DNV·GL

Certificate No:
TAA000017C

TYPE APPROVAL CERTIFICATE

This is to certify:

That the insulation monitoring relays, series CM-IWx.yz

with type designation(s)
CM-IWS.1S, CM-IWS.1P, CM-IWS.2S, CM-IWS.2P, CM-IWN.1S, CM-IWN.1P, CM-IVN.S, CM-IVN.P

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	**A**
Enclosure	**B**

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

Approval Engineer: **Dariusz Lesniewski**

for **DNV GL**

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.

Job Id: **262.1-025270-1**
Certificate No: **TAA000017C**

Product description

CM-IWS.1z, CM-IWN.1z: AC, DC and AC/DC systems - insulation monitoring relay
CM-IWS.2z: AC systems - insulation monitoring relay
CM-IVN.z: Voltage expansion module for use with CM-IWN.1z
Supply voltage: 24..240V AC/DC (15…400Hz)

Model	Mains system voltage:
CM-IWS.1z	0...250V AC (15…400Hz)
	24...300V DC Rectified AC-Voltage
	0...240V DC Battery continuous charged
	0...270V DC Battery
CM-IWS.2z	0...400V AC (50/60Hz)
CM-IWN.1z	0...400V AC, 0..690V AC with CM-IVN.z (15…400Hz)
	24...600V DC, 24..1000V DC with CM-IVN.z Rectified AC-Voltage
	0…480V DC, 0.. 800V DC with CM-IVN.z Battery continuous charged
	0…550V DC, 0.. 920 VDC with CM-IVN.z Battery

Insulation resistance response range 1..100 kOhm , 2..200 kOhm
Width "x": S = 22.5, N = 45 mm;
Terminal "z": S = screw, P = push-in-spring-force
Degree of Protection: IP 50 (Unit) / IP 20 (Terminals)

Application/Limitation

Insulation monitoring relays for IT AC-, DC and AC/DC Systems

Type Approval documentation

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