SLOVENSKI STANDARD
SIST EN 50136-3:2014/A1:2021

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Alarmni sistemi - Sistemi in oprema za prenos alarma - 3. del: Zahteve za oddajnik sprejemnega centra (RCT) - Dopolnilo A1

Alarm systems - Alarm transmission systems and equipment - Part 3: Requirements for Receiving Centre Transceiver (RCT)

Alarmanlagen - Alarmübertragungsanlagen und -einrichtungen - Teil 3: Anforderungen an Übertragungszentralen (ÜZ)

Systèmes d'alarme - Systèmes et équipements de transmission d'alarme - Partie 3: Exigences pour les transmetteurs du centre de réception (RCT)

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English Version

Alarm systems - Alarm transmission systems and equipment - Part 3: Requirements for Receiving Centre Transceiver (RCT)

Systèmes d'alarme - Systèmes et équipements de transmission d'alarme - Partie 3: Exigences pour les transmetteurs du centre de réception (RCT)

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European Committee for Electrotechnical Standardization
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Contents

European foreword

This document (EN 50136-3:2013/A1:2021) has been prepared by CLC/TC 79, “Alarm systems”.

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2022-04-12
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2024-04-12

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

1 Modification to Clause 2, “Normative references”

Replace the normative reference EN 50136-1:2012 as follows:

"EN 50136-1:2012[1], Alarm systems - Alarm transmission systems and equipment - Part 1: General requirements for alarm transmission systems"

2 Modification to Clause 4, “Object”

Replace the existing text with the following:

“This document specifies the minimum equipment requirements for the performance, reliability, resilience, security and safety characteristics of the Receiving Centre Transceiver (RCT) installed in alarm receiving centres and/or in a secure location, and to define parameters that shall be tested to ensure its compatibility with ATS categories.”

3 Modifications to Clause 6, “Functional requirement”

In 6.2, replace the 7th paragraph with:

“Where it is possible to attempt to gain access more than 3 times in a 60-s period the RCT shall have the ability to delay repeated attempts. After the third attempt, each further attempt shall be prevented for a minimum of 90 s. This should be recorded in the RCT and a notification should be sent to the ATSP.

This kind of behaviour should be considered as an attempted hacking.”

In 6.5, replace the 1st paragraph with:

“For compliance to the relevant standards of the application, the RCT shall monitor ATP and ATS. Failures shall be reported to the AMS as defined in EN 50136-1:2012[1], 6.6, Table 4 and made available to the ATSP.”

Replace the title of 6.6 from “Interface(s) to the AE(s)” *to* “Interface(s) to the AMS(s)”.

In 6.6, replace the 2nd paragraph with:

“The manufacturer shall state in their product documentation the specifications of the interface(s) to the I_{RCT} (AMS) and how the fault signal is presented and logged.”

In 6.7, replace the entire subclause with the following:

“The RCT shall have a means to signal faults when any of the following faults occur:

— transmission link failure between RCT (or RCT-A for hosted solution) and AMS (I_{RCT});

  It may not be possible to signal this failure to the AMS over a failed link.

— in case of hosted solution, transmission link failure between RCT-H and RCT-A;

— transmission network interfaces between RCT (or for hosted solution RCT-H) and SPT (for example encryption issue);

— internal RCT system failure including time deviation after the commissioning.

The manufacturer shall specify in the RCT documentation how these faults are signalled to the AMS and to the ATSP. The manufacturer shall describe how this can be tested.”

[1] As impacted by EN 50136-1:2012/A1:2018.

In 6.8, replace the 3rd paragraph:

"The event log may be stored outside of the RCT." *with:* "The event log archives may be stored outside of the RCT."

4 Modifications to Clause 7, "Tests"

For every subclauses in 7.3, replace all the references of "AE" *to* "AMS".

In 7.3.1, replace the 4th paragraph:

"All AE interfaces shall be tested." *with:* "All AMS interfaces shall be tested."

In 7.3.1, replace the entire Table 3 with the following:

*"***Table 3 — Summary of functional tests**

Section reference	Requirement to test	Test/validation objective	Validate or test
6.1	Processing of alarm signals	Demonstrate the ability of the RCT to receive, process and forward a signal or message from the ATS.	Test (7.3.9)
6.2	Access levels	Demonstrate that all access levels exist.	Test (7.3.2)
6.3	Upload and download of software	Demonstrate that the RCT will recover after an unsuccessful software upload/download.	Test (7.3.3)
6.4	Storage of parameters and customer specific data	Demonstrate that the RCT will not lose any parameters or customer specific data after a reset or power cycle.	Test (7.3.4)
6.5a	Notification of an ATS failure for a single path ATS	Demonstrate that the RCT signals an ATS failure to the AMS as defined in EN 50136-1:2012[1], Table 4.	Test (7.3.5)
6.5b	Notification of an ATS failure for a dual path ATS	Demonstrate that the RCT signals an ATS failure to the AMS as defined in EN 50136-1:2012[1], Table 4.	Test (7.3.6)
6.6	Interface(s) to the AMS(s)	Demonstrate that the interface(s) to the AMS(s) are monitored.	Test (7.3.7)
6.7	Fault signalling	Demonstrate that faults are signalled according to the manufacturer RCT documentation.	Test (7.3.8)
6.8a	Event recording	Demonstrate that all mandatory events are recorded as required in Table 2.	Test (7.3.10)
6.8b	Clock resolution and synchronisation	Demonstrate that the accuracy of the timestamps as attached to events in the log complies with the requirements of 6.9.	Test (7.3.11)

