

SLOVENSKI STANDARD SIST EN 62034:2012

01-julij-2012

Samodejni preskuševalni sistemi za baterijsko napajano nujnostno razsvetljavo evakuacijskih poti

Automatic test systems for battery powered emergency escape lighting

Automatische Prüfsysteme für batteriebetriebene Sicherheitsbeleuchtung für Rettungswege

iTeh STANDARD PREVIEW

Systèmes automatiques de tests pour éclairage de sécurité sur batteries

Ta slovenski standard je istoveten z EN 62034:2012 https://standards.iteli.av.catalog/standards.sist/de/ac167-57f3-4861-82f7-

f5f84f40a514/sist-en-62034-2012

ICS:

29.140.50 Instalacijski sistemi za

razsvetljavo

Lighting installation systems

SIST EN 62034:2012

en

SIST EN 62034:2012

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 62034:2012

EUROPEAN STANDARD

EN 62034

NORME EUROPÉENNE EUROPÄISCHE NORM

May 2012

ICS 29.140.50

Supersedes EN 62034:2006

English version

Automatic test systems for battery powered emergency escape lighting (IEC 62034:2012)

Systèmes automatiques d'essai pour éclairage de sécurité sur batteries (CEI 62034:2012) Automatische Prüfsysteme für batteriebetriebene Sicherheitsbeleuchtung für Rettungswege (IEC 62034:2012)

This European Standard was approved by CENELEC on 2012-03-28. 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.

https://standards.iteh.ai/catalog/standards/sist/de7ac167-37f3-4861-82f7This 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 34D/1040/FDIS, future edition 2 of IEC 62034, prepared by SC 34D, "Luminaires", of IEC TC 34, "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62034:2012.

The following dates are fixed:

(dop) 2012-12-28 latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement

latest date by which the national standards conflicting with the document have to be withdrawn

(dow) 2015-03-28

This document supersedes EN 62034:2006.

The main changes with respect to EN 62034:2006 are the improvement of the understanding of the requirements in the various clauses and the compliance requirements listed below and the updating of the normative references.

4.2 Monitoring of the timing circuit

eh STANDARD PREVIEW

4.3.1 The automatic test system (ATS) (standards.iteh.ai)

SIST EN 62034:2012 4.4.2 Intercommunications failure

https://standards.iteh.ai/catalog/standards/sist/de7ac167-37f3-4861-82f7-

4.4.4 Component failures f5f84f40a514/sist-en-62034-2012

4.4.7 Software failure

5.1 Functional test

5.2 Duration test

6.2.2 Timing accuracy

6.3.2.2 Testing alternate luminaires

6.3.3.4 Limited duration test

7.1 General

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 62034:2012 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61347-2-7 NOTE Harmonized as EN 61347-2-7.

IEC 61347-2-11 NOTE Harmonized as EN 61347-2-11.

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 62034:2012</u> https://standards.iteh.ai/catalog/standards/sist/de7ac167-37f3-4861-82f7-f5f84f40a514/sist-en-62034-2012 - 4 -

Annex ZA (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 60073	-	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators	EN 60073	-
IEC 60598-1	-	Luminaires - Part 1: General requirements and tests	EN 60598-1	-
IEC 60598-2-22	-	Luminaires - Part 2-22: Particular requirements - Luminaires for emergency lighting	EN 60598-2-22	-
IEC 61347-1	-	Lamp controlgear - Part 1: General and safety requirements	EN 61347-1	-
IEC 61547	_ 11(Equipment for general lighting purposes - EMC immunity requirements	EN 61547	-

SIST EN 62034:2012



IEC 62034

Edition 2.0 2012-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Automatic test systems for battery powered emergency escape lighting

Systèmes automatiques d'essai pour éclairage de sécurité sur batteries

<u>SIST EN 62034:2012</u> https://standards.iteh.ai/catalog/standards/sist/de7ac167-37f3-4861-82f7f5f84f40a514/sist-en-62034-2012

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE
CODE PRIX



ICS 29.140.50

ISBN 978-2-88912-912-6

Warning! Make sure that you obtained this publication from an authorized distributor.

Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

CONTENTS

FO	REWO)RD		4		
INT	RODU	JCTION		6		
1	Scope					
2	Normative references					
3	Term	Terms and definitions				
4	Requ	irement	S	9		
	4.1	Safety.	construction and installation instructions	9		
	4.2	-	ring of the timing circuit			
	4.3		onal requirements			
		4.3.1	The automatic test system (ATS)			
		4.3.2	Emergency battery supply	10		
		4.3.3	Lamps tested in the emergency mode	.10		
		4.3.4	Maintained luminaires tested in emergency mode and in normal mains condition	10		
	4.4	System	n integrity			
		4.4.1	Protection against system part failures and faults			
		4.4.2	Intercommunications failure			
		4.4.3				
		4.4.4	System interconnection	.11		
		4.4.5	System parts compatibility rds.iteh.ai)	11		
		4.4.6	Electromagnetic immunity of the ATS			
		4.4.7	Software failure. SIST EN 62034:2012	12		
	4.5	Test of	emergency ramp(s)/catalog/standards/sist/de7ac167-37f3-4861-82f7-	12		
5	Test	duration	e https://encynda.icl/(s)/catalog/standards/sist/de7ac167-37f3-4861-82f7- 5f84f40a514/sist-en-62034-2012	13		
	5.1		onal test			
	5.2	Duratio	on test	13		
6			a building during the periods of test and subsequent recharge of the ghting system	14		
	6.1	Genera	al	14		
	6.2		cy and protection of timing periods			
			General			
		6.2.2	Timing accuracy			
		6.2.3	Protection of timing function			
	6.3	Require periods	ements for premises that may be occupied during test and recharge	15		
		6.3.1	General			
		6.3.2	Testing of self-contained luminaires			
		6.3.3	Test of centrally powered systems			
		6.3.4	Automatic test recording facilities			
7	Indic		d recording of results of tests that the equipment has to perform			
	7.1		al			
	7.2		ion			
	7.3		ling			
Anr			ative) Examples of typical automatic test systems			
			ive) Classification of ATS types			
		•	ative) Example of guidance for the use of ATS systems			
,		,				

Bibliography		
Figure A.1 – Stand-alone, self-contained luminaire with automatic test facilities	19	
Figure A.2 – Direct connection between luminaires and remote panel		
Figure A.3 – Alternative system where luminaire's connection is marshalled by a connection box for transmission to remote indicators and control panel	21	
Figure A.4 – Direct connection between luminaires and remote panel	22	
Table A.1 – Standards conformity guide	20	
Table A.2 – Standards conformity guide	22	
Table A.3 – Standards conformity guide	23	
Table B.1 – Minimum function according to the ATS type	24	
Table C.1 – Suitable ATS systems for different occupancy of premises	25	

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 62034:2012

INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUTOMATIC TEST SYSTEMS FOR BATTERY POWERED EMERGENCY ESCAPE LIGHTING

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62034 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lamps and related equipment.

The text of this standard is based on the following documents:

FDIS	Report on voting	
34D/1040/FDIS	34D/1048/RVD	

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This second edition cancels and replaces the first edition published in 2006. It constitutes a technical revision.

The main changes with respect to the first edition are the improvement of the understanding of the requirements in the various clauses and the compliance requirements listed below and the updating of the normative references.

1.2	Monitoring of the timing circuit
1.3	Functional requirements
1.3.1	The automatic test system (ATS)
1.4.2	Intercommunications failure
1.4.4	Component failures
1.4.7	Software failure
5.1	Functional test
5.2	Duration test
5.2.2	Timing accuracy
5.3.2.2	Testing alternate luminaires
5.3.3.4	Limited duration test
7.1	General

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

iTeh STANDARD PREVIEW reconfirmed,

replaced by a revised edition, or

amended.

SIST EN 62034:2012

-6-

INTRODUCTION

Emergency lighting systems are a safety related product; their correct performance can only be assured by systematic testing and maintenance. Conventional techniques for testing are reliant upon manual testing procedures, and are highly susceptible to neglect. These limitations of conventional techniques can be overcome by automating the testing process. It is essential that automatic testing systems for emergency luminaires schedule tests reliably, and provide timely notification of failures or degradation of performance.

Automatic test systems (ATS) will still require manual intervention to correct faults when they are identified, and procedures should be put in place for such intervention. These systems provide information to assist users to manage risk on their premises.

Automatic test systems for emergency escape lighting assist the operator of the building by showing the results of tests that will have been made at prescribed intervals, without disrupting any other electrical services. It is essential that the notification of failures or reduction in performance be given at the earliest opportunity to enable the emergency escape system to be restored to full operation.

The automatic test system will provide those responsible for an emergency lighting installation with information to enable them to ensure that the installed luminaires operate correctly when required.

The automatic test system may be part of a building management system (BMS) for making the emergency lighting tests, this standard would only apply to the emergency lighting testing part of a BMS.

(standards.iteh.ai)

A visual check of system components and indicators should be included in the routine of safety staff. This check should be made regularly to ensure that the emergency luminaire is present and intact, with lamps and indicators working and visible i.e. not obscured, covered or painted.