



Marine & Offshore

Certificate number: 36994/B0 BV

File number: ACE2/14/21

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 - FRANCE

for the type of product

CONTACTORS (LOW VOLTAGE)
CONTACTORS AF40, AF52, AF65, AF80 & AF96.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
IEC 60947-1 (2011), IEC 60947-4-1 (2018)

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: 22 Sep 2025

For Bureau Veritas Marine & Offshore,

At BV LYON, on 22 Sep 2020,

Yann Krempelwicz



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.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=zc04f8hqxd>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

AF contactor relays for controlling 3-phase motors and power circuits.

Models: AF40-22-**-**, AF40-30-**-**, AF40-40-**-**, AF52-30-**-**, AF52-40-**-**, AF65-30-**-**, AF80-22-**-**, AF80-30-**-**, AF80-40-**-**, AF96-30-**-**,

AFS contactors are delivered with fixed-mounted auxiliary contact blocks (CA4-22)

Models: AFS40-30-22-**, AFS52-30-22-**, AFS65-30-22-**, AFS80-30-22-**, AFS96-30-22-**,

Type key for product covered by this certificate :

AF40 - 30 - 00 - 13
 1 2 3 4

1 = Name of series and size of contactor

AF40, AF52, AF65, AF80 or AF96

AFS40, AFS52, AFS65, AFS80 or AFS96

2 = Number of main contacts

22=2 NO and 2 NC contacts

30=3 NO and 0 NC contacts

40=4 NO and 0 NC contacts

3 = Number of auxiliary contacts

00=0 NO and 0 NC contacts

11=1 NO and 1 NC contacts (side mounted)

22=2 NO and 2 NC contacts (mounted as 2nd stack on contactor)

4 = Coil configuration

11=20-60VDC/24-60VAC

12=48-130VAC/VDC

13=100-250VAC/VDC

14=250-500VAC/VDC

41=24-60VAC

Reference	Utilization category							
	Ith	AC-1	Utilization category AC-3					
		690V	240V	400V	440V	500V	690V	1000V
AF40 AFS40	105A	70A	40A	40A	40A	35A	25A	
AF52 AFS52	105A	100A	53A	53A	53A	45A	35A	
AF65 AFS65	105A	105A	65A	65A	65A	55A	39A	
AF80-30 AFS80-30	130A	125A	80A	80A	80A	65A	49A	25A
AF80-22 AF80-40	125A	125A	80A	80A	80A	65A	49A	25A
AF96 AFS96	130A	130A	96A	96A	96A	80A	57A	30A

2. DOCUMENTS AND DRAWINGS:

- Identification folder No. 1SBC101601S0201 - Rev. A "Product description for contactors relays" dated Oct 20, 2013.
- Intertek confirmation letter conformity with standard IEC 60947-4-1:2009+A1:2012, dated March 25, 2014.
- Catalog N° 1SBC100214C0202, dated Mar 2020.

3. TEST REPORTS:**- IECEE:**

CB Scheme Certificate n° SE-96554, dated 19 Dec 2019.
CB Scheme Certificate n° SE-96557, dated 19 Dec 2019.

- Intertek:

EMC test report n° 1210366-1 Ed.3, dated Jan 31, 2013.
EMC test report n° 1210366-2 Ed.2, dated Jan 30, 2013.
EMC test report n° 1210366-3 Ed.3, dated Jan 29, 2013.
EMC test report n° 1210366-5 Ed.1, dated Feb 13, 2013.
Test report n° 1913941STO-001, dated 12 Dec 2019.
Test report n° 1913942STO-001, dated 16 Dec 2019.

- ABB accredited laboratory:

Climatic test report n° 20120546-A dated Dec 03, 2012.
Vibration test report n° 20120547-A dated Jan 16, 2013.
Climatic test report n° 20140302-A, dated 10 Jul 2014.
Vibration test report n° 20160234-A, dated 15 Sep 2016.
Vibration test report n° 20160234-1A, dated 15 Sep 2016.

4. APPLICATION / LIMITATION:

4.1 - BV Rules for the Classification of Steel Ships and IEC 60947-5-1

4.2 - BUREAU VERITAS Environmental Category, **EC Code: 31/41**

4.3 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products 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 sites:

ABB FRANCE
2 Rue d'Arsonval
69680 CHASSIEU
FRANCE

ABB Xinhui Low Voltage Switchgear Co., Ltd.
Jinguzhou Industrial Development Zone
Xinhui District, Jiangmen City
Guangdong 529100
China
Xinhui
CHINA

6. MARKING OF PRODUCT:

6.1 - Trade name.

6.2 - Date of manufacture and serial number.

6.3 - Equipment type or model identification under which it was type-tested

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° 36994A0 BV issued on 27 Jan 2015 by the Society.

*** END OF CERTIFICATE ***