



CERTIFICATE NUMBER

10-LD622981-PDA

DATE

07 September 2010

ABS TECHNICAL OFFICE

London Engineering Services

CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of
ABB AB - VASTERAS

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Contactor, Electrical

MODEL: A and AF Series 3-Pole Block Contactors

ABS RULE: 2010 Steel Vessel Rules 1-1-4/7.7, 4-8-3/1.7

OTHER STANDARD IEC 60947-1:2001 and IEC60947-4-1:2000 (A210/260/300, AF210/260/300/400/460/580/750), IEC 60947-4-1:2000 and IEC 60947-4-1:2000+A1+A2 (A320), IEC 60947-4-1:2000+A1(AF1250/1350/1650/2050), IEC 60947-4-1:2000+A1+A2 (A95/110/145/185, AF95/145/110/185, A95B...RT, A110B...RT, AF95B...RT, AF110B...RT, AF145B...RT);

AMERICAN BUREAU OF SHIPPING

Jean-Claude G. Dennemont
Engineering Type Approval Co-ordinator

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

ABB AB

CEWE-CONTROL
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VASTERAS
SE-72161
Sweden
Telephone: + 46 21 320700
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Product: Contactor, Electrical

Model: A and AF Series 3-Pole Block Contactors

Intended Service:

Control and protection of low voltage electrical equipment

Description:

3-Pole Block contactors with AC Control Supply (A Series) suitable for smoke and fire application with ring tongue terminals (AxxxB...RT Series), AC/DC Control Supply (AF Series) suitable for smoke and fire application with ring tongue terminals (AFxxxB...RT Series), A95, A110, A145, A185, A210, A260, A300, A320, AF95, AF110, AF145, AF185, AF210, AF260, AF300, AF400, AF460, AF580, AF750, AF1250, AF1350, AF1650, AF2050, A95B...RT, A110B...RT, AF95B...RT, AF110B...RT, AF145B...RT

Ratings:

Current: A(F)95 to AF1650 AC-3 96A-1050A @400V, 65A-950A @690V, AC-1 135A-1450A @690V, AF2050 AC-1 1750A @1000V ambient temp 55C; Rated Operational Voltage Ue max A(F)95 to AF185 and AF400 to AF2050 1000V, AF210/AF260/AF300 690V; Insulation Voltage Ui 1kV, Impulse Withstand Voltage Uimp 8kV; Making/Breaking Capacity 10 x Ie / 8 x Ie AC-3, AF2050 10.5kA/8.4kA; Frequency Range 25Hz - 400HZ

Service Restrictions:

Unit Certification is not required for this product.

Comments:

Not Applicable

Notes / Drawings / Documentation:

This Product Design Assessment (PDA) is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product. Use in a non-classed vessel, MODU, Facility or other application is to be to the satisfaction of the manufacturer and purchaser. Details of Certification and Test Reports on Supplementary Sheet

Term of Validity:

This product/model is covered under Product Design Assessment (PDA) Certificate # 10-LD622981-PDA, dated 07/Sep/2010. This PDA Certificate remains valid until 06/Sep/2015 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

STANDARDS**ABS Rules:**

2010 Steel Vessel Rules 1-1-4/7.7, 4-8-3/1.7

National:

NA

International:

IEC 60947-1:2001 and IEC60947-4-1:2000 (A210/260/300, AF210/260/300/400/460/580/750), IEC 60947-4-1:2000 and IEC 60947-4-1:2000+A1+A2 (A320), IEC 60947-4-1:2000+A1(AF1250/1350/1650/2050), IEC 60947-4-1:2000+A1+A2 (A95/110/145/185, AF95/145/110/185, A95B...RT, A110B...RT, AF95B...RT, AF110B...RT, AF145B...RT)

Government Authority:

NA

EUMED: