



Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

This certificate is issued to:

PRODUCER Siemens AG
GWA
Werner-von-Siemens-Strasse 48
92220 Amberg
Germany

DESCRIPTION SIRIUS Innovation – Circuit Breaker and accessories

TYPE Circuit breaker

3RV20	21	-4A	A	1	8	..
I	II	III	IV	V	VI	VII

I. Basic Type
 3RV20 – Circuit Breaker for motor protection
 3RV21 - Circuit Breaker for motor protection with overload function
 3RV23 - Circuit Breaker for starter combination
 3RV24 - Circuit Breaker for transformer protection

II. Size of terminal for main circuit
 11 – Up to 16 A, Size S00
 21 – up to 40 A, Size S0
 23 - only for setting ranges 12.5 up to 25 A, Size S0
 31 – from 14 A up to 80 A, standard short circuit breaking capacity, 65kA / 400V, Size S2
 32 – from 14 A up to 80 A, higher short circuit breaking capacity, 100kA / 400V Size S2

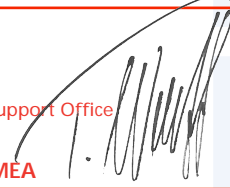
Certificate No. 11/20009 (E2)

Issue Date 17 June 2016

Expiry Date 02 March 2021


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LR031.1.2013.12



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TYPES CONTINUATION

III. Setting Ranges Suffix	From	to (A)	Size
-0A	0.11	0.16	S00, S0
-0B	0.14	0.2	S00, S0
-0C	0.18	0.25	S00, S0
-0D	0.22	0.32	S00, S0
-0E	0.28	0.4	S00, S0
-0F	0.35	0.5	S00, S0
-0G	0.45	0.63	S00, S0
-0H	0.55	0.8	S00, S0
-0J	0.7	1	S00, S0
-0K	0.9	1.25	S00, S0
-1A	1.1	1.6	S00, S0
-1B	1.4	2	S00, S0
-1C	1.8	2.5	S00, S0
-1D	2.2	3.2	S00, S0
-1E	2.8	4	S00, S0
-1F	3.5	5	S00, S0
-1G	4.5	6.3	S00, S0
-1H	5.5	8	S00, S0
-1J	7	10	S00, S0
-1K	9	12.5	S00, S0
-4S	9.5	14	S2
-4A	10	16	S00, S0, S2
-4T	12	17	S2
-4B	13	20	S0, S2
-4C	16	22	S0
-4D	18	25	S0, S2
-4N	23	28	S0
-4E	27	32	S0
-4E	22	32	S2
-4P	30	36	S0
-4P	28	36	S2

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TYPES CONTINUATION

III. Setting Ranges Suffix	From	to (A)	Size
-4U	32	40	S2
-4F	34	40	S0
-4F	28	40	S2
-4V	35	45	S2
-4G	36	45	S2
-4H	40	50	S2
-4W	42	52	S2
-4Q	47	57	S2
-4X	49	59	S2
-4J	54	65	S2
-4K	62	73	S2
-4R	70	80	S2

IV. Tripping Class

A - setting ranges with instantaneous tripping and overload tripping
Class 10

B - setting ranges with instantaneous tripping and overload tripping
Class 20(only up to 65A)

C - with instantaneous tripping and without overload tripping

V. Type of Terminals

- 1 - Screw Terminal
- 2 - spring terminals (only up to 32A)
- 4 - Ring lug terminals (only up to 32A)

VI. Auxiliary Switches

(Combinations with certified accessories Type 3RV29...)

- 0 – without
- 1 - 1NO + 1NC, side mounted
- 2 - 2NO, side mounted
- 3 - 2NC, side mounted

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TYPES CONTINUATION

4 - 1NO/NC Changeover, top mounted
5 - 1NO + 1NC, top mounted
6 - 2NO, top mounted

VII. Others

.. - Manufacturer's identification

Circuit Breaker according UL489

3RV2721	-0A	D	1	0
I	II	III	IV	V

I. Basic type



3RV2711 - circuit Breaker acc. UL489, adjusted to 13 times rated current up to 15 A
3RV2811 - circuit Breaker acc. UL489, adjusted to 20 times rated current up to 15 A
3RV2721 - circuit Breaker acc. UL489, adjusted to 13 times rated current from 20 A up to 22 A
3RV2821 - circuit Breaker acc. UL489, adjusted to 20 times rated current from 20 A up to 22 A

II. Rated Current

-0A - 0.16 A
-0B - 0.2 A
-0C - 0.25 A
-0D - 0.32 A
-0E - 0.4 A
-0F - 0.5 A
-0G - 0.63 A
-0H - 0.8 A
-0J - 1.0 A
-0K - 1.25 A

