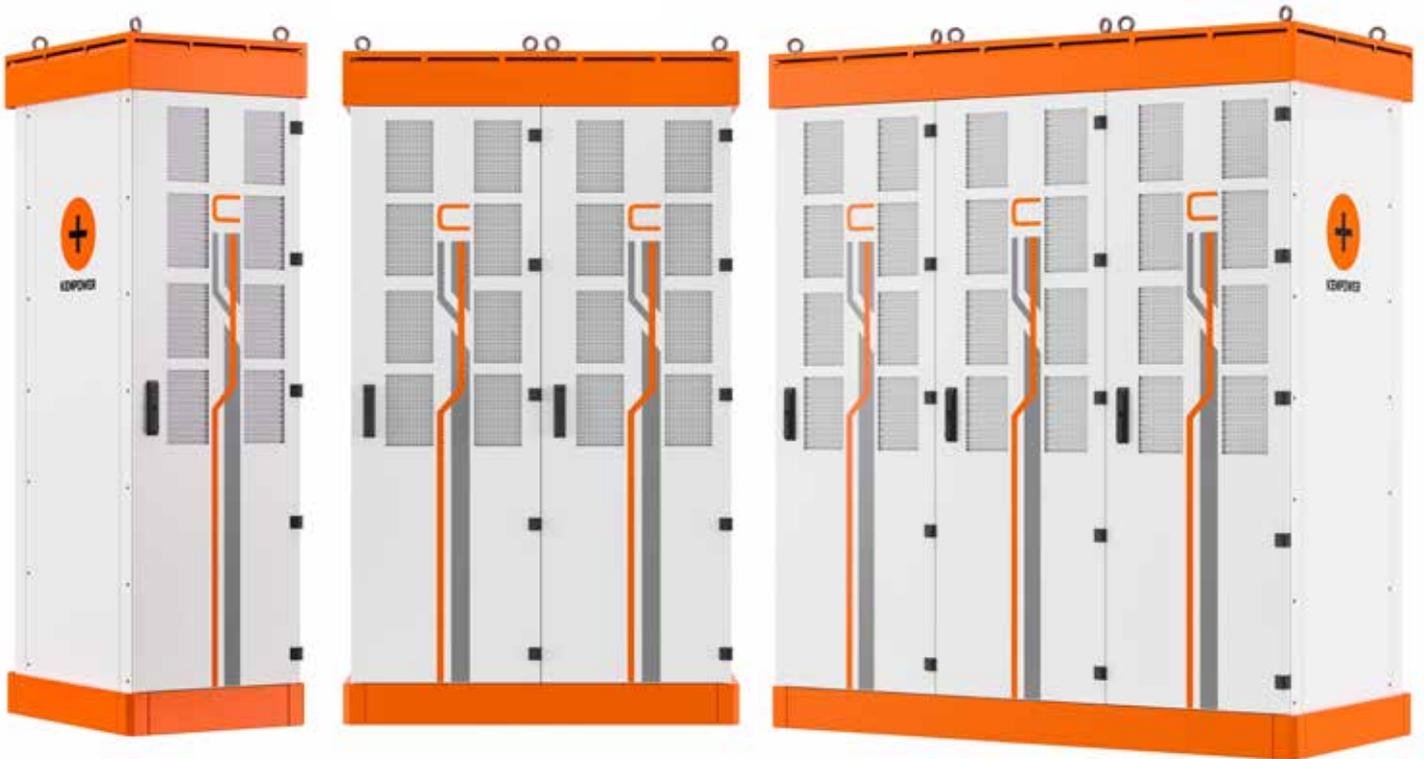


Charging Power Unit

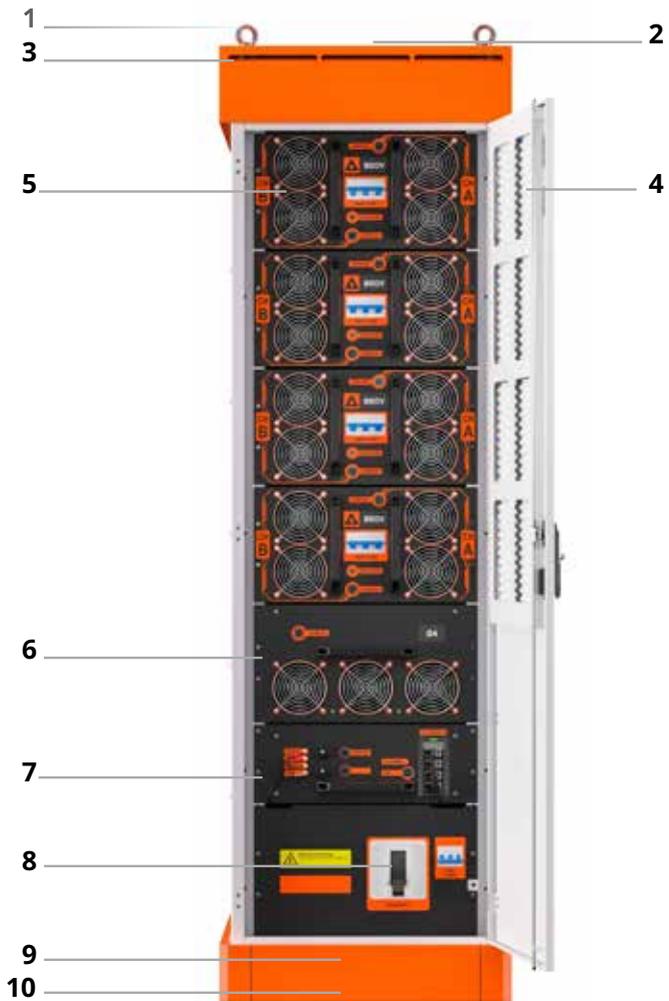
Kempower C-Series C800

Technical Datasheet



The Kempower C-Series charging power unit (CPU) provides charging power to 1–8 charging outputs, S-Series charging satellites or Pantographs. Its heavy-duty electro-mechanical design includes a selection of modules for charging power, charging power management, and system control. One cabinet can have 1–4 power modules, each providing charging power up to 50 kW, and maximum nominal power up to 200/400/600 kW depending on the CPU version. With static power management, each power module provides pre-set charging power to one dedicated charging output. With dynamic power management, the available charging power of all power modules is automatically distributed among all connected charging outputs, depending on the size of the cable and the requirements of the vehicles being charged.

- Intelligent, adaptive, and automatic charging power distribution with Dynamic Charging Power Management (pat. pend.)
- Easy scalability with add-on power modules
- Simultaneous charging power for up to 8 charging outputs (4 double/8 single S-Series charging satellites and/or pantographs)
- Recommended maximum cabling distance between the C-Series charging power unit and charging outputs is 80 meters
- Advanced charging control and customization options with Kempower ChargeEye solution
- Safe but easily accessible enclosure guaranteed by the lockable door



1. Lifting lugs
