SIEMENS

Prüf-Nr./Q-Nr.: *Certificate No.:* **2644**

Dienststelle: *Department:* **A&D CD CC TS2 / Witlatschil**

Ort: *Place:* **Amberg** Tag: *Date:* **2004-01-20**

Anlagen: *Enclosures:* **Test Report Nr. 2644**

Prüfbescheinigung / *Test - Certificate*

Erzeugnis / *Product:* **Coupling Relay**

Typ: *Type:* **3RS1800**

Tech. Daten: *Specification:* **U_e = 24-240 V ac/dc; 50 Hz AC/ DC 12, DC 13, AC 15**

Hersteller: *Manufacturer:* **Siemens AG A&D CD CC**

Art der Prüfung / *Type of test:* **Type Test**

Prüfer / *Tested by:* **Mr. Kraus**

Labor / *Laboratory:* **Testing Laboratory Siemens AG A&D CD CC Amberg GWA**

Angewandte Prüfbestimmungen / *Test specifications applied*

IEC 60947-1: 1999-02 + Amendment 1: 2000-08 + Amendment 2: 2001-10
IEC 60947-5-1: 1997-10 + Amendment 1: 1999-04 + Amendment 2: 1999-10

Durchgeführte Prüfungen / *Tests conducted:*

Test Sequences I, II, III, IV and Appendix H.8.7

Prüfergebnis / *Test results:*

In accordance with the test specification.

Bemerkungen / *Remarks:* **Issued: 2004-01-20**

Unterschrift / *Signature*

Gegengezeichnet / *Released by:*

i.V. *A&D CD CC TS Mr. Walker*

i.V. *A&D CD CC TE Mr. Indefrey*

Part B1 - Tests conducted

Manufacturer: ***Siemens AG A&D CD Amberg***

Test device: ***Coupling relay***

Type: ***3RS1800***

Test specification: ***IEC 60947-5-1***

Test report No.: ***2644***

Test report No.: 2644

Test-sequence and sub-clause	**Test**	**Tested device**
IEC 60947-5-1 Test-sequence I 8.3.3.3 8.3.3.4 8.2.4	 Temperature-rise Dielectric properties Mechanical properties of terminals	 3RS1800-1HP00 3RS1800-1HW00
Test-sequence II 8.3.3.5.2 8.3.3.5.5 b)	 Making and breaking capacities of switching elements under normal conditions Dielectric properties see also Part B3	 3RS1800-1HP00 3RS1800-1HW00
Test-sequence III 8.3.3.5.3 8.3.3.5.5 b)	 Making and breaking capacities of switching elements under abnormal conditions Dielectric properties see also Part B3	 3RS1800-1HP00 3RS1800-1HW00 3RN1010-1CB00 3RN1013-1BW01 3RN1013-1BW10
Test-sequence IV 8.3.4 8.3.3.5.5 b)	 Performance under conditional short circuit current Dielectric properties	 3RS1800-1HP00 3RS1800-1HW00

Test report No.: 2644

Test-sequence and sub-clause	Test	Tested device
IEC 60947-5-1		
Appendix H.8.7	**Tested by EMV-Zentrum Siemens AG A&D ATS 6**	
H.8.7.1	Electrostatic discharge (ESD) withstandability	3RS1800-1BP00
H.8.7.2	Radiated electromagnetic field withstandability	3RS1800-1HW00
H.8.7.3	Electrical fast transient withstandability	
H.8.7.4	Impulse voltage withstandability	

The tests were carried out on devices, representative of the whole series, fixed on page 3

The tests were carried out in the ***Prüflaboratorium der Siemens AG A&D CD Amberg.***

Accredited-No.: ***DAT-P-026/9200***

Amberg, 2004-01-20
Location, Date

Signature

Part B2 - Nomenclature Breakdown

Series: 3RS1800

3RS18	00	-	1	A	Q	00
I	II		III	IV	V	VI

I	Basic type
3RS18	- Coupling Realy
II	Frame Size
00-	22,5 mm housing
III	Type of Terminals
1	-screw terminal
2	-cage clamp terminal
IV	Contacts
A – H	Relay output, diffeent contact arrangements
V	Operating Voltage:
Q – H	24 trough 240V ac or dc
VI	Identifikation
-..-	Suffix numbers and/or characters specifies commercial version

Part B3 - Test Summary

Test sequence II / III, 8.3.3.5.2 and 8.3.3.5.3 Making and breaking capacities

The internal output relay of the series 3RS1800 are identical with the internal output relay of the series 3RN10... Therefore some tests were made with thermistor motor protector 3RN10.

SIEMENS

Test Report No.: 2644

Test laboratory: Prüflaboratorium Siemens AG

Client: Siemens AG A&D CD CC TE2

Manufacturer: Siemens AG Amberg

Test object: Coupling relays

Type designation: 3RS1800

Test specification: IEC 60947-1 (1999-02) 3. edition
IEC 60 947-5-1 (1997-10) 2. edition

Test sequence(s): I, II, III, IV, appendix H.8.7

Test results: in accordance with the test specification

The record of proving test consists of:

25	pages LOVAG test report forms	--	oscillograms
--	other pages	--	drawings
--	diagrams	--	photographs

Date of issue: 16.01.2004

Responsible test laboratory

Signatures:

(Authorized representative)

Note:

The test result relates only to the items tested. The test report shall not be reproduced except in full without the written approval of the test laboratory.

Description and characteristics of the test object

Characteristics
Type of control circuit device or switching element: Coupling relay

Rated and limiting values:

Rated insulation voltage U_i	300	V
Rated impulse withstand voltage U_{imp}	4	kV
Conventional free air thermal current I_{th}	6	A
Rated frequency f	dc, 50/60	Hz
Overvoltage category	III	
Pollution degree	3	

Maximal cross-section	1x4 mm²	Minimal cross-section	0,5 mm²
-max. number of rigid conductors	2x2,5mm²	max. number of rigid conductors	2
-max. number of flexible conductors	2x1,5mm²	max. number of flexible conductors	2
Diameter of thread of screw	3,5 mm		
Tightening torque of screw	0,8-1,2 Nm		

Utilization category AC 15

Rated operational current	I_e / A	3			
Rated operational voltage	U_e / V	400			

Utilization category DC 13

Rated operational current	I_e / A	1	0,22	0,11	
Rated operational voltage	U_e / V	24	125	250	

Utilization category AC 12

Rated operational current	I_e / A	5			
Rated operational voltage	U_e / V	400			

Utilization category DC 12

Rated operational current	I_e / A	5	0,2	0,2	
Rated operational voltage	U_e / V	24	110	230	

Short-circuit protective device — Type Fuse Diazed gIgG; rating 4 A

Degree of protection — IP 40, terminal IP20

Isolating function — ~~yes~~ / no

Form letters of contact element — A, B, C