ICS 27.010, 29.020 SLOVENSKÁ TECHNICKÁ NORMA Február 2026

STN	**Spínacie zariadenie referenčného vodiča systému**	**STN EN IEC 63445** 35 4195

System referencing conductor switching device

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/26

Obsahuje: EN IEC 63445:2025, IEC 63445:2025

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 63445

November 2025

ICS 27.015; 29.020

English Version

System referencing conductor switching device (IEC 63445:2025)

Appareil de connexion du conducteur de référence du système
(IEC 63445:2025)

Schalteinrichtungen für den Sternpunktverbindungsleiter
(IEC 63445:2025)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

European foreword

The text of document 23K/123/FDIS, future edition 1 of IEC 63445, prepared by SC 23K "Electrical Energy Efficiency products" of IEC/TC 23 "Electrical accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63445:2025.

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) 2026-10-31
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-10-31

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Endorsement notice

The text of the International Standard IEC 63445:2025 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 60364-8-82	NOTE	Approved as HD 60364-8-82
IEC 60364-8-82:2022	NOTE	Approved as HD 60364-8-82:2025 (not modified) +A11:2025
IEC 60715	NOTE	Approved as EN 60715
IEC 60364-4-41:2005	NOTE	Approved as HD 60364-4-41:2017 +A11:2017
IEC 60664-3	NOTE	Approved as EN 60664-3
IEC 60664-1:2020	NOTE	Approved as EN IEC 60664-1:2020 (not modified)
IEC 60664-1	NOTE	Approved as EN IEC 60664-1
IEC 61032	NOTE	Approved as EN 61032
IEC 60947-1:2020	NOTE	Approved as EN IEC 60947-1:2021 (not modified)
IEC 60947-3:2020	NOTE	Approved as EN IEC 60947-3:2021 (not modified)
IEC 60695-2-10	NOTE	Approved as EN IEC 60695-2-10
IEC 60695-2-11	NOTE	Approved as EN IEC 60695-2-11
IEC 60068-2-30:2005	NOTE	Approved as EN 60068-2-30:2005 (not modified)
IEC 60068-3-4:2023	NOTE	Approved as EN IEC 60068-3-4:2023 (not modified)
IEC 61000-4-11	NOTE	Approved as EN IEC 61000-4-11

IEC 61000-4-5	NOTE	Approved as EN 61000-4-5
IEC 61000-4-4	NOTE	Approved as EN 61000-4-4
IEC 61000-4-2	NOTE	Approved as EN IEC 61000-4-2
IEC 61000-4-3	NOTE	Approved as EN IEC 61000-4-3
IEC 61000-4-6	NOTE	Approved as EN IEC 61000-4-6
IEC 61000-4-8	NOTE	Approved as EN 61000-4-8
IEC 61000-6-1	NOTE	Approved as EN IEC 61000-6-1
IEC 60112	NOTE	Approved as EN IEC 60112

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.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60364-8-82	-	Low-voltage electrical installations - Part 8-82: Functional aspects - Prosumer's low-voltage electrical installations	HD 60364-8-82	-
IEC 61000-4-2	2008	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2	2009
IEC 61000-4-3	-	Electromagnetic compatibility (EMC) - Part 4-3 : Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN IEC 61000-4-3	-
IEC 61000-4-4	-	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4	-
IEC 61000-4-5	-	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	-
IEC 61000-4-6	-	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN IEC 61000-4-6	-
IEC 61000-4-11	-	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase	EN IEC 61000-4-11	-

IEC 63445

Edition 1.0 2025-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

System referencing conductor switching device

Appareil de connexion du conducteur de référence du système

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IEC 63445:2025-09(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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System referencing conductor switching device

FOREWORD

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IEC 63445 has been prepared by subcommittee SC 23K: *Electrical Energy Efficiency products*, of IEC technical committee 23: *Electrical accessories*. It is an International Standard.

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

Draft	Report on voting
23K/123/FDIS	23K/127/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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

– reconfirmed,
– withdrawn, or
– revised.

INTRODUCTION

IEC 60364-8-82 [1] has the objective to ensure that the low-voltage electrical installation is compatible with the existing and future ways to deliver safely and functionally the electrical energy to current-using equipment wherever the electrical energy comes from the DSO or local generation. IEC 60364-8-82 [1] provides requirements and recommendations that apply to low-voltage electrical installations connected or not to a distribution network able to operate:

– with local power supplies, and/or
– with local storage units,

and that monitors and controls the energy from the locally connected sources delivering it to:

– current-using equipment, and/or
– local storage units, and/or
– distribution networks.

Such electrical installations are designated as Prosumer's electrical installations (PEIs (3.1)). To realize such a PEI (3.1) IEC 60364-8-82 [1] specifies some parts. In case of an islandable PEI (3.7) (principle overview out of IEC 60364-8-82:2022 [2]: Figure 1 - Example of islandable PEI (3.7) architecture) there is a System referencing conductor switching device (3.3) (SRCSD), identified as device 5 in Figure 1.

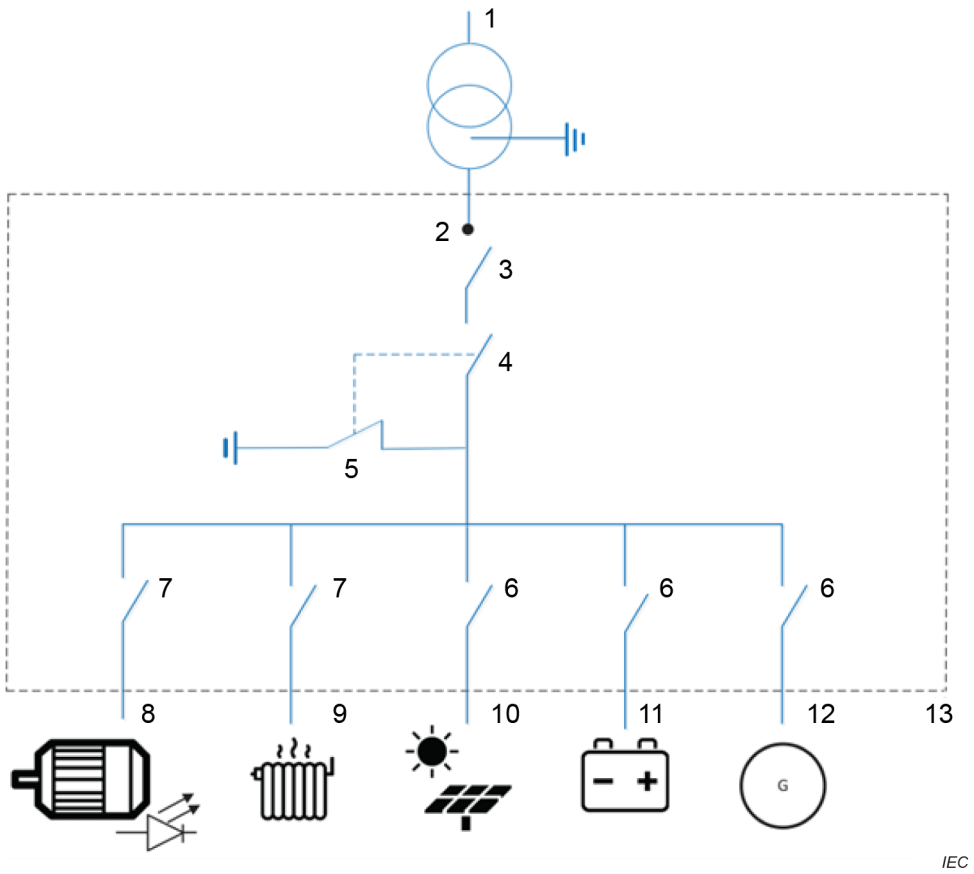

Figure 1 – Example of grid connected PEI architecture

The objective of this document is to define the functionality and requirements of a system referencing conductor (3.2) switching device (SRCSD (3.3)) which is in line with the specification given in IEC 60364-8-82 [1].

1 Scope

This document applies to system referencing conductor switching devices (3.3) (SRCSD) for household and similar uses within a Prosumer's electrical installations (PEI (3.1)).

The SRCSD (3.3) provides functions as described in IEC 60364-8-82:2022 [2], 82.8.2.2.4.

PEI (3.1) intended for operating by either being connected to a distribution network or disconnected from the distribution network is an islandable PEI (3.7).

Intentional disconnection from and connection to the distribution network relies on the local earthing system being switched by the SRCSD (3.3). In addition, unintentional loss of distribution network is covered.

The SRCSD (3.3) is a single pole device intended to connect one live conductor of the power system to an earthing arrangement.

In general the neutral conductor is earthed.

Switching the SRCSD (3.3) can change the local type of system earthing if types of system earthing are different in island and grid connected modes.

The system referencing conductor switching device (3.3) (SRCSD) is interlocked with the switching device for islanding (3.4) (SDFI) of a Prosumer electrical installation.

SRCSD (3.3) can be integrated in a device with other functions e.g.. with a SDFI (3.4).

NOTE 1 See also IEC 60364-8-82 [1].

This document applies to SRCSD (3.3) for rated voltages not exceeding 440 V AC with rated frequencies of 50 Hz, 60 Hz or 50/60 Hz.

NOTE 2 SRCSD (3.3) for DC operations is under consideration.

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 60364-8-82, *Low-voltage electrical installations - Part 8-82: Functional aspects - Prosumer's low-voltage electrical installations*

IEC 61000-4-2:2008, *Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test*

IEC 61000-4-3, *Electromagnetic compatibility (EMC) - Part 4-3 : Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test*

IEC 61000-4-4, *Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test*

IEC 61000-4-5, *Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test*

IEC 61000-4-6, *Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields*

IEC 61000-4-11, *Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase*