

# Fluke FEV350 Comprehensive EV Charging Station Analyzer

Maximize Uptime and Ensure Safety with  
the All-in-One EVSE Testing Solution !!



## Why Fluke FEV350?

- **Comprehensive All-in-One Testing**

- The FEV350 consolidates multiple EV charging station tests—such as protective earth pre-tests, RCD trip tests (30mA and 6mA), voltage and phase sequence checks, Control Pilot waveform analysis, error testing, and visual inspections.

- **Advanced Diagnostic Capabilities.**

- It offers Auto Control Pilot simulation that automatically cycles through all charge states with detailed waveform analysis and clear pass/fail indications, enabling in-depth troubleshooting and verification of EVSE functionality.

- **Efficient Data Management and Reporting.**

- Measure ground resistance without disconnecting rods or driving stakes—ideal for restricted or hard-to-access sites.

- **Built for Field Durability and Safety Compliance.**

- Designed to meet IEC/EN 61851-1 and IEC/HD 60364-7-72 standards, the FEV350 is rugged and reliable for use in challenging environments, ensuring safety and regulatory compliance.

- **Time and Cost Savings.**

- By streamlining testing, providing automated pass/fail results, and enabling quick troubleshooting, the FEV350 reduces inspection and maintenance time, lowers service costs, and helps minimize EVSE downtime.

The Fluke FEV350 is a leading choice for EV charging station testing because it offers a comprehensive, all-in-one solution designed to simplify and enhance the safety, functionality, and performance verification of AC EV charging stations with Type 1 or Type 2 connectors.

## ACEZ INSTRUMENTS PHILIPPINES CORPORATION

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## Summary of Tests & Deliverables.

The Fluke the FEV350 delivers a complete testing and documentation solution for EV charging stations, enabling technicians to perform multiple safety and functionality tests quickly and confidently, while producing professional, standards-compliant reports. This streamlines inspection, troubleshooting, and maintenance workflows, especially in commercial and fleet EV charging environments.

## Deliverables.

- Pass/Fail test results with clear, on-device indications simplifying analysis.
- Datalogging and storage of detailed test data on the device.
- Integration with Fluke TruTest™ Software enables efficient data management, creation of inspection reports.

## Why Rent the Fluke FEV350?

- Cost-efficient for occasional use.
- Unified testing without multiple tools.
- Quick testing with pass/fail results.
- Advanced data management and reporting.
- Wiring configuration diagrams and Info Screens to aid in troubleshooting and documentation.

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## Key Features Table.

| Test Conducted                                 | Purpose   | Test Range & Value  | Compliance Standard                 | Industrial/Utility Code        | Specific Need for Test  |
|--|---|---|-------------------------------------|--------------------------------|---|
| PE<br>(Protective Earth)<br>Pre- Test          | Ensures no dangerous voltage is present on the earth conductor before connecting.   | Touch voltage, safe range: $\leq 50$ V AC/DC<br>Touch voltage, dangerous range: $> 50$ V AC/DC  | IEC/EN 61851-1<br>IEC/HD 60364-7-72 | National Electrical Code (NEC) | Protects technicians and equipment from potential electric shock hazards during testing. Ensures safety before any further tests are conducted.                                   |
| 30 mA RCD<br>Trip Test                         | Verifies the correct operation of the 30mA Residual Current Device (RCD).           | Trip time with AC, half wave, DC ( $0^\circ$ , $180^\circ$ ): 0 ms to 510 ms                    | IEC/EN 61851-1<br>IEC/HD 60364-7-72 | N/A                            | Ensures the RCD trips quickly enough to prevent electrical shock in case of a fault. Vital for personnel safety.  |
| 6 mA RDC-DD<br>Trip Test                       | Verifies the correct operation of the 6mA Residual Direct Current Detecting Device. | Trip time ( $0^\circ$ , $180^\circ$ ): +3 mA DC 0.000 s to 10.100 s<br>+6 mA DC: 0 ms to 310 ms | IEC/EN 61851-1<br>IEC/HD 60364-7-72 | N/A                            | Essential for EV charging stations to protect against DC leakage currents, which can blind traditional AC RCDs. Complies with specific EV charging safety requirements.           |
| Nominal Voltage + Phase Sequence               | Confirms correct voltage levels and phase sequence to prevent equipment damage.     | L-N, L-PE, N-PE: 0 V to 280 V<br>L-L: 0 V to 490 V  | IEC/EN 61851-1<br>IEC/HD 60364-7-72 | N/A                            | Ensures the charging station receives the correct power supply. Prevents damage to the EV and charging station due to incorrect voltage or phase configuration.                   |
| Auto Control Pilot (CP) with Waveform Analysis | Simulates EV connection and analyzes the CP signal for proper communication.        | N/A, automated cycling through charge states  | IEC/EN 61851-1<br>IEC/HD 60364-7-72 | SAE J1772                      | Verifies that the charging station and EV can communicate correctly, enabling proper charging. The waveform analysis allows for in-depth troubleshooting of communication issues. |
| Proximity Pilot Testing                        | Checks the proximity pilot circuit operation.                                       | N/A   | IEC/EN 61851-1<br>IEC/HD 60364-7-72 | SAE J1772                      | Validates proper operation of proximity detection, which ensures the charging cable is securely connected before charging begins.   |

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|----------------|--|----------------------|----------------------------------|-----------------------------|---|
| Test Conducted | Purpose  | Test Range and Value | Compliance Electrical Standard   | Industrial and Utility Code | Specific Need and Requirement   |
| Error Testing  | Detects and analyzes simulated fault conditions in the charging station. | N/A                  | IEC/EN 61851-1 IEC/HD 60364-7-72 | N/A                         | Verifies that the charging station responds correctly to fault conditions, ensuring safe operation and preventing damage. |

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## If you are....

- EV charging infrastructure operators and maintenance teams conducting routine safety inspections, troubleshooting, and performance verification of commercial and public EV charging stations.
- Electrical contractors and installation companies performing EVSE commissioning and certification.
- Inspection and certification bodies conducting on-site compliance testing and certification services.
- Fleet Operators and Facility Managers who conducts periodic testing and maintenance of their EV charging assets.
- Small electrical service providers and technicians performing occasional EVSE testing jobs requiring advanced diagnostics.
- Equipment rental companies offering the FEV350 as part of their portfolio to serve diverse customers in the growing EV infrastructure sector.
- Training centers and educational institutions needing units for hands-on training on EV charging station testing and maintenance.

**Contact us today to reserve the Fluke FEV350 for your testing requirements!**

**Contact Person :** Rico James Dulay  
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**Click on the links for.**

[Rental Contract.](#)

[Fluke FEV350 Specifications.](#)

[Fluke FEV350 User Manual.](#)

[Watch Video.](#)

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