



Marine & Offshore

Certificate number: 10213/D0 BV

File number: ACE 02/28/16

Product code: 2633H

*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*

**CIRCUIT BREAKERS (LOW VOLTAGE)**

SIRIUS 3RV1

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 31

IEC 60947-2:2006, IEC 60947-4-1:2009+A1:2012 Edition 3.1

*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: 18 Mar 2026**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 18 Mar 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 3RV1** series are circuit breakers and **3RV19** and **3RV29** are accessories.

#### **1.1 - Main characteristics:**

Rated voltage:	690V AC- 50/60Hz
Rated current (40°C):	up to 100A
Short-circuit breaking capacity ICU at 400VAC:	100kA current ranges 0A~1G (rated current 0.16A~6.3A) 50kA current ranges 1H~1K (rated current 8~12A)

#### **1.2 - Variants:**

Type: **3RV1 a 1 1 - b b c d e - f f g g**

Basic type designation, circuit breaker, size S00 with maximum rated operational current 12A

##### **a = Function**

- 0 - for motor protection, 12x Ie
- 4 - for transformer protection, 19xIe

##### **bb = Current range**

0A, 0B, 0C, 0D, 0E, 0F, 0G, 0H, 0J, 0K, 1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1J, 1K

##### **c = Type of release, CLASS**

A

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

1,2

##### **e = Auxiliary switch**

0, 1, 2, 3, 4, 5, 8

##### **ff = Further mounting devices**

1B, 2B, 3B

#### **1.3 - Accessories:**

3RV19... : e.g. Auxiliary & Signalling switches, Auxiliary releases, 3-phase bus bar equipment

3RV29... : e.g. auxiliary switches, undervoltage trip units, shunt releases, infeed system, ...

### 2. DOCUMENTS AND DRAWINGS:

- Catalogue: E86060-K1010-A101-A2-7600 dated 2012

- Operating Instructions: 3ZX1012-ORV03-1AA1 dated 14 June 2006; 3ZX1012-ORV04-1AA1 dated 14 June 2006

- Documents: filed in ACE 02/028/16.

For D0 version:

- Catalogue: Siemens IC 10 2020 - Edition 12/2019 (E86060-K1010-A101-B1-7600)

### 3. TEST REPORTS:

SIEMENS AG:

- 2207f, 2304j, 2305g, 2306g dated 2011-07-18

- T.R. dated February 1998; T.R. No. 98340TQ03 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 circuit breakers 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 and as such does not require a BV product certificate.

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**

**6. MARKING OF PRODUCT:**

According to IEC 60947 specifications.

**7. OTHERS:**

7.1 - It is **SIEMENS AG - I IA CE - GERMANY**'s responsibility 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° 10213/C0 BV issued on 04 Mar 2013 by the Society.

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