

## Typprüfbescheinigung / Type Test Certificate

Erzeugnis / Product: **Contactors for use in Railway Applications**

Typ: **3TH42, 3TH43**  
Type:

Tech. Daten: **U<sub>e</sub> = 690V**  
Specification:

Hersteller: **Siemens AG**  
Manufacturer: **SI EP**

Art der Prüfung / Type of test: **Type Test in accordance with Railway Specification**

Prüfer / **SI EP R&D TC 3 1**  
Tested by: **SI EP R&D CP EMD**

Labor / **Testing Laboratory**  
Laboratory: **Siemens AG, Amberg**

Angewandte Prüfbestimmungen / Test specifications applied:  
**IEC 60077-2 Ed. 2.0 (2017-07)**

Durchgeführte Prüfungen / Tests conducted:  
**IEC 60077-2: Test Sequence III - Ability to withstand vibrations and shocks**

Prüfergebnis / Test results:  
**All requirements of the test specification according to long life tests, functional tests and shock tests regarding changes in operational state are met. For details of the shock tests regarding changes of the contact state see amendment A1.**

Bemerkungen / Remarks: **Issued: 1995-03-24**  
**Index a, dated 2021-09-17: Document reissued.**

*Walter Bogner*  
i.V.  
SI EP R&D TC 3 Mr. Bogner

Electronically  
signed by: Walter  
Bogner  
Date: Oct 7, 2021  
10:46 GMT+2

*Fritz Royer*  
i.V.  
SI EP R&D CP PMM Mr. Royer

Electronically  
signed by: Fritz  
Royer  
Date: Oct 7, 2021  
13:56 GMT+2

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**General**

**Type designation:** *3TH42, 3TH43*

**Manufacturer:** *Siemens AG, SI EP  
92220 Amberg, Werner-von-Siemens-Str. 48  
Germany*

**Production site:** *Siemens Electrical Apparatus Ltd. Suzhou  
No. 455 Zhujiang Road, New District, Suzhou, Jiangsu Province  
P.R. China*

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## Nomenclature breakdown

<u>3TH42</u>	<u>44</u>	<u>-0A</u>	<u>..</u>
I	II	III	IV

### **I. Basic type / Contactor relay**

3TH42 – 8 pole

3TH43 – 10 pole

### **II. Auxiliary contact arrangement**

From 10 up to 95 indicating 0 to 10 normally open contacts and 0 to 5 normally closed contacts, depending on the maximum number of poles, e.g.

10 - 10 NO contacts

55 - 5 NO and 5 NC contacts

91 - 9 NO and 1 NC contacts

### **III. Operating system and type of terminals**

-0A - AC operating system with screw terminals

-0B - DC operating system with screw terminals

-0H - AC operating system with screw terminals and varistor

-0L - DC operating system with screw terminals and varistor

-4B, 5K, 6B - DC operating system with screw terminals and integrated varistor

-3B - DC operating system with screw terminals and integrated bridge rectifier

-4K - DC operating system with screw terminals and integrated Z-diode

-3M, 4M - AC operating system with quick connect terminals and integrated varistor

-5M - DC operating system with quick connect terminals and integrated varistor

-5C, 6C - DC operating system with fork-type cable lug terminals

### **IV. Control supply voltage Us**

.. - 20V to 600V ac or 12V to 250V dc

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**Technical Data**

<b>IEC 60077-2 Test Sequence III, Vibration</b>
Long life test according to IEC 61373 part 9.1 Category 1 Class B
Functional random test according to IEC 61373 part 8.1 Category 1 Class B
<b>IEC 60077-2 Test Sequence III, Shock</b>
Shock test according to IEC 61373 part 10.5 Category 1 Class B
<b>IEC 60077-2 Test Sequence III, Verification of functional operation</b>
<b>IEC 60077-2 Test Sequence III, Verification of dielectric withstand</b>

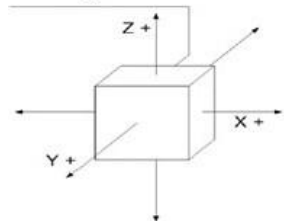
# SIEMENS

## Amendment 1

Certificate No.: 1950a

Axis designation:

Mounting area



	long life test according to: IEC 61373 part 9.1 Category 1 class B	functional test according to: IEC 61373 part 8.1 Category 1 class B	Shock according to: IEC 61373 part 10.5 Category 1 class B		
			"no change in operational state"	"no change in contact state" Aux. contacts NO	"no change in contact state" Aux. contacts NC
3TH42 AC 8 polig	passed	passed	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y
3TH42...-B.. DC 8 polig (geschraubt)	passed	passed	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X, Y, Z
3TH42...-B.. DC 8 polig (geschnappt)	passed	passed	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y
3TH42...-L.. DC 8 polig	passed	passed	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y *
3TH43 AC 10 polig (geschraubt)	passed	passed	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y
3TH43 AC 10 polig (geschnappt)	passed	passed	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y *
3TH43...-B.. DC 10 polig	passed	passed	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y
3TH43...-L.. DC 10 polig (geschraubt)	passed	passed	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y
3TH43...-L.. DC 10 polig (geschnappt)	passed	passed	50 m/s <sup>2</sup> : axis X, Y, Z	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y	50 m/s <sup>2</sup> : axis X,Z 30 m/s <sup>2</sup> : axis Y *

\* - Contact opening < 11ms at 30 m/s<sup>2</sup>