

Test Schedules

Input data for setting up the test schedules

A. General information about the project

- Deadlines for test completion and report delivery;
- Testing purpose (e.g. compliance validation, prototype, FAT – Factory Acceptance Test);
- Test location (in-house or on-site) and specific environmental conditions (e.g. extreme temperatures, vibration, exposure to external factors);
- Contact person responsible for test coordination;
- Operational restrictions, if any (e.g. time slots, limited access to equipment, production stops required for testing).

B. Technical specifications

- Specific requirements for applicable certifications and standards (domestic or international standards: IEC, UL, ANSI, etc.);
- Technical documentation of the design/system to be tested, including:
 - Electrical schematics and functional diagrams;
 - Lists of components used and their specifications (BOM);
 - Schematics for integration into the overall system (e.g. SCADA, DCS, other control systems);
 - If available, previous test reports or specifications from prototypes;
 - Special specifications for protection and automation systems.
- The need for specific test equipment (e.g. equipment from established brands such as Omicron, Fluke, etc.), including report generation needs through their software.
- Safety requirements and access to the test site (e.g. special permits, personal protective equipment, additional training).
- Test acceptance conditions – clear criteria for success or failure at each stage.

Test Schedules

How we approach your project

A. Initial Business-Technical meeting

- Establish the objectives of the testing and detail the process steps;
- Identify applicable standards and parameters to be met.

B. Adapt the Test Schedule document

- Define the types of tests: functional, performance, and safety;
- Establish the order of tests for maximum efficiency;
- Allocation of necessary resources (equipment, personnel, software);
- Check the availability of necessary equipment and software.

C. Preparatory phase of testing:

- Ensuring adequate connectivity for system testing;
- Delimiting the test space and restricting access to authorized personnel;
- Use of appropriate protective equipment (gloves, goggles, helmet, etc.).

D. Perform tests:

- Preliminary visual inspection to identify possible defects;
- Comparison with technical documentation to identify inconsistencies;
- Torque check of connections (N*m);
- Continuity testing of each connection;
- Measure the continuity of the PE (Protective Earth) circuit;
- Test the insulation resistance of the power circuits;
- Fully energize the system and start functional test;
- Functional check of the signaling, control, and automation circuits;
- Simulate complex operational scenarios for system validation;
- Monitoring parameters under load;
- Document each step and identify possible non-conformities;
- Organize regular progress review meetings;
- Provide detailed progress reports.

Test Schedules

E. Final test report:

- Results of all tests, including graphs and measured data (test report cards);
- Identification and resolution of any problems;
- Recommendations for maintenance.

F. Post-test support (on request)

- Support for integration of tested cabinets into larger systems;
- Support for FAT/PIF or other final inspection steps;
- Delivery of updated as-built documentation if required.