



MARINE DIVISION

Certificate number: 10206/C0 BV

File number: ACE 10/726/01

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 - I IA CE**  
Amberg - GERMANY

*for the type of product*

### OVER-LOAD RELAYS OR RELEASES

Overload relays  
SIRIUS 3RU11

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships.  
IEC 60947-4-1, IEC 60947-5-1.

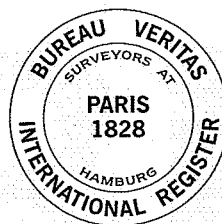
*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 04 Mar 2018**

For BUREAU VERITAS,

At BV HAMBURG, on 04 Mar 2013,

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. 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 Division 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 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.

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

SIRIUS 3RU11 are thermal overload relays and 3RU19 are accessories.

#### 1.1 - Main characteristics:

Rated Voltage: 690V AC-50Hz  
 Rated Insulation Voltage: 690V  
 Main connections: Screw terminals  
 Degree of protection: IP20

#### 1.2 - Versions:

Type: **3RU1116 - aa b c**

Overload relay, size S00;  
 with maximum rated current 12A

##### aa = Setting Ranges

0A - 0,11 - 0,16A	1A - 1,1...1,6A
0B - 0,14...0,2A	1B - 1,4...2A
0C - 0,18...0,25A	1C - 1,8...2,5A
0D - 0,22...0,32A	1D - 2,2...3,2A
0E - 0,28...0,4A	1E - 2,8...4A
0F - 0,35...0,5A	1F - 3,5...5A
0G - 0,45...0,63A	1G - 4,5...6,3A
0H - 0,55...0,8A	1H - 5,5...8A
0J - 0,7...1A	1J - 7...10A
0K - 0,9...1,25A	1K - 9...12A

##### b = Type of Terminals

B - Screw terminal  
 C - Cage clamp terminal

##### c = Mounting system

0 - mounting onto contactor  
 1 - stand alone installation

Type: **3RU1126 - aa b c**

Overload relay, size S0;  
 with maximum rated operational current 25A

##### aa = Setting Ranges

0A - 0,11 - 0,16A	1C - 1,8...2,5A
0B - 0,14...0,2A	1D - 2,2...3,2A
0C - 0,18...0,25A	1E - 2,8...4A
0D - 0,22...0,32A	1F - 3,5...5A
0E - 0,28...0,4A	1G - 4,5...6,3A
0F - 0,35...0,5A	1H - 5,5...8A
0G - 0,45...0,63A	1J - 7...10A
0H - 0,55...0,8A	1K - 9...12A
0J - 0,7...1A	4A - 11...16A
0K - 0,9...1,25A	4B - 14...20A
1A - 1,1...1,6A	4C - 17...22A
1B - 1,4...2A	4D - 20...25A

##### b = Type of Terminals

B - Screw terminal  
 D - Cage clamp terminal for aux. switch

##### c = Mounting system

0 - mounting onto contactor  
 1 - stand alone installation

Type: **3RU1136 - aa b c**

Overload relay, size S2;  
 with maximum rated operational current 50A

##### aa = Setting Ranges

0A - 0,11 - 0,16A	1E - 2,8...4A
0B - 0,14...0,2A	1F - 3,5...5A
0C - 0,18...0,25A	1G - 4,5...6,3A
0D - 0,22...0,32A	1H - 5,5...8A
0E - 0,28...0,4A	1J - 7...10A
0F - 0,35...0,5A	1K - 9...12A
0G - 0,45...0,63A	4A - 11...16A
0H - 0,55...0,8A	4B - 14...20A
0J - 0,7...1A	4C - 17...22A
0K - 0,9...1,25A	4D - 18...25A
1A - 1,1...1,6A	4E - 22...32A
1B - 1,4...2A	4F - 28...40A
1C - 1,8...2,5A	4G - 36...45A
1D - 2,2...3,2A	4H - 40...50A

##### b = Type of Terminals

B - Screw terminal  
 D - Cage clamp terminal for aux. contacts

##### c = Mounting system

0 - mounting onto contactor  
 1 - stand alone installation

Type: **3RU1146 - aa b c**

Overload relay, size S3;  
 with maximum rated operational current 100A

##### aa = Setting Ranges

4D - 18...25A	4J - 45...63A
4E - 22...32A	4K - 57...75A
4F - 28...40A	4L - 70...90A
4H - 36...50A	4M - 80...100A

##### b = Type of Terminals

B - Screw terminal  
 C - Cage clamp terminal for aux. contacts

##### c = Mounting system

0 - mounting onto contactor  
 1 - stand alone installation

#### 1.3 - Accessories:

3RU19...: e.g. remote reset

**2. DOCUMENTS AND DRAWINGS:**

- Catalogue ref: E86060-K1010-A101-A2-7600 dated 2012
- Operating Instructions: 3ZX1012-0RU11-1CA1 dated 17 November 2011; 3ZX1012-0RU11-1DA1 dated 20 July 2011
- Documents: filed in ACE 02/028/16 and in ACE 10/726/01.

**3. TEST REPORTS:****SIEMENS AG:**

- 2235e, 2237e, 2246e, 2248e dated 2011-07-12; 2239 dated 30.03.1998;
- T.R. issued February 1998; T.R. N° 98340TQ01 dated February 1998; T.R. N° 98340TQ02 dated February 1998.

**4. APPLICATION / LIMITATION:**

- 4.1 - Bureau Veritas Rules for the Classification of Steel Ships and IEC 60947 specifications.
- 4.2 - Bureau Veritas Environmental Category, **EC Code: 31**

**5. PRODUCTION SURVEY REQUIREMENTS:**

- 5.1 - The above mentioned overload relays are to be supplied by **SIEMENS AG - I IA CE** 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.
- 5.3 - **SIEMENS AG - I IA CE** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products :

**SIEMENS AG - I IA CE**  
**Werner-von-Siemens-Str. 48**  
**92220 Amberg**  
**GERMANY**

- 5.4 - 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 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **SIEMENS AG - I IA CE - GERMANY**, will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 10206/B0 BV issued on 05 Jun 2007 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*