



Marine & Offshore

Certificate number: 25777/B0 BV

File number: ACE2/28/20

Product code: 2634H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to
Siemens AG - GWA
 Amberg - GERMANY

for the type of product
CONTACTORS (LOW VOLTAGE)
 SIRIUS 3RT2, 3RA23, 3RA24, 3RH2 and Accessories

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 31

IEC 60947-4-1:2012, IEC 60947-5-1:2009

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 30 Nov 2023

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 30 Nov 2018,

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

SIRIUS 3RT2, 3RA23, 3RA24 series are contactors and contactor combinations.

SIRIUS 3RH2 series are contactor relays.

SIRIUS 3RA27, 3RA28, 3RA29, 3RA69, 3RH29, 3RT19, 3RT29 and **3RV29** are accessories.

Main characteristics of **3RT2, 3RH2, 3RA23, 3RA24:**

Rated voltage: 690V AC- 50/60Hz

Rated Insulation voltage: $U_i = 690V$

Degree of protection: IP20

Type: **3RT2 a bb - c d ef g** (Utilization Category: AC-1, AC-2 and AC-3)

a = Device type

- 0 Motor contactor, 3NO main contacts
- 3 AC-1 contactor, 4NO main contacts
- 5 Reversing contactor, 2NO + 2NC main contacts

bb = Power of Contactor (AC-3, 400V)

15	3 kW (S00)	23	4 kW (S0)	35	18,5 kW (S2)
16	4 kW (S00)	24	5,5 kW (S0)	36	22 kW (S2)
17	5,5 kW (S00)	25	7,5 kW (S0)	37	30 kW (S2)
18	7,5 kW (S00)	26	11 kW (S0)	38	37kW (S2)
		27	15 kW (S0)		
		28	18,5 kW (S0)		

c = Type of Terminals

- 1 Screw terminal for main and auxiliary contacts
- 2 Spring terminal for main and auxiliary contacts
- 3 Screw Terminal for main and spring type terminals for auxiliary contacts (S2)
- 4 Ring lug terminals for main and auxiliary contacts

d = Operating system

A to Z Variations in AC and DC

ef = Operating voltage

e: A to Z and f: 0 to 9 12 to 250V DC or 24 to 600V AC

g = Auxiliary Contact Arrangements

0	non auxiliary contact (S00, S0)	
	1 NO + 1 NC (S2)	
1	1 NO (S00, S0)	4 2 NO + 2 NC
2	1 NC (S00, S0)	5 2 NO + 1 NC (S00)
3	1 NO + 1 NC (S00, S0)	6 3 NO + 2 NC (S00), 2 NO + 2 NC (S2)

Type: **3RH2 a b c - d e fg** (Rated Current: AC-15: 10A/230V, DC-13: 0.3A/220V)

a = Device type

- 1 4 pole
- 2 8 pole, not removable auxiliary contact block
- 3 8 pole, removable auxiliary contact block
- 4 Latched control relay

b = Contact arrangements for NO

0 to 8 0 to 8 NO

c = Contact arrangements for NC

0 to 8 0 to 8 NC

d = Terminal

- 1 Screw
- 2 Spring
- 4 Ring lug

e = Operating system

A to Z Variations in AC or DC

fg = Operating voltage

f: A to Z and g: 0 to 9 12 to 250V DC or 24 to 600V AC

Type: **3RA2 a bb - 8X c d e - f g hi**

a = Device Type

- 3 Reversing starter, basic contactor 3RT2
- 4 Star-delta starter, basic contactor 3RT2

bb = Basic contactor Type

for type: 3RA23		for type: 3RA24	
15	3RT2015	14	3RT2015, 3RT2015, 3RT2015
16	3RT2016	15	3RT2015, 3RT2015, 3RT2015
17	3RT2017	16	3RT2017, 3RT2017, 3RT2015
18	3RT2018	17	3RT2018, 3RT2018, 3RT2016
24	3RT2024	23	3RT2024, 3RT2024, 3RT2024
25	3RT2025	24	3RT2026, 3RT2026, 3RT2024
26	3RT2026	25	3RT2026, 3RT2026, 3RT2024
27	3RT2027	26	3RT2027, 3RT2027, 3RT2026
28	3RT2028	34	3RT2035, 3RT2035, 3RT2026 (S2)
35	3RT2035 (S2)	35	3RT2035, 3RT2035, 3RT2027 (S2)
36	3RT2036 (S2)	36	3RT2036, 3RT2036, 3RT2027 (S2)
37	3RT2037 (S2)	37	3RT2037, 3RT2037, 3RT2035 (S2)
38	3RT2038 (S2)		

8X Without overload relays

c = Type of mounting (for type 3RA23)

