BS EN 61969-3:2012



BSI Standards Publication

Mechanical structures for electronic equipment — Outdoor enclosures

Part 3: Environmental requirements, tests and safety aspects

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



BS EN 61969-3:2012 BRITISH STANDARD

This is a preview of "BS EN 61969-3:2012". Click here to purchase the full version from the ANSI store.

This British Standard is the UK implementation of EN 61969-3:2012. It is identical to IEC 61969-3:2011. It supersedes BS EN 61969-3:2001 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EPL/48, Electromechanical components and mechanical structures for electronic equipment.

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.

© The British Standards Institution 2012

Published by BSI Standards Limited 2012

ISBN 978 0 580 67587 4

ICS 31.240

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 29 February 2012.

Amendments issued since publication

Amd. No. Date Text affected

EUROPÄISCHE NORM

February 2012

ICS 31.240

Supersedes EN 61969-3:2001

English version

Mechanical structures for electronic equipment Outdoor enclosures Part 3: Environmental requirements, tests and safety aspects (IEC 61969-3:2011)

Structures mécaniques pour équipement électronique Enveloppes de plein air Partie 3: Exigences environnementales, essais et aspects de la sécurité (CEI 61969-3:2011)

Mechanische Bauweisen für elektronische Einrichtungen -Außengehäuse -Teil 3: Umgebungsanforderungen, Prüfungen und Sicherheitsaspekte (IEC 61969-3:2011)

This European Standard was approved by CENELEC on 2011-12-22. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization Comité Européen de Normalisation Electrotechnique Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 48D/483/FDIS, future edition 2 of IEC 61969-3, prepared by SC 48D, "Mechanical structures for electronic equipment", of IEC/TC 48, "Electromechanical components and mechanical structures for electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61969-3:2012.

The following dates are fixed:

•	latest date by which the document has	(dop)	2012-09-22
	to be implemented at national level by		
	publication of an identical national		
	standard or by endorsement		
•	latest date by which the national	(dow)	2014-12-22
	standards conflicting with the		
	document have to be withdrawn		

This document supersedes EN 61969-3:2001.

EN 61969-3:2012 includes the following significant technical changes with respect to EN 61969-3:2001:

Table 1 and Table 6 have been extended with requirements and tests, relevant for outdoor conditions.

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

Endorsement notice

The text of the International Standard IEC 61969-3:2011 was approved by CENELEC as a European Standard without any modification.

(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60068	Series	Environmental testing	EN 60068	Series
IEC 60417	Data- base	Graphical symbols for use on equipment	-	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	-	-
IEC 60695-11-10	-	Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods	EN 60695-11-10	-
IEC 60721-3-2	-	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 2: Transportation	EN 60721-3-2	-
IEC 60721-3-4	-	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 4: Stationary use at non- weatherprotected locations	EN 60721-3-4	-
IEC 60825-1	-	Safety of laser products - Part 1: Equipment classification and requirements	EN 60825-1	-
IEC 60950	Series	Information technology equipment - Safety	EN 60950	Series
IEC 61010	-	Safety requirements for electrical equipment for measurement, control and laboratory use	EN 61010	-
IEC 61140	-	Protection against electric shock - Common aspects for installation and equipment	EN 61140	-
IEC 61439-5	-	Low-voltage switchgear and controlgear assemblies - Part 5: Assemblies for power distribution in public networks	EN 61439-5	-
IEC 61587-1	-	Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 - Part 1: Climatic, mechanical tests and safety aspects for cabinets, racks, subracks and chassis	EN 61587-1	-
IEC 61587-2	-	Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 - Part 2: Seismic tests for cabinets and racks	EN 61587-2	-

<u>ı abilcation</u>	<u>ı caı</u>	тис	LIVITIO	<u>ı caı</u>
IEC 61587-3	-	Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 - Part 3: Electromagnetic shielding performance tests for cabinets, racks and subracks	EN 61587-3	-
IEC 62194	-	Method of evaluating the thermal performance of enclosures	EN 62194	-
IEC 62262	-	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	EN 62262	-
IEC 62305-4	-	Protection against lightning - Part 4: Electrical and electronic systems within structures	EN 62305-4 า	-
ISO 2533	-	Standard atmosphere	-	-
ISO 3744	-	Acoustics - Determination of sound power levels of noise sources using sound pressure Engineering method in an essentially free field over a reflecting plane		-
ISO 3864	-	Safety colours and safety signs	-	-
ISO 4892-2	-	Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps	EN ISO 4892-2	-
ETSI EN 300019-2-2	?-	Equipment Engineering (EE) - Environmental conditions and environmental tests for telecommunications equipment - Part 2-2: Specification of environmental tests - Transportation		-

CONTENTS

IN٦	ROE	DUCTION	5		
1	Scope				
2	Normative references				
3	Terms and definitions				
4	Classification of environmental conditions				
5	Tes	Test conditions			
	5.1	General	8		
	5.2	Climatic tests	8		
	5.3	Biological tests	8		
	5.4	Tests of resistance against chemically active substances	9		
	5.5	Tests of resistance against mechanically active substances	9		
6	Med	chanical tests	9		
	6.1	General	9		
	6.2	Dynamic test	10		
	6.3	Lifting and stiffness test			
7	Safe	ety aspects	11		
	7.1	General			
	7.2	Locking devices			
	7.3	Vandalism resistance			
_	7.4	Bullet resistance (optional)			
8		smic requirements			
9		ctromagnetic shielding performance			
10	The	rmal management	12		
11	Nois	se emission	12		
Tal	ble 1	- Climatic conditions for environmental classes 1 and 2	8		
Tal	ble 2	- Biological tests	8		
Tal	ble 3	- Tests of resistance against chemically active substances	9		
Tal	ble 4	- Tests of resistance against mechanically active substances	9		
Tal	ble 5	– Vibration and shock test	10		
Tal	ble 6	- Safety aspects	11		