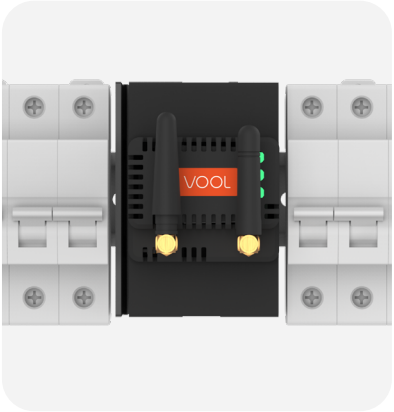

VOOL Full-Scale
EV Charging Solutions
that Raise the Bar

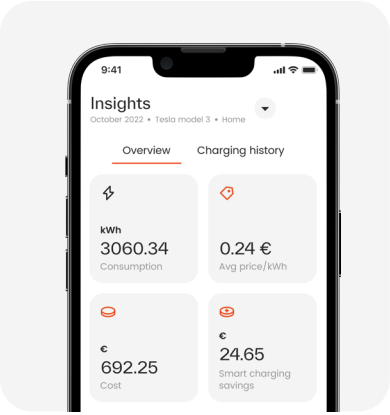
VOOL Complete EV Charging Solution

vool.com

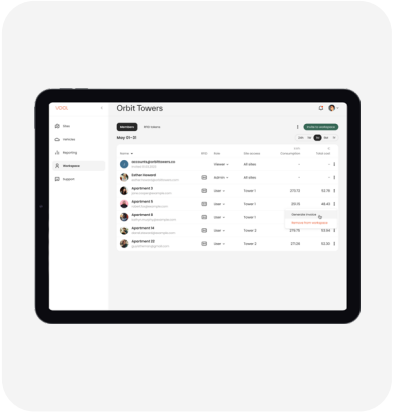
Smart EV Charger
Charge with confidence



Load Management Controller (LMC)
Get the full grid connection



VOOL App
Save 30% on charging costs*



VOOL Portal
Full control of any charging facility

*Smart Charging functionality has saved VOOL customers 32% of charging costs on average, compared to the peak prices they avoided. We measured this from Aug 2023 - Feb 2024.

VOOL EV Chargers:
Charge with Confidence

vool.com

VOOL provides a complete EV charging solution that is equipped with max 32A/22kW EV Charger, a Load Management Controller, an intuitive EV Charging Management Platform, and a user-friendly mobile app, all seamlessly integrated for convenience.

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

Beauty is power.

4G | WiFi | Bluetooth | Ethernet
Max 32A/22kW | OCPP 1.6 Compliant | Vehicle to Grid[1]

[1] Coming soon

CHARGER SPECIFICATIONS

VOOL

FEATURES

User identification	RFID, VOOL APP
Dynamic Load Management (DLM)	DLM[1] and Dynamic Phase Management (DPM)[1]
DLM response time	Below 50ms[1]
Compatible EVSE protocols	OCPP 1.6, OCPP 2.0[2]
Energy metering	Integrated
Firmware update	OTA, USB, CAN

EXTERNAL INTERFACES

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

SAFETY

Residual current detection	Integrated type A and type B RCD
Compliance	LVD
Electrical protection	Protection CLASS I, overvoltage category III
Extra safety features	Relay contact diagnostics, self-test, thermal throttling

GENERAL SPECIFICATIONS

Dimensions (H x W x D)	335 x 198 x 112 mm
Weight	5.5 kg
Operating temperature	-30...+50 C[3]
Enclosure environmental rating	Outdoor / IP55
Impact resistance	IK10
Standards	EMCD 2014/30/EU, IEC 61851-1:2017, IEC 61851-21-2:2018, IEC 62955:2018
Standard warranty	5 years
Network standards	TN, IT
Network voltage	230 VAC / 400 VAC (±10%)
Charging options	1 phase, 2 phase[4], 3 phase
Rated power	22kW (32A)
EV connection	Type 2 tethered cable (6.5m)

[1] Connection with VOOL LMC is required

[2] Chargers installed with LMC

[3] Forced ventilation available for hot environmental conditions

[4] 2-Phase charging only available with compatible EV models; 3-phase grid connection required

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 set-up at a later stage by snapping in VOOL's EV Charging Controller.

Quick and Scalable Installation

Build cost-efficient charger readiness.

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

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.
Fix the cables and 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 Automatic Phase Switching.

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

VOOL LMC:
Get the full Grid Connection

WiFi | CAN | Ethernet | 4G[1]

As electric car adoption soars, the grid faces challenges in meeting the surge in EV charging demand. A dedicated home charging station can deliver a maximum power between 7.4 to 22 kilowatts (kW). 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 Load Management Controller works inside your electrical cabinet to control the current and select the least loaded phase for EV charging.
Our patent-pending technology is the most cost-effective way to access your existing grid connection. Now you can charge up to three times more cars with the same grid connection.

[1] Coming soon

VOOL LMC:
Get the full Grid Connection

Dynamic Load Management

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

Automatic Phase Switching

Seamlessly switches between the three phases to use full grid capacity and lets you benefit from the most efficient EV charging experience.

Multipoint Load Management

Group multiple charge points in a circuit and limit their overall electricity usage to avoid costly power grid upgrades even when several vehicles are charging at once.

Multilevel Load Management

Enables load management by multiple smaller circuits so the main connection point never becomes overburdened. This comes in handy in bigger installations, like apartment buildings and offices.

