



Marine & Offshore

Certificate number: 24899/C0 BV

File number: ACE02/14/19

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)

Contactor Relays NF / NFC range

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
IEC 60947-5-1 (2016)

EC Code: 31/41

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: 28 Oct 2026

For Bureau Veritas Marine & Offshore,

At BV LYON, on 28 Oct 2021,

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=uvnmif7yii>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

NF / NFC contactor relays for switching auxiliary and control circuits.

Model: NF22..., NF31..., NF40..., NF44..., NF53..., NF62..., NF71..., NF80..
 NFZ22..., NFZ31..., NFZ40..., NFZ44..., NFZ53..., NFZ62..., NFZ71..., NFZ80..
 NFC22..., NFC31..., NFC40..., NFC44..., NFC53..., NFC62..., NFC71..., NFC80..

NF(C)...E: with screw terminals

NF...ES: with spring terminals

NF(C)...K : with push in terminals

NF...-30 : Coil 30, coil with low consumption 24Vdc.

Specification/Type		NF...
Maximum Rated operational voltage	Ue max.	690V
Rated insulation voltage	Ui	690V
Rated frequency limits	/	25...400 Hz
Rated operational current	Ie / AC-15	24-127Vac : 6A 220-240Vac : 4A 400-440Vac : 3A 500Vac : 2A 690Vac : 2A
Rated operational current	Ie / DC-13	24Vdc : 6A 48Vdc : 2.8A 72Vdc : 1A 125Vdc : 0.55A 250Vdc : 0.27A 400Vdc : 0.15A 500Vdc : 0.13A 600Vdc : 0.1A
Enclosure degree of protection	IP	20
Rated Impulse Withstand voltage	Uimp	6 kV
Rated control circuit voltage	Uc	Model NF..: 20-500Vdc 24-500Vac Model NFZ..: 12-250Vdc 24-250Vac Model NFC..: 24-460Vac

2. DOCUMENTS AND DRAWINGS:

- Identification folder n°20110279-6 "Product description for contactors relays" dated 21/09/2017.
- Catalog N° 1SBC100214C0202, dated Mar 2020.
- Catalog N° 1SBC100219C0201, dated Jul 2020.
- Catalog N° 1SBC100173C0201, dated Mar 2013.

3. TEST REPORTS:

Intertek Semko AB:

- EMC test report N° 1621944STO-001, Ed. 1, dated 28 Sep 2017.
- Test report N° 2021528STO-001, dated 21 Sep 2020.
- IECCE CB Scheme N° SE-93051M2, dated 28 Sep 2020.

ABB accredited laboratory:

- Vibration test report n° 20110276-A, dated 20 Jun 2011.
- Climatic test report n° 20110590-A, dated 12 Dec 2011.
- Climatic test report n° 20170641, dated 26 Jan 2017.
- Vibration test report n° 20180114-A, dated 14 Jun 2018.
- Climatic test report n° 20180113-1A, dated 28 Aug 2018.
- Vibration test report n° 20180115-A, dated 25 Sep 2018.
- Vibration test report n° 20210261-1MA, dated 23 Jun 2021.

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.**
4.4 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev7.

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.
Jingguzhou Industrial Development Zone
Xinhui District, Jiangmen City
Guangdong 529100
China
Xinhui
CHINA

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° 24899/B0 BV issued on 04 Apr 2018 by the Society.

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