

Marine & Offshore Division

Certificate number: 13153/C0 BV File number: ACE 02/014/17

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)

Modular Contactors ESB 20 - 20.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships. IEC 60947-1 (2007), IEC 60947-4-1 (2009), IEC 61095 (2009).

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: 11 Apr 2020

For BUREAU VERITAS, At BV LYON, on 11 Apr 2015, 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 & Offshore 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.

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THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Product Type	Number of poles	Rated voltage (V)	Maximum operating current (A) = Ith	Operational current Ie (A)	Remarks
Modular Contactors ESB 20 - 20					IP 20
A.C. Operated					Characteristics according to IEC 60947-1,
AC-1 / AC-7a	2	250	20A	20A / 4 kW	IEC 60947-4-1, IEC 61095
AC-3 / AC-7b	2	250	20A	9A / 1,1 kW	_

2. DOCUMENTS AND DRAWINGS:

Identification folder dated 20/06/03.

3. TEST REPORTS:

- 3.1 CB test certificates N°s: CB/B21/1996/A1 & CB/B22/1996/A2 dated 25/Nov./02.
- 3.2 LCIE test report N° 28472010/020 dated 01/Mar./2002.
- 3.3 CEBEC test report N° 9601T01 dated 19/Jan./90 and 9601T/05 dated 19/Jan./96.
- 3.4 ABB test report N° 20090875-M dated 20/Jan./2010

4. APPLICATION / LIMITATION:

According to BV Rules for the Classification of Steel Ships.

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.
- 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 Elsynn A.S., 619 00 BRNO Czech Republic. and

E.C.E.E. SAS, 01560 Saint Trivier de Courte - France.

6. MARKING OF PRODUCT:

According to IEC 60947 specifications.

7. OTHERS:

- 7.1 This approval is given with the understanding that the Society reserves the right to require check tests to be carried out on the above mentioned equipment in Clause I at any time, and that **ABB FRANCE**will accept the responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the Equipment and the conditions of this approval.
- 7.2 This certificate supersedes the Type Approval Certificate N° 13153/B0 BV issued on 22.02.2010. by the Society.

*** END OF CERTIFICATE ***