DNV·GL

Certificate No:
TAA000017D

TYPE APPROVAL CERTIFICATE

This is to certify:

That the electronic 3-phase measuring and monitoring relays

with type designation(s)
CM-PVS.xyz, CM-PSS.xyz, CM-MPS.xyz, CM-PAS.xyz, CM-MPN.xyz, CM-PFS.z

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:

Temperature	**B**
Humidity	**B**
Vibration	**B**
EMC	**B, A***
Enclosure	**B**

***EMC location class 'A' for CM-MPS.23z and CM-MPS.43z**

Issued at **Hamburg** on **2017-05-17**
This Certificate is valid until **2022-05-16**.
DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Dariusz Lesniewski**

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.

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Product description

Dimensions:
- Series CM-..S: 22,5 mm width
- Series CM-..N: 45 mm width

Supply / Monitoring Voltage 'x':
- 1 - 90-170Vac (L-N)
- 2 - 180-280Vac (L-N)
- 3 - 160-300Vac (L-L), 324-418Vac(L-L)
- 4 - 300-500Vac (L-L), 360-440Vac (L-L)
- 5 - 350-580Vac (L-L)
- 6 - 450-720Vac (L-L)
- 7 - 530-820Vac (L-L)
- Blank - for Type CM-PFS.z: 200-500 Vac (L-L)
- Mains frequency: 50...60Hz
- Time Range: 0.1...30s

Output 'y':
- 1 - 2 SPDT contacts in one relay
- 2, 3 - 2x1 SPDT contacts in two relays
- Blank - for Type CM-PFS.z: 50...60Hz; 2 SPDT contacts in one relay

Kind of terminal 'z':
- S - screw
- P - push-in-spring-force

Application/Limitation

CM-PV Over- and Undervoltage Monitoring Relay
CM-PS Over- and Undervoltage Monitoring Relay with fixed tresholds
CM-PF Phase sequence / Phase loss Monitoring Relay with fixed tresholds
CM-MP Multi-Functional Monitoring Relay
CM-PA Phase Unbalance Monitoring Relay

Type Approval documentation

EMV Rhein-Neckar Test Report No. 3893-382b
ABB STOTZ-KONTAKT Technical Documents and Test Reports as filed:
08/09 (GL-File 70.70 6028609), 01/12 (GL-Pr. 12-004331), 05/12 (GL-Pr. 12-069609)

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE