DNV·GL

Certificate No:
TAA00000XR

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electronic Timer Relays, Series CT-S

with type designation(s)
CT-MFS.xyz, CT-MVS.xyz, CT-ERS.xyz, CT-APS.xyz, CT-MBS.xyz
CT-AHS.xyz, CT-WBS.xyz, CT-SDS.xyz, CT-MXS.xyz

Issued to
ABB Stotz-Kontakt GmbH
HEIDELBERG, Germany

is found to comply with
DNV GL rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

Temperature	**B**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**A (Terminals) / B (unit)**

This Certificate is valid until **2021-12-06**.

Issued at **Hamburg** on **2016-12-07**

for **DNV GL**

DNV GL local station: **Augsburg**

Approval Engineer: **Dariusz Lesniewski**

Duy Nam Le
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Job Id:
Certificate No: **TAA00000XR**

Product description

Electronic Timer Relays of type:
CT-MFS.xyz, CT-MVS.xyz, CT-ERS.xyz, CT-APS.xyz, CT-MBS.xyz
CT-AHS.xyz, CT-WBS.xyz, CT-SDS.xyz, CT-MXS.xyz

Dimensions:		22.5 mm width
Supply voltage (y):	y=1	24...240Vac/dc
	y=2	24...48Vdc; 24...240Vac
	y=3	380...440Vac
Mains frequency:		50Hz ...60Hz
Time Range:		0.05s...300hrs
Output (x)	x=1	1 SPDT contact
	x=2	2 SPDT contacts (in one or two separate relay/-s)
Kind of terminal (z):	z=S	screw
	z=P	push-in-spring-force
Function (CT-..S.xyz):		
MF, MV, MB, WB, MX	Multifunctional Timer	
ER	Single-functional ON delay timer	
AP, AH	Single-functional OFF delay timer	
SD	Single-functional Star/Delta timer	
Degree of protection:	IP 20 (Terminals)	
	IP 50 (Unit)	

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

Test Reports: EMV Rhein-Neckar No. 3893-368 and 3893-366e.
ABB STOTZ-Kontakt Test Reports 2006, 2011 and 2016.
VDE Test Report 606800-9020-0001/84202.
Data sheets; Circuit diagrams; Part lists; Catalogue (04/06).
Software development documentation.
(UL) DEMKO CB Test Certificate No. DK-5903 and Test Report No. 11CA14935 (IEC 60947-5-1).
Type Approval Assessment Report issued at Augsburg on 2016-11-30.

Tests carried out

Applicable tests according to Class Guidance DNVGL-CG-0339, November 2016.

Marking of product

The products to be marked with:
- model name
- manufacturer name
- serial number

Place of manufacture

ABB STOTZ-KONTAKT GmbH
Hauptstraße 14 - 16
78132 Hornberg

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE