



Safety of Charging Station

Proving the safety and quality of charging systems for electric vehicles (EV)

APPLICABLE DIRECTIVES AND STANDARDS

- General Product Safety Directive
- Low Voltage Directive (LVD)
- Electromagnetic Compatibility Directive (EMC)
- Radio Equipment Directive (RED)
- Restriction of Hazardous Substances Directive (RoHS)
- Conductive charging system: IEC 61851
- Inductive charging system: IEC 61980
- Mode 2 charging of electric road vehicles: IEC 62752
- On- / Off- board charger: UL 2202
- Personnel Protection Systems: UL 2231
- Plugs, socket-outlets, connectors, inlets: IEC 62196
- EV charging cables: IEC 62893
- Liquid cooled cables: 2PFGQ 2473
- Low-voltage switchgear and controlgear assemblies for charging stations: IEC61439-7

REASON FOR COMPLIANCE

Charging station for electric vehicles (EV) is a complex system containing energy management system, smart grid communication, and billing system. Compliance to the safety and quality requirements ensure the safety of its usage by the public and minimize potential financial loss for the charging system operators.

Once you proved your compliance with safety requirements with test reports or certificates, it will be easier for you to export your products to expand your market.

PROFESSIONAL TESTING

Our well-equipped laboratories can carry out a wide range of testing for various components or a full system before commercialization:

- Electrical safety testing
- EMC / EMF, FCC / ISED testing
- Wireless and IoT testing: Wi-Fi, Zigbee, Bluetooth, GDPR, IoT product certification
- Functional safety testing
- Durability testing (life cycle test)
- Data communication / protocol testing (CHAdeMO, CharIN)
- Climate testing: IP test, UV radiation, corrosion test, etc.
- Mechanical testing: flammability test, glow wire test, etc.
- Field installation services

INDEPENDENT INSPECTION

The installation and condition of the charging station can be inspected with our yearly field evaluation to prove that the system continue to be safe for public use.

THIRD PARTY CERTIFICATION

We can certify your management system, installation personnel, or charging system according to relevant standards to showcase your quality to the market.

MARKET ACCESS SERVICES

Our products certification comes with our knowledge on regulatory and approval requirements, which will enable faster time to market and access to export markets in Europe, North America, South America, Greater China, Asia, and Middle East.



MARK THE SAFETY AND QUALITY OF YOUR PRODUCT

Once your product has been proven to fulfill a standard or guideline, you can showcase the safety and quality of your products with TÜV Rheinland Certification Mark in your promotional materials.



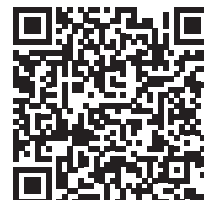
HOW TÜV RHEINLAND CAN HELP

- Through our independent testing, inspection, and certification, you can get quality and safety assurance for your products or processes to convince your stakeholders.
- Tap on the knowledge of our experts to strengthen the safety of your system and/or facility worldwide.
- Significantly reduce approval time and cost by using harmonized standards and common test protocols.

WHY TÜV RHEINLAND

With more than 140 years of experience in the industry, TÜV Rheinland has established a global network of technical experts for you to rely on. Our laboratories are accredited for IECEE CB Scheme and Nationally Recognized Test Laboratory (NRTL).

Scan the QR code to view how to ensure the safety of your EV charging stations



TÜV Rheinland
Corporate Headquarter
Cologne, Germany
Tel. +49 221 806 0

 **TÜVRheinland®**
Precisely Right.