MADALPINGELISED ELEKTRIPAIGALDISED. OSA 8-2: TOOTEVTARBIJATE MADALPINGELISED ELEKTRIPAIGALDISED

Low-voltage electrical installations - Part 8-2: Prosumer's low-voltage electrical installations (IEC 60364-8-2:2018)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-HD 60364-8-2:2019 +A11+A12:2021 sisaldab Euroopa standardi HD 60364-8-2:2019 ja selle muudatuste A11:2019 ja A12:2021 ingliskeelset teksti.	This Estonian standard EVS-HD 60364-8-2:2019 +A11+A12:2021 consists of the English text of the European standard HD 60364-8-2:2019 and its amendments A11:2019 and A12:2021
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.11.2018, muudatused A11 02.08.2019 ja A12 03.09.2021.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. Date of Availability of the European standard is 23.11.2018, for A11 02.08.2019 and A12 03.09.2021.
Sellesse standardisse on muudatus A11 sisse viidud ja tehtud muudatused tähistatud püst-kriipsuga lehe välisveerisel. Muudatusega A12 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega [A12] [A12]. Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The amendment A11 has been incorporated into this standard and changes have been marked by a vertical line on the outer row of the page. The start and finish of text introduced or altered by amendment A12 is indicated in the text by tags [A12] [A12]. The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.140.50

HARMONIZATION DOCUMENT

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

HD 60364-8-2 + A11 + A12

November 2018, August 2019, September 2021

ICS 91.140.50

English Version

Low-voltage electrical installations - Part 8-2: Prosumer's low-voltage electrical installations (IEC 60364-8-2:2018)

Installations électriques à basse tension - Partie 8-2: Installations électriques à basse tension du prosommateur (IEC 60364-8-2:2018)

Errichten von Niederspannungsanlagen - Teil 8-2: Kombinierte Erzeugungs-/Verbrauchsanlagen (IEC 60364-8-2:2018)

This Harmonization Document was approved by CENELEC on 2018-11-14. Amendment A11 was approved by CENELEC on 2018-09-13. Amendment A12 was approved by CENELEC on 2021-07-07. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document and its amendments at national level.

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This Harmonization Document and its Amendments A11 and A121 exist in three official versions (English, French, German).

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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

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European foreword

The text of document 64/2298/FDIS, future edition 1 of IEC 60364-8-2, prepared by IEC/TC 64 "Electrical installations and protection against electric shock" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as HD 60364-8-2:2018.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-08-14
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The text of the International Standard IEC 60364-8-2:2018 was approved by CENELEC as a European Standard without any modification.

HD 60364-8-2:2018/A11:2019 European foreword

This document (HD 60364-8-2:2018/A11:2019) has been prepared by CLC/TC 64 "Electrical installations and protection against electric shock".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-02-02
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A12 Amendment A12 European foreword

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IEC 60364-8-2:2018-10(en-fr)

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LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 8-2: Prosumer's low-voltage electrical installations

FOREWORD

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International Standard IEC 60364-8-2 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
64/2298/FDIS	64/2335/RVD

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

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

A list of all parts in the IEC 60364 series, published under the general title *Low-voltage electrical installations*, can be found on the IEC website.

The reader's attention is drawn to the fact that Annex E lists all of the “in-some-country” clauses on differing practices of a less permanent nature relating to the subject of this standard.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

Historically, utilities were managing the public transmission and distribution network from the point of view of having a central production adapted to demand variation, a top-down energy flow, a production/consumption balance done by integrated utility companies and with rather passive users.

The following key factors are pushing the public electricity network to change:

- the increasing number of electronic devices used daily and the growing needs as well as future needs (e.g. charging electric vehicles) will result in the structural growing of electricity consumption;
- the mediated pressure on climate change results in pressure on CO_2 emissions reduction;
- the electricity market is also quickly changing due mainly to its unbundling and deregulation, and to the greater number of intermittent renewable energy sources (global and local);
- users' expectations are also evolving as a result of an increasing need for better public networks reliability and quality, the search for better economic performance and the willingness to pro-actively manage their energy;
- technological evolution should also be considered as information and communication technology (ICT) is affordable and new energy storage solutions are emerging.

All stakeholders directly involved in the electricity generation, transmission, distribution and consumption have new expectations:

- customers are willing to reduce electrical energy costs in order to meet environment targets (renewable energy, energy efficiency) but also wish to benefit from the quality of electricity supply;
- suppliers wish to limit customer churn rate with price and service management;
- producers expect to maximize their yield of assets, to optimize their investments and to take profit from energy trading;
- the aggregator wants to create conditions suitable for new market emergence;
- the transmission system operator (TSO) aspires to a robust transmission public network and to meet regulation objectives (price and level of services), while the distribution system operator (DSO) wants to meet regulation objectives (price and level of services), to reduce costs by productivity (including meter) and to have a flexible network;
- finally, governments and regulators are willing to create a competitive and sustainable energy market.

The objective of this document is to ensure that the low-voltage electrical installation is compatible with the current and future ways to deliver safely and functionally the electrical energy to current-using equipment either from the public network or from other local sources. This document is not intended to influence all stakeholders of electricity supply on how the electrical energy should be sold and delivered.

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 8-2: Prosumer's low-voltage electrical installations

1 Scope

This part of IEC 60364 provides additional requirements, measures and recommendations for design, erection and verification of all types of low-voltage electrical installation according to IEC 60364-1:2005, Clause 11, including local production and/or storage of energy in order to ensure compatibility with the existing and future ways to deliver electrical energy to current-using equipment or to the public network by means of local sources. Such electrical installations are designated as prosumer's electrical installations (PEIs).

This document also provides requirements for proper behaviour and actions of PEIs in order to efficiently obtain sustainable and safe operations of these installations when integrated into smart grids.

These requirements and recommendations apply, within the scope of IEC 60364 (all parts), for new installations and modification of existing installations.

NOTE Electrical sources for safety services including associated electrical installations and standby electrical supply systems for a secure continuity of supply, which are operated only occasionally and for short periods (e.g. monthly one hour) in parallel with the distribution grid for testing purposes, are outside the scope of this document.

2 Normative references

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.

IEC 60364-4-41:2005, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*
IEC 60364-4-41/AMD1:2017

IEC 60364-4-43:2008, *Low-voltage electrical installations – Part 4-43: Protection for safety – Protection against overcurrent*

IEC 60364-5-53:2001, *Electrical installations of buildings – Part 5-53: Selection and erection of electrical equipment – Isolation, switching and control*
IEC 60364-5-53:2001/AMD1:2002
IEC 60364-5-53:2001/AMD2:2015

IEC 60364-5-55:2011, *Electrical installations of buildings – Part 5-55: Selection and erection of electrical equipment – Other equipment*
IEC 60364-5-55:2011/AMD1:2012
IEC 60364-5-55:2011/AMD2:2016

IEC 60364-7-712, *Low-voltage electrical installations – Part 7-712: Requirements for special installations or locations – Solar photovoltaic (PV) power supply systems*

IEC 60364-8-1:2014, *Low-voltage electrical installations – Part 8-1: Energy efficiency*