

ZEFNET Station Charger C500



The ZEFNET Station Charger is the all-in-one DC charging solution with dynamic power management.

The Station Charger is a powerful all-in-one solution for electric vehicle fast charging sites. Utilizing a user-friendly cable system, the Station Charger can have one or two DC charging outputs. With different combinations of 50 kW power modules, the Station Charger harnesses the full potential of on-demand power routing, saving both energy and costs.

A double cabinet Station Charger can have up to eight 50 kW power modules, providing a maximum charging power of up to 400 kW.

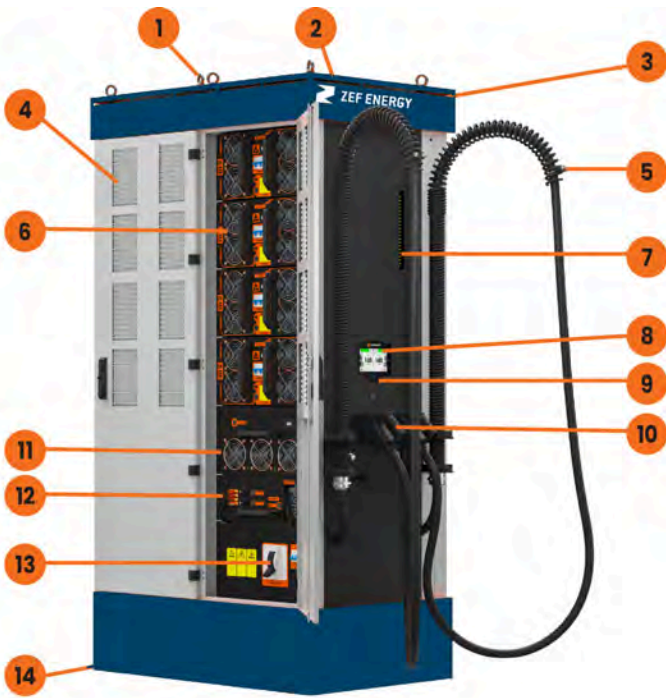
With dynamic power management, the available charging power of all power modules is automatically distributed to all connected charging outputs, depending on the charging cable used and the requirements of the electric vehicles.

Power range

Up to **400 kW**

Adaptive voltage range

150–1000 V



- 1 Lifting lugs
- 2 WiFi/cellular/GPS antenna
- 3 Air outlet
- 4 Air inlet
- 5 Charging cable support system
- 6 Power module (1-4 pcs/cabinet)
- 7 Charging status indication LEDs
- 8 7" touch screen display
- 9 RFID reader (ISO 14443A)
- 10 Vehicle connectors
- 11 Power distribution module
- 12 Control module
- 13 Main switch
- 14 AC cable entry



Advanced cable support system (pat. pend.) for premium user experience



Scalability with add-on power modules



Improved cost efficiency of the charging system



On-screen QR code for following the charging status on your mobile phone



Lockable door for safety and easy access



Advanced charging control and customization with ZEFNET Software

Product code interpretation

C501•P160•UU•7•C•P•D2•L•C0 ZEFNET Station Charger 500 V single cabinet • 200 kW charging power • 2 x CCS1 vehicle connector • charging cable length 23 ft. • nominal charging cable current 200 A • Payter P68 payment terminal • up to 2 dynamic outputs • ETL certification • unbranded

Item	Code	Description
Product type	C501	ZEFNET Station Charger 500 V single cabinet
	C502	ZEFNET Station Charger 500 V double cabinet
Charging power*	P160	200 kW (4 modules)
	P320	400 kW (8 modules)
	N	When in front of the vehicle connector type, indicates that there is only one connector
Vehicle connector type	D	CHAdEMO
	U	CCS1
	UU	2 x CCS1
	UD	CCS1 & CHAdEMO
Charging cable length	5	16.4 ft.
	7	23 ft.
Nominal charging cable current	B	125 A (CHAdEMO)
	C	200 A (CCS1)
	E	300 A/350 A** (CCS1)
User interface and payment	S	Standard user interface
	P	Payter P68 payment terminal with contactless, chip reader, and magnetic stripe (no PIN pad)
Power distribution modules	D2	Up to 2 dynamic outputs
Certification	L	ETL approved
Branding options	C0	Unbranded: roof and base in black color, no stickers
	Cn	Branded: number (n) indicates branding, e.g. C8

* Standard operation. See Power performance table for details.