Section reference	Requirement to test	Test/validation objective	Validate or test
6.8c	Endurance of the log	Verify that the manufacturer documentation specifies how 3-year endurance of log entries is achieved.	Validate (7.3.12)
6.8d	Optimizing methods of storage of events	(only if implemented) Demonstrate that event storage by grouping them as described in 6.9 is implemented and compliant with the requirements.	Test (7.3.13)
6.8e	User identification of log entries	Demonstrate that user identification for log entries is logged according to the requirements of Table 2.	Test (7.3.14)
6.9	Mode of operation	Demonstrate that the implemented modes of operation comply with the requirements of 6.10.	Test (7.3.15)
6.10	Denial of service	Verify the manufacturer RCT documentation.	Validate (7.3.16)
6.11	Information security	Verify the manufacturer declaration how information security is implemented and complies with the requirements of this section.	Validate (7.3.17)
6.12	Substitution security	Verify the manufacturer declaration how substitution security is implemented and complies with the requirements of this section.	Validate (7.3.17)
6.13	RCT Redundancy	Verify where a RCT can be used in a Dual Path ATS configuration a failure of one RCT shall not compromise the ATS according to EN 50136-1:2012[1], Table 1.	Test (7.3.18)
6.14	Documentation	Verify the manufacturer documentation against the requirements of 6.14.	Validate (7.3.19)
6.15	Marking/identification	Verify the marking and identification against the requirements of 6.15.	Validate

"

In 7.3.5, replace the entire subclause with the following:

"a) Object of the test:

Demonstrate that the RCT signals an ATS failure to the AMS as defined in EN 50136-1:2012[1], Table 4.

b) Principle:

The tests consists of configuring a SPT for the reporting time of every single path category supported by the RCT. Connecting the SPT to the RCT via a transmission network. Disabling the SPT and

recording that the ATS failure is reported to the AMS within the maximum reporting time for each single path category.

c) Test conditions:

Fully operational SPT connected via a network to the RCT.

d) Test procedure:

Disable the SPT by powering off the SPT.

e) Measurement:

Record the ATS failure transmitted to the AMS.

f) Pass criteria:

An ATS failure shall be transmitted to the AMS within the maximum ATS reporting time. Optionally an ATP failure may be transmitted to the AMS."

In 7.3.6, replace the entire subclause with the following:

"a) Object of the test:

Demonstrate that the RCT signals an ATS failure to the AMS as defined in EN 50136-1:2012[1], Table 4.

b) Principle:

The test consists of configuring a SPT for the reporting time of every dual path category supported by the RCT. Connecting the SPT to the RCT via two diverse technology transmission networks. Disabling the SPT and recording that the ATS failure is reported to the AMS within the maximum ATS reporting time for each dual path category.

c) Test conditions:

Fully operational SPT connected via two diverse technology networks to the network interfaces of the RCT.

d) Test procedure:

Disable the SPT by powering off the SPT.

e) Measurement:

Record the ATS failure transmitted to the AMS.

f) Pass criteria:

An ATS failure shall be transmitted to the AMS within the maximum ATS reporting time. Optionally ATP failures may be transmitted to the AMS."

In 7.3.7, replace the entire subclause with the following:

"7.3.7 Interface(s) to the AMS

a) Object of the test:

The principle of this test is to prove that the interface to the AMS complies with the requirements of 6.6.

b) Principle:

The test consists of commissioning the RCT and connecting it to the AMS according to the user manual provided by the manufacturer.

Table 7 — Test of interface(s) to the AMS(s)

STEP	Test condition (c)	Test Procedure (d)	Measurement (e)	Pass criteria (f)
1	The RCT and any necessary equipment to allow the RCT to perform as required shall be installed and in a functional state.	Connect RCT to AMS as specified in the product documentation.	Record whether interconnecting RCT with AMS is in line with documentation.	The interface between AMS and RCT is operational (i.e. communication established).
2	As above	Disconnect AMS interface.	Record the time till an AMS failure is indicated at the RCT.	The time shall be according to the requirements in 6.6.

"

In 7.3.8, replace the entire subclause with:

"a) Object of the test:

The object of this test is to prove that the fault signalling complies with the requirements of 6.7.

b) Principle:

The test consists of triggering various faults and monitoring if the faults are signalled from the RCT to the AMS.

Table 8 — Fault signalling

STEP	Test condition (c)	Test Procedure (d)	Measurement (e)	Pass criteria (f)
1	General condition: The RCT is connected to the AMS. The ATS is fully operational and configured for any ATS category.	Trigger an ATS fault.	Monitor if an ATS failure is reported to the AMS.	An ATS failure shall be reported to the AMS.
2	As above Test only if ATP fault reporting is implemented.	Trigger an ATP fault	Monitor if an ATP failure is reported to the AMS.	An ATP failure shall be reported to the AMS.
3	As above	Trigger an AMS interface failure.	Monitor if an AMS failure is logged.	An AMS failure shall be signalled according to the manufacturer documentation.