

Charging Station Operation and Maintenance Checklist

Electric Vehicle & Charging Station Industry

CRITICAL – VISUAL INSPECTION & GENERAL CONDITION

All chargers are free from physical damage, dents, or corrosion.

Compliant

Partially Compliant

Non-Compliant

NA

Charger display screens are functional, readable, and touch-responsive.

Compliant

Partially Compliant

Non-Compliant

NA

Cables, connectors, and plugs are free from cracks, cuts, or burns.

Compliant

Partially Compliant

Non-Compliant

NA

Connectors are properly seated in holsters when not in use.

Compliant

Partially Compliant

Non-Compliant

NA

Charging station identification, signage, and markings are visible.

Compliant

Partially Compliant

Non-Compliant

NA

No obstruction or parked vehicles blocking the charging bays.

Compliant

Partially Compliant

Non-Compliant

NA

Rain shelters, canopy, and lighting are in good condition.

Compliant

Partially Compliant

Non-Compliant

NA

Earthing strips and connections are intact and labeled.

Compliant

Partially Compliant

Non-Compliant

NA

ENERGY MONITORING & DATA MANAGEMENT

Energy meters for each charger are functional and calibrated.

Compliant

Partially Compliant

Non-Compliant

NA

Daily energy consumption and number of sessions are recorded.

Compliant

Partially Compliant

Non-Compliant

NA

Anomalies in energy readings are reported for investigation.

Compliant

Partially Compliant

Non-Compliant

NA

Load management system is functioning for demand balancing.

Compliant

Partially Compliant

Non-Compliant

NA

Power factor correction units are active and properly tuned.

Compliant

Partially Compliant

Non-Compliant

NA

MAINTENANCE - ELECTRICAL & POWER SYSTEMS

Main distribution board (MDB) has no tripping or overheating signs.

Compliant

Partially Compliant

Non-Compliant

NA

Voltage, current, and frequency at input are within acceptable limits.

Compliant

Partially Compliant

Non-Compliant

NA

Power quality parameters (PF, THD) are monitored and maintained.

Compliant

Partially Compliant

Non-Compliant

NA

SPDs (Surge Protection Devices) and MCBs/MCCBs are in working condition.

Compliant

Partially Compliant

Non-Compliant

NA

Earthing resistance is tested quarterly.

Compliant

Partially Compliant

Non-Compliant

NA

All electrical panels are dust-free and labeled with circuit details.

Compliant

Partially Compliant

Non-Compliant

NA

All control relays and contactors are checked for wear and tightness.

Compliant

Partially Compliant

Non-Compliant

NA

PREVENTIVE MAINTENANCE – ROUTINE TASKS

Preventive maintenance is conducted as per OEM schedule.

Compliant

Partially Compliant

Non-Compliant

NA

Firmware or software updates are applied after OEM approval.

Compliant

Partially Compliant

Non-Compliant

NA

Cooling fans, air filters, and vents are cleaned monthly.

Compliant

Partially Compliant

Non-Compliant

NA

Internal electronics checked for dust, corrosion, or loose wiring.

Compliant

Partially Compliant

Non-Compliant

NA

Battery backup or UPS system for chargers tested monthly.

Compliant

Partially Compliant

Non-Compliant

NA

SAFETY & FIRE PROTECTION

Fire extinguishers (CO₂ or clean agent) are located near each charger.

Compliant

Partially Compliant

Non-Compliant

NA

Emergency stop switch tested for each charger.

Compliant

Partially Compliant

Non-Compliant

NA

No overheating or burning smell near cables or connectors.

Compliant

Partially Compliant

Non-Compliant

NA

Charging area has no fuel, flammable materials, or smoking activity.

Compliant

Partially Compliant

Non-Compliant

NA

First aid kit available and replenished.

Compliant

Partially Compliant

Non-Compliant

NA

SUPER CRITICAL – CHARGER FUNCTIONALITY & UPTIME

All installed chargers are operational and display no system fault or error codes.

Compliant

Partially Compliant

Non-Compliant

NA

Charger uptime is above 98% as per system analytics.

Compliant

Partially Compliant

Non-Compliant

NA

Communication with backend (OCPP or equivalent) is stable and uninterrupted.

Compliant

Partially Compliant

Non-Compliant

NA

All charger sessions are recorded accurately with energy and duration details.

Compliant

Partially Compliant

Non-Compliant

NA

Charging speed and output voltage match rated specifications.

Compliant

Partially Compliant

Non-Compliant

NA

USER SAFETY & ACCESSIBILITY

Charging cables are arranged neatly after each session.

Compliant

Partially Compliant

Non-Compliant

NA

Information boards display emergency contact numbers and instructions.

Compliant

Partially Compliant

Non-Compliant

NA

Lighting is adequate for users during night charging.

Compliant

Partially Compliant

Non-Compliant

NA

No water accumulation or leakage in charging area.

Compliant

Partially Compliant

Non-Compliant

NA

CCTV and monitoring systems are operational 24/7.

Compliant

Partially Compliant

Non-Compliant

NA