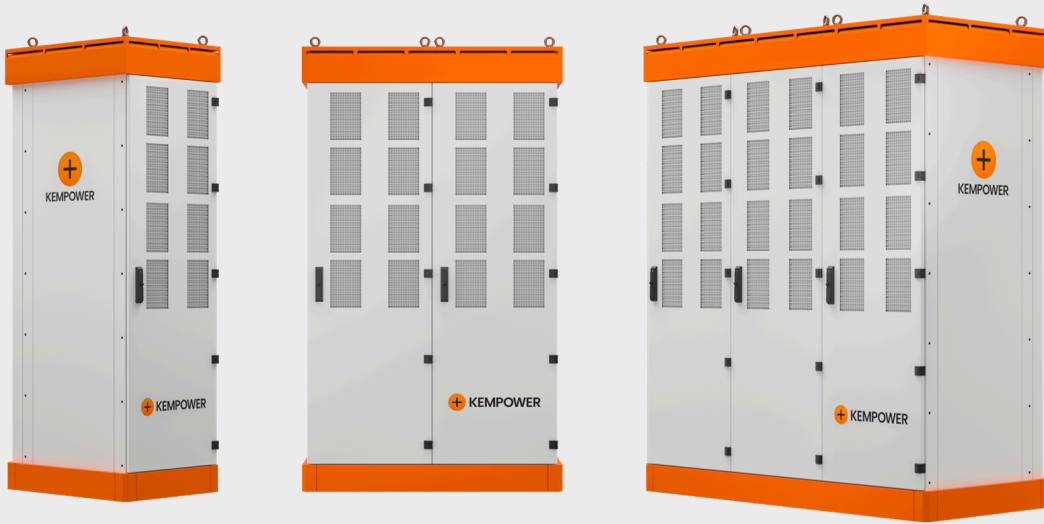


Kempower Power Unit C500



The Kempower Power Unit is the heart of Kempower's 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. By utilizing individual 25 kW power channels in the installed power modules, the Power Unit's unique dynamic power management harnesses the full potential of on-demand power routing. This enables significant cost savings in the installed charging hardware and grid connection while optimizing the charging experience.

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

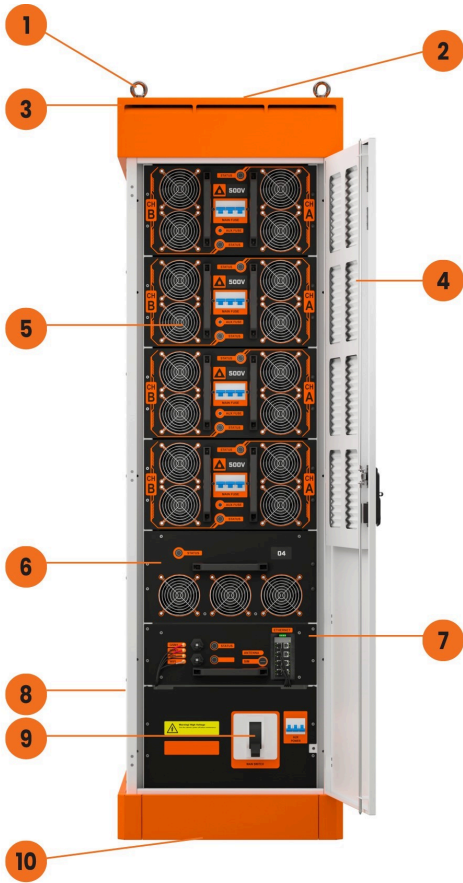
With dynamic power management, the available charging power of all power modules is automatically distributed to all connected charging outputs according to the requests of the electric vehicles.

Power range

Up to **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 supply 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 cabinet



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 Kempower ChargeEye

Product code interpretation

C501•P160•N•D4•C0

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

Item	Code	Description
Product type	C501	Kempower Power Unit C500 single cabinet*
	C502	Kempower Power Unit C500 double cabinet*
	C503	Kempower Power Unit C500 triple cabinet*
Charging power**	P160	200 kW (4 modules)
	P320	400 kW (8 modules)
	P480	600 kW (12 modules)
Vehicle connector type	N	No connector
Power distribution modules***	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****
	R	Up to 8 dynamic-ready outputs
Branding options	C0	Unbranded: roof and base in black color, no stickers
	Cn	Branded: number (n) indicates branding, e.g. C8

* The rated current of a single charging output terminal using a power distribution module is limited to 200 A.

