



# CC613

The next generation of smart  
charge controllers



Intelligent.  
Connective.  
Future-proof.





# CC613 Charge Controller Introduction

The CC613 is the next-generation intelligent charge controller. It communicates with the vehicle and the backend, monitors the internal hardware of the charging system, the user interfaces as well as the connection between the charging station and the vehicle.

- Dynamic load management (DLM)
- 6 mA DC fault current detection
- VDE certified according to IEC 62955
- Regular SW updates
- PLC acc. to ISO 15118
- Ethernet interface
- Emergency opener



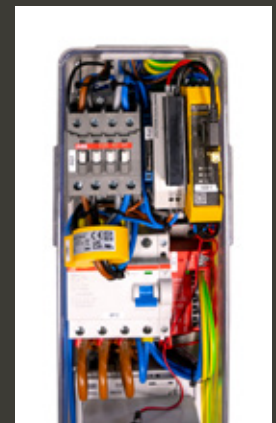
# CC613 Charge Controller Introduction

The new CC613 charge controller generation further extends the range of functions of Bender charge controllers. A modified enclosure design integrates an Ethernet interface, which now makes the use of a USB Ethernet adapter no longer necessary. Despite the modified shape of the enclosure, the dimensions of the CC613 are the same as those of the CC612, making it easy to fit into existing charging stations.

The CC613 also features Powerline Communication (PLC) according to ISO 15118 for the implementation of plug & charge as well as DC fault current detection with an externally connected current transformer. In addition, free software updates will be available to extend the functions.

The charge controller features a further developed integrated dynamic load management (DLM), which can also be controlled by a higher-level system. This allows larger charging infrastructures to be managed either locally via the controller or by an existing building management system.

The CC613 charge controller includes a future-proof, cross-manufacturer charging technology for safer charging process.





# CC613 Charge Controller

## Product features

| Feature                        |   | CC613-ELM4PR-M | CC613-ELPR-M | CC613-ELM4PR | CC613-ELPR | CC613-HEM-X2 |   |
|--------------------------------|---|----------------|--------------|--------------|------------|--------------|---|
| <b>Dynamic load management</b> | Load balancing for up to 250 charge points in one managed group                 | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                                | Hierarchy-based load balancing scheme with multiple fusing levels (roadmap)     | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                                | Integration of external meters  | Modbus         | ✓            | ✓            | ✓          | ✓            | ✓ |
|                                |   | Modbus RTU     | ✓            | ✓            | —          | —            | — |
|                                | Management of current imbalance with adjustable limit                           | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                                | Advanced functions for charging points with 2 controllers in master-slave setup | ✓              | ✓            | ✓            | ✓          | —            |   |
| <b>Safety</b>                  | DC residual fault current detection (>6mA) acc. IEC 62955)                      | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                                | PE monitoring   | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                                | Contactor weld check  | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                                | Flexible current derating   | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                                | SPD monitoring  | ✓              | ✓            | ✓            | ✓          | —            |   |
|                                | RCD monitoring & automatic reclosure  | ✓              | ✓            | ✓            | ✓          | —            |   |
|                                | Emergency opener  | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                                | Supply voltage monitoring   | ✓              | ✓            | ✓            | ✓          | ✓            |   |

## Feature

|                            |   | CC613-ELM4PR-M | CC613-ELPR-M | CC613-ELM4PR | CC613-ELPR | CC613-HEM-X2 |   |
|----------------------------|---|----------------|--------------|--------------|------------|--------------|---|
| <b>Hardware interfaces</b> | Ethernet  | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                            | 4G modem  | ✓              | —            | ✓            | —          | —            |   |
|                            | USB   | Config         | ✓            | ✓            | ✓          | ✓            | ✓ |
|                            |   | Host (2x)      | ✓            | ✓            | ✓          | ✓            | ✓ |
|                            | Modbus energy meter   | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                            | 2nd Modbus RTU  | ✓              | ✓            | —            | —          | —            |   |
|                            | RFID card reader (I2C)  | ✓              | ✓            | ✓            | ✓          | —            |   |
| <b>IO</b>                  | 230 V relay for contactor control                                       | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|                            | Isolated input  | ✓              | ✓            | ✓            | ✓          | —            |   |
|                            | 12 V relay  | ✓              | ✓            | ✓            | ✓          | —            |   |
| <b>Backend integration</b> | OCPP 1.6 complete, 2.0.1 on roadmap                                     | ✓              | ✓            | ✓            | ✓          | —            |   |
|                            | Complete support for OCPP feature profiles                              | ✓              | ✓            | ✓            | ✓          | —            |   |
|                            | Secure backend connectivity with basic auth or client-side certificates | ✓              | ✓            | ✓            | ✓          | —            |   |
|                            | Support for German Eichrecht  | ✓              | ✓            | ✓            | ✓          | —            |   |

# CC613 Charge Controller

## Product features

| Feature                                 |   | CC613-ELM4PR-M | CC613-ELPR-M | CC613-ELM4PR | CC613-ELPR | CC613-HEM-X2 |   |
|---|---|----------------|--------------|--------------|------------|--------------|---|
| <b>Network integration</b>              | Connection via mobile network   | ✓              | —            | ✓            | —          | —            |   |
|   | Ethernet connection   | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|   | Integrated WAN router (1 SIM, multiple connected devices)                     | ✓              | —            | ✓            | —          | —            |   |
|   | WiFi connectivity (using accessories)   | ✓              | ✓            | ✓            | ✓          | ✓            |   |
| <b>Authentication</b>                   | RFID & Secure RFID (Mifare)   | ✓              | ✓            | ✓            | ✓          | —            |   |
|   | Local whitelist   | ✓              | ✓            | ✓            | ✓          | —            |   |
|   | Remote start  | ✓              | ✓            | ✓            | ✓          | —            |   |
|   | PLC acc. to ISO 15118   | Plug&Charge    | ✓            | ✓            | ✓          | ✓            | — |
|   |   | Autocharge     | ✓            | ✓            | ✓          | ✓            | ✓ |
| <b>Energy management system support</b> | Compatible with EEBUS and SMA SEMP  | ✓              | ✓            | ✓            | ✓          | ✓            |   |
|   | Compatible with local and remote systems based on OCPP SmartCharging profiles | ✓              | ✓            | ✓            | ✓          | —            |   |
|   | Modbus server functionality   | ✓              | ✓            | ✓            | ✓          | ✓            |   |





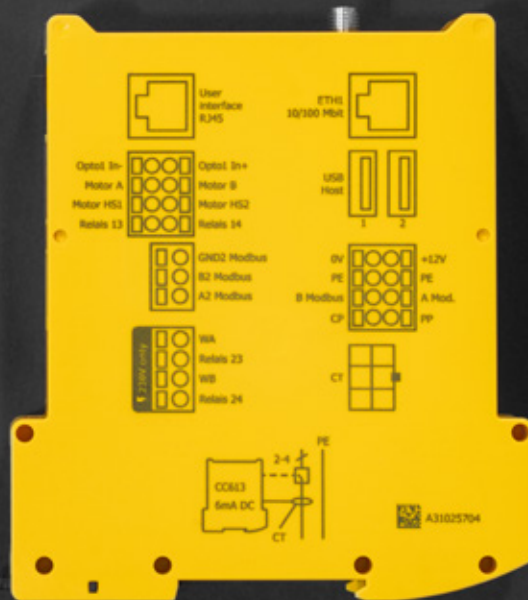
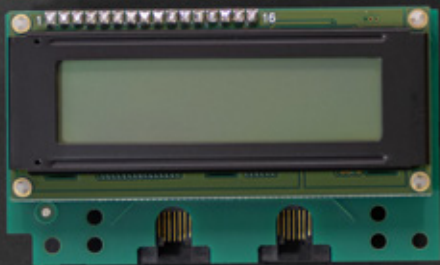
# CC613 Charge Controller

## Product features

| Feature                          |  | CC613-ELM4PR-M     | CC613-ELPR-M | CC613-ELM4PR | CC613-ELPR | CC613-HEM-X2 |   |
|----------------------------------|--|--------------------|--------------|--------------|------------|--------------|---|
| <b>Software</b>                  | Regular software updates   | ✓                  | ✓            | ✓            | ✓          | ✓            |   |
|                                  | Over-the-air (OTA) software updates are possible   | via OCPP           | ✓            | ✓            | ✓          | ✓            | — |
|                                  |  | via Hawkbit-Server | ✓            | ✓            | ✓          | ✓            | — |
|                                  | Modern web interface   | ✓                  | ✓            | ✓            | ✓          | ✓            |   |
|                                  | Support for Schuko socket configuration  | ✓                  | ✓            | ✓            | ✓          | —            |   |
|                                  | External parking sensor (Banner)   | ✓                  | ✓            | —            | —          | —            |   |
|                                  | REST interface to display charger status   | ✓                  | ✓            | ✓            | ✓          | ✓            |   |
| <b>End-of-line configuration</b> | Configuration over SSH/SCP interface or USB  | ✓                  | ✓            | ✓            | ✓          | ✓            |   |
|                                  | Strong customer password configurable  | ✓                  | ✓            | ✓            | ✓          | ✓            |   |
|                                  | Firmware version definable (quantity orders only)  | ✓                  | ✓            | ✓            | ✓          | ✓            |   |
|                                  | Configuration & testing over end-of-line tool  | ✓                  | ✓            | ✓            | ✓          | ✓            |   |
| <b>Field support</b>             | Secure remote access to configuration interface over wireless or routed connections possible | ✓                  | ✓            | ✓            | ✓          | —            |   |
|                                  | USB connector allows firmware updates, configuration and download of diagnostics             | ✓                  | ✓            | ✓            | ✓          | ✓            |   |
|                                  | Separate diagnostics files for technicians and Bender support crew                           | ✓                  | ✓            | ✓            | ✓          | ✓            |   |





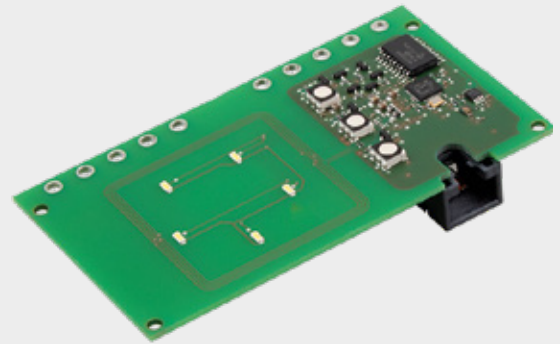




# CC613 Charge Controller Accessories

## RFID card reader

- RFID105-L1: with integrated status LEDs, enhanced antenna performance, EMC optimized design, coated pcb (Art. No. B94060105)
- RFID114: w/o integrated status LEDs, RJ45 cable 500 mm included (Art. No. B94060114)
- RFID117-L1: with integrated status LEDs, RJ45 cable 500 mm included, enhanced antenna performance (Art. No. B94060117)



RFID105-L1

## Measuring current transformer (CT)

- CTBC17P-03: sensor for PCB mounting (Art. No. B98080070)
- CTBC17-cable1470: cable adapter, length 1470 mm (Art. No. B98080542)
- CTBC17-cable600: cable adapter, length 600 mm (Art. No. B98080543)
- CTBC17-cable325: cable adapter, length 325 mm (Art. No. B98080541)
- CTBC17-cable180: cable adapter, length 180 mm (Art. No. B98080540)



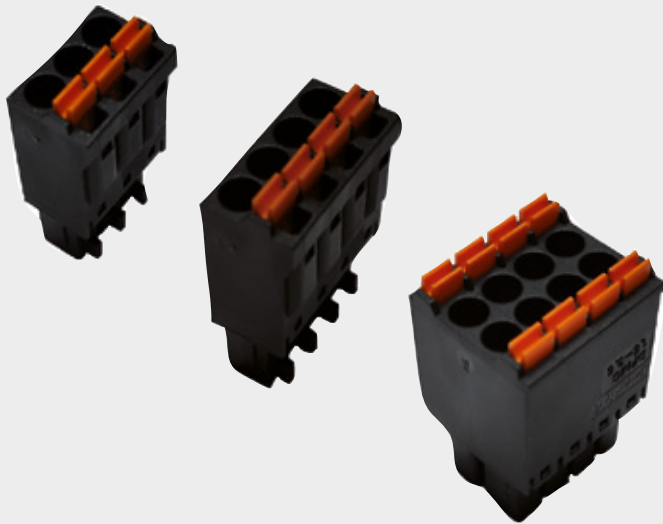
CTBC17: sensor + cable adapter

## Display module

DPM2x16FP (Art. No. B94060120)



DPM2x16FP



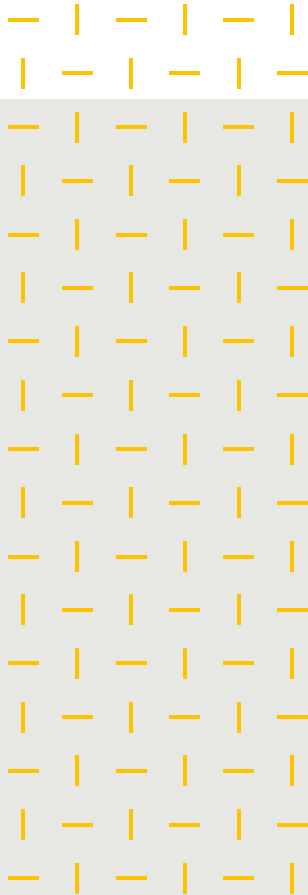
CC613 plug kit

## Plug kit<sup>1</sup>

- Plug kit for the CC613 charge controller (Art. No. B94060129)
- Plug kit bulk packaging (50x) for variants ELM4PR-M, ELPR-M (Art. No. B94060128)
- Plug kit bulk packaging (50x) for variants ELM4PR, ELPR, HEM-X2 (Art. No. B94060126)

<sup>1</sup> Not included in the scope of delivery of the CC613





**Bender GmbH & Co. KG**

Londorfer Straße 65  
35305 Grünberg  
Germany

Tel.: +49 6401 807-707  
emobility@bender.de  
www.bender.de

Fotos: Adobe Stock (©TheSupporter)  
sowie Bender Archiv.

2237en / 04, 2023 / © Bender GmbH & Co. KG,  
Germany – Änderungen vorbehalten! Die  
angegebenen Normen berücksichtigen zum  
Zeitpunkt der Drucklegung gültige Ausgabe.

