



SLOVENSKI STANDARD SIST HD 60364-8-82:2025

01-september-2025

Nadomešča:

SIST HD 60364-8-2:2019

SIST HD 60364-8-2:2019/A11:2019

SIST HD 60364-8-2:2019/A12:2021

**Nizkonapetostne električne inštalacije - 8-82. del: Funkcionalni vidiki -
Nizkonapetostne električne inštalacije proizvajalca-odjemalca (IEC 60364-8-
82:2022)**

Low-voltage electrical installations - Part 8-82: Functional aspects - Prosumer's low-voltage electrical installations (IEC 60364-8-82:2022)

Errichten von Niederspannungsanlagen - Teil 8-82: Funktionale Aspekte - Kombinierte Erzeugungs-/Verbrauchsanlagen (IEC 60364-8-82:2022)

Installations électriques à basse tension - Partie 8-82: Aspects fonctionnels - Installations électriques à basse tension du prosommateur (IEC 60364-8-82:2022)

Ta slovenski standard je istoveten z: HD 60364-8-82:2025

ICS:

91.140.50 Sistemi za oskrbo z elektriko Electricity supply systems

SIST HD 60364-8-82:2025

en

HARMONIZATION DOCUMENT

HD 60364-8-82

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

July 2025

ICS 91.140.50

Supersedes HD 60364-8-2:2018; HD 60364-8-2:2018/A11:2019; HD 60364-8-2:2018/A12:2021

English Version

Low-voltage electrical installations - Part 8-82: Functional aspects - Prosumer's low-voltage electrical installations (IEC 60364-8-82:2022)

Installations électriques à basse tension - Partie 8-82:
Aspects fonctionnels - Installations électriques à basse
tension du prosommateur
(IEC 60364-8-82:2022)

Errichten von Niederspannungsanlagen - Teil 8-82:
Funktionale Aspekte - Kombinierte Erzeugungs-
/Verbrauchsanlagen
(IEC 60364-8-82:2022)

This Harmonization Document was approved by CENELEC on 2022-11-24. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document at national level.

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

This Harmonization Document exists in three official versions (English, French, German).

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

[SIST HD 60364-8-82:2025](https://standards.iteh.ai/catalog/standards/sist/8a142441-c9d3-4023-b893-097671dc350e/sist-hd-60364-8-82-2025)

<https://standards.iteh.ai/catalog/standards/sist/8a142441-c9d3-4023-b893-097671dc350e/sist-hd-60364-8-82-2025>



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

HD 60364-8-82:2025 (E)**European foreword**

The text of document 64/2559/FDIS, future edition 1 of IEC 60364-8-82, 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 60364-8-82:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2026-07-31 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2028-07-31 document have to be withdrawn

This document supersedes HD 60364-8-2:2018 and all of its amendments and corrigenda (if any).

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.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60364-8-82:2022 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 standard indicated:

IEC 60364-1:2005	NOTE Approved as HD 60364-1:2008 + A11:2017
IEC 60364-4-44:2007	NOTE Approved as HD 60364-4-442:2012
IEC 60364-8-1:2019	NOTE Approved as HD 60364-8-1:2019 (not modified)
IEC 60947-3	NOTE Approved as EN IEC 60947-3
IEC 60947-6-1	NOTE Approved as EN 60947-6-1
IEC 62933-1:2018	NOTE Approved as EN IEC 62933-1:2018 (not modified)



IEC 60364-8-82

Edition 1.0 2022-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Low-voltage electrical installations –
Part 8-82: Functional aspects – Prosumer's low-voltage electrical installations**

**Installations électriques à basse tension –
Partie 8-82: Aspects fonctionnels – Installations électriques à basse tension du
prosommateur**

SIST HD 60364-8-82:2025

<https://standards.itech.ai/catalog/standards/sist/8a142441-c9d3-4023-b893-097671dc350e/sist-hd-60364-8-82-2025>

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 91.140.50

ISBN 978-2-8322-3942-1

**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

FOREWORD.....	5
INTRODUCTION.....	7
82.1 Scope	8
82.2 Normative references.....	8
82.3 Terms and definitions.....	9
82.4 Integration of PEI in its environment	12
82.4.1 Main objectives.....	12
82.4.2 Safety.....	12
82.4.3 Proper functioning	12
82.5 PEI concept	13
82.6 Types of PEI	16
82.6.1 General	16
82.6.2 Operating modes	16
82.6.3 Interaction with the distribution network.....	17
82.7 Control and monitoring.....	24
82.7.1 General	24
82.7.2 Architecture of control and monitoring system	25
82.8 Protection of prosumer electrical installation.....	25
82.8.1 General	25
82.8.2 Protection against electric shock	25
82.8.3 Protection against thermal effect	41
82.8.4 Protection against overcurrent.....	41
82.8.5 Protection against transient overvoltages	45
82.9 Isolation and switching.....	46
82.9.1 Isolation	46
82.9.2 Emergency switching-off.....	46
82.10 Load and source management.....	46
82.10.1 Energy storage	46
82.10.2 Design for flexibility of load and generators (demand/response)	46
82.10.3 Electric vehicle	46
Annex A (informative) Operating modes of PEI	47
A.1 Direct feeding mode	47
A.2 Island mode.....	47
A.3 Reverse feeding mode.....	48
Annex B (informative) Interaction with the supply system.....	50
B.1 General	50
B.2 Active power and frequency control	50
B.3 Reactive power and voltage control	50
B.4 Load shedding programme	50
Annex C (informative) Architectures of PEI	51
C.1 General	51
C.2 Architecture of individual PEI.....	51
C.3 Architecture of collective PEI	52
C.4 Architecture of shared PEI.....	57
Annex D (normative) Single dwelling or similar application islandable PEI	61

D.1	General	61
D.2	Type of system earthing	61
D.3	Connection of the local source.....	64
D.4	Fire switching-off.....	64
D.5	Switching device for islanding and system referencing conductor switching device	64
D.6	Labelling.....	64
D.7	Upgrading an existing single dwelling installation in islandable PEI	65
D.8	Initial verification	68
Annex E (informative) List of notes concerning certain countries.....		69
Bibliography.....		70

Figure 1 – Example of prosumer's low-voltage electrical installation with AC electrical distribution within the PEI	14
Figure 2 – Example of prosumer's low-voltage electrical installation with AC and DC electrical distribution within the PEI	15
Figure 3 – Example of grid connected PEI architecture	18
Figure 4 – Example of islandable PEI architecture	19
Figure 5 – Example of architecture of PEI connected to LV DSO operating in TN-C-S in connected mode and becoming TN-S in island mode	28
Figure 6 – Example of architecture of PEI connected to LV DSO operating in TNC-S in connected mode and in island mode	29
Figure 7 – Example of architecture of PEI connected to LV DSO with disconnection of the neutral, operating in TT in connected mode and becoming TN in island mode.....	30
Figure 8 – Example of PEI installation with neutral earthing on the HV/LV transformer side: TT in connected mode, TN in island mode (as one unique earthing arrangement in the installation)	32
Figure 9 – Example of PEI installation in TN-S with neutral permanently earthed on PEI side.....	34
Figure 10 – Example of PEI installation in TN-S with neutral permanently earthed on PEI side with RCD on the system referencing conductor	37
Figure 11 – Example of PEI in IT system in island mode	39
Figure 12 – Example of PEI in IT system in island mode with automatic disconnection of supply	40
Figure 13 – Example of double short-circuit protection for the same circuit	43
Figure 14 – Example of selectivity with various power supplies	44
Figure 15 – Potential selectivity issue with overcurrent protections	45
Figure A.1 – Example of electrical design of PEI operating in direct feeding mode	47
Figure A.2 – Example of electrical design of PEI operating in island mode.....	48
Figure A.3 – Example of electrical design of individual PEI operating in reverse feeding mode.....	49
Figure C.1 – Example of electrical design of individual PEI	51
Figure C.2 – Example of type of architecture of individual PEI	52
Figure C.3 – Example of electrical design of collective PEI using DSO distribution system.....	53
Figure C.4 – Example of electrical design of collective PEI using a distribution system within PEI	54
Figure C.5 – Example of electrical design of collective PEI with distribution system within PEI in parallel with DSO distribution system.....	55