



Marine & Offshore

Certificate number: 37778/B0 BV

File number: ACE2/169/1

Product code: 2650H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

ABB Oy Distribution Solutions

Vaasa - FINLAND

for the type of product

MULTIFUNCTION PROTECTION RELAYS

REA10 series

Arc protection system

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
IEC 60255(2009)

EC Code: 31

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: 16 Oct 2024

For Bureau Veritas Marine & Offshore,

At BV TURKU (ABO), on 16 Oct 2019,

Roger Robertsson



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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 2 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

REA10 arc protection system series provide protection against arc faults in Marine applications.

Type	Function:	Feature:
REA101:	Arc protection relay	Loop type or radial sensor fiber or lens-type arc detection.
REA107:	Arc protection module	8 lens-type sensors for arc detection, 2 signal relays.
REA105:	Arc protection module	loop type or radial sensor fiber arc detection.
REA103:	Arc protection module	2 sensor fibers for arc detection.

2. DOCUMENTS AND DRAWINGS :

REA spreadsheet N°1MRS751404.

REA101 spreadsheet N°1MRS751003.

REA107 spreadsheet N°1MRS752135.

REA105 spreadsheet N°1MRS751005.

REA103 spreadsheet N°1MRS751004.

3. TEST REPORTS :

Nemko:

- Tests report N°1052822, dated 14.06.2005.

ABB:

- Tests report N°1MRS080759 Rev. D, dated 23.08.2005.

VTT Technical research centre of Finland:

- Test report N°VTT-S-02975-12, dated 23.04.2012.
- Test report N°VTT-S-00657-13, dated 04.02.2013.

4. APPLICATION / LIMITATION :

4.1 - BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.

4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

4.3 - BUREAU VERITAS Environmental Category, **EC Code: 31**

4.4 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zones.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The **Arc protection relay REA10 series** are to be supplied by **ABB Oy Distribution Solutions** 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 Oy Distribution Solutions** 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 Oy Distribution Solutions** has declared to Bureau Veritas the following production site(s):

ABB Oy Distribution Solutions
PO Box 699
65101 Vaasa
FINLAND

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 Oy Distribution Solutions** Products 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 No. 37778/A0 BV issued on 11 Sep 2014 by the Society.

*** END OF CERTIFICATE ***