

**SLOVENSKI STANDARD  
SIST EN IEC 62439-3:2022****01-junij-2022****Nadomešča:****SIST EN IEC 62439-3:2018**

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**Industrijska komunikacijska omrežja - Omrežja za avtomatizacijo z visoko razpoložljivostjo - 3. del: Protokol vzporedne redundance (PRP) in brezprehodna zanka z visoko razpoložljivostjo (HSR) (IEC 62439-3:2021)**

Industrial communication networks - High availability automation networks - Part 3: Parallel Redundancy Protocol (PRP) and High-availability Seamless Redundancy (HSR) (IEC 62439-3:2021)

Industrielle Kommunikationsnetze - Hochverfügbare Automatisierungsnetze - Teil 3: Parallelredundanz-Protokoll (PRP) und nahtloser Hochverfügbarkeits-Ring (HSR) (IEC 62439-3:2021)

Réseaux de communication industriels Réseaux d'automatisme à haute disponibilité  
Partie 3: Protocole de redondance en parallèle (PRP) et redondance transparente de haute disponibilité (HSR) (IEC 62439-3:2021)

**Ta slovenski standard je istoveten z: EN IEC 62439-3:2022**

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**ICS:**

|           |   |  |
|-----------|---|--|
| 25.040.01 | Sistemi za avtomatizacijo v industriji na splošno | Industrial automation systems in general |
| 35.110    | Omreževanje                                       | Networking                               |

**SIST EN IEC 62439-3:2022****en,fr,de**

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SIST EN IEC 62439-3:2022

<https://standards.iteh.ai/catalog/standards/sist/4ba51387-9133-4b0b-aa0c-65401e394a19/sist-en-iec-62439-3-2022>

EUROPEAN STANDARD

EN IEC 62439-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2022

ICS 25.040.40; 35.100.05

Supersedes EN IEC 62439-3:2018 and all of its  
amendments and corrigenda (if any)

English Version

Industrial communication networks - High availability automation  
networks - Part 3: Parallel Redundancy Protocol (PRP) and  
High-availability Seamless Redundancy (HSR)  
(IEC 62439-3:2021)

Réseaux de communication industriels - Réseaux de haute  
disponibilité pour l'automatisation - Partie 3: Protocole de  
redondance en parallèle (PRP) et redondance transparente  
de haute disponibilité (HSR)  
(IEC 62439-3:2021)

Industrielle Kommunikationsnetze - Hochverfügbare  
Automatisierungsnetze - Teil 3: Parallelredundanz-Protokoll  
(PRP) und nahtloser Hochverfügbarkeits-Ring (HSR)  
(IEC 62439-3:2021)

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**EN IEC 62439-3:2022 (E)****European foreword**

The text of document 65C/1120/FDIS, future edition 4 of IEC 62439-3, prepared by SC 65C "Industrial networks" of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62439-3:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-10-19 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2025-01-19 document have to be withdrawn

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

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|                    |      |  |
|--------------------|------|--|
| IEC 61784-1        | NOTE | Harmonized as EN IEC 61784-1                     |
| IEC 61784-2        | NOTE | Harmonized as EN IEC 61784-2                     |
| IEC 61850 (series) | NOTE | Harmonized as EN 61850 (series)                  |
| IEC 61850-8-1      | NOTE | Harmonized as EN 61850-8-1                       |
| IEC 61850-9-2      | NOTE | Harmonized as EN 61850-9-2                       |
| IEC 62439-2        | NOTE | Harmonized as EN 62439-2                         |
| IEC 62439-3:2016   | NOTE | Harmonized as EN IEC 62439-3:2018 (not modified) |
| IEC 62439-4        | NOTE | Harmonized as EN 62439-4                         |
| IEC 62439-6        | NOTE | Harmonized as EN 62439-6                         |
| IEC 62439-7        | NOTE | Harmonized as EN 62439-7                         |

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

| <u>Publication</u>  | <u>Year</u> | <u>Title</u>   | <u>EN/HD</u> | <u>Year</u> |
|---------------------|-------------|--|--------------|-------------|
| IEC 60050-192       | -           | International Electrotechnical Vocabulary (IEV) - Part 192: Dependability  | -            | -           |
| IEC 61588           | 2021        | Precision Clock Synchronization Protocol for Networked Measurement and Control Systems   | -            | -           |
| IEC/TR 61850-90-4   | 2020        | Communication networks and systems for power utility automation - Part 90-4: Network engineering guidelines  | -            | -           |
| IEC 62439-1         | -           | Industrial communication networks - High availability automation networks - Part 1: General concepts and calculation methods                                   | EN 62439-1   | -           |
| ISO/IEC/IEEE 8802-3 | 2021        | Telecommunications and exchange between information technology systems - Requirements for local and metropolitan area networks - Part 3: Standard for Ethernet | -            | -           |
| IEC/IEEE 61850-9-3  | 2016        | Communication networks and systems for power utility automation - Part 9-3: Precision time protocol profile for power utility automation                       | -            | -           |
| IEEE 802.1Q         | 2018        | IEEE Standard for Local and metropolitan area networks – Bridges and Bridged Network   | -            | -           |
| IETF RFC 768        | -           | User Datagram Protocol (UDP) [online]. August 1980.  | -            | -           |
| IETF RFC 791        | -           | Internet Protocol (IP) [online]. September 1981.   | -            | -           |
| IETF RFC 792        | -           | Internet Control Message Protocol [online]. September 1981.  | -            | -           |

**EN IEC 62439-3:2022 (E)**

| <u>Publication</u> | <u>Year</u> | <u>Title</u>   | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|--|--------------|-------------|
| IETF RFC 793       | -           | Transmission Control Protocol [online]. September 1981.                        | -            | -           |
| IETF RFC 826       | -           | Ethernet Address Resolution Protocol [online]. November 1982.                  | -            | -           |
| IETF RFC 2578      | -           | Structure of Management Information Version 2 (SMIv2) [online]. April 1999.    | -            | -           |
| IETF RFC 3418      | -           | Structure of Management Information Version 2 (SMIv2) [online]. December 2002. | -            | -           |

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IEC 62439-3

Edition 4.0 2021-12

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



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**iTeh STANDARD**

**Industrial communication networks – High availability automation networks –  
Part 3: Parallel Redundancy Protocol (PRP) and High-availability Seamless  
Redundancy (HSR) (standards.iteh.ai)**

**Réseaux de communication industriels – Réseaux de haute disponibilité pour  
l'automatisation –  
Partie 3: Protocole de redondance en parallèle (PRP) et redondance  
transparente de haute disponibilité (HSR)**

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INTERNATIONALE

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ICS 25.040.40; 35.100.05

ISBN 978-2-8322-1059-5

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