



Marine & Offshore

Certificate number: 25739/B2 BV

File number: ACE10/720/4

Product code: 2652H

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

OVER-LOAD RELAYS OR RELEASES

SIRIUS 3RU21 and accessories

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 31

IEC 60947-4-1:2009+A1:2012 Edition 3.1, IEC 60947-5-1:2016 Edition 4.0

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: 04 Feb 2024

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 31 May 2021,

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 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

SIRIUS 3RU21 series are thermal overload relays and **3RT19/29**, **3RU19/29** and **3RV19/29** are accessories.

Main characteristics of **3RU21**:

Rated operational voltage/frequency	U _e = 690V AC-50/60Hz
Rated insulation voltage for sizes S00~S2:	U _i = 690V
Rated insulation voltage for size S3:	U _i = 1000V
Rated conditional short-circuit coordination types 1 / 2*	I _q = 690V/100kA

*using operating class gG fuse links. See equipment manuals for type and rating of short circuit protective devices during combination testing.

Type: **3RU21 aa - bb c d**

aa = Size of terminal for main circuit

16	Size 00 up to 16A (60°C)
26	Size 0 up to 40A (60°C)
36	Size S2 up to 80A (60°C)
46	Size S3 up to 100A (60°C)

bb = Setting Ranges

Size 00		Size 0	Size S2	Size S3
0A	0.11 to 0.16 A	1C 1.8 to 2.5A	1H 5.5 to 8A	4D 18 to 25A
0B	0.14 to 0.2A	1D 2.2 to 3.2A	1J 7 to 10A	4E 22 to 32A
0C	0.18 to 0.25A	1E 2.8 to 4A	1K 9 to 12.5A	4F 28 to 40A
0D	0.22 to 0.32A	1F 3.5 to 5A	4A 11 to 16A	4H 36 to 50A
0E	0.28 to 0.4A	1G 4.5 to 6.3A	4B 14 to 20A	4J 45 to 63A
0F	0.35 to 0.5A	1H 5.5 to 8A	4D 18 to 25A	4K 57 to 75A
0G	0.45 to 0.63A	1J 7 to 10A	4E 22 to 32A	4L 70 to 90A
0H	0.55 to 0.8A	1K 9 to 12.5A	4F 28 to 40A	4M 80 to 100A
0J	0.7 to 1A	4A 11 to 16A	4G 36 to 45A	
0K	0.9 to 1.25A	4B 14 to 20A	4H 40 to 50A	
1A	1.1 to 1.6A	4C 17 to 22A	4Q 47 to 57A	
1B	1.4 to 2A	4D 20 to 25A	4J 54 to 65A	
1C	1.8 to 2.5A	4N 23 to 28A	4K 62 to 73A	
1D	2.2 to 3.2A	4E 27 to 32A	4R 70 to 80A	
1E	2.8 to 4A	4P 30 to 36A		
1F	3.5 to 5A	4F 34 to 40A		
1G	4.5 to 6.3A			
1H	5.5 to 8A			
1J	7 to 10A			
1K	9 to 12.5A			
4A	11 to 16A			

c = Type of Terminals

	Size
B Screw terminal	S00/S0/S2/S3
C Spring terminals	S00/S0
D Main Circuit: Screw terminal	S2/S3
Aux. Circuit: Spring terminal	
J Ring lug terminals	S00/S0

d = Installation Type

0	Mounting onto contactor
1	Stand alone installation

Accessories:

3RU19..: Reset kits

3RU29..: Terminal brackets

3RT19.., 3RU19.., 3RV19.., 3RT29.., 3RU29.., 3RV29..: Covers

2. DOCUMENTS AND DRAWINGS:

- Catalogue: LV 1 N 11/2009
- Drawings: NEZ650200100000, NEZ650210100000 rev. 02 dated 08-12-16, NEZ650220100000, NEZ650230100000, NEZ650240100000, NEZ651200100000, NEZ651210100000, NEZ651220100000, NEZ651230100000, NEZ651240100000 rev. 02 dated 08-12-17
- Operating Instruction: GWA 4NEB 650 2020-10 DS 02 dated 22 February 2010
- For B0 version:
 - A5E03434679000A, A5E034346666000A, A5E03434777000A
 - IC 10-2016
- For B1 version:
 - Catalogue: IC 10 2020 E86060-K1010-A101-B1-7600
 - Specifications: SN27095:Edition 2006-09; List of used plastic material - Thermal overload relays dated 2018-10-17
 - Equipment under Test: 17dr003 v3.1 dated 2018-10-17
 - Routine Test instruction: NEA653014000000 revision 006
 - Drawings: A5E35332057000A revision AA
 - Declaration of conformity: 2962.10 dated 2019-11-12; 3344a dated 2019-04-16; 2995d dated 2019-04-16; 2996d dated 2019-04-16; 3208b dated 2019-04-16;
 - Manuals: A5E03656507420A/RS-AC/004 dated 12/2017; A8E56203880102A/RS-AB/006 dated 09/2017
 - Operating instructions: A5E35733929001A/RS-AA/001 dated 27/06/2016
 - Time-current characteristics: A5E35332057001B-02_AA dated 23.03.2016; A5E35332057002A-02_AA dated 10.12.2015; A5E35332057003A-02_AA dated 07.03.2016; A5E35332057004A-02_AA dated 07.03.2016; A5E35332057005A-02_AA dated 08.03.2016; A5E35332057006A-02_AA dated 08.03.2016; A5E35332057007A-02_AA dated 08.03.2016; A5E35332057008A-02_AA dated 08.03.2016

3. TEST REPORTS:**SIEMENS:**

- 09055TMs dated 2010-07-30
- Test Certificates: 2995c and 2996c dated 2016-08-02
- For B0 version :
 - Test Certificate: 3208 dated 2014-03-17; 15068ENV01 dated 2016-04-06
- For B1 version:
 - 15045ED04 dated 2018-02-14; 15077IR01 dated 2016-8-09; 15077IR02 dated 2016-08-09

4. APPLICATION / LIMITATION:

- 4.1 - According to BV 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**
- 4.4 - Equipment is to comply with the IEC 60947 editions currently in force at the date of contract for construction. Acceptance of previous versions of the standards is subject to acceptance on a case by case basis

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.

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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 N° 25739/B1 issued on 16 Sep 2020 by the Society.

*** END OF CERTIFICATE ***