Electrical Safety test & assessment

The vast majority of electrical and electronic products are subject to electrical safety testing by regulatory requirement. In the EU, these requirements are invoked by directives such as the LVD, R&TTED, MDD or the General Product Safety Directive, among others.

Introduction

A common misunderstanding is that safety requirements do only apply to products, which are supplied with more than 50 Volts AC or 70 Volts DC. In fact, most electronic products are faced with safety requirements, if not originating from the well renowned LVD, then from other directives which do not have the lower voltage exemption limits. As an example, all products which are available commercially - regardless of supply level - are bound to comply with essential requirements for safety by the General Product Safety Directive, if not by safety requirements from other directives. As always, essential directive requirements are best covered by applying harmonized standards.

Safe products with DELTA

DELTA is proficient in performing both consultancy on electrical safety, as well as accredited testing. Unlike many other harmonized standards, safety standards hold both requirements for test, visual inspection, individual assessment as well as technical documentation and labelling. Therefore, it is not always apparent, how to comply with the typically rather large safety standards. DELTA offers workshops during which the product is inspected together with the manufacturer, and DELTA advises how to adjust the design and accompanying technical documentation in order to pass the requirements of the specific applied standard for that particular product.

Ensuring compliance

A safety test is 50% evaluation of design and documentation, 50% actual test.

The process includes:

- DELTA advises in writing to the product manufacturer on what to collect in order to pass the safety test, e.g. test objects, test software, auxiliary equipment and design documentation.
- The manufacturer completes upload of documentation and submits test objects to DELTA.
- DELTA conducts an initial review (typically up to half a day) to check, if all documentation is present.
- The test commences and DELTA performs a detailed study, if the documentation and design solutions are sufficient for a passed verdict.
- Physical testing is performed.
- An accredited report is issued.

Optional services include:

- Design and documentation pre-assessment (½ day workshop). DELTA explains which design and documentation updates must be completed, before a passed verdict can be issued.
- Consultancy on how to compile or update technical documentation, and how to design a product for compliance. Such work is usually conducted on a per hour basis.

IS IT RELEVANT FOR ME?

Yes, if you want to comply with regulatory requirements in the most efficient way.

Deliverable: A written specification listing all relevant requirements including detailed guidance for the most optimal way to compliance. The Accredited safety test report includes check list and test plan.

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