### € VT5 echarge

## We develop and manufacture Charging Stations for electric cars in the highest quality – made in Germany



#### Welcome to VTS eCharge

Innovative charging solutions for companies, the public sector and for private use



### About Us

VTS eCharge is a powerful player in the rapidly growing field of e-mobility

The company, based in Pfarrkirchen in Lower Bavaria, distributes the high-quality wallboxes and charging stations exclusively developed and produced by Verkehrstechnik Süd GmbH. These can be found in residential complexes as well as in companies or public charging parks.

For the charging stations and wallboxes, our software engineers develop and program the associated software solutions all the way to the backend interface.

At VTS eCharge, the customer receives everything from a single source – from consulting and project planning to installation, commissioning and maintenance. In addition, the company is increasingly working with market partners. These include specialist companies from the electrical trade, e-mobility providers and energy suppliers, but also real estate/project developers and architects.



## CHARGING SOLUTIONS

### **Charging Solutions for Companies**

For employees, customers or fleet management



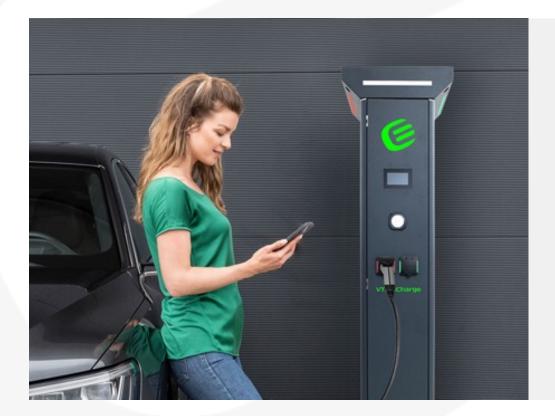
Our modular Wallbox count and our AC charging station and DC charging station have all the performance features that are important for highperformance charging at semi-public locations. For example, the charging infrastructure for employees, customers or fleet management. Numerous features such as intelligent load management or billing via app contribute to this, as does the payment option via card (charging columns) or the web-based management of the charging stations.

Together with many other interesting features, this creates a charging infrastructure that is precisely tailored to your company.



### **Charging Solutions for the Public Sector**

High availability - in compliance with calibration regulations on request



Charging in public spaces has very special requirements for the charging stations. Our eCharger AC and DC charging stations consist of a robust, vandal-proof sheet steel housing available in various designs.

Together with a self-sufficient heat management and dehumidification system as well as the modular, maintenance-friendly design, this guarantees high availability. The exclusive use of quality components from renowned manufacturers, such as Phoenix Contact, also contributes to this. The calibration-compliant billing function, which is available on request, makes the eCharger AC and DC charging stations particularly interesting for operation at public charging points.





### QuantumCharger Series – DC Charging Stations 120 – 300 kW

#### Not only fast, but also smart!

Whenever extremely short charging times are required, our particularly powerful QuantumCharger DC Charging Station is the first choice.

The housing, which is available in different color variants, is made of robust stainless steel and offers special protection against vandalism.

This makes our charging station perfect for DC charging in semi-public or public areas. The modular and maintenance-friendly design contributes to this, as do the numerous payment functions via bank and credit card, RFID or app. The same applies to the charging power, which can be scaled in 30 kW steps from 120 to 300 kW. An output voltage range of 150 V to 1000 V makes our QuantumCharger DC Charging Station particularly future-proof.





