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BSI Standards Publication

Alarm systems - External perimeter security systems

Part 1: System requirements

bsi.

National foreword

This Published Document is the UK implementation of CLC/TS 50661-1:2017.

The UK participation in its preparation was entrusted to Technical Committee GW/1/2, Installed alarm systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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European foreword

This document (CLC/TS 50661-1:2017) has been prepared by CLC/TC 79 “Alarm systems”.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Introduction

This Technical Specification applies to External and Perimeter Security Systems.

This Technical Specification is a specification for External and Perimeter Security Systems (EPSS) to provide detection of intruders in external areas outside enclosed buildings installed in the perimeter outside buildings. It includes four self protection grades, four environmental classes and four performance categories.

At the time of writing there is a desire to develop a series of standards for EPSS. This first version of this technical specification is intended to create a framework to enable development of the other parts of the series. In particular this will include the application guidelines and the detector component standards. It is expected that during the development of these other parts enhancements to the system requirements will be identified.

The purpose of an EPSS is to enhance the security of the supervised premises. To maximize its effectiveness an EPSS should be integrated with appropriate physical security devices and procedures. This is particularly important to higher grade EPSS.

This technical specification is intended to assist insurers, intruder alarm companies, customers, the police and other relevant organisations in achieving a complete and accurate specification of the supervision required in particular premises, but it does not specify the type of technology, the extent or degree of detection, nor does it necessarily cover all of the requirements for a particular installation.

All references to the requirements for EPSS refer to basic minimum requirements and the designers of such installed EPSS should take into account the nature of the premises, the value of the contents, the degree of risk of intrusion, the threat to personnel and any other factors which may influence the choice of grade and performance category of an EPSS.

Recommendations for design, planning, operation, installation and maintenance are given in Application Guidelines CLC/prTS 50661-7 (to be developed).

This technical specification makes allowance for the EPSS designer to vary the design of the system according to whether the site is usually staffed when the EPSS is in use or continuously staffed and whether the staff use an internal monitoring station (see definitions) or response is initiated from an alarm receiving centre.

In the context of this technical specification “external” refers to an area, which is not wholly enclosed inside a building, within which it is desired to detect intruders. The perimeter is typically a physical boundary to a site. In some cases the EPSS may include detection devices outside of the physical boundary (e.g. fence) that are used to provide an early warning of possible intrusion or in combination with perimeter detection devices to verify a likely crossing of the perimeter.

This technical specification is not intended to be used for testing individual EPSS components. Requirements for testing individual EPSS components are given in the relevant component standards (to be developed).

1 Scope

This Technical Specification specifies the requirements for security systems to provide detection of intruders in external areas outside enclosed buildings.

For enclosed buildings EN 50131-1 should be applied. CLC/TS 50661-1 may be used for unenclosed buildings such as roofed storage areas where an intruder and hold-up alarm system is not suitable.

This Technical Specification specifies performance requirements for installed EPSS but does not include requirements for designing, planning, installation, operation or maintenance.

These requirements also apply to EPSS sharing means of detection, interconnection, control, communication and power supplies with other applications.

This Technical Specification references requirements for system components according to the environment where they are expected to operate as designed. These environmental conditions are classified.

This Technical Specification does not deal with requirements for compliance with EC regulatory Directives, such as the RED Directive, EMC Directive, Low Voltage Directive, etc. except that it specifies the equipment operating conditions for EMC susceptibility testing as required by EN 50130-4.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 50130-5, *Alarm systems - Part 5: Environmental test methods*

EN 50131-6, *Alarm systems - Intrusion and hold-up systems - Part 6: Power supplies*

prEN 50398-1:2016, *Alarm systems - Combined and integrated systems - Part 1: General requirements*

EN 50136-1, *Alarm systems - Alarm transmission systems and equipment - Part 1: General requirements for alarm transmission systems*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply:

3.1.1
access level
level of access to particular functions of an EPSS

3.1.2
actuator
component (e.g. motor, solenoid) of the EPSS or associated system that causes a change to a mechanism (e.g. movement, rotation, release of a lock) in response to a control signal or message from the EPSS

3.1.3
alarm
warning of the presence of a hazard to life, property or the environment

3.1.4
alarm condition
condition of an EPSS, or part thereof, which results from the response of the system to the presence of a hazard