

Charging Station Infrastructure and Installation Checklist

Electric Vehicle & Charging Station Industry

ACCESSIBILITY & USER INTERFACE – CRITICAL

Display screens readable and show accurate data.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Signage for charger type/connector/voltage is visible.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Cables/connectors reach vehicles without strain.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

QR/RFID authentication available.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

CRITICAL – ELECTRICAL SETUP & CABLING

Power connection capacity matches total charging load demand.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Cables used are rated for current capacity, temperature, and voltage as per IS 694/1554.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

All electrical terminations are tightened, insulated, and labeled properly.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

All cables are routed through conduits or cable trays with no exposure to mechanical damage.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Cable insulation resistance is tested and documented before commissioning.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Main distribution board (MDB) for charger has proper MCB/MCCB protection.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Earthing provided for each charger foundation and connected to main earth grid.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Metallic conduits and structural components are bonded to earth.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Lightning arrestor installed and tested as per IS/IEC 62305 standards.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Surge protection devices installed at input and output terminals of chargers.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

CRITICAL – METERING & POWER QUALITY

Energy meters are installed for each charger and are calibrated.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Voltage/current harmonics within IEEE 519 limits.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Power factor correction devices installed if required.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Phase balancing across charging stations is maintained.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Energy monitoring integrated with SCADA/CMS.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

DOCUMENTATION & RECORDS – INSTALLATION FILES

Installation checklist and commissioning reports filed and signed.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

As-built drawings updated and available on site.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Operation manuals, load calculations, SLD stored digitally.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

MAINTENANCE – STRUCTURAL & MECHANICAL SETUP

Charger mounting structures are rust-free and painted with protective coating.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Bolts, anchor plates, and mounting hardware are securely fastened.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Charging station canopy or shelter is installed and structurally sound.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Cable trenches and junction boxes are covered and labeled properly.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Cooling/ventilation provision available for high-capacity DC chargers.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

SAFETY – FIRE & ELECTRICAL PROTECTION

Fire extinguishers (Class C/CO₂) available near chargers.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Emergency stop switches installed and accessible.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Electrical panels have danger signages and insulation mats.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Charger area has adequate night illumination (>100 lux).

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

No flammable material within 5 meters of charging bay.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

SUPER CRITICAL – SITE SELECTION & CIVIL COMPLIANCE

Charging station site has necessary approvals from local and power authorities.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Site layout ensures safe vehicle entry, exit, and parking space for charging.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Site is free from flood-prone or waterlogging risk areas.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Ground surface is level, paved, and strong enough to support charger and vehicle load.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Civil foundation for charger is constructed as per manufacturer's dimension and load.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

TRAINING & COMPETENCY – INSTALLER QUALIFICATION

Installation team members are certified electricians/technicians.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Safety induction training conducted pre-installation.

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA

Supervisors trained in EVSE standards (IEC 61851/IS 17017).

☐ Compliant ☐ Partially Compliant ☐ Non-Compliant ☐ NA