### At a Glance QuantumCharger **DC Charging Stations**





Company

15-inch multi-touch screen (IP67, PCAP)

#### **Future-proof**

Output voltage range from 150 V to 1000 V



Scalable

In 30 kW steps from 120 kW to 300 kW charging power

#### **Highest security**

Permanent DC insulation monitoring at the output

#### Technical data and facts

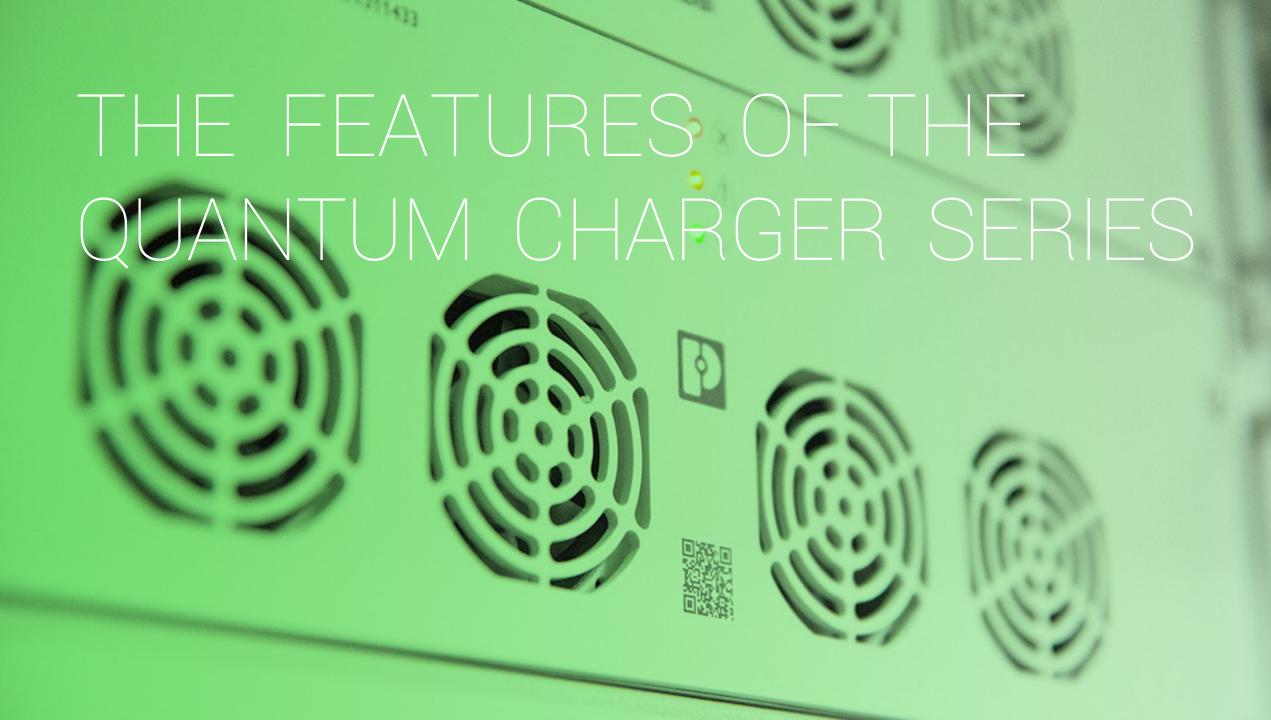
for E-mobility • Max. 500 A over the entire output voltage range

oftware Allianc

- At least OCPP 1.6 JSON via Ethernet interface or mobile radio modem
- Modular, easy-to-maintain design, updateable
- Low standby consumption
- Quality components from Phoenix Contact
- Intelligent, stepless allocation of energy to the charging points
- Communication according to DIN SPEC 70121









#### Robust

The robust stainless steel housing protects the station from environmental influences and vandalism and can be supplied in any RAL colour or as brushed stainless steel.



#### Scalability

Our revolutionary DC charging station offers scalable power from 120 to 300 kW in 30 kW steps. A 120 kW charging station, for example, can also be upgraded to a 300 kW charging station at any time.



#### Powerful

We bring up to 300 kW charging power into the car via uncooled charging cables with up to 375 A continuously, 500 A for 45 min and 15 min in 625 A boost mode. Cooled cables are optional.



#### Service-friendly

The interior construction is in 19" technology. The 3U high and 30 kW strong power modules weigh only about 30 kg. This enables fast and efficient assembly and service.



