

STN	Elektromagnetická kompatibilita (EMC) Časť 4-27: Skúšobné a meracie techniky Nesymetria trojfázového napätia, skúška odolnosti zariadení so vstupným prúdom nepresahujúcim 16 A na fázu Zmena A2	STN EN 61000-4-27/A2 33 3432
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Electromagnetic compatibility (EMC) - Part 4-27: Testing and measurement techniques - Unbalance, immunity test for equipment with input current not exceeding 16 A per phase

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. 03/26

STN EN 61000-4-27 zo septembra 2002 sa bez tejto zmeny A2 môže používať do 30. 11. 2028.

Obsahuje: EN 61000-4-27:2000/A2:2025, IEC 61000-4-27:2000/AMD2:2025

142170



EUROPEAN STANDARD

EN 61000-4-27:2000/A2

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2025

ICS 33.100.20

English Version

Electromagnetic compatibility (EMC) - Part 4-27: Testing and measurement techniques - Unbalance, immunity test for equipment with input current not exceeding 16 A per phase (IEC 61000-4-27:2000/AMD2:2025)

Compatibilité électromagnétique (CEM) - Partie 4-27:
Techniques d'essai et de mesure - Essai d'immunité aux déséquilibres pour des matériels avec un courant appelé n'excédant pas 16 A par phase
(IEC 61000-4-27:2000/AMD2:2025)

Elektromagnetische Verträglichkeit (EMV) - Teil 4-27: Prüf- und Messverfahren - Prüfung der Störfestigkeit von Geräten mit einem Eingangsstrom, der 16 A je Leiter nicht überschreitet, gegen Unsymmetrie (der Versorgungsspannung)
(IEC 61000-4-27:2000/AMD2:2025)

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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 61000-4-27:2000/A2:2025 (E)**European foreword**

The text of document 77A/1236/CDV, future edition 1 of IEC 61000-4-27/AMD2, prepared by SC 77A "EMC - Low frequency phenomena" of IEC/TC 77 "Electromagnetic compatibility" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61000-4-27:2000/A2:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2026-11-30 level by publication of an identical national standard or by endorsement
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Endorsement notice

The text of the International Standard IEC 61000-4-27:2000/AMD2:2025 was approved by CENELEC as a European Standard without any modification.



IEC 61000-4-27

Edition 1.0 2025-09

INTERNATIONAL STANDARD

BASIC EMC PUBLICATION

AMENDMENT 2

**Electromagnetic compatibility (EMC) -
Part 4-27: Testing and measurement techniques - Unbalance, immunity test for
equipment with input current not exceeding 16 A per phase**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Electromagnetic compatibility (EMC) -
Part 4-27: Testing and measurement techniques - Unbalance, immunity
test for equipment with input current not exceeding 16 A per phase**

AMENDMENT 2**FOREWORD**

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Amendment 2 to IEC 61000-4-27:2000 has been prepared by subcommittee 77A: EMC – Low frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

The text of this Amendment is based on the following documents:

Draft	Report on voting
77A/1236/CDV	77A/1249/RVC

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

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The language used for the development of this Amendment 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

This amendment contains the following main changes in comparison with IEC 61000-4-27:2000/AMD1:2009:

The angles in Table 1 (test levels) suggest a three-phase system with a negative phase sequence while the intention is to have a positive phase sequence and thus the signs and values of all angles in Table 1 should be corrected. In addition, the value of ku_2 of class 2, test 3 is 28 % instead of 25 %. The Table 1 is modified accordingly

Class X is defined as special and levels 2 and 3 refers to Annex D instead of 61000-2-4.

U_N is deleted from Table 1, and it is moved to the new Clause 3 (Terms, definitions, and abbreviations). The definition 3.5 U_N nominal phase to neutral voltage is added.

In addition, the definition of rise and fall time is added (as in 61000-4-11:2020).

The text in Note 1 in Table 1 is deleted and replaced by “ U_b is lagging against U_a , and U_c is leading against U_a ”.

In Table 1 Add NOTE 2: The product committee may specify any test level; however, for equipment connected to public supply systems, it is recommended that the levels should not be lower than those defined for class 2.

The sentence under Table 1 becomes NOTE 2 in the Table 1.

Some changes are introduced also in Table 2 (Characteristics of the generator). Main changes:

- Modified output current capability which must be able to provide a crest factor of at least 3 when U_N applied to calibration load.
- Modified voltage rise time adding (from 10 % to 90 %)
- Modified phase shifting
- Modified phase accuracy (put 50 Hz or 60 Hz).

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In Clause 7 a sentence is added: The equipment under test (EUT) is set up at a steady mains voltage

In subclause 8.2 the last sentence “After each group of tests a full functional check shall be performed.” Is deleted. In addition, Figure 2 is simplified.

In Clause 10 updated Figures 1 and 2 are included.

A new informative Annex B is proposed which includes two different calculation methods:

- method 1 does not require complex or vector calculus.
- method 2 uses phasors and matrices but is more compact.

Both methods are mathematically equivalent.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN