



CHAdEMO position statement on EPAC charging connectors and EN 50604-1

**EPAC charging solution ‘Charge2Bike<sup>1</sup>’ from CHAdEMO Association provides an ‘Interoperable solution using (...) any other communication solution proved to be equally suitable’ as described in EN 50604-1 + A1:2021, and stakeholders are welcome to adopt it**

### **Background**

Some of our members and their collaborators have asked us about the legitimacy of our standardised EPAC (electrically power assisted cycles) charging solution ‘Charge2Bike,’ in the light of the amendment of EN 15194, which refers to EN 50604-1 for battery safety compliance.

### **Rationale**

EN 15194:2017 was amended in 2023, and the amendment EN 15194:2017 + A1:2023 is harmonised with the Machinery Regulation 2006/42/EC as of 15 May 2024. EN 15194 defines safety requirements<sup>2</sup> for EPAC batteries by requiring conformity with EN 50604-1:2016 and EN 50604-1:2016/A1:2021, in which requirements for different subsystems are specified.

For the **battery management system (BMS)**, manufacturers have the choice between:

- Manufacturer specific solutions
- Interoperable solution using CANopen communication
- Interoperable solution using *any other communication solution proved to be equally suitable*

CHAdEMO Association’s Charge2Bike charging interface provides an interoperable solution using **‘any other communication solution proved to be equally suitable’** as described in EN-50604-1:2016/A1:2021, and the Association welcomes industry stakeholders to evaluate and adopt it.

In case a CHAdEMO EPAC connection box is used as adapter, the EPAC has a manufacturer specific solution.

The Association’s EPAC Working Group will continue its effort towards a standardised EPAC charging solution that is safe, affordable, and interoperable, while leaving room for healthy competition and innovation.

For any enquiries, please contact CHAdEMO Europe Secretariat: [info@chademo.eu](mailto:info@chademo.eu) or +33 6 9512 2162

#### **About CHAdEMO Association:**

CHAdEMO Association is an alliance of e-mobility stakeholders around the CHAdEMO DC charging protocols supporting the transport sector’s transition towards carbon neutrality from the charging technology side. Founded in 2010 with the mission of providing **safe, affordable, and interoperable charging** for all types of EV users, the Association provides various DC charging protocols called the ‘CHAdEMO protocols,’ optimised to diverse types of EVs. CHAdEMO’s latest addition ‘Charge2Bike’ is optimised for EPACs.

<sup>1</sup> Trademark pending.

<sup>2</sup> EN 15194 defines the essential health and safety requirements, such as fire, explosion, emission of hazardous materials and substances, and batteries. The reference from EN 15194 to EN 50604-1 is related to the battery safety and not the charging communication, adapters or charging infrastructure.