

CENELEC/TC or SC TC 37A	Secretariat SPAIN	Date 2022-09-23
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TC or SC title: Low voltage surge protective devices

A Background

The scope of TC 37A is to prepare European standards (ENs), Technical specifications (TSs) and Technical reports (TRs) to cover surge protective devices (SPDs) for protection against surges due to lightning and/or other transient overvoltages and their selection and application.

These devices are to be used in power, telecommunication and/or signalling networks with voltages up to 1 000 V a.c. or 1 500 V d.c.

TC37A has been set-up in 2004 by BT decision D118/101 and followed the previous SR37A. Secretary has been allocated first to the British National Committee, then lately to the Swedish National Committee and now to the Spanish National Committee.

B Business Environment

B.1 General

SPDs are used in low voltage (LV) installations to protect equipment that is vulnerable to overvoltages. In all electrical environments, these products improve the reliability of equipment and services through overvoltage control.

The Technical Committee sets technical requirements and testing methods to check the compliance to protective limits and to other performance aspects associated with the durability of the SPD.

TC 37A has a leading action on various topics and especially DC and PV applications and creating new standards and application guides that are not proposed at IEC level.

B.2 Market demand

The customers for the SPD products covered by the Technical Committee provide electric utilities, industrial and domestic installations.

The usual users of SPD are unskilled and uninstructed persons in installations or equipment not subject to maintenance and rely heavily upon manufacturer technical capability. General consumers make primary use of portable low voltage SPDs.

TC 37A membership reflects those interests and alignments and is responsive to all requests for participation. The general public consumers sector input is received through comments from relevant CENELEC horizontal and product committees (TC34, SR37B, TC 82, TC 88, TC 108X, TC 109, TC 64, TC 81X and SR 112) and test labs.

The users of the standards issued by TC 37A are the manufacturers, the certification bodies, the national regulators and authorized bodies. These standards are also used by insurance companies, the power supplies authorities and other TCs and in particular those dealing with installation rules. Applications guides are dedicated to installers for specific installations, to electrical engineer planning new installations as well as other standard committees such as TC 64 and TC 81X).

They may be represented in the committee and also in the various WGs.

The market for low voltage SPDs continues to expand quite rapidly.

B.3 Trends in technology

The proliferation of sensitive electronic equipment connected to low-voltage power systems as well as to telecommunication and signalling systems is increasing the need for the application of SPDs.

B.4 Market trends

Trends will increase demand for surge protection components:

- increased interest in Low Voltage DC,
- increased interest in wind power and photovoltaic,
- increased use in power line communication,
- increased interest in smart grid technology,
- increased deployment of high speed data links,
- moving the central office closer to the end customer to be able to deliver broadband and high-speed data.

B.5 Ecological environment

There are no detrimental emissions in normal use. Care is taken to avoid the use of toxic materials or materials which may produce toxic by-products. However, life cycle assessment studies, in progress within the scientific community, may provide TC 37A with insight into not now available additional environmental issues that occur during the entire life cycle of the SPD, which may need to be addressed. EMC considerations are included in TC and SC documents.

B.6 Involvement of societal stakeholders

TC 37A is in direct contact with Manufacturer Associations, Installer Associations, Test Laboratories and Certification Bodies so as to guarantee the high applicability of the standards issued.

B.7 Involvement of SMEs

TC 37A is open to the contribution coming from any source. In particular the participation of SME is welcomed. SME actively participate in WGs, either directly or through Manufacturer Associations.

C System approach aspects

TC 37A interacts with the following system and horizontal Technical Committees:

System committees	TC 64 Electrical installations and protection against electric shock
	TC 81X Lightning protection
	TC 82 Solar photovoltaic energy systems
	TC 88 Wind turbines
	TC 69 Electric Vehicle
Other committees	SR 89 Fire hazard testing
	SR 109 Insulation co-ordination for low-voltage equipment
	SR 112 Evaluation and qualification of electrical insulating materials and systems
	TC 34 Lamps
	SR 37B Components for low-voltage surge protection

	TC 108X Safety of electronic equipment within the field of audio/video, information technology and communication technology
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Active liaison is already in place with TC 81X.

D Objectives and strategies (3 to 5 years)

- To continue to develop requirements and testing criteria as well as application guidance for SPDs in LV power, telecommunications/data communications and special applications.
- To keep TC 37A standards up to date to reflect new/changing technologies and user requirements both in the marketplace and customer CLC and CEN Technical Committees.
- To ensure development times for deliverables are achieved within a time scale to meet the requirement of the market.
- To fully support the market requests for comprehensive standards and respond to the need of all stakeholders in the frame of interpretation, if any.
- To create and/or activate liaisons in order to be kept up to date about horizontal committees, component committees, end product committees and system committees evolutions.

E Action plan

TC 37A has set up two WGs in order to have exchange of views on the major new topics.

WG1 is involved in creating and updating standards and application guides for power systems

WG2 is mainly adapting the appropriate IEC standards IEC 61643-21 and IEC 61643-22 to the EN environment.

F Useful links to CENELEC web site

TC home page giving access to Membership, TC/SC Officers, Scope, Publications, Work programme [password-protected area].

TC 37A dashboard giving access to Membership, TC/SC Officers, Scope, Liaisons, WG/MT/PT structure:

https://www.cenelec.eu/dyn/www/f?p=104:7:248539014840201:::FSP_ORG_ID,FSP_LANG_ID:1258617,25

Beatriz NOVEL