



TYPE APPROVAL CERTIFICATE
No. ELE104010XG

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

| | |
|-----------------------------|---|
| <i>Description</i> | Programmable logic controller |
| <i>Type</i> | AC500-eCo / S500-eCo |
| <i>Applicant</i> | ABB STOTZ-KONTAKT GMBH Eppelheimer Str. 82 69123 Heidelberg GERMANY |
| <i>Manufacturer</i> | DELTA ELECTRONICS, INC. |
| <i>Place of manufacture</i> | 31-1 Xingbang Road, Guishan Industrial Zone Taoyuan County 33370 TAIWAN R.O.C. |
| <i>Reference standards</i> | "RINA Rules for the Classification of Ships - Part C, Machinery, Systems and Fire Protection - Chapter 3, Section 6 , table 1" |

Issued in **Hamburg** on **August 16, 2010**. *This Certificate is valid until* **August 15, 2015**



RINA
Daniele Chirulli

This certificate consists of this page and 1 enclosure

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Enclosure - Page 1 of 2
AC500-eCo / S500-eCo

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CPUs:

Common features: PM554 and PM564 can operate up to seven S500/S500-eCo I/O devices

| CPU type | No. and type of digital inputs | No. and type of digital outputs | No. and type of analog inputs | No. and type of analog outputs | Power supply | Ethernet interface | Other interfaces |
|-----------------|--------------------------------|--------------------------------------|-------------------------------|--------------------------------|-----------------|--------------------|--|
| PM 554-T | 8 x 24 V DC | 6 x 24 V DC, 0,5 A max. (transistor) | none | none | 24 V DC | - | Serial RS-485 interface (COM1) |
| PM554-T-ETH | 8 x 24 V DC | 6 x 24 V DC, 0,5 A max. (transistor) | none | none | 24 V DC | x | |
| PM554-R | 8 x 24 V DC | 6 x relay output, 2 A max. | none | none | 24 V DC | - | Serial RS-485 interface (COM2, optional) |
| PM554-R-AC | 8 x 24 V DC | 6 x relay output, 2 A max. | none | none | 100 to 240 V AC | - | |
| PM564-T | 6 x 24 V DC* | 6 x 24 V DC, 0,5 A max. (transistor) | 2 x voltage* | 1 x voltage or current | 24 V DC | - | I/O Bus |
| PM564-T-ETH | 6 x 24 V DC* | 6 x 24 V DC, 0,5 A max. (transistor) | 2 x voltage* | 1 x voltage or current | 24 V DC | x | |
| PM564-R | 6 x 24 V DC* | 6 x relay output, 2 A max. | 2 x voltage* | 1 x voltage or current | 24 V DC | - | |
| PM564-R-ETH | 6 x 24 V DC* | 6 x relay output, 2 A max. | 2 x voltage* | 1 x voltage or current | 24 V DC | x | |
| PM564-R-AC | 6 x 24 V DC* | 6 x relay output, 2 A max. | 2 x voltage* | 1 x voltage or current | 100 to 240 V AC | - | SD Memory Card slot (optional) |
| PM564-R-ETH- AC | 6 x 24 V DC | 6 x relay output, 2 A max. | 2 x voltage* | 1 x voltage or current | 100 to 240 V AC | x | |

Digital I/O modules

| | |
|--------|---|
| DC561 | 16 isolated configurable Input or Output 24 VDC (Transistors) |
| DX 571 | 8 isolated DI 24 Vdc, 8 digital relay output 120/240 Vac, groupwise electrically isolated |
| DI 561 | 8 DI 24 Vdc |
| DI 562 | 2x 8 isolated DI 24 Vdc |
| DI 571 | 8 DI 120-240 Vac |
| DO 561 | 8 DO 24 Vdc (Transistor) |
| DO 571 | 8 relay outputs 120 / 240 Vac , 2A max |
| DO 572 | 8 digital triac outputs |

Analogue I/O modules

| | |
|--------|---|
| AX 561 | 4 configurable analog inputs: -2,5... +2,5V; -5... +5V; 0...+5V; 0...+10V; 0...20mA; 4.. 20 mA 2 configurable analog outputs: -10V ... +10V; 0...20mA; 4...20 mA |
| AI 561 | 4 configurable analog inputs |
| AI 562 | 2 configurable analog resistance temperature detector (RTD) inputs |
| AI 563 | 4 isolated configurable thermocouple (TC) inputs |
| AO 561 | 2 configurable analog outputs: -10V...+10V; 0...20mA; 4...20mA |



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

Terminal blocks:

- L44440901501
- L44441101501
- L44460901501
- L44461101501
- L44470901501
- L44471101501

Technical description

Catalogue n. 2CDC125080M0201 (2009)

Test reports:

PACONSULT Report n. 09-2475B (06 July 2009)

EMV Rhein-Neckar GmbH report n. 3893-391 (22/06/2009)

Xiamen Products Quality Supervision & Inspection Institute; No. 2010H_W032

Remarks:

The equipment described on this certificate are not approved for installation on the bridge area of a ship. Installation on board is to be provided taking into account of the additional requirements when listed in the relevant reports. (eg. EMC power supply filtering , shielded enclosure , appropriate grounding, etc.)

This certificate replace the certificate ELE326809CS/001

Hamburg August 16, 2010

