



Marine & Offshore

Certificate number: 37774/B0 BV File number: ACE2/169/2 Product code: 2650H

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

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# **TYPE APPROVAL CERTIFICATE**

ABB Oy Distribution Solutions

Vaasa - FINLAND

# for the type of product MULTIFUNCTION PROTECTION RELAYS

615 relay series.

#### **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

NUTERITAS MARINE & OFF FRNATIONAL REGI

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 or 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

# **<u>1. PRODUCT DESCRIPTION :</u>**

Multifunction relays 615 series are devices dedicated for protection, control and measurement in several Marine applications.

Туре	Function:
REF615:	Feeder protection and control
RED615:	Line differential protection and control
RET615:	Transformer protection and control
REU615:	Voltage protection and control
REM615:	Motor protection and control
REV615:	Capacitor bank protection and control
REG615:	Generator and interconnection protection

## 2. DOCUMENTS AND DRAWINGS :

REV615 spreadsheet N°1MRS757951. REU615 spreadsheet N°1MRS757062. RET615 spreadsheet N°1MRS756898. REM615 spreadsheet N°1MRS756902. REF615 spreadsheet N°1MRS756381. RED615 spreadsheet N°1MRS756489. REG615 spreadsheet N°1MRS758278.

# 3. TEST REPORTS :

#### Nemko:

- Tests report N°139874, dated 15.12.2009.
- Tests report N°227397A, dated 22.01.2013.

#### ABB:

- Tests report N°1MRS081892 Rev. B, dated 01.10.2010.
- Tests report N°1MRS081892 Rev. E, dated 05.02.2014.
- Tests report N°1MRS081892, dated 29.Oct.2015.

### VTT Technical research centre of Finland:

- Test report N°VTT-S-06713-09, dated 22.09.2009.

## SGS:

- Tests report N°276591A, dated 13.05.2014.
- Tests report N°278843-1-3, dated dated 30.Apr.2015.
- Tests report N°27552-1, dated 06.Oct.2014.

## 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 **Multifunction relays 615 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

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# 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 compared equipment and the conditions of this empravel.

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. 37774/A1 BV issued on 21 Dec 2016 by the Society.

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