DNV·GL

Certificate No:
TAE000019B

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Automatic Fuse

with type designation(s)
NB1-63

Issued to
Zhejiang Chint Electrics Co.,Ltd
Wenzhou, China

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.

This Certificate is valid until **2021-08-07**.
Issued at **Hamburg** on **2016-08-08**

DNV GL local station: **Ningbo**

Approval Engineer: **Harald Amberger**

for **DNV GL**
Digitally Signed By: Schaarmann, Arne
Location: DNV GL Hamburg, Germany
Signing Date: 2016-08-08 , on behalf of

Duy Nam Le
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

Miniature Circuit Breakers with the following type designations:

Type NB1-63 and NB1-63H – 1, 2, 3 and 4 poles

Tripping characteristics:	B/C/D
Rated operation voltage (AC)	240/415 V *
Frequency	50 - 60 Hz
Rated current	1, 2, 3, 4, 6, 10 - 63 A
Breaking capacity Icn	10 kA (NB1-63H) 6 kA (NB1-63)
Power factor	0.2 – 0.25

* Suitable in a 415/240 V system.

Application/Limitation

The MCB's are tested with 1.1x Un and is therefore suitable in a 415/240 V system.

Tested in accordance with IEC 60947-2 Annex C (C2 test).

Type Approval documentation

Technical data: "NB1-63 DNV Application", undated.

Test reports: ETL SEMKO ref. nos. 617389-1/2/3/4 and 617393-1/2/3/4 all issued 2006-12-14, ref. no 306901-1/2/3 issued 2003-08-15"78, Shanghai Testing & Inspection Institute for Electrical Equipment test report ref. no 07065, issued 2007-11-19.

Tests carried out

Tpe tested according to IEC / EN 60898 "Circuit breakers for overcurrent protection for household and similar installations"and IEC 60947-2 "Circuit breakers". Vibration test, dry heat test and damp heat test in according to DNVGL-CG-0339 (Class A).

Marking of product

Product marking: NB1-63 – Zhejiang Chint Electrics - Type designation

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 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 2 year.

END OF CERTIFICATE