

TYPE APPROVAL CERTIFICATE**This is to certify:****That the Contactor**

with type designation(s)
N22E, N31E, N40E, N44E, N53E, N62E, N71E, N80E

Issued to

ABB France
CHASSIEU Cedex, France

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

Application :

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

Rated Voltage (V) 690
Rated Current (A) 2 (AC 15)
Frequency (Hz) 50 / 60 and DC

This Certificate is valid until **2020-12-31**.

Issued at **Høvik** on **2015-12-28**

DNV GL local station: **Marseille**

Approval Engineer: **Nicolay Horn**

for **DNV GL**

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Marit Laumann
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.

Name and place of manufacturer

ABB France
Chassieu, France

ABB Xinhui Low voltage Switchgear Co. Ltd
Guangdong, China

ABB Ltd
Bangalore 560058, India

Product description

Contactors relays for use up to 690 volt.

Poles	4 or 8
Max. Current	see list below
Frequency	50 or 60 Hz
Coil voltage	Various
Insulating medium	Air
Rated insulation voltage	690 V
Impulse withstand	8 kV
Rated Making current	10 x I _e (AC 15)
Rated Breaking current	10 x I _e (AC 15)
Rated Withstand current	see list below

List of current and power ratings for 690 volt, I_{AC-15} and 250V, I_{DC-13} .

See manufacturers catalogue for current and power ratings for lower voltages.

Type	Nom. Current AC-15, at 690V t ≤ 55°C	Nom. Current DC-13, at 250V t ≤ 55°C	Withstand current*, 1s t = 40°C
N, all types	2 A	0.3 A	100 A

* Withstand current must be derated by 5% as DNV rules state max ambient temp of 45°C onboard ships, not 40°C as stated by IEC. Separate case-by-case approval is needed in each case to use the figures as listed.

Application/Limitation

For installations inside switchboard/enclosures onboard ships and offshore units.

Type Approval documentation

Technical info:
Manufacture's catalogue 1SBC 100122C0202.

Test reports:
CB test certificate FR602227B dated 2010-11-26. Test report no. 101630-603377B issued 2010-11-26.

Witnessed by DNV: ABB Control Test no. 16998

Tests carried out

Type tests according to: IEC 60947-5-1 (2003-11) + A1 (2009)
Other tests: Make and break, Insulation, power supply variation, inclination, vibration, damp heat, dry heat, high voltage.



Job Id: **262.1-003109-3**
Certificate No: **TAE00000TY**

Marking of product

Manufacturers type, standard reference, ratings

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at least every second year.

END OF CERTIFICATE