2. WiFi / cellular / GPS antenna
3. Air outlet
4. Air inlets
5. Power module (1 to 4 pcs per CPU)
6. Static/dynamic power distribution module
7. Control module
8. Main switch
9. AC cable entry
10. DC output

Product code interpretation examples: C801P160NS8, C801P160NS8C0

C801	C-Series 800 V single cabinet
P160N	Charging power (P160 = 200 kW)
S8	Number and type of power distribution modules, S = static, D = dynamic
C0	Unbranded, black roof & base

Number of cabinets

C801	Single cabinet
C802	Double cabinet
C803	Triple cabinet

Power distribution modules

S4	Up to 4 static outputs
S8	Up to 8 static outputs
D4	Up to 4 dynamic outputs
D8	Up to 8 dynamic outputs

General electric specifications

Input voltage (AC)	380...480 V _{AC} +6%/-10%
Input frequency	50...60 Hz
Output voltage	200...920 V _{DC}
Power factor (at full load)	0.92
Efficiency (at full load)	94%
Idle power	20 VA
Standby power	C801: 50 W, C802: 100 W, C803: 150 W
Over voltage class (OVC)	III
Icc	35 kA
Network type	TN-S, TN-C, TN-C-S, TT

Environmental specifications

Operating temperature	-30...+50°C
Current derating	-1.5% of max. charging current per 1°C (above +40°C)
Maximum altitude	2000 m (without altitude derating)
Altitude derating	-1.4% of max. charging current per 100 m (above 2000 m)
Storage temperature	-40...+60°C
Enclosure	IP54, IK10
Operational noise level	< 60 dB (at 1 m distance)
Ambient air humidity	< 95% relative humidity

Connections

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	1.6 J / 2.0
Connectivity	Kempower ChargEye solution

