VTS eCharge

QuantumCharger DC/DC Charging Station

120 – 300 kW

When Things Have to Get Done Fast

Whenever extremely short charging times are required, our particularly powerful *QuantumCharger DC/DC charging station* is the first choice. The housing, which is available in various colors, 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, as well as in the DC grid.

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 input voltage range of 300 V to 825 V DC and output voltage range of 150 V to 1000 V DC makes our *QuantumCharger DC/DC charging station* particularly future-secure.

Easy to Use

15 Inch Multitouch 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

Maximum Safety

Permanent DC insolation monitoring, at the output

Auf einen Blick

- Max. 500 A over the entire output voltage range with input voltage of at least 650 V DC
- At least OCPP 1.6 JSON via Ethernet interface or mobile modem
- Modular, easy-to-maintain design, updateable
- Low standby consumption
- Quality components by Phoenix Contact
- Intelligent, continuous energy allocation to charging points
- Communication according to DIN SPEC 70121

S.A.F.E. VTS eCharge is a member of S.A.F.E. e. V. (Software Alliance for EMobility). The goal of the association is the creation of a uniform solution to ensure the requirements for statutory calibration laws for charging equipment in Germany. The main focus is the development of transparency software which determines the correctness of acquired values during the charging process. The digital signatures of the measured values are reviewed in order to protect data against possible manipulation.

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Technical Data

General	
Number of Charging Points	2 charging points for simultaneous DC charging
Charge Mode	Mode 4 DC (mode 3 AC upon request)
Option 1	2 x CCS type 2 plug with DC charging cable 3.5 m (Standard 250 A, opt. 375 A)
Option 2	2 x CCS type 2 plug with DC charging cable 5 m, optionally with cable management system (Standard 250 A, opt. 375 A)
Payment System	Payment by credit / debit card, app or RFID-NFC (backend-dependent)
Configuration and Diagnostic Analysis	Configuration and diagnostics menu shown on the display
Vehicle-to-Grid Communication	Active power controllable by grid operator via Ethernet or Modbus (ripple control receiver prepared)
Climate Management	Automatic temperature monitoring (opt. silent-mode)

Mechanical Design	
Housing Material	Stainless steel
Surface	Surface brushed or powder-coated, standard RAL 9016 or RAL 7016, desired color at extra charge, as well as additional foil sticking optionally possible
Ext. Dimension (h x w x d), Weight	2.075 x 1.045 x 806 mm (without cable), max. 700 kg

Electrical Design	
Input Voltage	300 – 825 V DC / control voltage 230 V AC, DC optional. Derating < 650 V DC ... 300 V DC (46 W/V)
Feed-in /Connection	Double feed Cable cross section 35 – 240 mm^2 / 2,5 – 25 mm^2 – AC or DC-control voltage
Input Power	170 – 410 kW, 650 – 825 A DC
Charging Capacity DC	120 – 300 kW at max. 500 A, scalable in 30 kW steps
Protection	Circuit breaker (MCB) type C 63 A DC/PV, DC-permanent insulation monitoring at the output
Overvoltage Protection	Especially for electromobility: SPD Class 1+2, Type 1+2 according to DIN EN 61643-11
Electric Meter DC	MID-compliant direct current billing meter according to VDE-AR-E-2418-3-100, on request billing data records signed in compliance with calibration law with charging data and charging data history in connection with the meter display in compliance with calibration law
Standby Consumption	100 W at DC/DC 300 kW (160 W with lighting switched on)
Efficiency	> 95 % at 100 % DC charging power with 500 A

Interfaces, Protocols	
Communication / Management	Open Charge Point Protocol OCPP 1.6 JSON or higher, via Ethernet or mobile modem, Modbus TCP and RTU, CAN
Ethernet Connection	Two tool-free patch panels
Cellular Modem (2 – opt. 4 Pieces)	2G – 4G, 1st router available for backend connection, 2nd router for protective maintenance
RFID	Supports all 125 kHz, 134.2 kHz and 13.56 MHz technologies, including NFC

Conformity	
Certification, Protection Class	CE, IP 54
Polution Level, Shockproof	Class 3, IK10 according to IEC 62262
EU Directives	2014/35/EU (Low Voltage Directive), 2011/65/EU (RoHS), 2017/2102 (RoHS2), 2012/19/EU (WEE), 1907/2006 (REACH), 2014/30/EU (EMC Directive)
Charging and Security Standards	DIN EN IEC 61851-1, -23, DIN EN IEC 62196, DIN EN IEC 62477-1, DIN EN IEC 611439-1, -7, DIN EN IEC 62311, DIN SPEC 70121
EMV	DIN EN IEC 61851-21-2 Immunity requirements suitable for category B Commercial and mixed residential areas

Additional Options
Advertising on display, mobile modem with antenna and SIM card, base, counter-protection, assembly, commissioning, testing

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