Solar Integration[1]

Charge your car with green energy when solar is abundant. In the VOOL Portal you'll gain insights into your solar production and can easily schedule EV charging during periods of solar availability.

[1] Coming soon

LMC SPECIFICATIONS

VOOL

FEATURES

Remote connectivity	OCPP 1.6, OCPP 2.0
Integration	Solar[1], batteries[1]
Market price monitoring	EU markets
Supported no. of chargers	64 chargers
Load management	Dynamic Load Management (DLM), Dynamic Phase Management (DPM), Multipoint Load Management, Multilevel Load Management
DLM response time	Below 50ms
Firmware updates	Automatic, OTA

EXTERNAL INTERFACES

Internet connectivity	4G, Wi-Fi (IEEE 802.11 b/g/n), Ethernet 10/100
External meter	Modbus RTU(RS485), Modbus TCP/UDP
Local device network	CAN
Current input	3x external current transformer
Voltage input	3 phase 230/400 VAC

SAFETY

Compliance	LVD
Electrical protection	Protection CLASS I, overvoltage category III

GENERAL SPECIFICATIONS

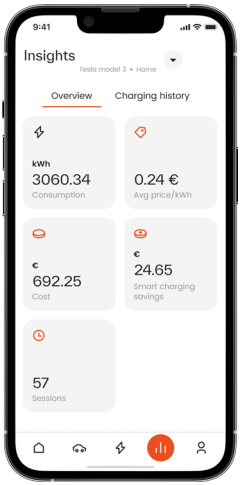
Supply voltage	90-265 VAC
AC frequency	50 or 60Hz
Dimensions (W x H x D)	61 x 87 x 77 mm
Weight	0.3 kg
Mounting options	DIN-rail, custom
Operating temperature	-20...+55 C
Enclosure environmental rating	Indoor / IP22
Standards	LVD 2014/35/EU, EMCD 2014/30/EU
Standard warranty	5 years

[1] Coming soon

VOOL App: Save 30% on Charging Costs on Average*

The VOOL App allows end-users to oversee their individual chargers.

- Charge your EV with the lowest market rates across Europe
- All your charging data in one place
- Intuitive installation and configuration of VOOL devices
- Proactive notifications in case of interruptions and issues with charger

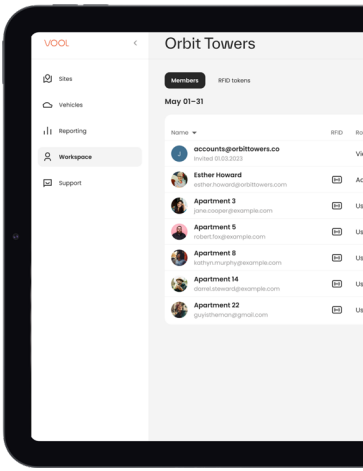


*Smart Charging functionality has saved VOOL customers 32% of charging costs on average, compared to the peak prices they avoided. We measured this from Aug 2023 - Feb 2024.

VOOL Portal: Full Control

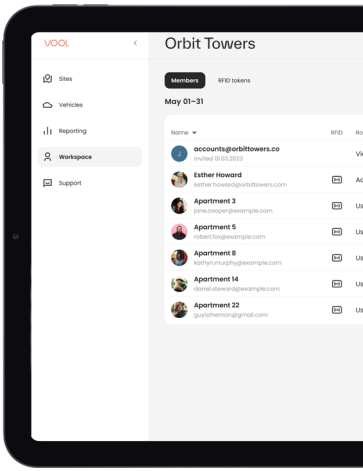
The VOOL Portal allows for easy administration of any charging facility:

- Generate energy reports by site, charger, user and car
- Make your charger public and earn extra revenue
- Automate invoicing for end customers
- End customers of public charging can pay by Apple Pay, Google Pay or credit card
- Charging site overview and device management
- EV fleet overview & charging management
- Linking renewables (e.g. solar)
- Smart charging functionality
- Manage user access
- Configure chargers and LMCs
- Monitor the whole energy flow of your site



VOOL Portal: Use Cases

Apartment and Office EV Charging

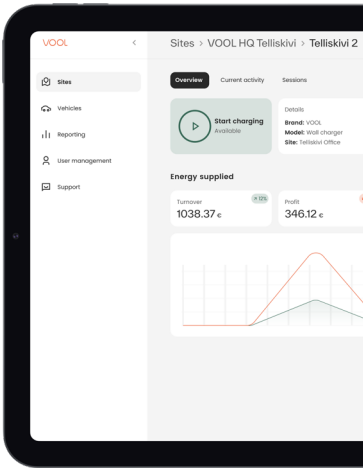


The incoming surge of EV adoption and new EU regulations mean you're going to need to upgrade your parking spaces. Our solutions not only elevate satisfaction among residents and office tenants but also contribute to boosting property value.

Enjoy superior charging management tailored to your needs:

- Energy reports by apartment, charger and whole charge point
- Automatic invoicing integration
- Dynamic load management
- User authentication
- Detailed charging cycle overview
- Smart charging functionality

Public EV Charging



- Choose your electricity contract type - fixed or variable
- Set your desired profit margin
- Make your charger public and visible on Google Maps, Waze etc.
- Earn extra revenue
- Public charging end customer can pay by Apple Pay, Google Pay or credit card
- Charger reservation and paid parking possibility

VOOL
Telliskivi 51b
10611 Tallinn, Estonia
info@vool.com

vool.com

VOOL