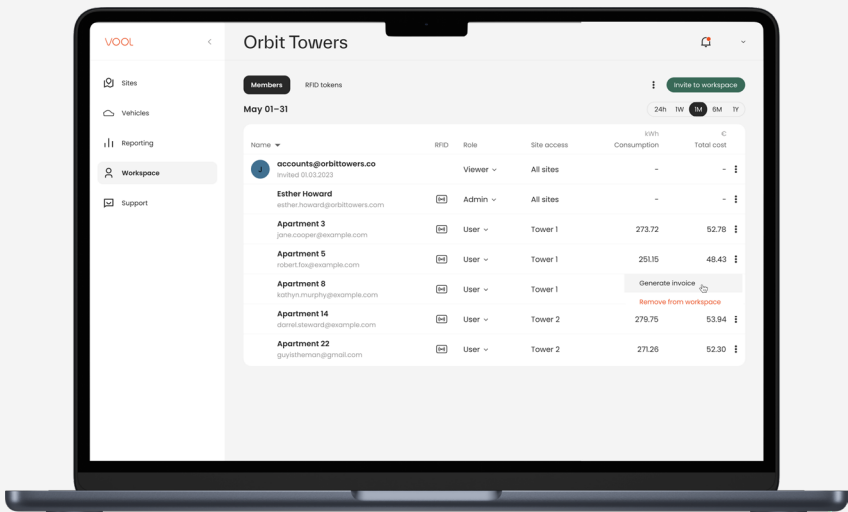
VOOL Portal: Use Cases

Apartment and Office EV Charging

The incoming surge of EV adoption and new EU regulations mean you're going to need to upgrade your parking spaces. Our solutions not only elevate satisfaction among residents and office tenants but also contribute to boosting property value.

Enjoy superior charging management tailored to your needs:

- Consumption reports by apartment
- Automatic invoicing integration
- Load balancing
- Electricity consumption tracking per charger
- Authentication
- Detailed charging cycle overview
- Smart charging functionality

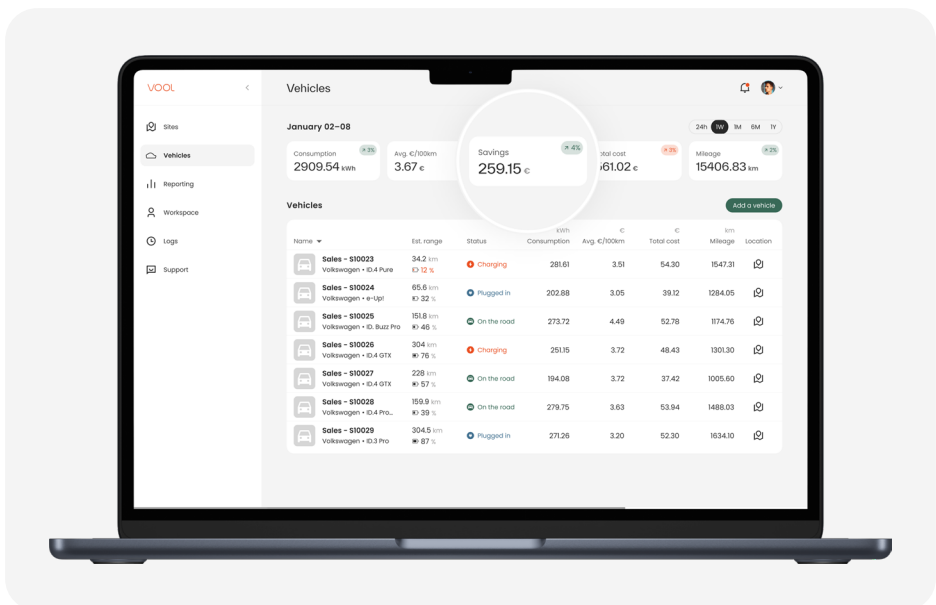


EV Fleet Charging Management

Keep your EV fleet charged and on the move, optimize your business operations, and improve your bottom line. VOOL provides a complete EV Fleet Charging Management solution for fleets of any size.

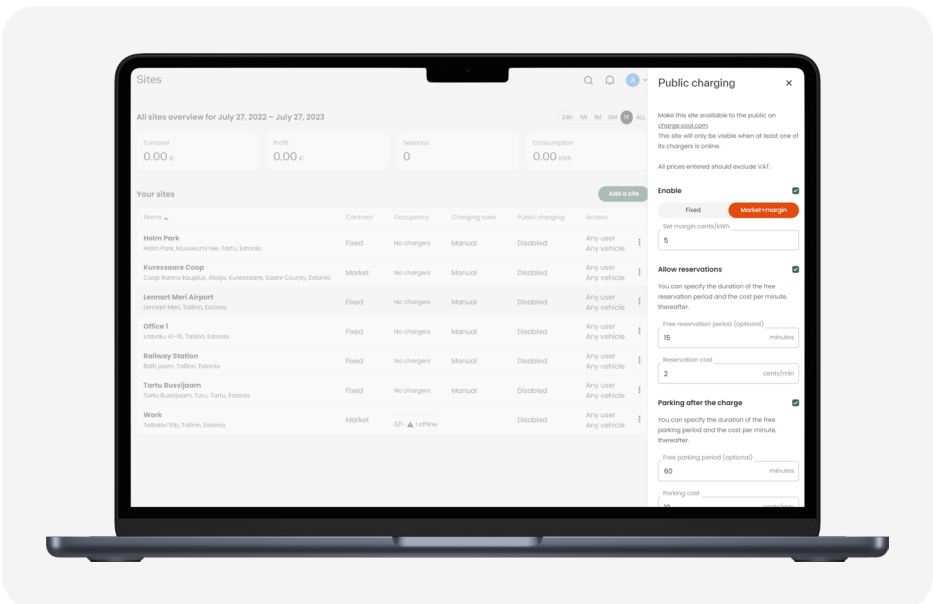
Complete overview by vehicle and for the whole fleet:

- Vehicle status: Charging, Plugged In, On the Road
- Consumption in kWh and cost (EUR) for any selected time period by individual vehicle, and the entire fleet
- Mileage driven and current location



Public EV Charging

- Integrate any OCPP 1.6 & 2.0 compliant charger with the VOOL Portal
- Choose your electricity contract type - fixed or variable
- Set your desired profit margin
- Make your charger public and visible on Google Maps
- Earn extra revenue



For more information, support,
or inquiries, please reach out to us at

info@vool.com

VOOL