** Standard operation. See Power performance table for details.

*** With 300 A charging cables:

500 A (max. 10 min) in +25 °C. Requires at least 3 output terminals and a specific hardware configuration.

375 A continuous in +25 °C. Requires at least 2 output terminals and a specific hardware configuration.

**** Power curve according to Figure 1.

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: 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
Current derating	Charging current decreases 1.5% for every 1 °C rise in temperature above +40 °C
Maximum altitude without derating	2000 m
Altitude derating	Charging current decreases 1.4% for every 100 m rise above 2000 m
Operational noise level	< 60 dB at 1 m distance
Storage temperature	-40...+60 °C
Ambient air humidity	< 95% relative humidity
Enclosure rating	IP54, IK10

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	Kempower ChargEye solution

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
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)

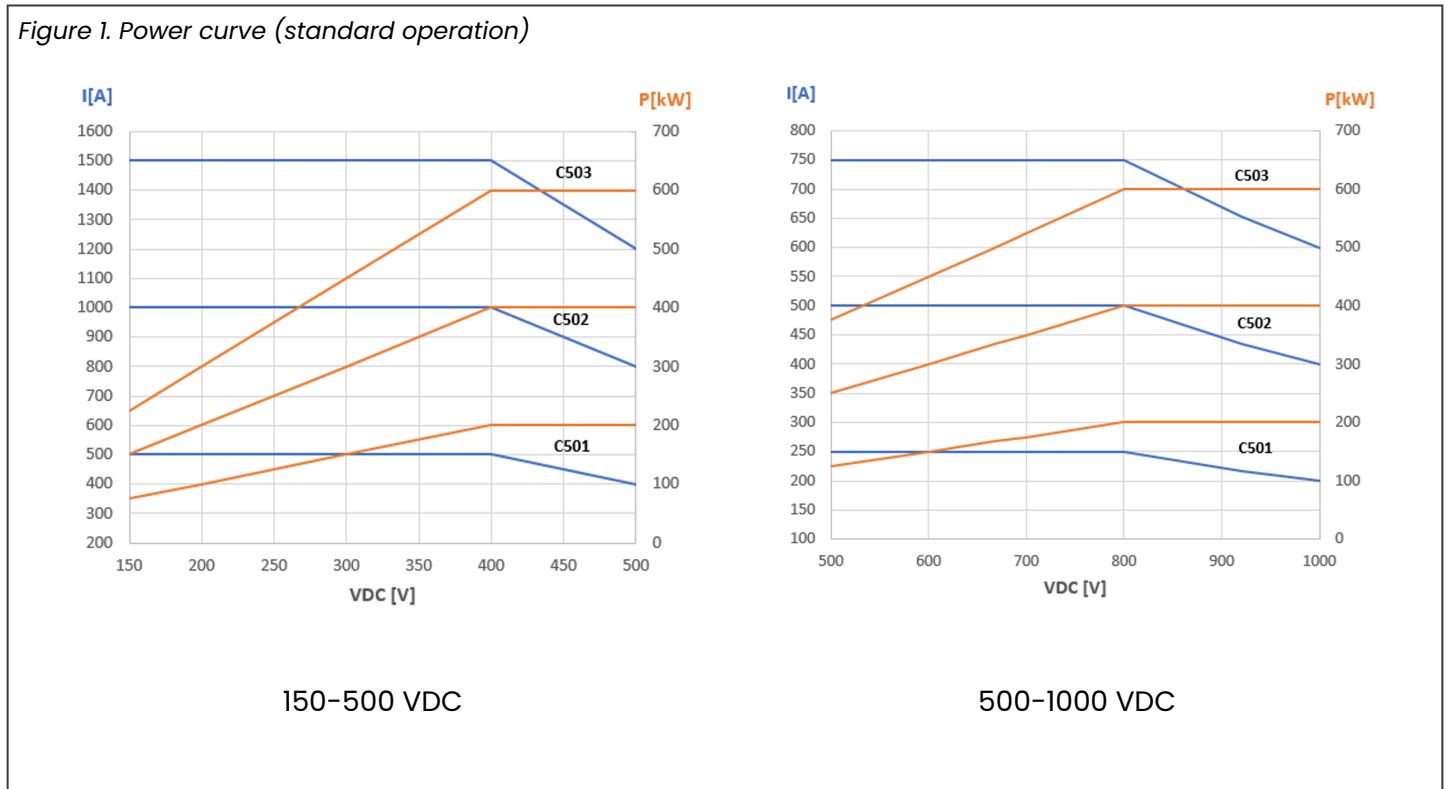
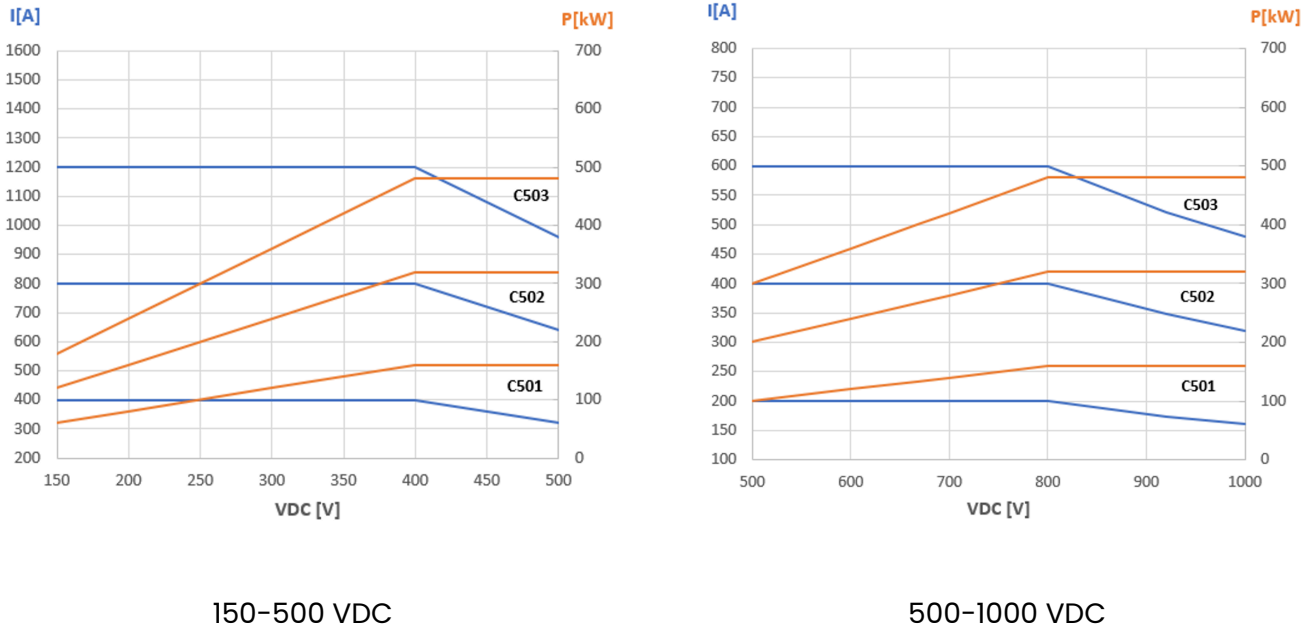


