

FACT SHEET

ELECTRICAL TESTING TOP-11 FAQs

Answers to some of your most frequently asked questions

Electrical testing is a complex test category. It involves a large variety of equipment and test setups due to differing applications and industry requirements. This FAQ will help improve basic understanding of the test category and facilitate communication and discussion of such test requests.



1. What is electrical testing?

Electrical testing involves any testing in which the DUT (Device Under Test) has power applied to it to verify functionality and/or performance under the test conditions.

2. What is the value or purpose for conducting electrical testing?

To evaluate how a product and/or its electronics perform over the life of a product, to understand weak/failure modes, and electrical performance benchmarking.

3. What are some common types of electrical tests?

While there are a number of different test types, these are some of the more commonly requested:

- Button/Switch/Power cycling
- High/Low voltage
- High/Low current
- Environmental stressors such as temperature and humidity extremes
- Constant operation

4. What data is produced by an electrical test, and how does one interpret it?

Intertek has the capability to measure a wide range of data points based upon the testing standard, custom program, and informational

goals of our clients.

This data can be documented through a specified time series and mapped. Intertek will review the data with our clients to ensure they know how to interpret it.

5. What information is needed to request an electrical testing quotation?

The test lab would need to know:

- Electrical schematics, voltage, and current draw of the product and or electronics

6. What samples need to be submitted for electrical testing?

Samples will be determined based upon the client test plan, and what is available.

7. What are some of the commonly referenced electrical testing standards?

These are some of the most commonly used:

- Automotive: FMVSS 108
- Medical: 60601-1
- Custom testing programs based upon our clients informational goals

8. How can you tell if samples pass or fail an electrical test?

Pass/Fail criteria is based upon the testing plan and/or if the DUT is operational

9. How many samples can be tested simultaneously?

Any amount needed for the information goal.

10. How long does an electrical test typically last?

Testing durations vary based upon the testing program being performed.

11. What industries could benefit from an electrical test program?

All industries could utilize the knowledge gained through a custom or industry standard testing program where they have products that utilize electronics.

FOR MORE INFORMATION



+1-800-WORLD-LAB



icenter@intertek.com



intertek.com/automotive/