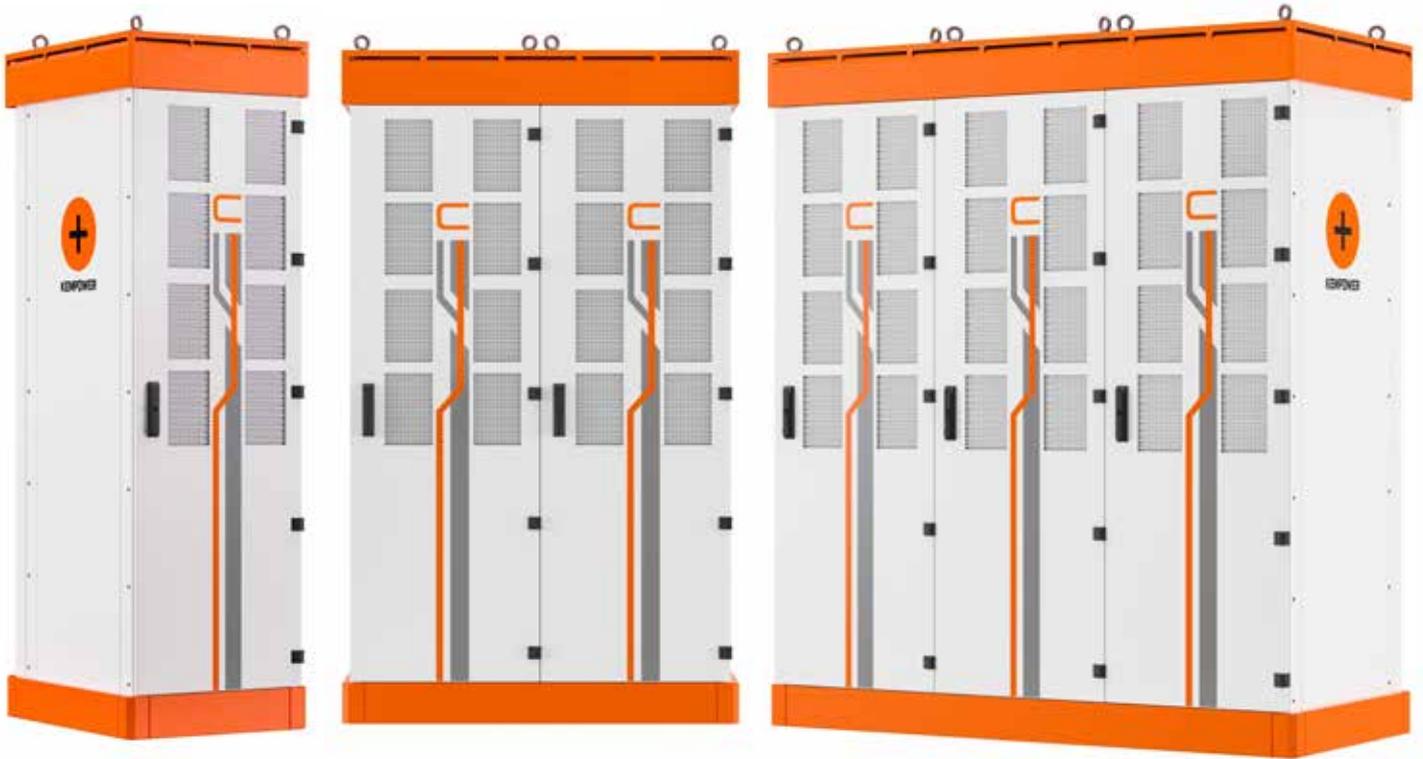


## Advanced Satellite Charging System

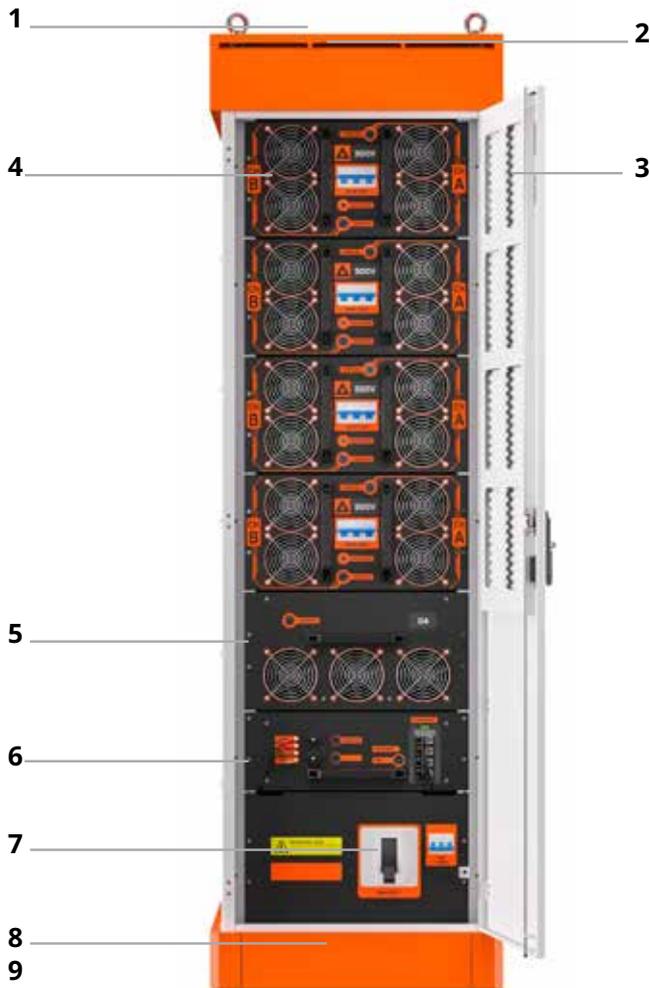
# C-Series C500 Charging Power Unit

Technical Datasheet, North America



The heavy-duty, electromechanical design of Kempower Charging Power Units (CPU) consists of control, dynamic and power modules. Each cabinet utilizes 1 to 4 power modules, each of which providing a maximum charging power of up to 50 kW. A full CPU provides a maximum total power of up to 200/400/600 kW, depending of the CPU version. The charging power management can be set as dynamic, utilizing different dynamic logics, or as static. With dynamic, the maximum charging power is automatically distributed and optimized between up to 8 charging outputs simultaneously. With static, each power module is assigned for a specific S-Series charging satellite or pantograph, providing pre-set charging power to each charging output.

- Dynamic Charging Power Management (pat. pend.) for intelligent, adaptive and automatic charging power distribution
- Scalability with add-on power modules
- The charging power can be routed to up to 8 charging outputs, 4 x S-Series double or 8 x single charging satellites and/or pantographs
- Kempower ChargeEye solution provides advanced charging control and customisation options
- Recommended max. cabling distance between C-Series charging power unit and S-Series charging satellite is 262 feet / 80 meters
- The door is equipped with a swing handle with a tumbler lock for easy & safe enclosure



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

**Product code interpretation examples:**  
**C501P160NS8L**  
**C501P160NS8LC0**

C501	C-Series 800 V single cabinet
P160	Charging power ( P160 = 200 kW)
N	Options, N = neutral
S8	Number and type of power distribution modules S = static, D = dynamic
L	ETL approved
C0	Unbranded, no stickers, black roof & base

**Number of cabinets**

C501	Single cabinet
C502	Double cabinet
C503	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 VAC +6%/-10%
Input frequency	50...60 Hz
Output voltage	150...500 V <sub>DC</sub>
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
Over voltage class (OVC)	III
I <sub>cc</sub>	35 kA
Network type	TN-S, TN-C, TN-C-S, TT

### 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 ChargeEye solution

### Electrical protections

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

### 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	6562 ft / 2000 m (without altitude derating)
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

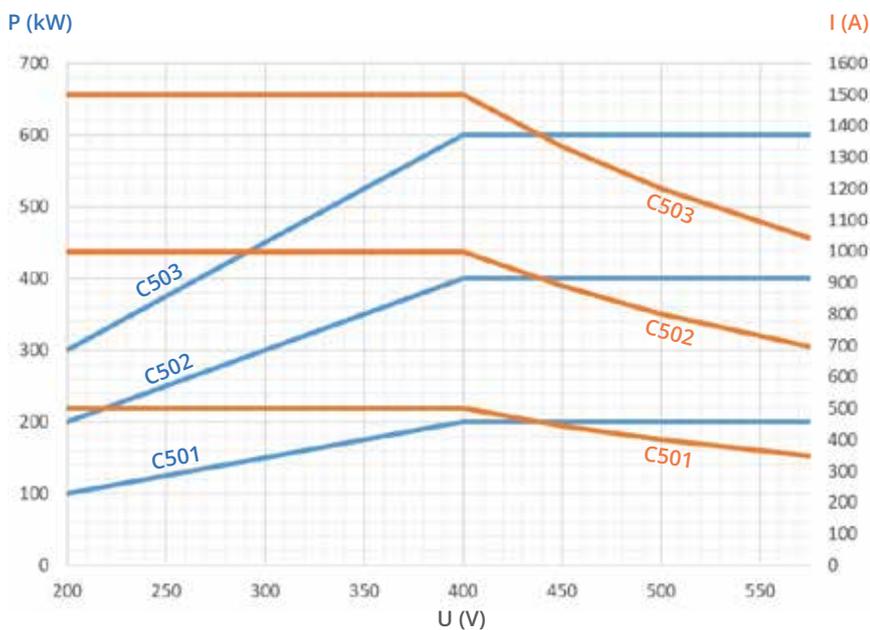
### Compliance to standards

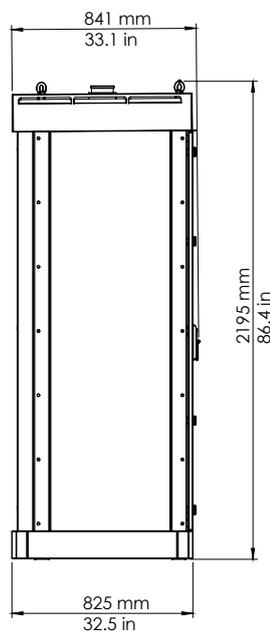
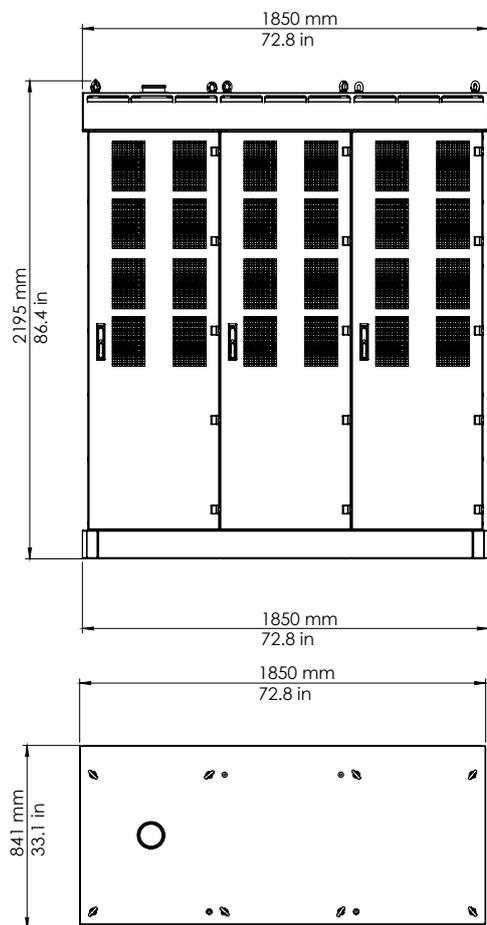
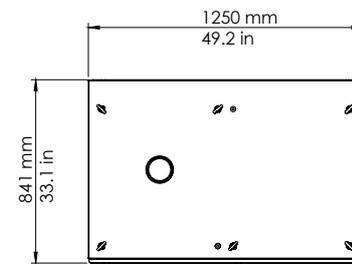
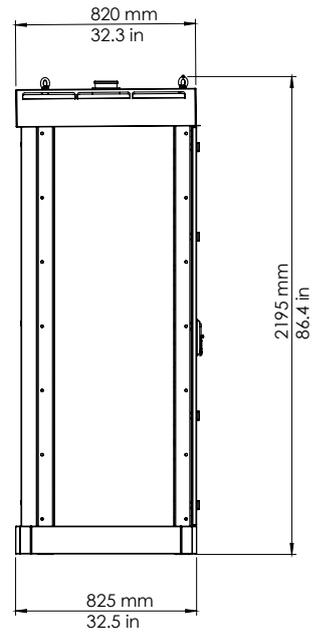
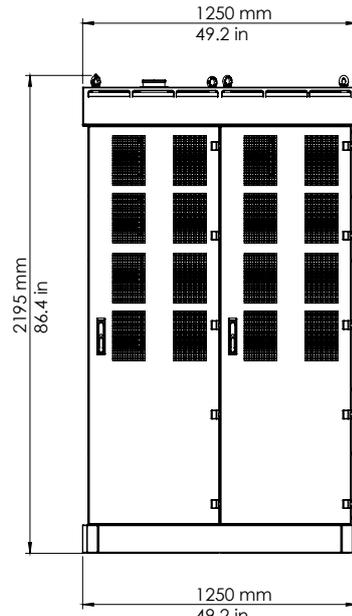
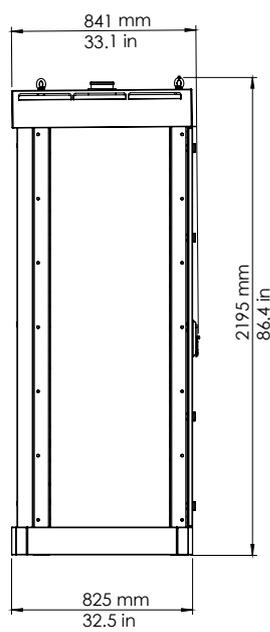
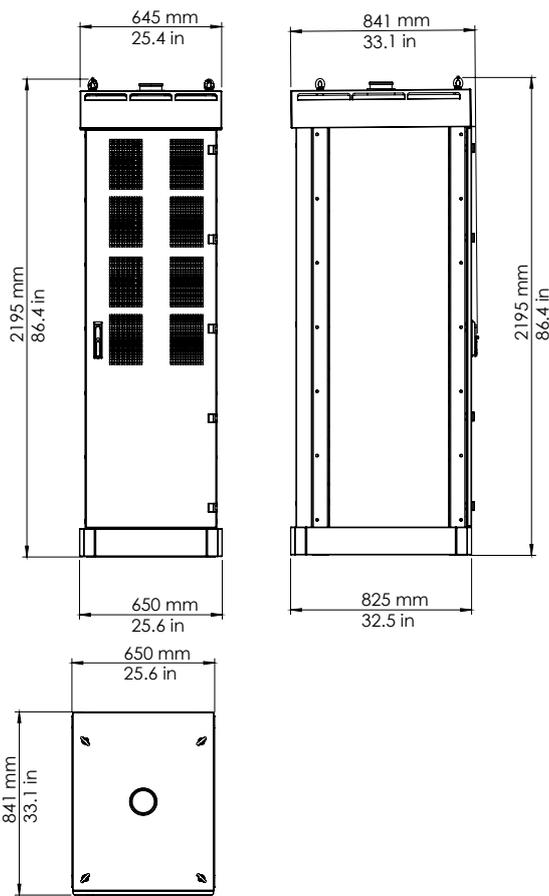
Electrical safety	IEC 61851-1, IEC 61851-23
EMC, harmonics	IEC 61851-21-2
Conforms to	UL Std. 2202, 2231-2
Certified to	CSA Std. C22.2 No. 281.2, C107.1

### Max. 50 kW output / power module

Product code	Charging power (P <sub>DC</sub> ) [kW]	Max. charging current (150-920 V <sub>DC</sub> ) [A]	Input power [kVA]	Input current 400 V <sub>AC</sub> [A]	Input current 480 V <sub>AC</sub> [A]	Required grid fuse [A]
C501P40...	50	125	58	83	70	100
C501P80...	100	250	116	167	139	200
C501P120...	150	375	173	250	209	315
C501P160...	200	500	231	334	278	400
C502P200...	250	625	289	417	348	500
C502P240...	300	750	347	501	417	2 x 315
C502P280...	350	875	405	584	487	2 x 315
C502P320...	400	1000	463	668	556	2 x 400
C503P360...	450	1125	520	751	626	2 x 400
C503P400...	500	1250	578	835	695	2 x 500
C503P440...	550	1375	636	918	765	2 x 500
C503P480...	600	1500	694	1001	835	2 x 630

- Notice: Over 500 A requires at least two charging outputs
- Charging power defined at +77°F / +25°C ambient temperature





### Mechanical dimensions (WxHxD, footprint)

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

C502: 49 x 86.4 x 33.1 in / 1250 x 2195 x 841 mm

C503: 73 x 86.4 x 33.1 in / 1850 x 2195 x 841 mm

**Note:** if an optional base is used, the CPU height increases 7.87 inch / 200 mm, in all versions

### Weight

C501P40... 618 lbs 280 kg

C501P80... 706 lbs 320 kg

C501P120... 793 lbs 360 kg

C501P160... 881 lbs 400 kg

C502P200... 1499 lbs 680 kg

C502P240... 1588 lbs 720 kg

C502P280... 1676 lbs 760 kg

C502P320... 1763 lbs 800 kg

C503P360... 2380 lbs 1080 kg

C503P400... 2469 lbs 1120 kg

C503P440... 2558 lbs 1160 kg

C503P480... 2646 lbs 1200 kg

### Options

C-Series steel base

Installation kit for a single CPU cabinet, for flat surface assembly

Customized branding (colors, stickers)

Consult your sales representative at Kempower for customer branding options (colors, stickers), pricing and MOQ.

 Refer to the operating manual for warnings, functions and features.

