



TYPE APPROVAL CERTIFICATE

Certificate No:
TAE00001BV
Revision No:
5

This is to certify:

That the Contactor Relay

with type designation(s)
NF and CAL4, CAT4 & CA4

Issued to
ABB France
Chassieu, France

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Issued at **Høvik** on **2022-07-05**

for **DNV**

This Certificate is valid until **2026-06-30**.

DNV local station: **France CMC**

Approval Engineer: **Nicolay Horn**

Marta Alonso Pontes
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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.



Name and place of manufacturer

ABB France Chassieu, France	ABB Xinhui Low voltage Switchgear Co Ltd. Jiangmen City, Jinguzhou Industrial Development Zone Guangdong Province, China
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Product description

Contact relay NF & auxiliary contact CAL4, CAT4 & CA4 with the following data (with screw, spring or push-in terminals):

Free air continuous current Ith ambient temperature < 40 °C: 16 A
 Rated operation voltage Ue = 690 V
 Rated insulation voltage Ui = 690 V
 Uimp = 6 kV / 10.7 kV
 Making capacity AC-15: 10 x Ie AC-15
 Breaking capacity AC-15: 10 x Ie AC-15
 Short circuit protection gG type fuse: 10 A
 Rated short circuit protection current Icw: 100 A / 1.0 s 140 A / 0.1 s

Contact Utilization Charecteristics according to IEC: Type contactor relay

Type contactor relay		NF22E	NF31E	NF40E	NF44E	NF53E	NF62E	NF71E	NF80E
		2NO+2NC	3NO+1NC	4NO	4NO+4NC	5NO+3NC	6NO+2NC	7NO+1NC	8NO
AC-15	Rated	240 V	4 A						
	Operated	400 V	3 A						
	current (A)	600 V	2 A						
DC-13		24 V	6 A / 144 W						
		48 V	2.8 A / 134 W						
		110 V	0.55 A / 60 W						
		220 V	0.27 A / 68 W						
		400 V	0.15 A / 60 W						

Auxiliary contact: as listed in the catalogue

Application/Limitation

For installation inside switchboards/enclosures onboard ships and mobile offshore unit.

Data in the tables above is for an ambient temperature of 40 °C. For 45 °C ambient temperature the data must be derated with 5 %.

Type Approval documentation

Technical info:

«Just push it Push-in Spring motor starting solution», no. ISBC100212C021 brochure from ABB, dated 2018-03.
 “Motor protection and control. Manual motor starters, contactors and overload relays”, Main catalogue July 2016 (applicacable parts). “Contactor Relays”, Part of catalogue, pages 3 – 9. Part of CD “AA France Approval DNV Range AF, dated 2011-11-10.

Test reports:

Intertek test reports nos. 1818873STO-001 issued 2019-01-16 & 1917992STO-001 issued 2019-12-06.
 2021528STO-001 issued 2020-09-21,
 Parts of CD “AA France Approval DNV Range AF, dated 2011-11-10.

Tests carried out

Type tests in accordance with IEC 60947-5-1. Environmental tests in accordance with DNV Standard for Certification No. 2.4 (Vibration, Dry heat, damp heat and cold)



Job Id: 262.1-010482-12
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Marking of product

ABB France – Type designation – Ratings

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are 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 Routine tests (RT) checked (if not available tests according to 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 2 and 3,5 year and at renewal.

END OF CERTIFICATE