DNV·GL

Certificate No:
TAE00002R4

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Miniature Circuit Breaker

with type designation(s)
MBN..., MCN..., MB..., MC..., MT..., MU..., MTN..., MUN...

Issued to
Hager Electro SAS
Obernai, France

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

Application :

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

Issued at **Høvik** on **2018-02-19**
This Certificate is valid until **2023-01-15**.
DNV GL local station: **Le Havre**

Approval Engineer: **Marta Alonso Pontes**

for **DNV GL**

Andreas Kristoffersen
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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Job Id: **262.1-027711-1**
Certificate No: **TAE00002R4**

Product description

Type designation: MBN..., MCN..., MB..., MC..., MT..., MU…, MTN…, MUN…

Rated current, In:	6 - 63A, B Characteristics
Rated current, In:	0,5 - 63A, C Characteristics
Number of poles:	1P, 2P, 3P, 4P, 1P+N, 3P+N
Rated operational voltage, Ue:	240/415V AC
Rated insulation voltage, Ui:	500V AC
Rated frequency:	50/60Hz
Rated short circuit capacity, Icn:	6kA
Rated short circuit capacity, Ics:	6kA
Tripping characteristic:	B, C

Application/Limitation

Temperature class:	B
Humidity class:	B
Vibration class:	A

Type Approval documentation

Tests carried out

Guidelines for the Performance of Type Approvals Chapter 2, Edition 2012
IEC 60898-1:2015

Marking of product

Company name – Type designation – Type data

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