



MARINE DIVISION

Certificate number: 10205/C0 BV

File number: ACE 02/28/14

Product code: 2624H

*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*

**CONTACTOR RELAYS, ELECTROMAGNETIC/STATIC RELAYS**

Contactor relay  
SIRIUS 3RH1x

**Requirements:**

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

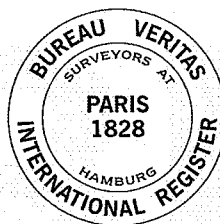
*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**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 3R** - Types **3RH1x** - series are contactor relays with or without accessories **3RH19**.

#### **Main characteristics:**

Contact size: S00

Rated Voltage: 600V AC

Rated Insulation Voltage  $U_i = 690V$

Type: **3RH1 a b c - d e f g 0 - h**

#### **a = Type of auxiliary contactor**

- 1 - 4pole
- 2 - 8pole with top mounted, not removable auxiliary contact block
- 3 - 8pole with top mounted, removable auxiliary contact block
- 4 - Latched control relay
- 8 - any other, individual auxiliary contact arrangements

#### **b = Contact arrangements for NO**

- |            |          |
|------------|----------|
| 0 - non NO | 5 - 5 NO |
| 1 - 1 NO   | 6 - 6 NO |
| 2 - 2 NO   | 7 - 7 NO |
| 3 - 3 NO   | 8 - 8 NO |
| 4 - 4 NO   |          |

#### **c = Contact arrangements for NC**

- |            |          |
|------------|----------|
| 0 - non NC | 5 - 5 NC |
| 1 - 1 NC   | 6 - 6 NC |
| 2 - 2 NC   | 7 - 7 NC |
| 3 - 3 NC   | 8 - 8 NC |
| 4 - 4 NC   |          |

#### **d = Type of terminals**

- 1 - screw terminals
- 2 - cage clamp terminals
- 5 - terminal pin adaptor

#### **e = Operating system**

- |                       |                                       |
|-----------------------|---------------------------------------|
| A -                   | AC                                    |
| C, T -                | AC (with integrated varistor)         |
| E -                   | AC (with integrated RC element)       |
| B, H, M -             | DC                                    |
| D, K, U, W -          | DC (with integrated varistor)         |
| F, J, N, Q, V, R, S - | DC (with integrated diode)            |
| G -                   | DC (with integrated bridge rectifier) |

#### **f = Operating voltage**

- AC: 24V up to 600V
- DC: 12V up to 250V

#### **g = Type of voltage**

- 0 - AC
- 4 - DC
- 6 - Special version

#### **h = Special Version**

- 0LA - additional series resistor

#### **Additional accessories:**

- 3RH19...: e.g. Auxiliary switches, interface modules, ...

### 2. DOCUMENTS AND DRAWINGS:

- Catalogue: E86060-K1002-A101-A9-7600 dated 2010
- Operation Instructions: 3ZX1012-0RH11-1AA1 dated 31 August 2007
- Documents: filed in ACE 02/028/16 and ACE 02/28/14

### 3. TEST REPORTS:

#### **SIEMENS AG:**

- T.R. dated February 1998; 98340TQ01, 98340TQ02, 98340TQ03 dated February 1998;
- 2100c dated 2011-03-28; 2145a dated 2011-08-16; 2146a dated 16.08.2011; 2308e dated 16.08.2011

**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 contactor 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, ship owners 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° 10205/B0 BV issued on 05 Jun 2007 by the Society.

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