** With 300 A charging cables:
350 A (rated) in 77°F. Requires at least 2 output terminals and a specific hardware configuration.

General electrical specifications

Input voltage	380...480 VAC +6%/-10%
Input frequency	50...60 Hz
Output voltage	150...1000 VDC
Power factor at full load	0.92
Efficiency at full load	94%
Idle power	20 VA
Standby power	C501: 50 W C502: 180 W
Overvoltage category	III
Icc	35 kA
Network type	TN-S, TN-C, TN-C-S, TT

Environmental specifications

Operating temperature	-22...122 °F
Current derating	Maximum charging current decreases 2% for every 1.8 °F rise in temperature above 77 °F
Maximum altitude without derating	6562 ft.
Altitude derating	Maximum charging current decreases 1.4% for every 328 ft. rise above 6562 ft.
Operational noise level	Wall side: < 57 dB at 3.3 ft. distance Door side: < 62 dB at 3.3 ft. distance
Storage temperature	-40...140 °F
Ambient air humidity	< 95% relative humidity
Enclosure rating	Suitable for outdoor use

Connections and protocols

WiFi	802.11 b/g/n (2.4/5 GHz)
Cellular/GPS	LTE-FDD, LTE-TDD, WCDMA, GSM
Ethernet	RJ45, IEEE 802.3/802.3u
OCPP	1.6j/2.0.1
Connectivity	ZEFNET Software

Electrical protections

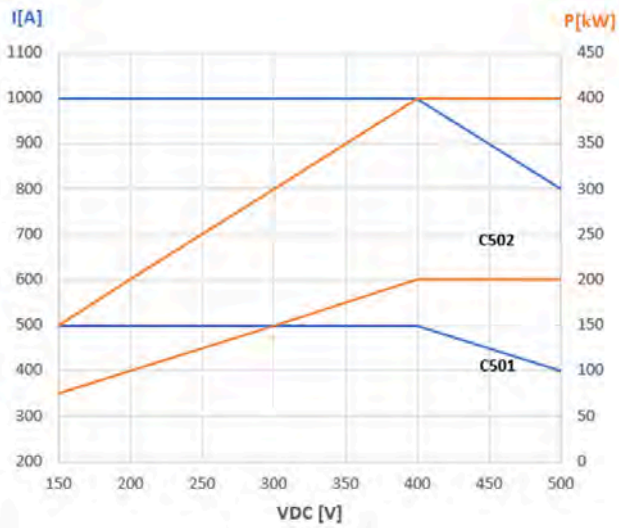
Over/undervoltage
Surge protection
Short circuit
Overload protection
Earth leakage current monitoring
Device overtemperature

Power performance

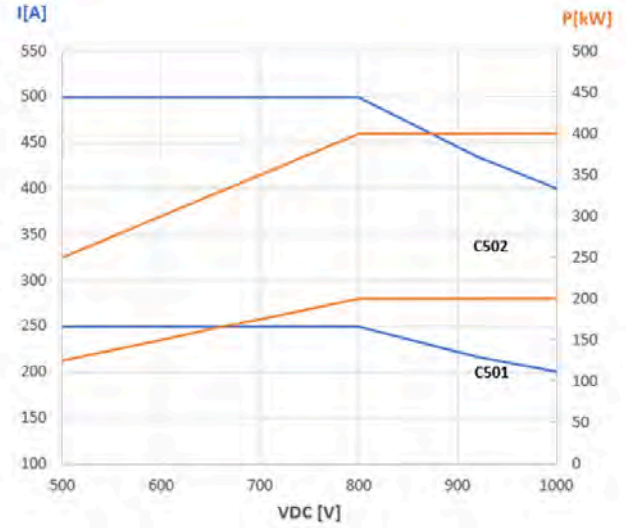
Product type	Number of power modules	Number of independent AC supply cables*	Standard operation			Continuous operation		
			Charging power	Input current per supply cable at 400 V	Input current per supply cable at 480 V	Charging power	Input current per supply cable at 400 V	Input current per supply cable at 480 V
C501	1	1	50 kW	91 A	76 A	40 kW	73 A	61 A
	2	1	100 kW	181 A	151 A	80 kW	145 A	121 A
	3	1	150 kW	272 A	227 A	120 kW	218 A	182 A
	4	1	200 kW	362 A	302 A	160 kW	290 A	242 A
C502	5	2	250 kW	91 A	76 A	200 kW	73 A	61 A
	6	2	300 kW	181 A	151 A	240 kW	145 A	121 A
	7	2	350 kW	272 A	227 A	280 kW	218 A	182 A
	8	2	400 kW	362 A	302 A	320 kW	290 A	242 A

* Each cabinet has a dedicated supply cable.