#### Heat-resistant

If the temperature in the cabinet reaches 50°C, fans in the right-hand door switch on in two stages to ensure 100% charging power even under full load. Even at a theoretical internal temperature of 70°C, the cabinet can charge at full power. **User-friendly** LEDs on the station that can be seen

from a distance indicate the charging status and the availability of the charging points.



#### Security

Protection against vandalism and cable theft by means of a deafening alarm and simultaneously illuminated red LEDs (optional SMS/ e-mail message).



#### Cable management

For much easier handling of the charging cable. Spring-loaded swivel arm with a radius of almost 4.5 m. Can also be retrofitted.





#### **Brilliant control panel**

15-inch industrial touch screen with quad-core ARM Cortex A9 CPU and high IP67 resistance. Configuration and diagnostics menu possible on the display.



#### **Kompetent partners**

We work very closely with the renowned German company Phoenix Contact, among others, and generally use components available on the market.



#### Made in Germany

The QuantumCharger Series by VTS eCharge – innovative charging technology made in Germany



### eCharger Charging Station AC premium 2 x 22 kW

For Employees, Customers and the Public Sector

The eCharger charging station AC premium is always ideal when it comes to highperformance charging at semi-public or public locations. For example, the charging infrastructure for employees, customers or the public charging point of the energy supplier.

Numerous features such as intelligent load management or the various payment functions via app or card, which are compliant with calibration law on request, as well as many additional options make the charging station AC premium the perfect all-rounder.





### At a glance Charging Station AC premium



**User-friendly** 

Multitouch display (4.3-inch) with live and history display of consumption data



#### **Ecological**

Vehicle-to-Grid communication according to ISO/IEC 15118



#### **Operationally safe**

Automatic temperature monitoring, personal protection by RCD type A and RCM module

### ØŀÏ

#### Easy to maintain

Modular design, hardware and software updateable

#### Technical data and facts

- Web-based management for configuration, diagnostics and operation
- MQTT and REST API available
- Charge park/load management for connected charge points
- Connection and branching option for further charging stations
- Quality components from Phoenix Contact
- Charging current infinitely variable from 6 32A
- Large LED roof light with long range visible free/busy display





### eCharger Wallbox count

#### Powerful and uncomplicated

With our eCharger wallboxes, you can charge your e-car quickly and easily. You don't have to press or adjust anything: just plug it in and the car charges. The charging process is simply indicated to you by the LED.

In all our charging stations, we use quality components from Phoenix Contact, which stand for safe operation and a long service life. The wallboxes are compliant with IEC 68561 (charging mode 3). In general, there are power variants with 11 kW or 22 kW, each in the charging socket or Type 2 charging cable with plug versions.

Our wallboxes cover a wide range of applications with three model variants.





### Wallboxes for Company Vehicle Fleets or for Charging in Home Communities



#### eCharger Wallbox count

eCharger Wallbox count has a meter,

is modularly expandable up to the cellular modem, and has everything needed for networked charging. It can be intelligently managed and configured via USB-C, Modbus or TCP and is certified for commercial use. With the Wallbox count, monitoring is possible via the Backend light.



### At a glance Wallbox count



#### Technical data and facts

- Charging power optionally up to 11 kW or up to 22 kW
- Charging current infinitely variable from 6 16 / 32 A
- Integrated DC residual current protection
- Web-based management for configuration, diagnostics and operation
- OCPP 1.6 JSON via Ethernet interface or mobile radio modem
- Optical error message (LED)
- Modular installation, hard- and software updatable
- Quality components by Phoenix Contact
- Standby consumption 5.2 W
- Mounting either on wall or stele



# CHARGING INFRASTRUCTURE



### **Charging Infrastructure**

Charging infrastructure is more than the sum of all installed wallboxes and charging stations

The rapid expansion of the charging infrastructure throughout Germany and Europe is one of the most important prerequisites for the fast implementation of the E-mobility targets. We want to make our contribution to this and offer everything necessary to set up and expand charging infrastructure in the areas of private customers, companies and public spaces.

