

Certificate number: 09651/C0 BV File number: ACE 02/014/16

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: N22E, N31E, N40E, N44E, N53E, N62E, N71E, N80E.

#### Requirements:

BV 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: 25 Nov 2018

#### For BUREAU VERITAS,

At BV LYON, on 25 Nov 2013, Jean-Marc Cabuzel



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:

PRODUCT TYPE	Number of poles	Rated Voltage (V)	Maximum Operating Current (A)	Breaking Capacity (A)	Remarks
AUXILIARY CONTACTORS		( ' )	()	AC -15	Characteristics according to IEC 60947-5-1.
N22E	4	690	16	6/24-127V, 4/230-240V, 3/400-415V, 2/500V, 2/690V.	00747-3-1.
N31E	4	690	16	,,	
N40E	4	"	"	"	
N44E	8	"	"	"	
N53E					
N62E	8	"	"	"	
N71E	8	"	"	"	
N80E	8	"	"	"	

As per catalog 1SBC100122C0202.

### 2. DOCUMENTS AND DRAWINGS:

As per catalog 1SBC100122C0202.

### 3. TEST REPORTS:

3.1 - ABB Control - Test report N° 16998 of 24.03.98. Society's witnessing to test has been carried out.

Kema Registered Quality Nederland B.V. - Test report  $N^{\circ}$  97.2472.57 issued on June 27, 1997.

- 3.2 L.C.I.E. CB test certificate N° FR3022/60007830-502689 dated 30/Apr./2003.
- 3.3 IECEE CB Scheme certificate N° FR 602227B, dated 26/Nov./2010

#### 4. APPLICATION / LIMITATION:

According to BV Rules for the Classification of Steel Ships.

### 5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The contactors 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.
- 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 :

ABB FRANCE 3, Rue Jean PERRIN CS 90009 69687 CHASSIEU CEDEX FRANCE

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ABB XINHUI LOW VOLTAGE SWITCHGEAR CO., LTD.

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

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ABB India Limited
Plot No.5 & 6, Peenya Industrial Area
2nd Phase, Bangalore - 560058
BANGALORE
INDIA

## **6. MARKING OF PRODUCT:**

According to IEC 60947-5-1

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## 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 **ABB FRANCE**, will accept full responsibility for informing shipbuilders, shipowners 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  $n^{\circ}$  09651/B2 BV issued on 04/04/2007 by the Society.

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