Figure 1. Power curve (standard operation)

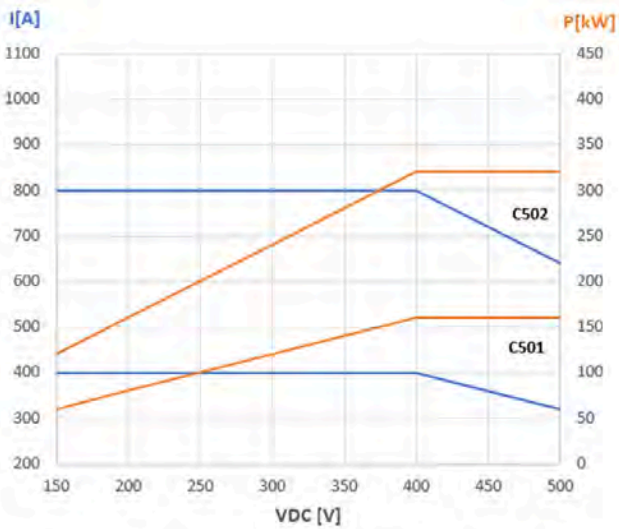


150-500 VDC

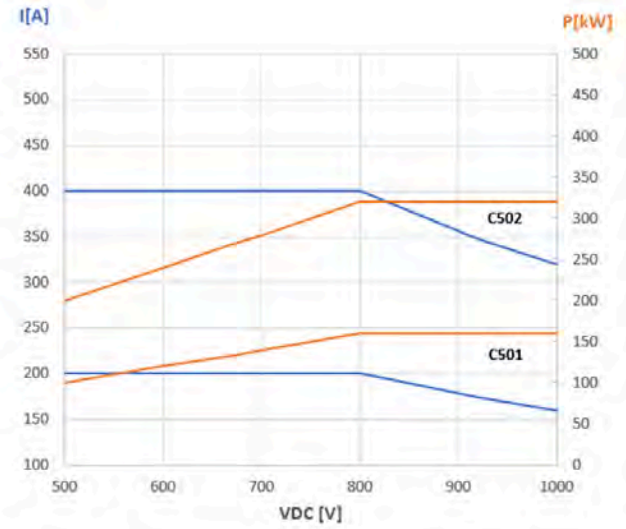


500-1000 VDC

Figure 2. Power curve (continuous operation)



150-500 VDC



500-1000 VDC

Product codes

Product code	Vehicle connector	Max. charging current	Max. DC charging power at 400 VDC*	Max. DC charging power at 800 VDC*
C501•UU•x•C•L	2 x CCS1	2 x 200 A	2 x 80 kW	2 x 160 kW
C501•UU•x•D•L	2 x CCS1	2 x 250 A	2 x 100 kW	2 x 200 kW
C501•UU•x•E•L	2 x CCS1	2 x 300 A/350 A**	2 x 120 kW/140 kW	2 x 200 kW
C501•UD•x•CB•L	CCS1 & CHAdeMO	200 A & 125 A	80 kW & 50 kW	160 kW & 100 kW
C501•UD•x•DB•L	CCS1 & CHAdeMO	250 A & 125 A	100 kW & 50 kW	200 kW & 100 kW
C501•UD•x•EB•L	CCS1 & CHAdeMO	300 A/350 A** & 125 A	120 kW/140 kW & 50 kW	200 kW & 100 kW

Product code	Vehicle connector	Max. charging current	Max. DC charging power at 400 VDC*	Max. DC charging power at 800 VDC*
C502•UU•x•C•L	2 x CCS1	2 x 200 A	2 x 80 kW	2 x 160 kW
C502•UU•x•D•L	2 x CCS1	2 x 250 A	2 x 100 kW	2 x 240 kW/280 kW
C502•UU•x•E•L	2 x CCS1	2 x 300 A/350 A**	2 x 120 kW/140 kW	2 x 240 kW/280 kW
C502•UD•x•CB•L	CCS1 & CHAdeMO	200 A & 125 A	80 kW & 50 kW	160 kW & 100 kW
C502•UD•x•DB•L	CCS1 & CHAdeMO	250 A & 125 A	100 kW & 50 kW	200 kW & 100 kW
C502•UD•x•EB•L	CCS1 & CHAdeMO	300 A/350 A** & 125 A	120 kW/140 kW & 50 kW	240 kW/280 kW & 100 kW

* Depends on the number of installed power modules

** With 300 A charging cables:
350 A (rated) in +77°F. Requires at least 2 output terminals and a specific hardware configuration.

Note: Depending on the required cable length, replace x in the product code with 5 or 7, e.g. C502•UD•5•CB•L for a 16.4 ft. cable.

Compliance to standards

IEC 61851-1, IEC 61851-23, IEC 61851-21-2, IEC 62196-3

UL 2202, UL 2231-1, UL 2231-2

CSA Std. c22.2 No. 281.2, CSA Std. c22.2 No. 107.1

EMC Class A FCC Part 15

Options

Customized branding

Branding options, such as custom colors and stickers
Contact ZEF Energy for availability, pricing, and minimum order quantity

Mechanical dimensions

Size (W x H x D)

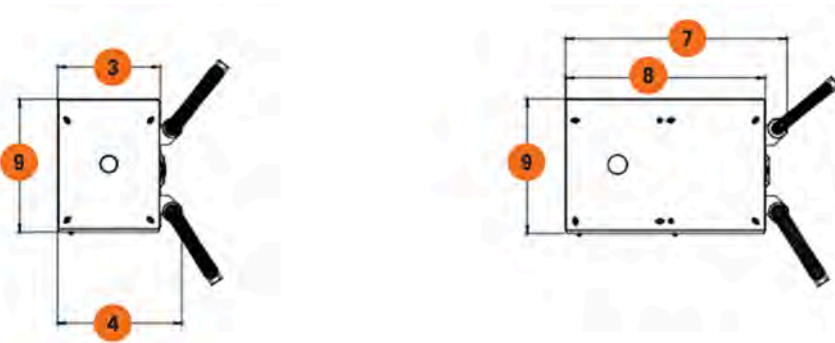
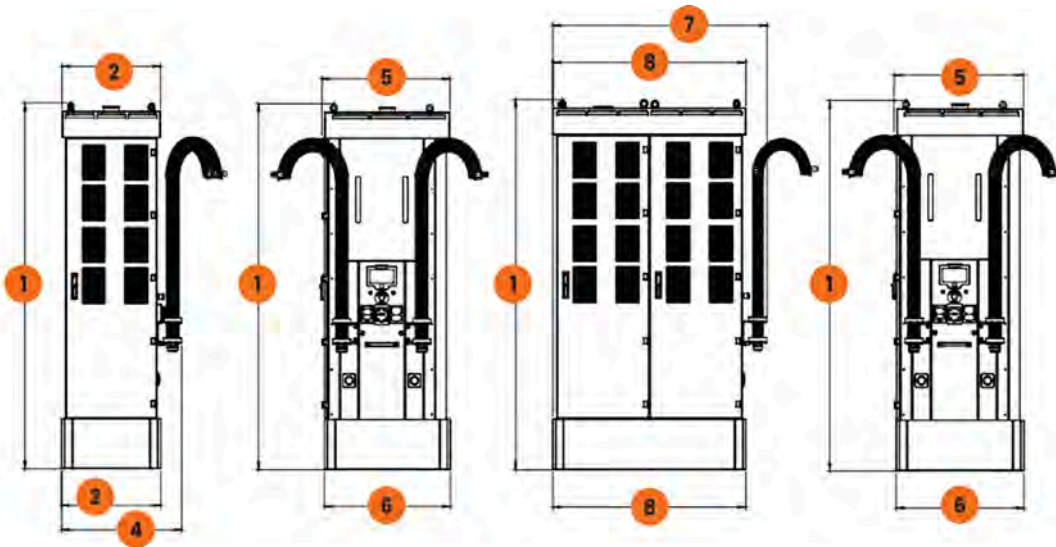
C501: 25.6 x 94.3 x 33.1 in.

C502: 49.2 x 94.3 x 33.1 in.

Weight

Maximum 1157 lb.

Maximum 2039 lb.



1	94.3 in.	3	25.6 in.	5	33 in.	7	54.6 in.	9	33.1 in.
2	25.4 in.	4	31 in.	6	32.5 in.	8	49.2 in.		