Our core competence lies primarily in the manufacture of charging stations. However, the concrete bases required for installation and connection can also be obtained from us. In addition, we offer the necessary software regarding billing and payment through cooperation partners.



### Load Management

#### Load management ensures grid stability

If several electric cars are charged at the same time at one location and thus the charging stations are operated simultaneously, load peaks occur. The grid connection power must therefore be increased accordingly, which incurs not inconsiderable costs. Differently operating load management solutions prevent load peaks and ensure constant grid stability at all times, even when several cars are charging at the same time. This means that the expansion of the grid connection can almost always be dispensed with.

Our two eCharge wallboxes count and business, as well as all our AC and DC charging stations, already offer all the functions required for powerful load management as standard. Intelligent, stepless allocation of energy to the individual charging points allows you to configure a project-specific load management solution in no time at all that is precisely tailored to your requirements.





## COOPERATION PARTNERS



### The Market for e-Mobility is Booming

Strong partners are part of our success



#### **Electrical trade**

As an electrical installation company, you are at the center of the nationwide development of charging infrastructure for e-mobility. Convince yourself of our charging solutions and become a partner of VTS eCharge.



Charging infrastructure provider

Are you an e-mobility provider or do you operate vehicle fleets? VTS eCharge is the right partner for you when it comes to planning and implementing your charging infrastructure.



#### **Energy supplier**

Our charging station technology coupled with our expertise in grid connection in the low and medium voltage range make VTS eCharge a sought-after partner for EVUs and municipalities.



#### **Building design**

The charging infrastructure should be included in the building planning at an early stage. From consulting to implementation, VTS eCharge is the right contact for project planners and architects.



## DEVELOPMENT PARTNERS

### **Our Development Partners**

### We are a certified E-Mobility Solutions Partner of the **Phoenix Contact Deutschland GmbH**.

We are thus further expanding our cooperation with Phoenix Contact. VTS eCharge has already been using important components such as charging cables, power electronics, charging controls, and load management from the Westphalian manufacturer in its e-charging systems. With the new partner program, this cooperation will now be further intensified. Under a global umbrella brand, Phoenix Contact offers innovative products, solutions and digitalization expertise for the electrification, networking and automation of all sectors of the economy and infrastructure. In doing so, the company is empowering industry and society in the transformation to a sustainable world with long-term growth prospects for all.



#### **DPHŒNIX** CONTACT

### **Our Development Partners**



**Verkehrstechnik Süd GmbH** – our electrical partner from the rail vehicle sector has a highly qualified team of engineers, business people, technicians and skilled workers with decades of experience in project management, production, installation and commissioning of modern and innovative electrical systems and components for the rail vehicle industry. Providing services to customers without any limitation in terms of their individual requirements is the main goal of Verkehrstechnik Süd GmbH.

**Eltec Technology GmbH** – our partner for innovative cabling systems and components.

As an experienced system supplier of cable technology, complex special cabling systems and assemblies, Eltec Technology GmbH supports manufacturing processes in numerous industrial sectors.

Certification according to EN 9100, IATF 16949 and ISO 9001 makes Eltec Technology a competent partner for demanding industries such as the rail vehicle industry, aerospace, automotive and military technology, energy technology or mechanical and plant engineering. Eltec Technology also complies with IRIS requirements (ISO/TS 22163) and supplies the European rail vehicle industry with high-quality cabling systems.

With its expertise and decades of experience, Eltec Technology sees itself as a flexible full-service partner with a strong customer focus – from development and contract manufacturing to materials management and just-in-time logistics.





### **Our Development Partners**



VTS eCharge is a member of **S.A.F.E. e. V. (Software Alliance for E-Mobility)**. The aim of the association is to achieve a uniform solution in Germany to ensure that the legal metrology requirements for charging equipment are met. The focus is on the development of transparency software that can be used to determine the correctness of recorded values during loading. The digital signatures of the measured values are checked in order to exclude manipulations.



## Thank you for your Attention!

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