

TECHNICAL SPECIFICATION

Telecontrol equipment and systems –
Part 5-7: Transmission protocols – Security extensions to IEC 60870-5-101 and
IEC 60870-5-104 protocols (applying IEC 62351)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

TELECONTROL EQUIPMENT AND SYSTEMS –

**Part 5-7: Transmission protocols – Security extensions to
IEC 60870-5-101 and IEC 60870-5-104 protocols
(applying IEC 62351)**

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IEC TS 60870-5-7 has been prepared by IEC technical committee 57: Power systems management and associated information exchange. It is a Technical Specification.

This second edition cancels and replaces the first edition published in 2013. This edition constitutes a technical revision.

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

- a) This edition has been completely revised with respect to the previous edition;
- b) Alignment with updated versions of IEC 62351-3:2023 and IEC 62351-5:2023;
- c) Definition of specific profiles for application layer and transport layer;

- d) Introduction of Session Initiation Request to handle situations in which the called station reestablishes a connection;
- e) Inclusion of multicast security for the unbalanced mode of IEC 60870-5-101 including key management;
- f) Consideration of RBAC based on IEC 62351-8.

This Technical Specification is to be used in conjunction with IEC 62351-5:2023 and IEC 60870-5-104:2016.

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
57/2740/DTS	57/2762/RVDTS

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

The language used for the development of this Technical Specification 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.

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