

# Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

<b>Manufacturer</b>	<b>ABB Oy, Distribution Solutions</b>
<b>Address</b>	Muottitie 2A, Vaasa, 65320, Finland
<b>Type</b>	Relays - Electronic Monitors
<b>Description</b>	Line differential protection relay RED615 Feeder protection protection relay REF615 Generator and Interconnection Protection Relay REG615 Motor Protection Relay REM615 Transformer Protection Relay RET615 Voltage Protection Relay REU615 Capacitor Bank Protection Relay REV615
<b>Trade Name</b>	Series 615 Protection Relay
<b>Application</b>	Marine applications for use in environmental categories ENV 1 and ENV 2 as defined in Lloyd's Register's Type Approval System, Test Specification No. 1 - 2013.
<b>Specified Standard</b>	Manufactures' specification IEC60255-1:2009 (subclause 6.5) IEC60255-21-1, Ed1.0 IEC60255-21-2, Ed 1.0 EN60255-26:2013 IEC60255-27:2013

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

**Antje Herms-Bondzio**

Senior Specialist to Lloyd's Register EMEA  
A member of the Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

---

# Type Approval Certificate

<b>Ratings</b>	Refer to Appendix for details
<b>Additional Tests</b>	IEC60529:1989/AMD2:2013
<b>Other Conditions</b>	<p>The complete installation and function is subject to separate plan appraisal according applicable Rules and Regulations, when installed on LR classed vessels.</p> <p>If used in marine and offshore applications for safety critical functions leading to stop of machinery, back up means independent of REx615 series are to be provided unless an LR Software Conformity Certificate could be provided. Equipment has to comply with IACS E10 Rev.7 when intended to be installed on ships contracted for construction on or after 1st January 2022.</p>

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. HTS/ETS 40534-20/AHB/AC and its supplementary Type Approval Terms and Conditions form part of this Certificate.

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

---

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

## Appendix

**TYPE**

Series 615 - Protection relay

Line differential protection relay RED615; Version 5.0 FP1  
 Feeder protection protection relay REF615; ; Version 5.0  
 Generator and Interconnection Protection Relay REG615; Version 5.0 FP1  
 Motor Protection Relay REM615; Version 5.0  
 Transformer Protection Relay RET615; Version 4.0  
 Voltage Protection Relay REU615; Version 4.0  
 Capacitor Bank Protection Relay REV615; Version 5.0

Software Version: 5.1.13

Energizing inputs		
Frequency f	50 and 60 Hz	
Rated current In	0.2 to 0.5A with residual current	
Rated current In	1 to 5A with phase currents or residual current	
Rated voltage Un	100, 110, 115, 120 V AC	
	Type 1	Type 2
Nominal auxiliary voltage Un	100, 110, 120, 220, 240 V AC, 50 and 60 Hz 48, 60, 110, 125, 220, 250 V DC	24, 30, 48, 60 V DC