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TYPES CONTINUATION

- 1A - 1.6 A
- 1B - 2.0 A
- 1C - 2.5 A
- 1D - 3.2 A
- 1E - 4.0 A
- 1F - 5.0 A
- 1G - 6.3 A
- 1H - 8.0 A
- 1J - 10 A
- 1K - 12.5 A
- 4A - 15 A
- 4B - 20 A
- 4C - 22 A

III. Tripping Class

D - with instantaneous tripping and fixed current overload tripping

IV. Type of Terminal

1 - Screw Terminals

V. Auxiliary Switches

0 - without

Infeed system:

- 3RV2917-1A Infeed, left side with 2 sockets
- 3RV2917-1E Infeed, right side with 2 sockets
- 3RV2917-4A Expansion module with 2 sockets
- 3RV2917-4B Expansion module with 3 sockets
- 3RV2917-5CA00 Plug for 3RV2, Screw terminal Size S00
- 3RV2917-5AA00 Plug for 3RV2, Spring terminal Size S00
- 3RV1927-5AA00 Plug for 3RV2, Screw terminal Size S0
- 3RV2927-5AA00 Plug for 3RV2, Spring terminal Size S0
- 3RV2917-7AA00 Contactor Base for contactor 3RT2.1

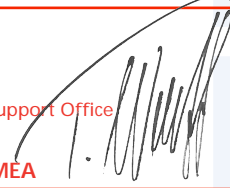

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TYPES CONTINUATION

3RV2927-7AA00 Contactor Base for contactor 3RT2.1 and 3RT2.2
3RV2917-5BA00 Extension plug
3RV2917-5E Broadened Extension plug
3RV2917-5D Terminal Block for integration of external components
3RV2917-6A End Cover

Accessories:

Auxiliary contacts:

3RV2901 -1 A
I II III

I - Basic type

3RV2901 - Auxiliary contact blocks for 3RV2
3RV2921 - Alarm switch for 3RV2

II - Type of terminals

- 1 - Screw Terminal
- 2 - Spring terminals
- 4 - Ring lug terminals

III - Contact arrangements

- A - 1NO + 1NC, side-mounting
- B - 2NO, side-mounting
- C - 2NC, side-mounting
- D - 1NO + 1NC changeover, top-mounting
- E - 1NO + 1NC, top-mounting
- F - 2NO, top-mounting
- G - 1NO + 1NC changeover, top-mounting, micro switch
- J - 2NO + 2NC, side-mounting
- M - 2NO + 2NC, side-mounting, alarm switch

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TYPES CONTINUATION

Undervoltage trip units, Shunt releases:

3RV2902	-1	A	B4
I	II	III	IV

I - Basic type

3RV2902 - Undervoltage trip units, Shunt releases for 3RV2

3RV2922 - Undervoltage trip unit with leading auxiliary contacts for 3RV2

II - Type of terminals

- 1 - Screw Terminal
- 2 - Spring terminals
- 4 - Ring lug terminals

III - Type of Accessory

- A - Undervoltage trip unit
- C - Undervoltage trip unit with leading auxiliary contacts
- D - Shunt trip unit

IV - Rated voltage for Undervoltage trip unit

- B4 - 24V, dc
- B0 - 24V, 50Hz
- F0 - 110V, 50Hz; 120V, 60Hz
- M1 - 208V, 60Hz
- P0 - 230V, 50Hz; 240V, 60Hz
- V0 - 400V, 50Hz; 440V, 60Hz
- V1 - 415V, 50Hz; 480V, 60Hz
- S0 - 500V, 50Hz; 600V, 60Hz
- G6 - 100V, 50 Hz; 110V, 60Hz
- N0 - 220V, 50Hz
- N6 - 200V, 50Hz; 220V, 60Hz
- Q0 - 380V, 50Hz
- U0 - 240V, 50Hz

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TYPES CONTINUATION

IV – Rated voltage for Shunt trip unit
B0 - 20-24V, 50/60Hz
F0 - 90-110V, 50/60Hz
P0 - 210-240V, 50/60Hz
V0 - 350-415V, 50/60Hz
S0 - 500V, 50/60Hz

