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Technical Report

for

NFPA79 Listing

of the Central Module MSS 3RK3

Applicant

Siemens AG

Werner-von-Siemens-Str. 48

D-92224 Amberg

Germany

Manufacturer

Siemens AG

Werner-von-Siemens-Str. 48

D-92224 Amberg

Germany

Report no. SA84518T

Revision: 1.1, Date 2012-09-25

Test body

TÜV SÜD Rail GmbH

Rail Automation

D-80339 Munich



Revision history

Revision	Date	Author	Status	Modifications
1.0	2012-09-20	Thomas Kreten	Initial	-
1.1	2012-09-25	Thomas Kreten	Final	Update of received Documents

Table 1: Revision history

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1 Target of Evaluation (ToE)

Subject of the approval is the safety-related Central Module MSS 3RK3 listed in [D2] from Siemens AG according to NFPA 79. The Project No. related to this Technical Report was as follows: 717506433.

2 Purpose of the Document

This report presents the approval results related to an IEC 61508:2010 certified product. Therefore the assessment is restricted to the auxiliary requirements demanded by NFPA 79:2012. The underlying test documentation is listed in section 4, the regarded standard/s in section 3.

3 Basis of Testing

The regulations and guidelines which form the basis of the type testing are listed below.

No.	Standard	Title
[L1]	NFPA79:2012	Electrical Standard for Industrial Machinery

4 Documents provided for testing of MSS 3RK3

Following documents were provided by Siemens AG to be checked and evaluated by the test house.

No.	Title	Document-No./ File identifier	Revision	Date
[D1]	Zertifikat TÜV NORD	44 781 12 402674 000	-	2011-12-06
[D2]	Anlage 1 zum Zertifikat	44 781 12 402674 000 Annex1	1	2011-12-06
[D3]	EC-Declaration of Conformity	2868.06		2012-05-15
[D4]	Typenschild	Typschilder_MSS_ASIsafe _2012_05_10	-	2012-05-10
[D5]	Untersuchungsbericht Sinus-Vibrations- und Schocktest	Nr.: UB_E4965_B	-	2009-06-29

No.	Title	Document-No./ File identifier	Revision	Date
[D6]	SIRIUS 3RK3 MSS Zentralmodule	926 2535-40 DS 01		2012-04-20
[D7]	Sicherheitstechnik Modulares Sicherheitssystem 3RK3 Systemhandbuch · 06/2012	9262530-01 Rev 004	-	06/2012
[D8]	Umweltprüfbericht	Test Report No. 09025TEk	-	2009-05-13
[D9]	EMC measurements	11-E004181-BM-D01 MSS Advanced CE		2011-04-07
[D10]	EMC measurements	11-E004181-BM-C01 MSS Advanced Safe-ty		2011-04-07
[D11]	EMC measurements	10-E004181-BM-B01 Safety System (MSS)		2010-06-14
[D12]	EMC measurements	10-E004181-BM-A01 Safety System (MSS)		2010-06-14

Table 2: Documentation

5 Performance and result of tests

5.1 Test reports

Following test reports were issued by TÜV SÜD Rail GmbH or other accredited test laboratories.

No.	Title	Document-No./ File identifier	Revision	Date
[R1]	Technical Report	SA84518T	1.0	2012-09-07
[R2]	Checkliste NFPA79	Checklist NFPA 79_2012_MSS_ASIsafe_2 012_08.03	1.0	2012-08-06
[R3]	Review Report	Review_Report_NFPA79 Checklist.docx	1.1	2012-09-14

Table 3: Test results

5.2 Description of the assessment

Based on the Checklist for NFPA compliance ([R2]), TÜV SÜD Rail GmbH has assessed the test documents [D1] - [D12] for the Central Modules referenced in chapter 5.3.



Result:

The results and completeness of the tests performed and documented by the customer have been verified and compared with the requirements of [L1]. The necessary tests for an approval in accordance to [L1] have been performed and documented adequately.

5.3 Identification

Component	Order data (MLFB) and/or A PCB	Selection	Firmware-Version
3RK3 ASIsafe basic	3RK3121-xAC00	Central module	V1.00.0027
3RK3 ASIsafe extended	3RK3122-xAC00	Central module	V1.00.0027

Table 4: EuT type identification

6 Summary

The Central Modules referenced in chapter 5.3 comply with the relevant requirements of [L1], if the conditions and restrictions of the related user manuals are met.

Application specific requirements of [L1] which are not part of this assessment shall be regarded for the safety instrumented system on site.

i.V. Matthias Ramold
Reviewer

i.A. Thomas Kreten
Project Manager