

ELECTROMAGNETIC COMPATIBILITY / PRODUCT SAFETY

Electrical safety of equipment

Product safety

The Equipment and Product Safety Act (GPSG) from Jan. 06.2004 and the Low Voltage Directive 73/23/EEC issued by the EU oblige you, as the manufacturer and commissioner of electrotechnical products, to ensure that your products do not endanger the life and health of persons nor cause physical damage throughout their lifetimes if used correctly for their intended purposes. This obligation also applies to faulty products.

The product safety defined in these terms is assured in the eyes of the Equipment and Product Safety Act provided you have developed and manufactured your product in accordance with the generally recognized rules of technology and with the industrial safety and accident-prevention rules. In the area of electrotechnical products, this principally means conformance with the relevant IEC/EN/DIN standards and VDE regulations in addition to observance of the accident-prevention rules issued by professional and trade associations.



Our Service.

- Consulting and training in case of requirements of directives and standards
- Choosing of relevant standards
- Acquire remedial actions to fulfill the requirements
- Preliminary tests in development process
- Type testing as basis for product conformity procedure
- Test procedures according customer specific requirements
- Approval procedures with NRTL USTC
- NEBS qualification within the NTS ITL Program
- Certification Agent for chinese CCC certification
- International CB Scheme Certificates / Test Reports

Test Equipment



DC Test Equipment

Technical Data:

Primary: 2x63A
 Secondary: 48V / 60V 600A
 Peak current: 10000A

Field of application:

Simulation of DC Central Power Supply



AC Test Equipment

Technical Data:

Primary: 400V, 63A
 Secondary: 230/400V, 63A
 Measurements: Electric Strength
 Isolation Resistance,
 Leakage Current
 Discharge Voltage,
 Efficiency Factor
 Power Factor



Transient Recorder Scope

12 Channel (8+4)
 High Resolution
 Variable Preamplifier
 Long Term Measurement
 Test Report Generation

Safety regulations

The applicable safety regulations for devices and systems include detailed individual requirements to minimize the risks of the different types of danger.

After completion of its development, a product is checked for compliance with all safety requirements in a step-by-step tests procedure carried out on a prototype or series pilot model. A test protocol is recorded as the basis for conformance declaration and/or Listing by NRTL.

Abridgement of our scope:

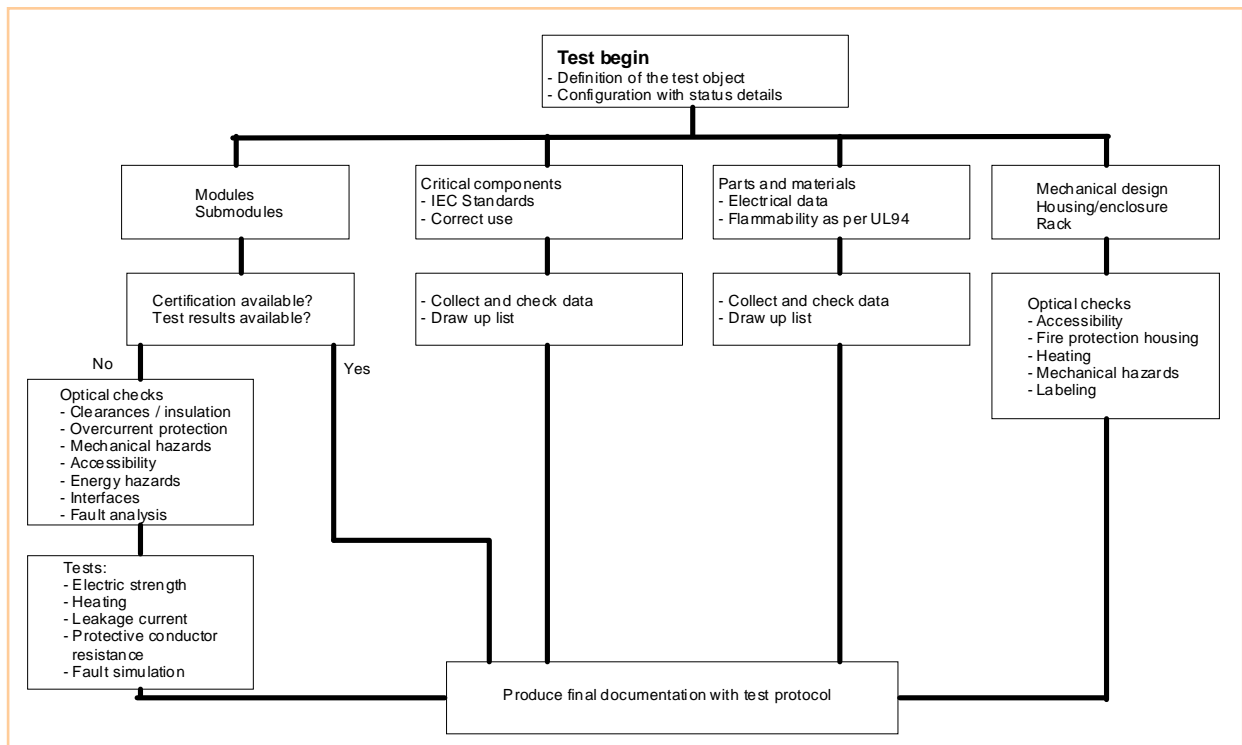
- IEC/EN 60950-1, UL 60950, AS/NZ 60950
- IEC/EN 60204, NFPA 79
- IEC/EN 60215
- IEC/EN 60825
- ETSI EN 300 132
- TR 1555
- GR1089
- GB4943

ELECTROMAGNETIC COMPATIBILITY / PRODUCT SAFETY

Product safety & product liability

Electrotechnical products can harbor the following hazards

- **Electric shocks** due to inadequate insulation, openings in protective enclosures, overly high leakage currents or insufficiently dimensioned protective conductor connections
- **Fire** due to component failure, faulty connections, failure of creepage distances that are too small, an inadequate or failed cooling system, overload of the cooling system, overvoltage/undervoltage, etc.
- **Injuries due to rotating parts, sharp edges or instability of the object**
- **Injuries due to explosion or implosion**
- **Illnesses or deterioration in health due to excessively high emission levels** (for example, regarding sonar, high frequency, X-ray or laser radiation, or toxic materials)



Procedure for product safety tests according to EN 60950

SGS Germany GmbH
 Center for Quality Engineering
 Hofmannstr. 50
 81379 Munich
 Phone: +49 89 / 787475-100
 Fax: +49 89 / 1250406-4100
 e-mail: cqe@sgs.com
 internet: www.sgs-cqe.de