

Advanced Satellite Charging System

Technical Datasheet

C-station Compact Charging Station

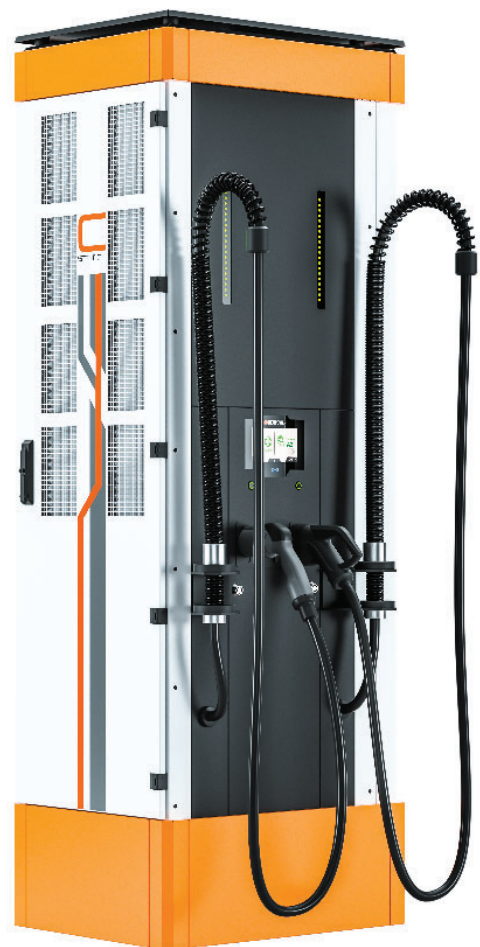


Charging Station

C-station inherits functionalities from both Satellites and CPU's. It's heavy duty electromechanical design comprises three type of modules for control, dynamic and power. Each cabinet utilizes 1 - 4 power modules that each has charging power up to 40 kW. Depending on the charging application, full CPU provides nominal power of 160 kW into one charging cable or selected level to multiple cables.

Charging power management can be selected from static or dynamic to meet application needs. On static power management, each power module is dedicated to specific charging cable or routed to external Satellite. On dynamic power management charging power is routed optimatically up to full power respectively to cable sizing and number of charging outlets.

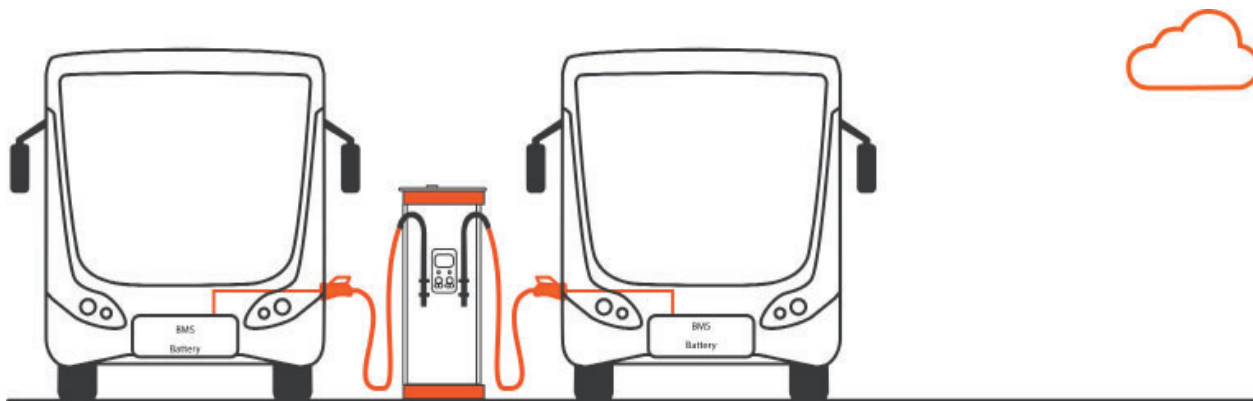
- ▶ Static power management for constant charging sessions or dynamic power management (pat. pend.) for intelligent power distribution
- ▶ Scalability with add-ons power modules
- ▶ C-stations are furnished with advanced cable support to provide premium user experience (pat. pend.)



C-station adopts Kempower's advanced cable support solution.

Compact Charging Station

Technical datasheet



C-station product codes

C802 - P320 - C - 5E - S - D2

Voltage class and mechanical size indicator

DC charging power

Based on heavy duty rating.
See table on page 3

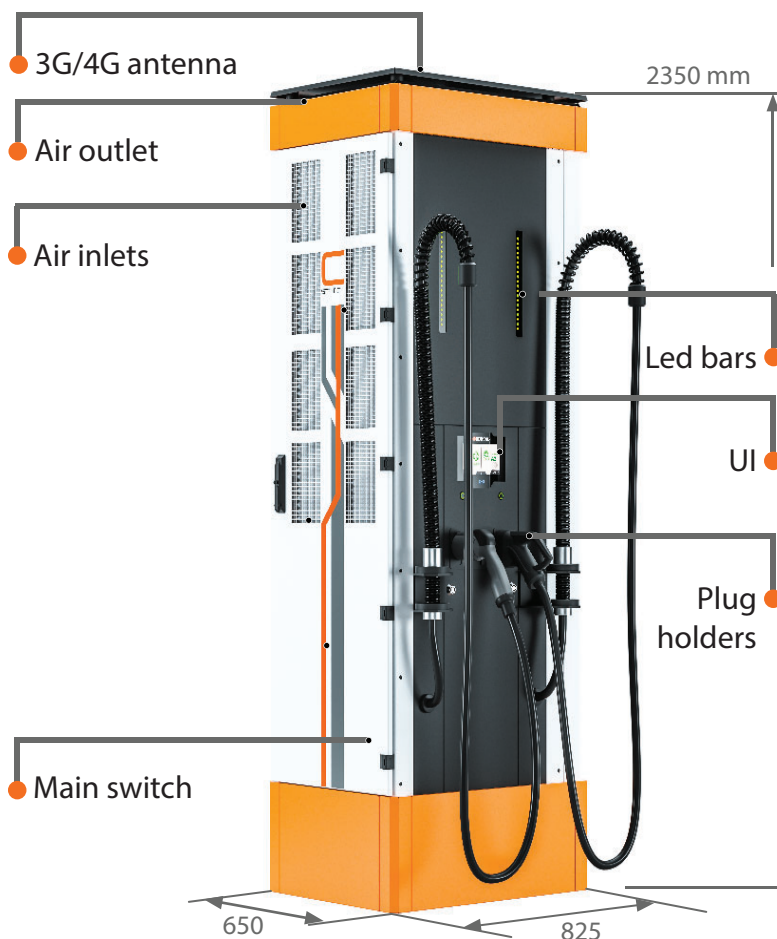
Charging method
available model options in table below

Charging cable
5=5 meters, E = 300A maximum current

User interface
S = Standard interface

Power distribution module

Features and Dimensions



| Type | Description |
|------|----------------|
| 801 | single cabinet |
| 802 | dual cabinet |
| 803 | triple cabinet |

| Type | Description |
|------|-----------------------|
| C | CCS 2 |
| CC | 2 x CCS 2 |
| CCA | 2 x CCS 2 & Type 2 AC |
| CD | CCS 2 & CHAdeMO |
| U | CCS 1 |
| UU | 2 x CCS 1 |
| UUA | 2 x CCS 1 & Type 1 AC |
| UD | CCS 1 & CHAdeMO |

| Current | Description |
|---------|-------------|
| B | 125 - 150 A |
| C | 200 A |
| D | 250 A |
| E | 300 A |

| Type | Description |
|------|-------------------------|
| S4 | up to 4 static outputs |
| D2 | up to 2 dynamic outputs |
| D4 | up to 4 dynamic outputs |

Specification

General electric specifications C-Series

| | |
|-----------------|---|
| Input Voltage | 380 - 480 V _{AC} + - 10%, 50 - 60 Hz |
| Input current | See table below |
| Output Power | 40 - 480 kW |
| Output current | See table below |
| Output Voltage | 200 - 920 V _{DC} |
| Power factor | 0.94 at P _N |
| Efficiency | 94% @ output P _N |
| Output delivery | Cable + plug |