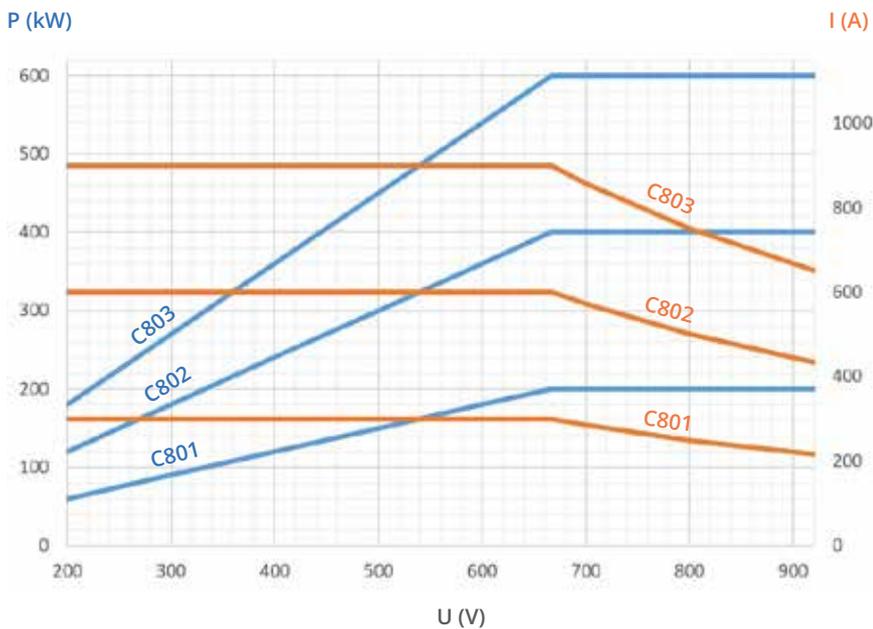
Electrical protections

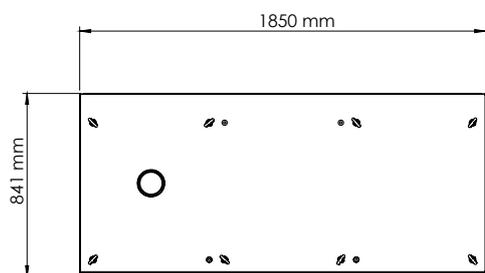
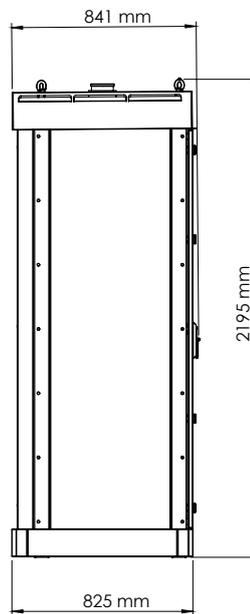
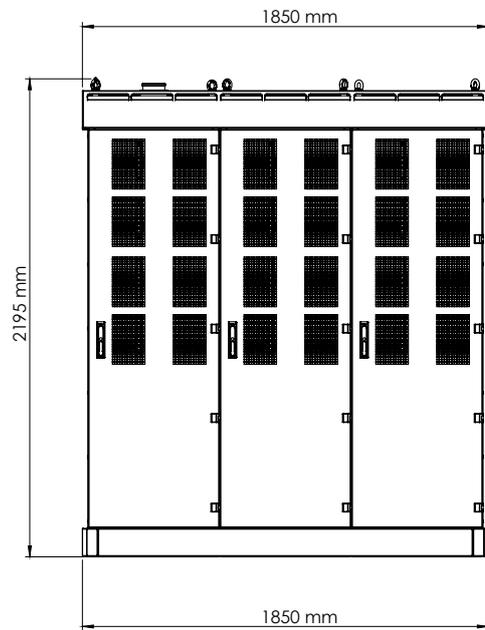
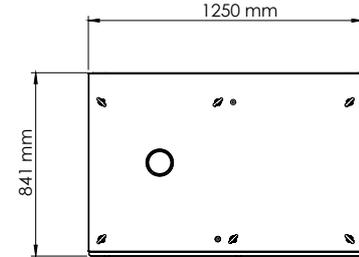
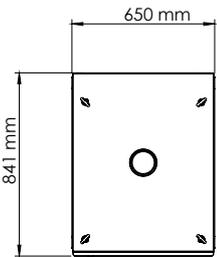
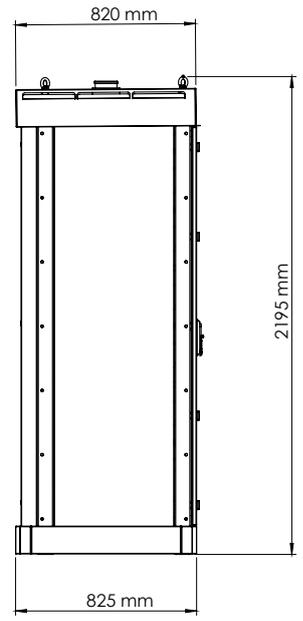
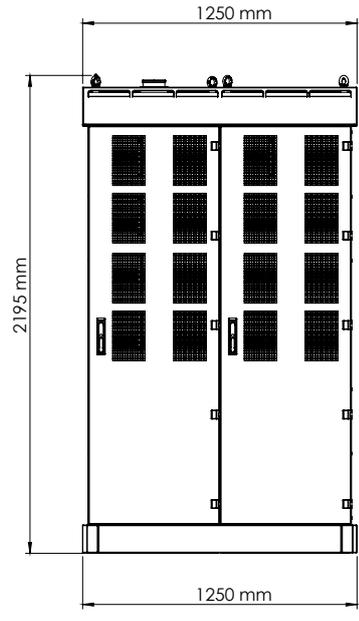
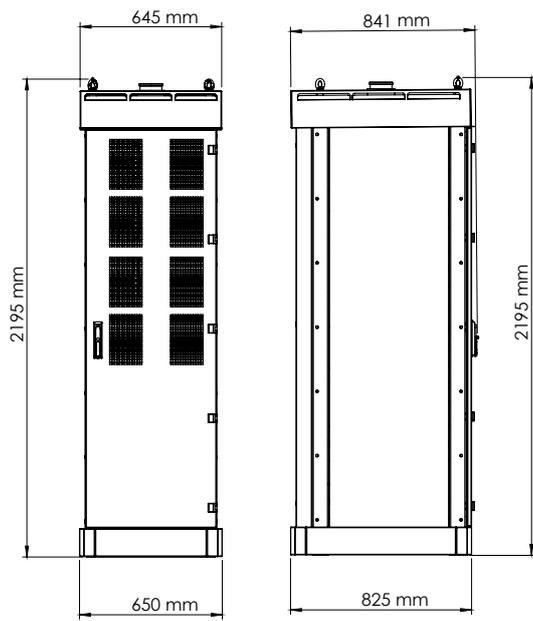
Over/under voltage	
Surge	
Short circuit	
Overload	
Earth leakage current	
Device over temperature	

