



CERTIFICATE NUMBER

DATE

09-HG494565-1-PDA

10 September 2010

ABS TECHNICAL OFFICE

Hamburg Engineering Services

# CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of  
**ABB STOTZ KONTAKT GMBH - HEIDELBERG**

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: Programmable Logic Controller

MODEL: AC500-eCo / S500-eCo

ABS RULE: 2010 Steel Vessel Rules, 1-1-4/7.7, 4-9-1/9.1, 4-9-6/3.1/3.3/3.5/3.7/3.9/3.17/7.1/7.7.1/9.1, 4-9-6/Table 3, as applicable for inherent basic operating software, 4-9-7/7&13

OTHER STANDARD N.A.;

AMERICAN BUREAU OF SHIPPING

Michael R. V. Zech  
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 STOTZ KONTAKT GMBH

EPPELHEIMER STR. 82  
HEIDELBERG  
D-69123  
Germany  
Telephone: -49-6221-701-1336  
Fax: -49-6221-701-1112

For MT 91 Panel: SAE Electronic GmbH  
Im Gewerbegebiet Pesch 14, D-50767 Koeln.  
For AC500/S500 eCo: Delta Electronics, INC.  
31-1 Xingbang Road, Guishan Industrial Zone,  
Taoyuan County 33370, Taiwan, R.O.C.  
For TA42DU, TA75DU, TA80DU, TA110DU,  
TA200DU: ABB Elsynn, Herspicka 13, CZ-61900 Brno.

MA Certificate No. HN 940138-X

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**Product:** Programmable Logic Controller

**Model:** AC500-eCo / S500-eCo

### Intended Service:

Programmable Control System for control and monitoring functions on AMS, ACC, ACCU, ABCU classed vessels.

### Description:

System Components:

CPUs: PM554-R-AC, PM554-T/R, PM554-T-ETH, PM564-R-AC, PM564-R-ETH-AC, PM564-T/R, PM564-T-ETH, PM564-R-ETH.

CPUs with integrated digital and/or analog inputs/outputs.

I/O Modules: AI561, AI562, AI563, AO561, AX561, DX561, DC561, DI561, DI562, DO561, DX571, DO571, DI571, DO572

with pluggable terminal blocks L44440901501, L44441101501, L44460901501, L44461101501, L4447091501, L44471101501;

Accessories: TK503 (Programming Cable), MC503 (SD Memory Card Adaptor), MC502 (SD Memory Card Adaptor), TA560 (Lithium Battery for Real-Time Clock of PM55x and PM56x CPUs), TA561-RTC (Real-time Clock Adaptor), TA562-RS (Serial RS-485 Adaptor), TA562-RS-RTC (Serial RS-485 and Real-Time Clock Adaptor), TA566 (Wall Mounting Accessory).

### Ratings:

Power Supply: 100V/ 240V AC, 24V DC.

Degree of Protection: IP20.

### Service Restrictions:

Unit Certification is required for this product.

### Comments:

Each particular application/ installation and the user operating software is to be specifically approved in conjunction with the relevant system in which the units are being used.

System Category III. Manufacturer is to keep evidence of quality plan for software, inspection of hardware components from sub-suppliers and quality control in production. Performance integration, fault simulation, final system factory acceptance tests, on-board system and integration tests to be witnessed by the Surveyor.

### Notes / Drawings / Documentation:

This Product Design Assessment (PDA) is valid only 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.

MA Test Report No. 201H\_W032 (radiated/conducted emissions, electrostatic discharge, burst and surge tests).

### Term of Validity:

This Product Design Assessment (PDA) Certificate 09-HG494565-1-PDA, dated 10/Sep/2010 remains valid until 09/Sep/2015 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

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**STANDARDS**

**ABS Rules:**

2010 Steel Vessel Rules, 1-1-4/7.7, 4-9-1/9.1, 4-9-6/3.1/3.3/3.5/3.7/3.9/3.17/7.1/7.7.1/9.1, 4-9-6/Table 3, as applicable for inherent basic operating software, 4-9-7/7&13

**National:**

NA

**International:**

N.A.

**Government Authority:**

NA

**EUMED:**

NA

**Others:**

NA