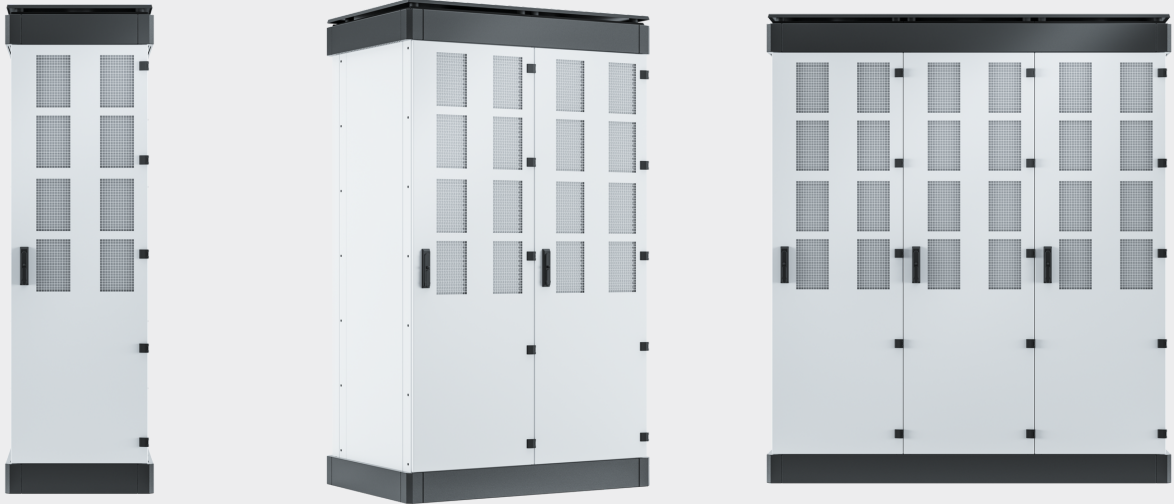


POWER UNIT C500



The Power Unit is the heart of the flexible, modular and scalable DC charging system with dynamic power management.

One Power Unit can simultaneously provide energy for up to 8 DC charging outputs: Satellites or Pantographs. With different combinations of 50 kW power modules, the Power Unit's unique dynamic power management harnesses the full potential of on-demand power routing, saving both energy and costs.

A triple cabinet Power Unit can have up to 12x 50 kW power modules, providing a maximum nominal power of up to 600 kW.

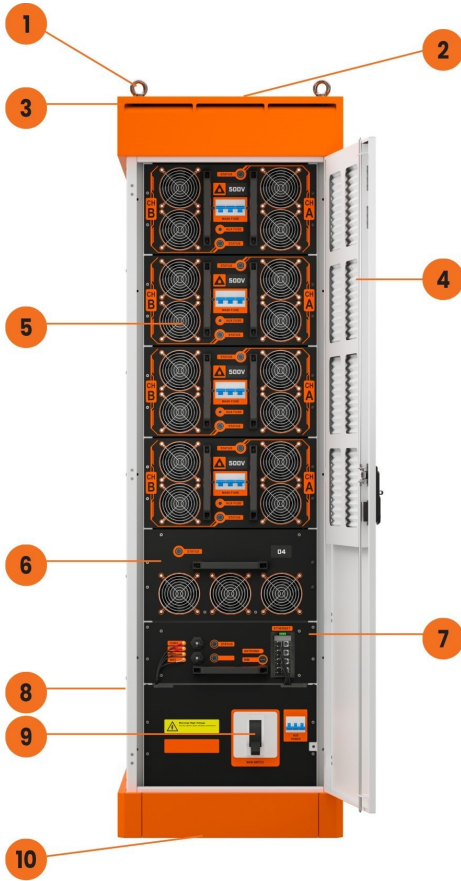
With dynamic power management, the available charging power of all power modules is automatically distributed to all connected charging outputs, depending on the charging cable used and the requirements of the electric vehicles. With static power management, each power module provides pre-set charging power to one dedicated charging output.

Power range

50–600 kW

Adaptive voltage range

150–1000 v



- 1 Lifting lugs
- 2 WiFi/cellular/GPS antenna
- 3 Air outlet
- 4 Air inlet
- 5 Power module (1-4 pcs/cabinet)
- 6 Power distribution module
- 7 Control module
- 8 DC output
- 9 Main switch
- 10 AC cable entry



Charging power for up to 8 charging outputs, 8 single Satellites or 4 double Satellites



1-4 50 kW power modules per Power Unit



Scalability with add-on power modules



Improved cost efficiency of the charging system



Lockable door for safety and easy access



Advanced charging control and customization with ChargeEye

Product code interpretation

C501•P160•N•D4•L•C0

Power Unit C500 single cabinet•200kW charging power• no vehicle connector •up to 4 dynamic outputs• ETL certification• unbranded

Item	Code	Description
Product type	C501	Power Unit C500 single cabinet ^[1]
	C502	Power Unit C500 double cabinet ^[1]
	C503	Power Unit C500 triple cabinet ^[1]
Charging power ^[2]	P160	200 kW (4 modules)
	P320	400 kW (8 modules)
	P480	600 kW (12 modules)
Vehicle connector type	N	No connector
Power distribution modules ^[3]	D4	Up to 4 adaptive dynamic outputs 150–1000 VDC
	D6	Up to 6 adaptive dynamic outputs 150–1000 VDC
	D8	Up to 8 non-adaptive dynamic outputs 150–500 VDC ^[4]
	R	VDC
Certification	L	Static power distribution
Branding options	C0	ETL-approved product
	Cn	Unbranded: roof and base in black color, no stickers

Branded: number (n) indicates branding, e.g.C8

^[1] The rated current of a single charging output terminal using a power distribution module is limited to 200 A.

^[2] Standard operation. See Power performance table for details.

^[3] With 300 A charging cables:
350 A (rated) in +25 C°/77 °F. Requires at least 2 output terminals and a specific hardware configuration.

^[4] Power curve according to Figure 1.

General electrical specifications

Input voltage	380...480VAC +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: 100 W
	C503: 150 W
Overvoltage category	III
Icc	35 kA
Network type	TN-S, TN-C, TN-C-S, TT

Environmental specifications

Operating temperature	-30...+50 °C / -22...122 °F
Current derating	Charging current decreases 1.5% for every 1 °C / 1.8 °F rise in temperature above +40 °C / 104 °F
Maximum altitude without derating	2000 m / 6562 ft.
Altitude derating	Charging current decreases 1.4% for every 100 m / 328 ft. rise above 2000 m / 6562 ft.
Operational noise level	< 60 dB at 1 m / 3.3 ft. distance
Storage temperature	-40...+60 °C / -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	ChargeEye solution

Electrical connections (between Power Unit and vehicle connectors)

DC power cable per vehicle connector (terminals 2 x 150 mm ² / 2 x 300 MCM per pole)
Control cable 24 VDC
Control bus cable

Electrical protections

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

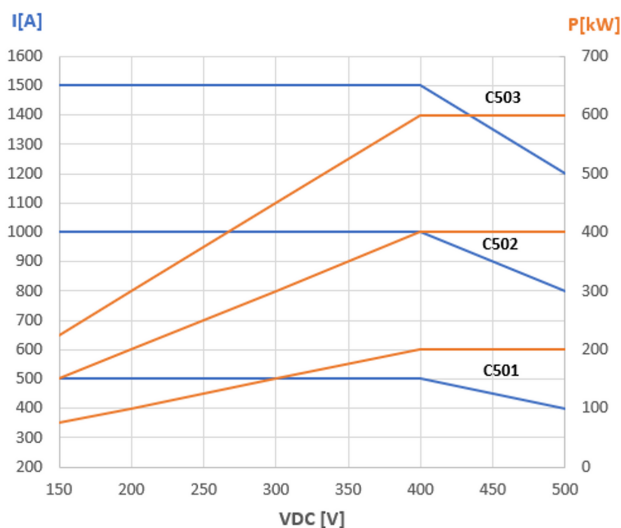
Power performance

Continuous operation

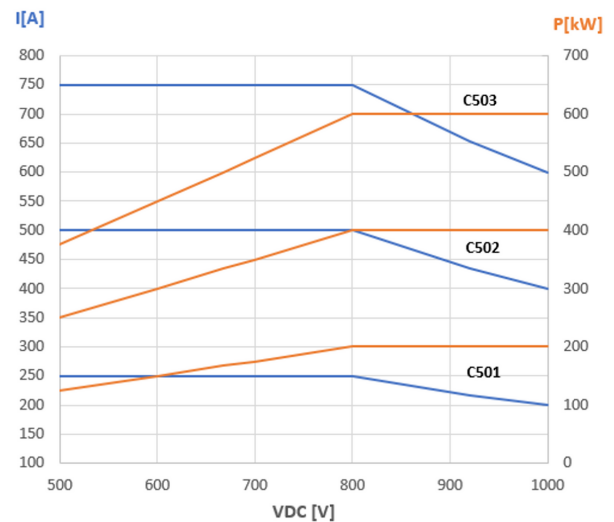
Product type	Number of power modules	Number of independent AC supply cables*	Standard operation Charging Input power current per supply cable at 400 V	Input current per supply cable at 480 V	Charging Input power current per supply cable at 400 V	Input current per supply cable at 480 V
C501	1	1	50 kW/91 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
C503	9	3	450 kW/91 A	76 A	360 kW/73 A	61 A
	10	3	500 kW/181 A	151 A	400 kW/145 A	121 A
	11	3	550 kW/272 A	227 A	440 kW/218 A	182 A
	12	3	600 kW/362 A	302 A	480 kW/290 A	242 A

* Each cabinet has a dedicated supply cable.

Figure 1. Power curve (standard operation)

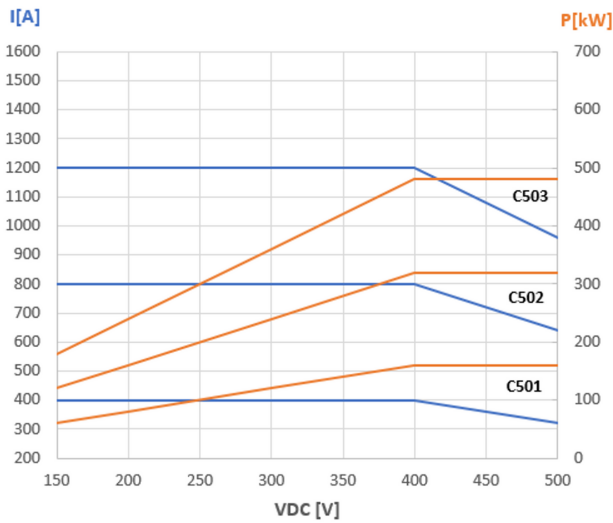


150-500 VDC

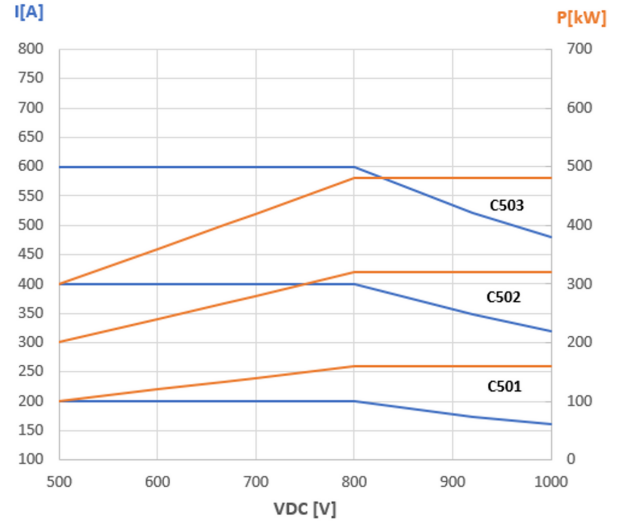


500-1000 VDC

Figure 2. Power curve (continuous operation)



150-500 VDC



500-1000 VDC

Compliance to standards

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

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 Kempower for availability, pricing, and minimum order quantity

Steel base

Installation kit for a single cabinet, for flat surface assembly

Mechanical dimensions

Size (W x H x D)

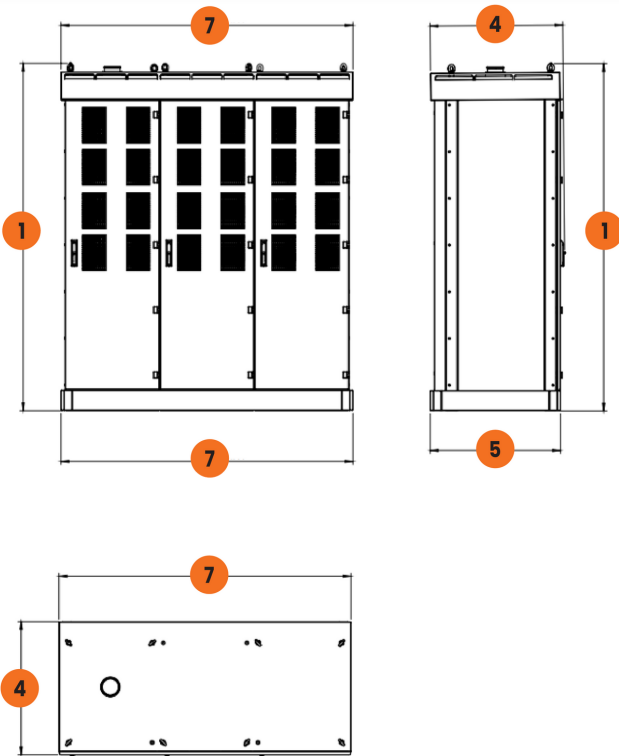
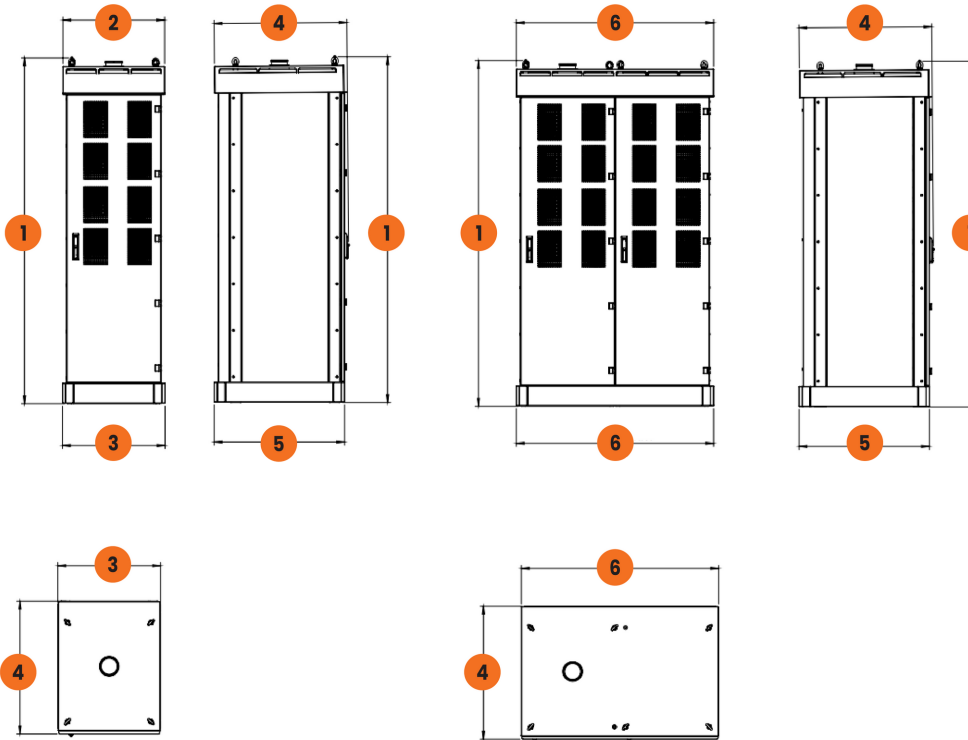
C501: 650 x 2195 x 841 mm / 25.6 x 86.4 x 33.1 in.