Max. 50 kW output / power module

Product code	Charging power (P _{DC}) [kW]	Max. charging current (667 V _{DC}) [A]	Input power [kVA]	Input current 400 V _{AC} [A]	Input current 480 V _{AC} [A]	Required grid fuse [A]
C801P40...	50	75	58	83	70	100
C801P80...	100	150	116	167	139	200
C801P120...	150	225	173	250	209	315
C801P160...	200	300	231	334	278	400
C802P200...	250	375	289	417	348	500
C802P240...	300	450	347	501	417	2 x 315
C802P280...	350	525	400	578	487	2 x 315
C802P320...	400	600	459	660	556	2 x 400
C803P360...	450	675	520	751	626	2 x 400
C803P400...	500	750	578	835	695	2 x 500
C803P440...	550	825	636	918	765	2 x 500
C803P480...	600	900	694	1001	835	2 x 630

- Notice: Over 500 A requires at least two charging outputs
- Charging power defined at +25°C ambient temperature





Mechanical dimensions (WxHxD, footprint)

C801: 650 x 2195 x 841 mm

C802: 1250 x 2195 x 841 mm

C803: 1850 x 2195 x 841 mm

Weight

C801P40... 280 kg

C801P80... 320 kg

C801P120... 360 kg

C801P160... 400 kg

C802P200... 680 kg

C802P240... 720 kg

C802P280... 760 kg

C802P320... 800 kg

C803P360... 1080 kg

C803P400... 1120 kg

C803P440... 1160 kg

C803P480... 1200 kg

Compliance to standards

Electrical safety IEC 61851-1, IEC 61851-23

EMC, harmonics IEC 61851-21-2

Options (please consult Kempower for availability, pricing and MOQ)

C-Series steel base Installation kit for a single CPU cabinet,
for flat surface assembly

Customized branding
(colors, stickers) Customer branding options (colors, stickers)
