



**SLOVENSKI STANDARD**  
**SIST EN IEC 61800-5-3:2024**

**01-april-2024**

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**Električni pogonski sistemi z nastavljivo hitrostjo - 5-3. del: Varnostne zahteve - Funkcionalne, električne in okoljske zahteve za kodirnike (IEC 61800-5-3:2021)**

Adjustable speed electrical power drive systems - Part 5-3: Safety requirements - Functional, electrical and environmental requirements for encoders (IEC 61800-5-3:2021)

Elektrische Leistungsantriebssysteme mit einstellbarer Drehzahl - Teil 5-3: Anforderungen an die Sicherheit von Encodern (Gebern) - Funktional, elektrisch und umwelttechnisch (IEC 61800-5-3:2021)

Entraînements électriques de puissance à vitesse variable - Partie 5-3: Exigences de sécurité - Exigences fonctionnelle, électrique et environnementale pour codeurs (IEC 61800-5-3:2021)

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Usmerniki. Pretvorniki.  
Stabilizirano električno  
napajanje

Rectifiers. Convertors.  
Stabilized power supply

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NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN IEC 61800-5-3**

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**Adjustable speed electrical power drive systems - Part 5-3:  
Safety requirements - Functional, electrical and environmental  
requirements for encoders  
(IEC 61800-5-3:2021)**

Entraînements électriques de puissance à vitesse variable -  
Partie 5-3: Exigences de sécurité - Exigences fonctionnelle,  
électrique et environnementale pour codeurs  
(IEC 61800-5-3:2021)

Elektrische Leistungsantriebssysteme mit einstellbarer  
Drehzahl - Teil 5-3: Anforderungen an die Sicherheit von  
Encodern (Gebern) - Funktional, elektrisch und  
umwelttechnisch  
(IEC 61800-5-3:2021)

This European Standard was approved by CENELEC on 2021-03-30. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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

**EN IEC 61800-5-3:2023 (E)****European foreword**

The text of document 22G/431/FDIS, future edition 1 of IEC 61800-5-3, prepared by SC 22G "Adjustable speed electric power drive systems (PDS)" of IEC/TC 22 "Power electronic systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61800-5-3:2023.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2024-04-20 level by publication of an identical national standard or by endorsement
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ISO 12100:2010	NOTE	Approved as EN ISO 12100:2010 (not modified)
IEC 61508 (series)	NOTE	Approved as EN 61508 (series)
IEC 61511 (series)	NOTE	Approved as EN 61511 (series)
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IEC 61709:2017	NOTE	Approved as EN 61709:2017 (not modified)
IEC 61508-4:2010	NOTE	Approved as EN 61508-4:2010 (not modified)
IEC 61508-6:2010	NOTE	Approved as EN 61508-6:2010 (not modified)

## 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](http://www.cencenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-1	-	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2-1	-
IEC 60068-2-47	-	Environmental testing - Part 2-47: Test - Mounting of specimens for vibration, impact and similar dynamic tests	EN 60068-2-47	-
IEC 60335-1	-	Household and similar electrical appliances - Safety - Part 1: General requirements	-	-
IEC 60947-5-2	2019	Low-voltage switchgear and controlgear - Part 5-2: Control circuit devices and switching elements - Proximity switches	EN IEC 60947-5-2	2020
-	-		+ A11	2022
IEC 61000-6-7	2014	Electromagnetic compatibility (EMC) - Part 6-7: Generic standards - Immunity requirements for equipment intended to perform functions in a safety-related system (functional safety) in industrial locations	EN 61000-6-7	2015
IEC 61508-2	2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems (see <a href="http://www.iec.ch/functionalsafety">http://www.iec.ch/functionalsafety</a> Functional Safety and IEC 61508)	EN 61508-2	2010
IEC 61800-1	1997	Adjustable speed electrical power drive systems - Part 1: General requirements - Rating specifications for low voltage adjustables speed d.c. power drive systems	EN 61800-1	1998
IEC 61800-5-1	2007	Adjustable speed electrical power drive systems - Part 5-1: Safety requirements - Electrical, thermal and energy	EN 61800-5-1	2007
+ A1	2016		+ A1	2017
-	-		+ A11	2021

**EN IEC 61800-5-3:2023 (E)**

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61800-5-2	2016	Adjustable speed electrical power drive systems - Part 5-2: Safety requirements - Functional	EN 61800-5-2	2017
IEC 62368-1	2018	Audio/video, information and communication technology equipment - Part 1: Safety requirements	EN IEC 62368-1	2020
ISO 13849-1	2015	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design	-	-
ISO 13849-2	2012	Safety of machinery - Safety-related parts of control systems - Part 2: Validation	EN ISO 13849-2	2012

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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



**Adjustable speed electrical power drive systems –  
Part 5-3: Safety requirements – Functional, electrical and environmental  
requirements for encoders**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ADJUSTABLE SPEED ELECTRICAL POWER DRIVE SYSTEMS –****Part 5-3: Safety requirements –  
Functional, electrical and environmental requirements for encoders**

## FOREWORD

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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.

Terms in *italics* are defined in Clause 3.

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