

Important information related to IEC 61851-23:2014-03 (DIN EN 61851-23:2014-11; VDE 0122-2-3:2014-11) and ISO 17409:2015-12 (DIN EN ISO 17409:2017-07)

Hereby IEC and ISO issue important information related to the use of the following standards:

- IEC 61851-23:2014-03 (DIN EN 61851-23:2014-11; VDE 0122-2-3:2014-11) “Electric vehicle conductive charging system – Part 23: DC electric vehicle charging station“ section CC.4.7 „DC EV charging station maximum output Y capacitance“
- ISO 17409:2015-12 (DIN EN ISO 17409:2017-07) “Electrically propelled road vehicles -- Connection to an external electric power supply -- Safety requirements”.

Due to further technical developments in the field of electric vehicles charging, the requirements in the IEC 61851-23:2014-03 (DIN EN 61851-23:2014-11; VDE 0122-2-3:2014-11) to fulfill the safety objective “Protection against electric shock” under single fault condition by limiting the capacitance energy, may not cover all possible combinations of charging stations and vehicles.

Since the charging process links the charging infrastructure with the electric vehicle, the requirements laid down in ISO 17409:2015-12 (DIN EN ISO 17409:2017-07) are also relevant for the electrical safety of the charging process. The approach of limiting the capacitance energy will not be sufficient for the safety objective “protection against electric shock” under single fault condition in all relevant cases. Therefore, this warning is issued for both standards.

It is as always strongly recommended that users of standards additionally perform a risk assessment. Specifically in this case, standards users shall select proper means to fulfill safety requirements in the system of charging station and electric vehicle.

In the responsible ISO and IEC committees the technical experts are currently working on additional information and measures, which will be included in the concerned standards.