



Marine &amp; Offshore

Certificate number: 07559/E0 BV

File number: ACE 02/014/15

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*

**ABB FRANCE**

CHASSIEU CEDEX - FRANCE

*for the type of product*

**CONTACTORS (LOW VOLTAGE)**

Type: A Series (A9 to A75)

**Requirements:**

BV Rules for the Classification of Steel Ships.

IEC 60947-4-1 (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: 15 Nov 2023**

**For Bureau Veritas Marine & Offshore,**

At BV LYON, on 15 Nov 2018,

Florian Aulen



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](http://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.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=om8duyubpn>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

| Product Type               | Number of poles | Rated voltage (V) | Max. operating current (A) | Operational current Ie (A) | Operational current Ie (A) | Operational current Ie (A) | Operational current Ie (A) | Remarks   |
|----------------------------|-----------------|-------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---|
| <b>Contactors A series</b> |                 |                   |                            | AC 3<br>380 - 400V         | AC 3<br>440V               | AC 3<br>500V               | AC 3<br>690V               |   |
| A.C. Operated              |                 |                   |                            |                            |                            |                            |                            |   |
| A 9                        | 3-4             | 690               | 25                         | 9                          | 9                          | 9                          | 7                          | Characteristics according to IEC 60947-1 and 60947-4-1. |
| A 12                       | 3               | 690               | 27                         | 12                         | 12                         | 12                         | 9                          |   |
| A 16                       | 3-4             | 690               | 30                         | 17                         | 16                         | 14                         | 10                         |   |
| A 26                       | 3-4             | 690               | 45                         | 26                         | 26                         | 22                         | 17                         |   |
| A 30                       | 3               | 690               | 55                         | 32                         | 32                         | 28                         | 21                         |   |
| A 40                       | 3               | 690               | 60                         | 37                         | 37                         | 33                         | 25                         |   |
| A 50                       | 3-4             | 690               | 100                        | 50                         | 45                         | 45                         | 35                         |   |
| A 63                       | 3               | 690               | 115                        | 65                         | 65                         | 55                         | 43                         |   |
| A 75                       | 3-4             | 690               | 125                        | 75                         | 70                         | 65                         | 46                         |   |

### 2. DOCUMENTS AND DRAWINGS:

Manufacturer's catalogue Ref. 1SBC100122C0302

### 3. TEST REPORTS:

PTB N° 3.53/38 0.418 of 15.05.97

PTB N° 3.53/38 7.3023 of 03.04.97

ABB Control - Test report N° 16998 of 24.03.98

ABB Control - Test reports N°:

- G03-97173 of 26.03.97
- G03-97174 of 28.03.97
- G03-97175 of 28.03.97
- G03-97259 of 02.05.97
- G03-77996 of 16.12.96
- G11-96857 of 05.02.97
- G03-78096 of 16.12.96
- G11-96860 of 27.02.97
- G11-97368 of 06.08.97
- G11-97370 of 15.07.97
- G11-96858 of 24.01.97
- G11-96861 of 25.02.97
- G03-94-03 of 24.12.94
- G11-94-01 of 28.11.94
- G03-94-05 of 24.12.94
- G03-94-07 of 24.12.94

LCIE Test Report N° 101630-603377A

LCIE Certificate N° FR 602227A dated November 26th, 2010.

### 4. APPLICATION / LIMITATION:

4.1 - According to BV Rules for the Classification of Steel Ships.

4.2 - IEC 60092 series.

**5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The CONTACTORS (LOW VOLTAGE) are to be supplied by **ABB FRANCE** 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 - **ABB FRANCE** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **ABB FRANCE** has declared to Bureau Veritas the following production site(s):

**ABB India Limited**  
**Survey No.88/3&88/4, Basavanahalli**  
**Kasaba, Hobli, Nelamangala Taluk**  
**BENGALURU, rural-562123**  
**INDIA**

**ABB XINHUI LOW VOLTAGE SWITCHGEAR CO., LTD.**  
**Jinguzhou Industrial Development Zone**  
**Xinhui District, Jiangmen City**  
**Guangdong 529100**  
**China**  
**Xinhui**  
**CHINA**

**ABB Bulgaria EOOD- Rakovski Branch**  
**14, Industrialen Put 1**  
**4142 Stryama, Plovdiv**  
**BULGARIA**

**6. MARKING OF PRODUCT:**

According to IEC 60947 specifications.

**7. OTHERS:**

7.1 - It is **ABB FRANCE**'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° 07559/D0 BV issued on 25 Oct 2013 by the Society.

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