



DRAFT STRATEGIC BUSINESS PLAN (SBP)

IEC/TC or SC 70	Secretariat Germany	Date 2009-05-29
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Please ensure this form is annexed to the Report to the Standardization Management Board if it has been prepared during a meeting, or sent to the Central Office promptly after its contents have been agreed by the committee.

Title of TC
Degrees of protection by enclosures

A Background

IEC TC 70

- prepares international standards and appropriate test methods for degrees of protection provided by enclosures against ingress of solid foreign objects and water and against access to dangerous parts
- prepares international standards and appropriate test methods for degrees of protection provided by enclosures for electrical equipment against external mechanical impacts.
- has the Safety Pilot Function for “degrees of protection provided by enclosures against ingress of foreign solid bodies, water and access to live or moving parts and standardisation of accessibility probes. Such degrees should be expressed by the IP classification systems”

Short History:

TC 70 was initially designed, back in 1976, for rotating machines and for low-voltage switchgear. Based on early (1934) National Standards and on former IEC 144 and IEC 34-5, the International IP Code became an important coding and testing system to classify the protection by enclosures for many types of electrical equipment.

Safety requirements for protection against external influences and direct contact are expressed by the IP Code in installation rules and other specifications and regulations.

In the 1989 revision of IEC 529 all efforts have been made to facilitate the changeover in IEC 335 series from the marking by "drop symbols" used in TC 61 to the IP Code in IEC 335 Series: Safety of household and similar appliances.

Furthermore, by introduction of additional letters A, B, C, and D an option has been offered to design and classify enclosures purely under the aspect of protection against access to hazardous parts.

B Business Environment

B.1 General

Enclosures protect people against access to hazardous parts and equipment against ingress of solid foreign objects and water and this globally.

B.2 Market demand

Customers of TC 70's issued and future standards are: Industry, certifiers and test houses, consumer associations and legislators as well as other IEC Product Committees. The standards of TC 70 are widely used on regional and national level, e.g. IEC 60529 has been transposed into national standards in more than 27 countries.

- The global market demands internationally harmonized requirements, test conditions and classification of enclosures to achieve an adequate level of safety and protection of equipment as well as to avoid duplication of tests.
- IEC product TC's refer to TC 70's Basic Safety Publications (IEC 60529 and IEC 61032)

B.3 Trends in technology

Technology convergence is a great challenge for IEC TC 70.

IEC 60529 is often quoted in non-electrotechnical industries e.g. pneumatic components, gearboxes, brakes. There is a risk that the market might be misled, because IEC 60529 is drafted specifically for electrotechnical enclosures, so specifications or test conditions could be changed to suit the different requirements. Nevertheless, the consumer sees an IPXX code and might therefore specify the

component on this basis, mistakenly assuming that the specification and test conditions for the non-electrotechnical component are the same as those laid down in IEC 60529. Depending on the circumstances, the end result could be a product failure or an injury sustained by an end user.

B.4 Market trends

- Higher degrees of protection are requested by some stakeholders
- Product groups request specific test conditions
- Ongoing globalization
- Application of international standards by emerging countries
- Energy efficiency

B.5 Ecological environment

Recent legislation in different countries or regions focus on hazardous materials, substances and energy efficiency. Today, TC 70 is not concerned. However, safety legislation in various countries will tackle IEC TC 70. Particularly in Europe, TC70's publications are used to demonstrate presumption of conformity with legislation.

C System approach aspects

TC 70 will continue to promote the establishment of liaisons to other committees in particular system committees to take into account their needs.

Note – The System Approach according to the implementation given in AC/37/2006 does not apply to those TC/SCs with basic safety publications

D Objectives and strategies (3 to 5 years)

- Keep TC 70 standards up to date to reflect new/changing technologies and user requirements both in the marketplace and customer IEC and ISO committees
- Keep TC 70 standards stable to ensure continuity and avoid confusion, because they are basic safety publications
- Consult IEC product committees in the application of IEC TC 70 standards on request by product TCs.
- Promote TC 70 standards internationally

E Action plan

- Start review of IEC 60529 in 2009
- Start review of IEC 62262 in 2010
- Start review of IEC 61032 in 2011
- Inform IEC product committees when reviews of IEC TC70's standards will be started
- Contribute to national workshops to promote IEC TC 70's standards on request of national committees

F Useful links to IEC web site

[TC 70 home page](#) giving access to Membership, TC/SC Officers, Scope, Liaisons, WG/MT/PT structure, Publications issued and Work and Maintenance Programmes and similar information for SCs, if any.

Name or signature of the secretary

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