Figure 2. Power curve (continuous operation)



Compliance to standards

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

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 |

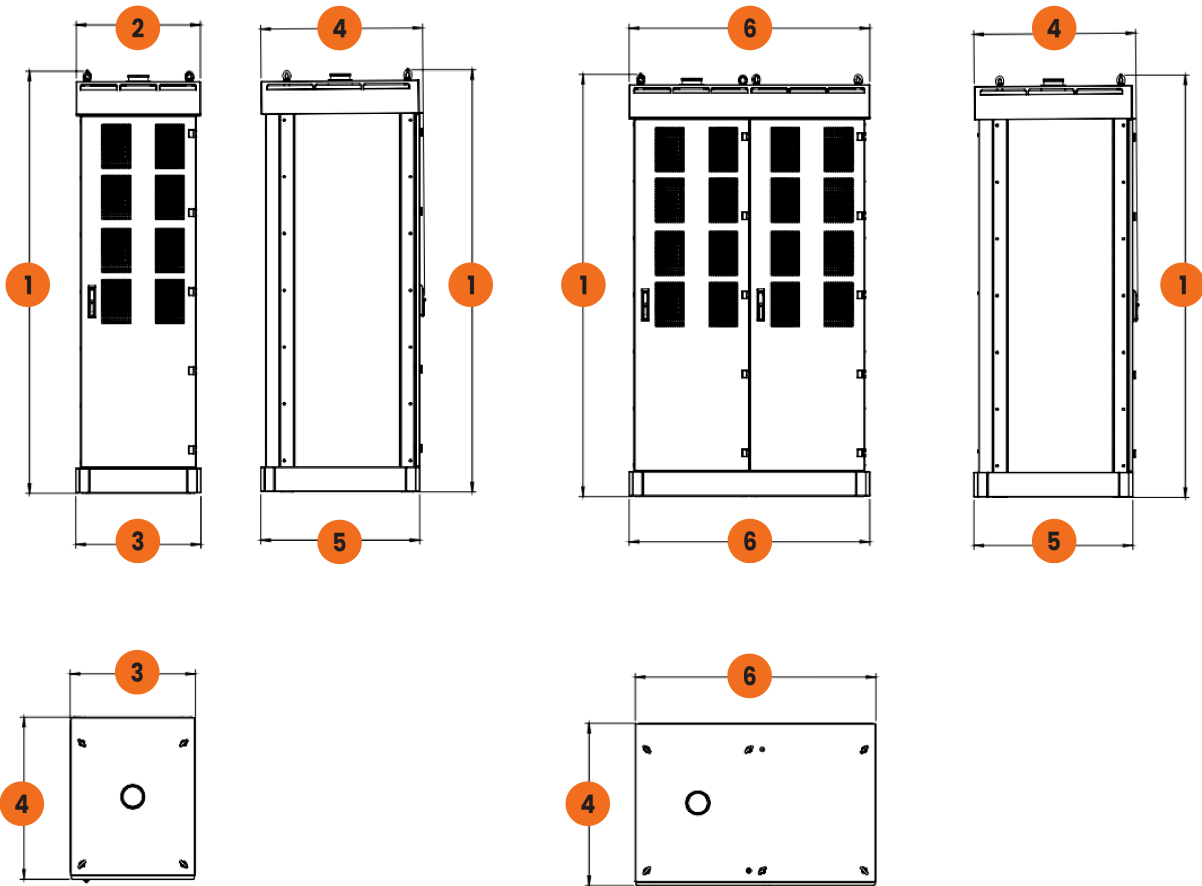
Mechanical dimensions

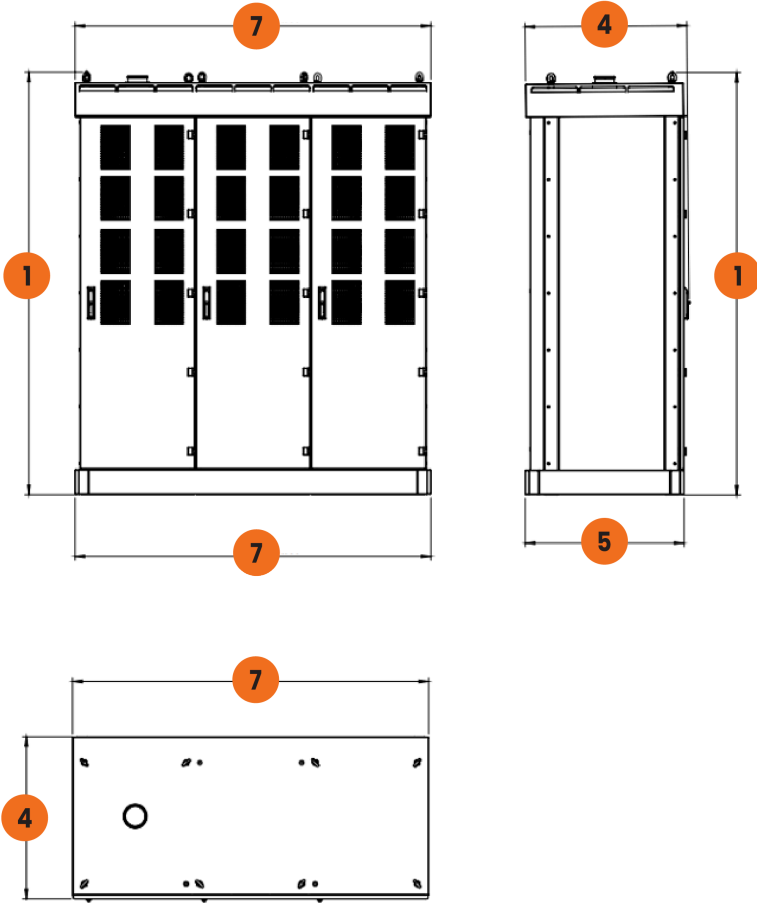
Size (W x H x D)

- C501: 650 x 2195 x 841 mm
- C502: 1250 x 2195 x 841 mm
- C503: 1850 x 2195 x 841 mm

Weight

C501P40...	280 kg
C501P80...	320 kg
C501P120...	360 kg
C501P160...	400 kg
C502P200...	680 kg
C502P240...	720 kg
C502P280...	760 kg
C502P320...	800 kg
C503P360...	1080 kg
C503P400...	1120 kg
C503P440...	1160 kg
C503P480...	1200 kg





- | | | | | | | | |
|---|---------|---|--------|---|---------|---|---------|
| 1 | 2195 mm | 3 | 650 mm | 5 | 825 mm | 7 | 1850 mm |
| 2 | 645 mm | 4 | 841 mm | 6 | 1250 mm | | |