- A Without determination (not available for S2)
- B Direct mounting, air breaking contactor
- E Basic contactor with communication interface

c = Type of interface (for type 3RA24)

- E I/O Link module
- F Logic module
- H AS-I module

d = Type of locking mechanism

- 0 Without determination (3RA23)
- 1 With mechanical interlock (3RA23)
- 2 With electrical interlock (3RA23)
- 3 With mechanical and electrical interlock (only type available for S2)
- 4 With mechanical interlock inclusive wiring connectors (3RA23)

e = Auxiliary contact arrangements each device

0	non auxiliary contact, 1 NO (S2) (3RA23)	4	2 NO + 2 NC (3RA23)
1	1 NO	5	4 NC (3RA23)
2	1 NC (3RA23), 1 NO + 1 NC (S2)	6	1 NO + 1 NC (3RA23)
3	1 NO + 1 NC (3RA23)	7	3 NO + 1 NC (3RA23)

f = Terminals

- 1 Screw terminal (only type available for S2)
- 2 Spring terminal

g = Operating system

- A to Z Variations in AC and DC

hi = Operating voltage

- h: A to Z and i: 0 to 9 12 to 250V DC or 24 to 600V AC

Accessories:

3RA27..: AS-interface add-on module, IO-link add-on module, ...

3RA28..: Time-delay auxiliary switch, ...

3RA29..: Wiring connector, Serial connector, ...

3RA69..: Operator panel

3RH29..: Auxiliary switches, releases, ...

3RV29..: Feeder terminals, covers, ...

3RT19..: Pin adapters for contactors, ...

3RT29..: Time-delay devices, latching devices, surge suppressors, coil terminals, feeder terminals, ...

2. DOCUMENTS AND DRAWINGS:

- Catalogue: LV 1 N 11/2009
- Operating Instructions: A8E56203710010; A8E56303710010; A8E56203810010; A8E56303810010; A8E56203830010; A8E56303830010; A8E96801684000A; A8E96801686000A; A8E96801687000A; A8E96801704000A; A8E96801706000A; A8E96801508000; A8E96801746000A
- Drawings: A8E56200001000A; A8E56200002000A; A8E56200003000A; A8E56200011000A; A8E56200012000A; A8E56200013000A; A8E56200054000A; A8E56200201000A; A8E56200202000A; A8E56300000100A; A8E56300000300A; A8E56300001000A; A8E56300002000A; A8E56300003000A; A8E56300011000A; A8E56300012000A; A8E56300013000A; A8E56300201000A; A8E56300202000A; A8E96801500000A; A8E96801680000A; A8E96801700000A; A8E96801750000A
- For B0 version:
 - A5E03655126000A; A5E31867020000A; A5E33819463011A

3. TEST REPORTS:

- Siemens:
 - 2999e, 3000g dated 2016-05-31; 3001a dated 2012-07-31, 3002b dated 10-04-2013; 3064a dated 2015-01-28
 - 09053TMs dated 2010-07-28; 09057TMs dated 2010-07-27;
- EMCCons DR. RASEK:
 - 920440.1YCA dated 2009-05-05
- TÜV Süd:
 - 51968-081635-2 dated March 12, 2009; 51968-090056-1 dated April 23, 2009; 70218-02079-02 dated 18 Juni 2010
- For B0 version:
 - Siemens:
 - 3264 dated 2015-03-23; 3313 dated 2015-11-6; 14030ENV01 dated 2014-04-16
 - 15-E005673-BM- A02, 15-E005673-BM-B02 dated 2014/12/09

4. APPLICATION / LIMITATION:

- 4.1 - According to Bureau Veritas Rules for the Classification of Steel Ships.
- 4.2 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT** and **AUT-IMS**.
- 4.3 - Bureau Veritas Environmental Category, **EC Code: 31**

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The above mentioned products are to be supplied by **Siemens AG-GWA** in compliance with the type described in this certificate.
 - 5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
 - 5.3 - **Siemens AG- GWA** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.
- For: 3RT2, 3RA23, 3RA24, 3RH2, 3RT19, 3RT29, 3RV29

Siemens AG- GWA
Werner-von-Siemens-Str. 48
92220 AMBERG- GERMANY

For: 3RA27, 3RA28, 3RA29, 3RA69, 3RH29

Siemens AG, NST
Volanovská 516
541 01 Trutnov- CZECH REPUBLIC

- 5.4 - Each equipment is to be supplied with manual(s) for installation, use and maintenance.

6. MARKING OF PRODUCT:

- According to IEC 60947 specifications.

7. OTHERS:

- 7.1 - It is the responsibility of **Siemens AG-GWA** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
- 7.2 - This certificate supersedes the Type Approval Certificate 25777/A0 BV issued on 07 Nov 2011 by the Society.

*** END OF CERTIFICATE ***