3RV2928-1A Isolator Module, Size S00, S0
3RV2938-1A Isolator Module, Size S2
3RV2928-1K Type E Adapter for screw terminal, Size S00, S0
3RV2938-1K Type E Adapter for screw terminal, Size S2
3RV2908-0P Sealing Cap
3RV2901-0H Cover
3RV2928-4AA00 Cover for ring-lug-terminals (main terminals)
3RV2908-4AA10 Cover for ring-lug-terminals (auxiliary switch, top mounting)
3RV2928-0B Plug-in lugs for screw mounting
8US1251-5DS10 Adapter for SIRIUS Circuit breaker, Size S00, screw terminals, 200mm
8US1251-5DT10 Adapter for SIRIUS Circuit breaker, Size S00, screw terminals, 260mm
8US1251-5NT10 Adapter for SIRIUS Circuit breaker, Size S0, screw terminals, 260mm
8US1251-5DT11 Adapter for SIRIUS Circuit breaker Size S00, spring terminals, 260mm

8US1251-5NT11 Adapter for SIRIUS Circuit breaker Size S0, spring terminals, 260mm
8US1251-5DS11 Adapter for SIRIUS Circuit breaker Size S00, spring terminals, 200mm
8US1261-5MS13 Adapter for SIRIUS Circuit breaker, Size S2, screw terminals, 200mm

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TYPES CONTINUATION


- 8US1998-1DA10 Vibration & Shock Kit, Size S2
- 3RV2928-1H Terminal Block, Size S00, S0
- 3RV2925-5AB 3-phase Line-Side Terminal, Size S00, S0
- 3RV2925-5EB 3-phase Line-Side Terminal for Self-protected Motor Starter, Size S00, S0
- 3RV1915-1AB 3-phase busbar for 2 devices 45mm distance, Size S00, S0
- 3RV1915-1BB 3-phase busbar for 3 devices 45mm distance, Size S00, S0
- 3RV1915-1CB 3-phase busbar for 4 devices 45mm distance, Size S00, S0
- 3RV1915-1DB 3-phase busbar for 5 devices 45mm distance, Size S00, S0
- 3RV1915-2AB 3-phase busbar for 2 devices 55 mm distance, Size S00, S0
- 3RV1915 2BB 3-phase busbar for 3 devices 55 mm distance, Size S00, S0
- 3RV1915-2CB 3-phase busbar for 4 devices 55 mm distance, Size S00, S0
- 3RV1915-2DB 3-phase busbar for 5 devices 55 mm distance, Size S00, S0
- 3RV1915-3AB 3-phase busbar for 2 devices 63 mm distance, Size S00, S0
- 3RV1915-3CB 3-phase busbar for 4 devices 63 mm distance, Size S00, S0
- 3RV2915-5B 3-phase Line-Side Terminal, connection from below, Size S00, S0
- 3RV1915-6AB Cover for tags, Size S00, S0
- 3RV2935-5A 3-phase Line-Side Terminal, Size S2
- 3RV2935-5E 3-phase Line-Side Terminal for Self-protected Motor Starter, Size S2
- 3RV1935-1A 3-phase busbar for 2 devices 55mm distance, Size S2
- 3RV1935-1B 3-phase busbar for 3 devices 55mm distance, Size S2
- 3RV1935-1C 3-phase busbar for 4 devices 55mm distance, Size S2
- 3RV1935-3A 3-phase busbar for 2 devices 75 mm distance, Size S2
- 3RV1935-3B 3-phase busbar for 3 devices 75 mm distance, Size S2
- 3RV1935-3C 3-phase busbar for 4 devices 75 mm distance, Size S2
- 3RV1935-6A Cover for tags, Size S2

APPLICATION

Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 - 2013.

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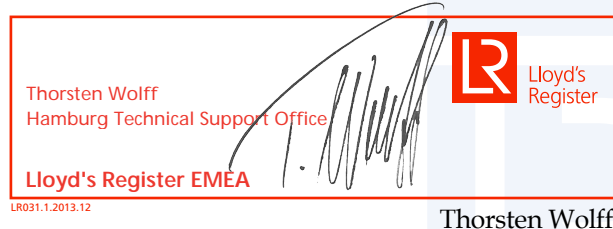
SPECIFIED STANDARDS	IEC 60947-2; ED 4.1: 2009-05 IEC 60947-4-1: 2009-09 IEC 60947-5-1, ED 3.1: 2009-07
OTHER CONDITIONS	Correction factor for ambient air temperature above 60° C (above 40°C for 36/40 A version, size S0) is to be obtained from manufacturer.
PLACES OF PRODUCTION	Siemens AG GWA Werner-von-Siemens-Strasse 48 92220 Amberg Germany Siemens San. Ve Tic. A.S Yakacik Cad. No:111 34870 34861 Kartal – Istanbul Turkey Siemens, s.r.o., odstěpny závod Nízkonapět'ová spínací technika Volanovská 516 541 01 Trutnov Czech Republic

The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

The Design Appraisal Document No. HTS/ETS 33767-16 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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