C502: 1250 x 2195 x 841 mm / 49.2 x 86.4 x 33.1 in.

C503: 1850 x 2195 x 841 mm / 72.8 x 86.4 x 33.1 in.

Weight

C501P40...	280 kg/617 lb.
C501P80...	320 kg/705 lb.
C501P120...	360 kg/794 lb.
C501P160...	400 kg/882 lb.
C502P200...	680 kg/1499 lb.
C502P240...	720 kg/1587 lb.
C502P280...	760 kg/1676 lb.
C502P320...	800 kg/1764 lb.
C503P360...	1080 kg/2381 lb.
C503P400...	1120 kg/2469 lb.
C503P440...	1160 kg/2557 lb.
C503P480...	1200 kg/2646 lb.



- | | | | | | | | |
|---|------------------|---|-----------------|---|------------------|---|------------------|
| 1 | 2195 mm/86.4 in. | 3 | 650 mm/25.6 in. | 5 | 825 mm/32.5 in. | 7 | 1850 mm/72.8 in. |
| 2 | 645 mm/25.4 in. | 4 | 841 mm/33.1 in. | 6 | 1250 mm/49.2 in. | | |

S-SERIES CHARGING SATELLITE

There are several variations of S-Series charging satellites, equipped with one or two charging outputs each.

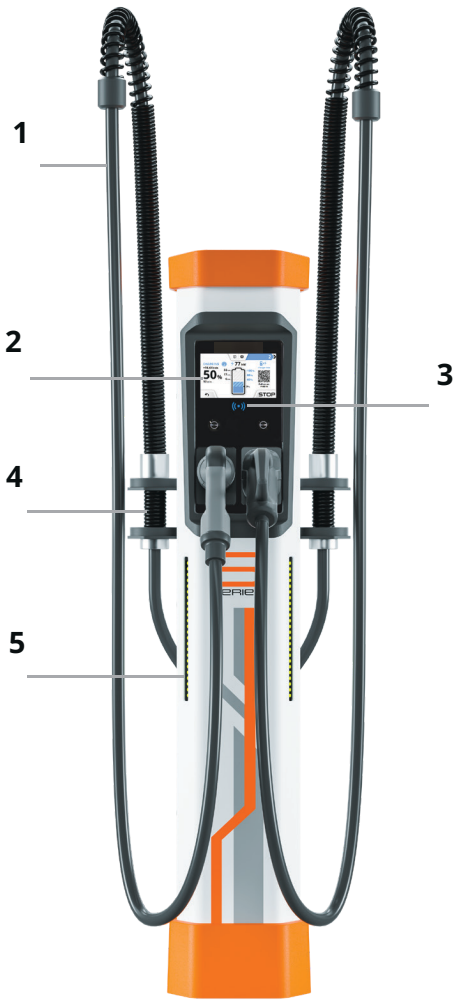
One satellite charging system can consist of up to 4 double or 8 single output satellites, in total 8 charging outputs.

The power to S-Series charging satellites is supplied by C-Series charging power unit (CPU), providing a maximum power of up to 200/400/600 kW, depending of the CPU version and cable sizing.

S-Series fits locations where a heavy-duty usage, and a high number of charging outputs are needed, such as gas stations, shopping malls, distribution centers, parking areas and bus depots.



- Advanced cable support system (pat. pend.) to provide premium user experience
- Easy-to-use, intuitive user menu on a 7" touch screen display
- On-screen QR code to follow the charging status on your mobile phone
- Flexibility in designing the charging system topology
- ChargEye provide remote connectivity with diagnostics and maintenance tools
- Recommended max. DC cabling between C-Series charging power unit and S-Series charging satellite is 262 feet / 80 meters.



Standard satellite with double DC output

S-Series charging satellite is for charging of all types of electric vehicles. Innovative charging cable support system makes the charging cables easy-to-use.

- 1. Charging cable support system
- 2. 7" touch screen display
- 3. RFID reader (ISO14443A)
- 4. Charging cable holders
- 5. Charging status indication LEDs

Product code interpretation examples:

SUD5BSL

SUD7BSLCO

S S-Series

UD Charging method

Charging cable

5B 5 = 16.4 ft / 5 m

7B7 = 23 ft / 7 m

B = 125/150 A charging cable current

User interface

SS = standard interface

P = card payment terminal

LETL approved product

C0 Unbranded, black roof & base

Charging method

D CHAdeMO

U CCS1

UU2 x CCS1

UD CCS1 & CHAdeMO

Nominal charging cable current

B125 A (CHAdeMO)

150 A (CCS1)

C200 A (CCS1)

CCS2 UL-CSA certified charging cables available upon request, please contact EV-olution for availability, pricing and delivery times.

General electric specifications

DC charging CCS1 IEC 62196-3 plug options CHAdeMO
Voltage Max. 1000 VDC
Standby power 25 W

Connections (via C-Series / C-Station)

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	
Connectivity	ChargEye remote maintenance and management dashboard

Product code	SD5BSL SD7BSL	SU5CSL SU7CSL	SUU5CSL SUU7CSL	SUD5CBSL SUD7CBSL
No. of charging outputs	1	1	2	2
Charging method	CHAdeMO	CCS1	2 x CCS1	CCS1 & CHAdeMO
Simultaneous charging with 2 outputs (yes/no)	no	no	yes	yes
Charging cable length	16.4 ft / 5 m 23 ft / 7 m	16.4 ft / 5 m 23 ft / 7 m	16.4 ft / 5 m 23 ft / 7 m	16.4 ft / 5 m 23 ft / 7 m
Max. continuous charging current [A] at +40 °C / +104 °F	125 A	200 A	2 x 200 A	200 A & 125 A
Charging power [kW] at 400 VDC	50 kW	80 kW	2 x 80 kW	80 kW & 50 kW
Charging power [kW] at 670 VDC (w/ C-Series C800 CPU)	84 kW	134 kW	2 x 134 kW	134 kW & 84 kW

Environmental specifications

Operating temperature	-22...+122°F / -30 ... +50°C (with CHAdeMO up to +104°F / +40°C)
Current derating	-1,5% of max. charging current per 1.8 °F / 1°C (above +104°F / +40°C)
Maximum altitude	2000 m / 6562 ft
Altitude derating	-1.4% of max. charging current per 328 ft / 100 m (above 6562 ft / 2000 m)
Storage temperature	-40...+140°F / -40...+60°C
Enclosure	Suitable for outdoor use
Operational noise level	< 60 dB (at 3.28 ft / 1 m distance)
Ambient air humidity	< 95% relative humidity

Compliance to standards

Electrical safety	IEC 61851-1, IEC 61851-23
EMC, Harmonics	IEC 61851-21-2
Conforms to	UL Std. 2202, 2231-2
Certified to	CSA Std. C22.2 No. 281.2, C107.1

Electrical protections

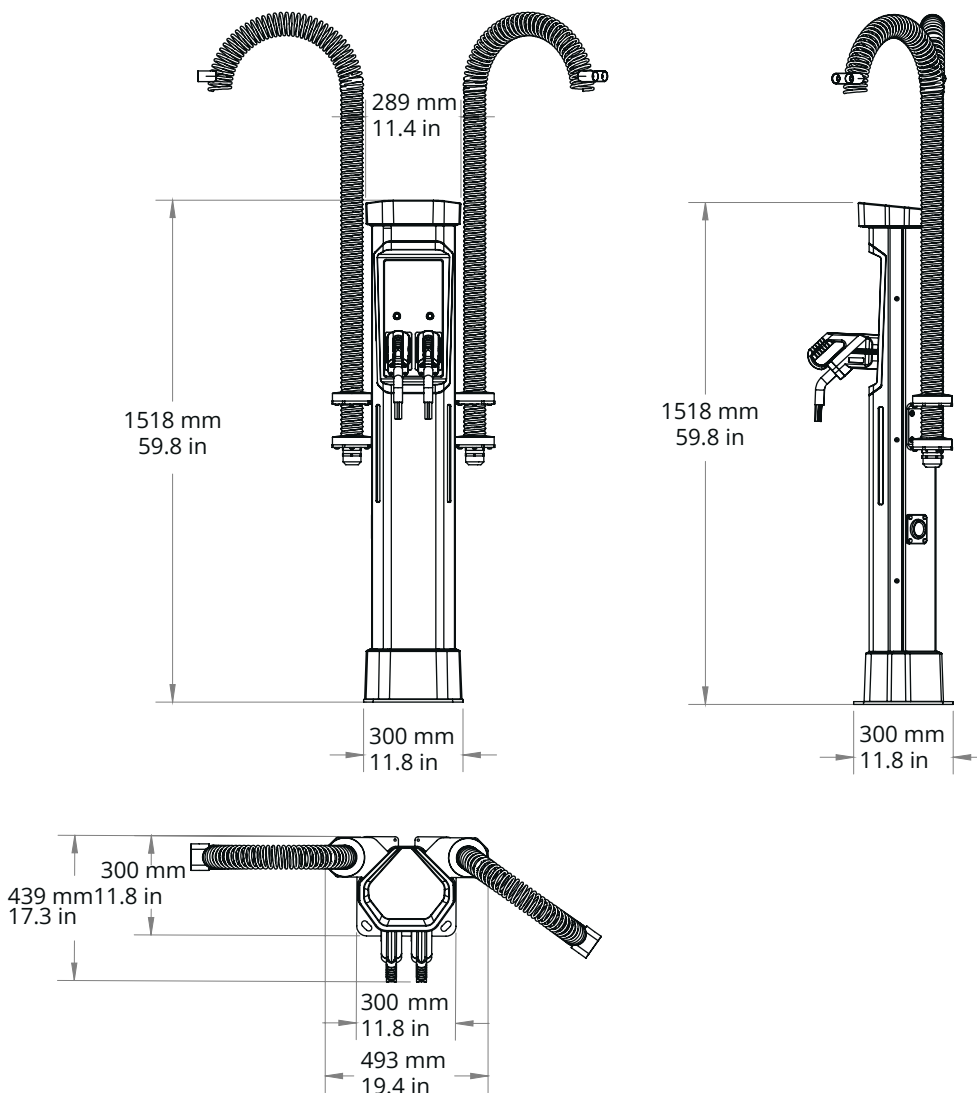
Device over temperature
Charging cable over temperature

