

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Time Relays**with type designation(s)  
**CT-C Series**

Issued to

**ABB Stotz-Kontakt GmbH**  
**Heidelberg, Germany**

is found to comply with

**DNV GL rules for classification – Ships, offshore units, and high speed and light craft****Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Location classes:**

<b>Temperature</b>	<b>B</b>
<b>Humidity</b>	<b>B</b>
<b>Vibration</b>	<b>A</b>
<b>EMC</b>	<b>A</b>
<b>Enclosure</b>	<b>A</b>

Issued at **Hamburg** on **2020-07-07**for **DNV GL**This Certificate is valid until **2025-07-06**.DNV GL local station: **Augsburg**Approval Engineer: **Dariusz Lesniewski**

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**Joannis Papanuskas**  
**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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



## Product description

Time relays, CT..-C.xy Series

Dimensions:	CT-C range	17.5mm width
Supply voltage:	y = 1	12 ... 240 V AC/DC
	y = 2	24 ... 240 V AC 24 ... 48 V DC
Time range:		0.05 s ... 100 h
Output:	x = 1	1 SPDT contact
	x = 2	2 SPDT contacts (in one or two separate relay/-s)
	x = 3	Solid-state output
Function (CT..-C.xy)	MF	Multifunctional timer relay
	MK	Multifunctional timer relay with solid state output
	ER	Single-functional ON delay timer relay
	AH	Single-functional OFF delay timer relay
	AR	Single-functional OFF delay timer relay, without auxiliary voltage
	VW	Single-functional Impulse ON timer relay
	TG	Single-functional Pulse generator timer relay
	SD	Single-functional Star/Delta timer relay
Degree of protection:		IP 20 (Terminals)
		IP 50 (Unit)

## Place of manufacture

ABB STOTZ-KONTAKT GmbH  
 Hauptstraße 14  
 78132 Hornberg, Germany

ATM Electronics OOD  
 Trayan Tanev Str. 89  
 District Suhodol  
 1362 Sofia, Bulgaria

ATM Electronics OOD  
 Varna Str. 1  
 2850 Petrich, Bulgaria

## Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 classification of ships Pt.4 Ch.9 Control and monitoring systems.

## Type Approval documentation

Test Report: paconsult No. 20-12835 dated 2020.05.20  
 Test Report: paconsult No. 20-13087 dated 2020.04.27  
 Test Report: EMV Rhein-Neckar No.: 3808-326 dated 2020.05.28  
 Test Record: ABB PN-CT-xxC\_20-80-DR2\_DNVGL-CG-0339\_High voltage test\_A0.docx dated 2020.05.07  
 + Supplement: Detailed Test Results: High voltage test  
 Test Record: ABB PN-CT-xxS-update\_19-148\_DR1\_DNVGL-CG-0339\_Power supply variation tests\_A0.docx dated 2020.04.20

Job Id: **262.1-028490-1**  
Certificate No: **TAA00002TS**

Test Record: ABB PN-CT-xxS-update\_19-147\_DR1\_DNVGL-CG-0339\_Electrical power supply failure test\_A0.docx dated 2020.04.20  
Test Record: ABB PN-CT-xxS-update\_19-146\_DR1\_DNVGL-CG-0339\_Performance Test\_A0.docx dated 2020.04.20  
Test Record: ABB PN-CT-ARC-12\_Prototyp\_LEITUNGSGEBUNDEN-61000-4-6 dated 2020.06.19  
Document package: 'Technische Dokumentation.zip' – submission 06.2020  
(General drawings, Assembly drawings, Schematic drawings, Assembly drawings, BOMs)  
CT-C Range Technical Data – catalogue extract  
Firmware and Hardware Versions CT-xxC, dated 2020-06-30  
Type approval assessment report issued at Augsburg on 2018-05-30  
Type approval assessment report issued at Varna on 2020-06-17

### **Tests carried out**

Applicable tests according to class guideline DNVGL-CG-0339, December 2019.

### **Marking of product**

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

### **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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE