

<b>STN</b>	<b>Požiadavky na generátory určené na pripojenie paralelne s distribučnou sieťou Časť 1: Pripojenie na distribučnú sieť nízkeho napätia (LV) Generátory do typu B vrátane Zmena A1</b>	<b>STN EN 50549-1/A1</b>  33 0123
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Requirements for generating plants to be connected in parallel with distribution networks - Part 1: Connection to a LV distribution network - Generating plants up to and including Type B

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. 12/23

STN EN 50549-1 z júla 2019 sa bez tejto zmeny A1 môže používať do 21. 9. 2026.

Obsahuje: EN 50549-1:2019/A1:2023

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Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024  
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

EUROPEAN STANDARD

**EN 50549-1:2019/A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2023

ICS 29.160.20

English Version

Requirements for generating plants to be connected in parallel  
with distribution networks - Part 1: Connection to a LV  
distribution network - Generating plants up to and including  
Type B

Exigences relatives aux centrales électriques destinées à  
être raccordées en parallèle à des réseaux de distribution -  
Partie 1: Raccordement à un réseau de distribution BT -  
Centrales électriques jusqu'au Type B inclus

Anforderungen für zum Parallelbetrieb mit einem Verteilnetz  
vorgesehene Erzeugungsanlagen - Teil 1: Anschluss an  
das Niederspannungsverteilstromnetz - Erzeugungsanlagen bis  
einschließlich Typ B

This amendment A1 modifies the European Standard EN 50549-1:2019; it was approved by CENELEC on 2023-09-21. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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.

This amendment 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.

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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**

**EN 50549-1:2019/A1:2023 (E)**

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## European foreword

This document EN 50549-1:2019/A1:2023 has been prepared by TC 8X “System aspects of electrical energy supply”.

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) 2024-09-21
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2026-09-21

This document amends EN 50549-1:2019.

This amendment includes the following significant technical changes:

- Introduction of a phase jump immunity requirement.
- Harmonizing the ROCOF immunity requirement for synchronous and non-synchronous generating technology.
- Modifying FRT for type A from recommendation to requirement.
- Providing additional detail for EESS in case of overfrequency.

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.

**EN 50549-1:2019/A1:2023 (E)****1 Modification to Introduction**

*Replace item 8. with the following:*

**“8. Implementation of UVRT and LFSM-U to avoid legal conflict with RfG**

Under Voltage Ride Through (UVRT) requirements are defined in RfG for modules type B, type C and type D. There is no mentioning of this topic for type A modules.

Nevertheless, UVRT is seen as an important requirement in some member states even for small generation modules like type A.

NOTE At the time of writing, UVRT requirements for type A modules have been implemented in the following countries: Austria, Czech Republic, Germany, Portugal (for PGM of 15 kW and higher), Switzerland.

From a legal point of view there are two contradicting opinions on whether it is allowed or forbidden to require UVRT for type A modules.

- Opinion 1: It can be required because the topic is not dealt with for type A modules.
- Option 2: It cannot be required because the topic UVRT is dealt within the RfG. Not mentioning UVRT for type A in RfG therefore means that it cannot be required for type A modules.

TC8X WG03 adopts the view of ACER as expressed in “ACER Monitoring of the Implementation of the Grid Connection Network Codes” 11 November 2021 Item 3.3.4 #D where it states the German UVRT requirement for Type A as compliant with NC RfG.

This same explanation can be applied to the requirements regarding Limited Frequency Sensitive Mode - Underfrequency (LFSM-U). In RfG, this LFSM-U is solely defined for type C and type D modules. In EN 50549, LFSM-U is defined as a recommendation (should) for generating modules of type A and type B. The sole exception is electrical energy storage systems having a requirement (shall). These systems are currently not within the scope of the RfG.”

**2 Modification to Clause 2, “Normative references”**

*Add the following reference:*

EN 50549-10, *Requirements for generating plants to be connected in parallel with distribution networks - Part 10: Tests for conformity assessment of generating units*

*Delete the reference EN 60255-127.*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**