

Marine & Offshore Division

Certificate number: 38925/A0 BV

File number: ACE2/169/4

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

This certificate is issued to

ABB OY, Medium Voltage Products

Vaasa - FINLAND

for the type of product

MULTIFUNCTION PROTECTION RELAYS

REF620, REM620, RET620 series.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships IEC 60255 (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: 10 Nov 2019

For BUREAU VERITAS, At BV HELSINKI, on 10 Nov 2014, Tommy Andersson





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:

The REF620, REM620, RET620 series are devices, providing monitoring and protection for feeders, motors and transformers.

1.1 - Approval range:

Type	REF620	REM620	RET620
Functions:	Feeder protection	Motor protection	Transformer protection
*	Measurement	Measurement	Measurement
	Control	Control	Control
	Condition monitoring	Condition monitoring	Condition monitoring

2. DOCUMENTS AND DRAWINGS:

Specifications:

- Feeder protection and control REF620.
- Transformer protection and control RET620.
- Motor protection and control REM620.

3. TEST REPORTS:

ABB:

- Tests report N°1MRS082107, dated 05.Jul.2013.
- Tests report N°1MRS082144, dated 08.Feb.2014.

Nemko:

- Tests report N°227397C, dated 09.Apr.2013.

VTT

- Tests report N°VTT-S-07350-11, dated 23.Nov.2011.
- Tests report N°VTT-S-07239-13, dated 23.Oct.2013.

SGS:

- Tests report N°277552-1, 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 REF620, REM620, RET620 series are to be supplied by ABB OY, Medium Voltage Products 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, Medium Voltage Products** 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 OY, Medium Voltage Products Muottitie 2A 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:

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 OY**, **Medium Voltage Products**, 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.

*** END OF CERTIFICATE ***