Mechanical dimensions (WxHxD), footprint

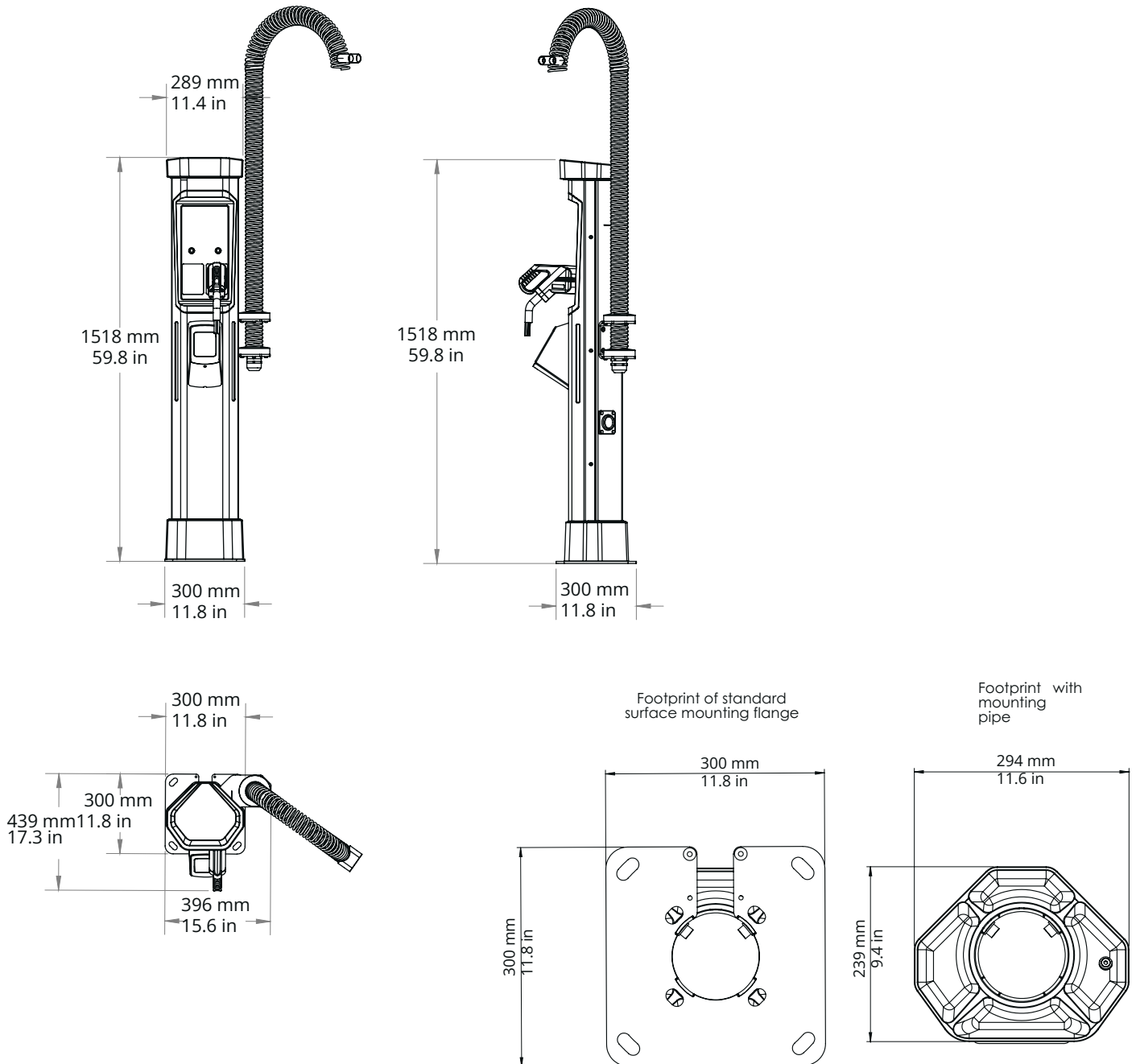
11.8 x 59.8 x 11.8 inch / 300 x 1518 x 300 mm


Product code	SD5BSL SD7BSL	SU5CSL SU7CSL	SUU5CSL SUU7CSL	SUD5CBSL SUD7CBSL
Weight				
[kg / lbs]	177 lbs / 80 kg	177 lbs / 80 kg	203 lbs / 92 kg	203 lbs / 92 kg
[kg / lbs]	183 lbs / 83 kg	183 lbs / 83 kg	216 lbs / 98 kg	216 lbs / 98 kg

S-Series with two DC charging outputs



S-Series with one DC charging output and card payment terminal



 Warning: Never release the charging cable from your hands when moving it to or from the vehicle, in order to prevent damaging the plug or the vehicle. After charging, always place the plug back in its holder. Refer to the operation manual for warnings, functions and features.

