
**Upravljanje elektroenergetskega sistema in pripadajoča izmenjava informacij -
Varnost podatkov in komunikacij - 9. del: Upravljanje računalniške varnosti
opreme napajalnih sistemov (IEC 62351-9:2023)**

Power systems management and associated information exchange - Data and
communications security - Part 9: Cyber security key management for power system
equipment (IEC 62351-9:2023)

Energiemanagementsysteme und zugehöriger Datenaustausch - IT-Sicherheit für Daten
und Kommunikation - Teil 9: Cyber security Schlüssel-Management für
Stromversorgungsanlagen (IEC 62351-9:2023)

Gestion des systèmes de puissance et échanges d'informations associés - Sécurité des
communications et des données - Partie 9: Gestion de clé de cybersécurité des
équipements de système de puissance (IEC 62351-9:2023)

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Gestion des systèmes de puissance et échanges
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Energiemanagementsysteme und zugehöriger
Datenaustausch - IT-Sicherheit für Daten und
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Management für Stromversorgungsanlagen
(IEC 62351-9:2023)

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EN IEC 62351-9:2023 (E)**European foreword**

The text of document 57/2579/FDIS, future edition 2 of IEC 62351-9, prepared by IEC/TC 57 "Power systems management and associated information exchange" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62351-9:2023.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2024-04-11 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2026-07-11 document have to be withdrawn

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

ISO/IEC 19790:2012	NOTE	Approved as EN ISO/IEC 19790:2020 (not modified)
IEC 62351-8	NOTE	Approved as EN IEC 62351-8
ISO/IEC 19790	NOTE	Approved as EN ISO/IEC 19790
IEC 62443-3-3	NOTE	Approved as EN IEC 62443-3-3
IEC 62443-4-2	NOTE	Approved as EN IEC 62443-4-2

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC/TS 62351-2	-	Power systems management and associated information exchange - Data and communications security - Part 2: Glossary of terms	-	-
IEC 62351-3	2023	Power systems management and associated information exchange - Data and communications security - Part 3: Communication network and system security - Profiles including TCP/IP	-	-
IEC 62351-4	-	Power systems management and associated information exchange - Data and communications security - Part 4: Profiles including MMS and derivatives	EN IEC 62351-4	-
IEC 62351-5	-	Power systems management and associated information exchange - Data and communications security - Part 5: Security for IEC 60870-5 and derivatives	EN IEC 62351-5	-
IEC 62351-6	-	Power systems management and associated information exchange - Data and communications security - Part 6: Security for IEC 61850	EN IEC 62351-6	-
IEC 62351-14	— ¹	Power systems management and associated information exchange - Data and communications security - Part 14: Cyber security event logging	-	-
ISO/IEC 9594-8	2020	Information technology - Open systems interconnection - Part 8: The Directory: Public-key and attribute certificate frameworks	-	-
ISO/IEC 9594-11	2020	Information technology - Open systems interconnection directory - Part 11: Protocol specifications for secure operations	-	-

¹ Under preparation. Stage at the time of publication: IEC/ACDV 62351-14:2023.

EN IEC 62351-9:2023 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 9834-1	2012	Information technology - Procedures for the operation of object identifier registration authorities: General procedures and top arcs of the international object identifier tree	-	-
IETF RFC 5272	-	Certificate Management over CMS (CMC)	-	-
IETF RFC 5755	-	An Internet Attribute Certificate Profile for Authorization	-	-
IETF RFC 5934	-	Trust Anchor Management Protocol (TAMP)	-	-
IETF RFC 6407	-	The Group Domain of Interpretation	-	-
IETF RFC 6960	-	X.509 - Internet Public Key Infrastructure Online Certificate Status Protocol - OCSP	-	-
IETF RFC 7030	-	Enrolment over Secure Transport	-	-
IETF RFC 8052	-	Group Domain of Interpretation (GDOI) Protocol Support for IEC 62351 Security	-	-
IETF RFC 8263	-	Group Domain of Interpretation (GDOI) GROUPKEY-PUSH Acknowledgement Message	-	-
IETF RFC 8894	-	Simple Certificate Enrolment Protocol	-	-

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**Power systems management and associated information exchange – Data and communications security –
Part 9: Cyber security key management for power system equipment**

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Sécurité des communications et des données –
Partie 9: Gestion de clé de cybersécurité des équipements de système de puissance**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**POWER SYSTEMS MANAGEMENT AND ASSOCIATED INFORMATION
EXCHANGE – DATA AND COMMUNICATIONS SECURITY –****Part 9: Cyber security key management for power system equipment**

FOREWORD

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This second edition cancels and replaces the first edition published in 2017. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Certificate components and verification of the certificate components have been added;
- b) GDOI has been updated to include findings from interop tests;
- c) GDOI operation considerations have been added;
- d) GDOI support for PTP (IEEE 1588) support has been added as specified by IEC/IEEE 61850-9-3 Power Profile;
- e) Cyber security event logging has been added as well as the mapping to IEC 62351-14;

- f) Annex B with background on utilized cryptographic algorithms and mechanisms has been added.

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

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