Multivoltage See page 4

Environmental Specifications

| | |
|-------------------------|-------------------------------|
| Operating Temperature | -40 to +55 °C (with derating) |
| Derating high ambients | 1,5%/1°C from +40 to +55°C |
| Maximum altitude | 4000 m |
| Altitude derating | 1%/100m above 2000 m |
| Storage Temperature | -40 to +60 °C |
| Enclosure class | IP54, IK10 |
| Humidity | < 95% relative humidity |
| Operational noise level | < 55 dB _A |

Features

3G/4G/LTE, WiFi, OCPP 1.6/2.0, cloud based back-end, service and management dashboard, easy power up of power modules, touch screen UX, welcome light, LED-status lights, advanced cable support system, RFID-reader, Options: additional set of outputs (total of 4 outputs), additional Satellite posts

Electrical Protections

Over/under voltage, Surge protection, Short circuit, Earth leakage current, Over temperature

Protections

Device and charging cable over temperature

Compliant to Standards

| | |
|-------------------|---|
| Electrical safety | IEC 61851-1, IEC 61851-23 |
| EMC | IEC 61851-21-2, EN 61000-1, -2, -3, -4 |

Mechanical dimensions (WxHxD)

C801: 650x2350x825 mm
 C802: 1300x2350x825 mm
 C803: 1850x2350x825 mm
 Weight: See table below (cabinet)

Model specific values

800V

200 - 920 V_{DC}

| | | Rating | | | | Weight [kg] | Notes: |
|--------------|---------------|--|--|--|--|-------------|--------|
| Product code | | P _{HD} Charging power at 400 Vdc [kW] | Charging current I _{HD} at +40 C [A _{DC}] | Input power P _{IN} at P _{HD} [kVA] | Input current I _{IN} at P _{HD} [A] | | |
| 1. | C801 P40 N _ | 40 | 60 | 46 | 66 | 280 | |
| 2. | C801 P80 N _ | 80 | 120 | 91 | 131 | 320 | |
| 3. | C801 P120 N _ | 120 | 180 | 137 | 197 | 360 | |
| 4. | C801 P160 N _ | 160 | 240 | 182 | 263 | 400 | |
| 5. | C802 P200 N _ | 200 | 300 | 228 | 328 | 680 | |
| 6. | C802 P240 N _ | 240 | 360 | 273 | 394 | 720 | |
| 7. | C802 P280 N _ | 280 | 420 | 319 | 460 | 760 | |
| 8. | C802 P320 N _ | 320 | 480 | 364 | 526 | 800 | |
| 9. | C803 P360 N _ | 360 | 540 | 410 | 591 | 980 | |
| 10. | C803 P400 N | 400 | 600 | 455 | 657 | 1040 | |
| 11. | C803 P440 N | 440 | 660 | 501 | 723 | 1080 | |
| 12. | C803 P480 N | 480 | 720 | 546 | 788 | 1120 | |



Notes:

C-station options

| Pos. | Item | Definition |
|------|-------------------|--|
| 1. | Dynamic module D2 | Managing power between two charging outputs |
| 2. | Dynamic module D4 | Managing power between four charging outputs |
| 3. | Satellite posts | According to S-series datasheet, depending on CPU build (example two outlets in Cabinet + two Satellite outputs) |
| 4. | Multivoltage | Transformer cabinet for C801 (see dimensions of C802 cabinet) |



Specification

Multivoltage - General electric specifications

| | |
|--------------------------|--|
| Input Voltage | 3-phase |
| Voltage tolerance | see below |
| Input Frequency | 50 - 60 Hz |
| Nominal Input power | 186 kVA (for 160 kW output) input values > input terminal |
| Input current / range * | 268A / 380 – 460 V _{AC} > 400 V _{AC} 224A / 480 – 550 V _{AC} > 480 V _{AC} 187A / 575 – 690 V _{AC} > 630 V 113A / 950–1000 V _{AC} > 1000 V _{AC} |
| Power Factor(@full load) | 0.94 |
| Efficiency | 94% @ nominal output power |
| Transformer loss * | 2 % |
| Cabinet weight (C801+MV) | 1050 kg |

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