

Safety requirements for secondary batteries and  
battery installations - Part 2: Stationary batteries

## EESTI STANDARDI EESSÕNA

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English Version

**Safety requirements for secondary batteries and battery  
installations - Part 2: Stationary batteries  
(IEC 62485-2:2010)**

Exigences de sécurité pour les batteries d'accumulateurs et  
les installations de batteries - Partie 2: Batteries  
stationnaires  
(IEC 62485-2:2010)

Sicherheitsanforderungen an Sekundär-Batterien und  
Batterieanlagen - Teil 2: Stationäre Batterien  
(IEC 62485-2:2010)

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## European foreword

This document (EN IEC 62485-2:2018) consists of the text of IEC 62485-2:2010 prepared by IEC/TC 21 "Secondary cells and batteries".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2019-04-09  
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2021-04-09

This document supersedes EN 50272-2:2001.

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.

## Endorsement notice

The text of the International Standard IEC 62485-2:2010 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 60065	NOTE Harmonized as EN 60065.
IEC 60079-10-1:2008	NOTE Harmonized as EN 60079-10-1:2009 (not modified).
IEC 60364-1	NOTE Harmonized as HD 60364-1.
IEC 60364-4-42	NOTE Harmonized as HD 60364-4-42.
IEC 60364-5-54	NOTE Harmonized as HD 60364-5-54.
IEC 60364-7-706	NOTE Harmonized as EN 60364-7-706.
IEC 60950-1	NOTE Harmonized as EN 60950-1.
IEC 60990	NOTE Harmonized as EN 60990.

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60364-4-41	-	Low-voltage electrical installations -- Part 4-41: Protection for safety - Protection against electric shock	HD 60364-4-41	-
IEC 60364-4-43	-	Low voltage electrical installations -- Part 4-43: Protection for safety - Protection against overcurrent	HD 60364-4-43	-
IEC 60364-5-53	-	Electrical installations of buildings -- Part 5-53: Selection and erection of electrical equipment - Isolation, switching and control		-
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
-	-		+ corrigendum May 1993	
IEC 60622	2002	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Sealed nickel-cadmium prismatic rechargeable single cells	EN 60622	2003
IEC 60623	2001	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Vented nickel-cadmium prismatic rechargeable single cells	EN 60623	2001
IEC 60664-1	-	Insulation coordination for equipment within low-voltage systems -- Part 1: Principles, requirements and tests	EN 60664-1	-
IEC 60896-11	2002	Stationary lead-acid batteries -- Part 11: Vented types - General requirements and methods of tests	EN 60896-11	2003
IEC 60896-21	2004	Stationary lead-acid batteries -- Part 21: Valve regulated types - Methods of test	EN 60896-21	2004
IEC 60896-22	2004	Stationary lead-acid batteries -- Part 22: Valve regulated types - Requirements	EN 60896-22	2004
IEC 60900	-	Live working - Hand tools for use up to 1 000 V a.c. and 1 500 V d.c.	EN 60900	-
IEC 61140	-	Protection against electric shock - Common aspects for installation and equipment	EN 61140	-
IEC 61340-4-1	-	Electrostatics -- Part 4-1: Standard test methods for specific applications - Electrical resistance of floor coverings and installed floors	EN 61340-4-1	-

IEC 61660-1	-	Short-circuit currents in d.c. auxiliary installations in power plants and substations -- Part 1: Calculation of short-circuit currents	EN 61660-1	-
IEC 61660-2	-	Short-circuit currents in d.c. auxiliary installations in power plants and substations -- Part 2: Calculation of effects	EN 61660-2	-
IEC 62259	2003	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Nickel-cadmium prismatic secondary single cells with partial gas recombination	EN 62259	2004
ISO 3864	series	Graphical symbols - Safety colours and safety signs	-	-
IEC/TR 60755	-	General requirements for residual current operated protective devices	-	-

## CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions .....	8
4 Protection against electric shock.....	10
4.1 General .....	10
4.2 Protection against direct contact .....	11
4.3 Protection against indirect contact .....	11
4.3.1 Protection by automatic disconnection of supply.....	12
4.3.2 Protection by use of class II equipment or by equivalent insulation .....	16
4.3.3 Protection by electrical separation.....	16
4.4 Protection against both direct and indirect contact.....	16
4.4.1 General .....	16
4.4.2 Protection by Safety Extra Low Voltage (SELV) or by Protective Extra Low Voltage (PELV).....	16
4.4.3 Protection by Functional Extra Low Voltage (FELV) without protective separation .....	17
5 Disconnection and separation .....	17
6 Prevention of short circuits and protection from other effects of electric current.....	17
6.1 General .....	17
6.2 Short-circuits .....	18
6.3 Protective measures during maintenance.....	18
6.4 Leakage currents.....	19
7 Provisions against explosion hazards.....	19
7.1 Gas generation .....	19
7.2 Ventilation requirements .....	19
7.3 Natural ventilation.....	21
7.4 Forced ventilation .....	22
7.5 Charging modes .....	22
7.6 Overcharging under fault conditions.....	22
7.7 Close vicinity to the battery .....	22
7.8 Prevention of electrostatic discharges when working with batteries.....	23
8 Provision against electrolyte hazard .....	23
8.1 Electrolyte and water .....	23
8.2 Protective clothing .....	23
8.3 Accidental contact and "First Aid".....	23
8.3.1 General .....	23
8.3.2 Eye contact.....	24
8.3.3 Skin contact.....	24
8.4 Battery accessories and maintenance tools.....	24
9 Accommodation, housing .....	24
9.1 General .....	24
9.2 Specific requirements for separate battery rooms.....	24
9.3 Specific requirements for the specially separated areas in rooms accommodating electrical equipment .....	25

9.4	Battery enclosures .....	25
9.5	Working on or near batteries .....	26
9.5.1	Working distances within battery rooms .....	26
9.5.2	Remarks on special work in battery rooms .....	26
9.6	Accommodation of lead-acid and NiCd batteries in the same room .....	26
10	Charge current requirements .....	26
10.1	Superimposed ripple current .....	26
10.2	Maximum ripple current .....	27
11	Identification labels, warning notices and instructions for use, installation and maintenance .....	27
11.1	Warning labels and notices in rooms .....	27
11.2	Identification labels or marking on cells and monobloc batteries .....	27
11.3	Instructions for use, installation and maintenance .....	28
12	Transportation, storage, disposal and environmental aspects .....	28
12.1	Packing and transport .....	28
12.2	Dismantling, disposal, and recycling of batteries .....	28
13	Inspection and monitoring .....	28
	Annex A (informative) Charging methods and modes of operation .....	30
	Annex B (informative) Calculation of safety distance $d$ to protect against explosion hazards .....	34
	Bibliography .....	37
	Figure 1 – TN system with separate protective conductor (PE) in the entire system (TN-S network) .....	13
	Figure 2 – TN system with functional earthing and protective (FPE, PEN) combined with an external line conductor (TN-C system) .....	13
	Figure 3 – TT system .....	14
	Figure 4 – IT system .....	15
	Figure 5 – Converters with intermediate DC circuit (IT-system) (Example) .....	15
	Figure A.1 – Parallel operation mode circuit .....	30
	Figure A.2 – Battery charge current interlaced with frequent temporary discharge events due to a load current exceeding the current supply capability .....	31
	Figure A.3 – Response mode operation circuit .....	32
	Figure A.4 – IU- or CC-CV charge profile .....	32
	Figure A.5 – Time dependant profile of current $I$ and voltage $U$ .....	32
	Figure B.1 – Safety distance $d$ as a function of the rated capacity for various charge currents $I$ (mA/Ah) .....	36
	Table 1 – Values for current $I$ when charging with IU- or U-charging profiles (see also Annex A) .....	21
	Table 2 – Recommended upper limits of AC ripple current flowing through the battery as $I_{\text{eff}}$ per 100 Ah rated battery capacity .....	27
	Table A.1 – Float charge voltages for lead-acid and NiCd batteries .....	30
	Table A.2 – Typical charge voltage levels at 20 °C .....	33



## INTRODUCTION

The described safety requirements comprise the protective measures to protect from hazards generated by the electricity, the electrolyte, and the explosive gases when using secondary batteries. In addition measures are described to maintain the functional safety of batteries and battery installations.

For the electrical safety (protection against electric shock) under Clause 4, this standard refers to IEC 60364-4-41. The pilot function of this standard is fully observed by indication of cross-reference numbers of the relevant clauses, but interpretation is given where adoption to direct current (DC) circuits is required.

This safety standard comes into force with the date of publication and applies to all new batteries and battery installations. Previous installations are intended to conform to the existing national standards at the time of installation. In case of redesign of old installations this standard applies.

Valve-regulated lead-acid batteries used in stationary battery installations are intended to fulfil safety requirements in accordance to IEC 60896-21 and IEC 60896-22.