



Certificate No:
TAE00004BV

TYPE APPROVAL CERTIFICATE

This is to certify:

That the LV HRC-Fuse Links and LV HRC fuse bases

with type designation(s)
3NA..., 3NH...

Issued to

Siemens AG
REGENSBURG, 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.

Rated voltage (V) AC 500

Issued at **Hamburg** on **2021-08-13**

This Certificate is valid until **2026-08-12**.

DNV local station: **Augsburg**

for **DNV**

Approval Engineer: **Harald Amberger**

Arne Schaarmann
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.



Form code: TA 251

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Product description

Low Voltage HRC-Fuse Links NH 000, 00, 0, 1, 2, 3, 4, 4a, LV HRC fuse bases

Type:

3NA3... Non-insulated grip lugs and top indicator
3NA6... Isolated grip lugs and combination indicator
3NA7... Non-insulated grip lugs and combination indicator
3NH3... 1 pol. LV HRC fuse bases
3NH4... 3 pol. LV HRC fuse bases

Range of current rating:

NH 000	2A - 100A
NH 00	35A - 160A
NH 0	6A - 160A
NH 1	16A - 250A
NH 2	35A - 400A
NH 3	200A - 630A
NH 4	630A - 1250A
NH 4a	500A - 1250A

Operating class: gG, Rated voltage: 500V, Rated frequency: 45 up to 62Hz

Breaking capacity: 120kA (r.m.s.) at 500V AC, short circuit power factor : 0.1

Application/Limitation

Values above 315A are permitted for back-up protection only.

Type Approval documentation

Tests carried out

IEC 60269-1:2006 (4th edition)+ A1:2009, IEC 60269-2 (4th edition): 2010, Environmental tests acc. DNVGL-CG-0339

Marking of product

Acc. IEC 60269-1 subclause 6

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.

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