



Marine & Offshore  
Division

Certificate number: 03924/E0 BV

File number: ACE 03/017/01

Product code: 2645H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**MERSEN FRANCE SB S.A.S**  
SAINT BONNET DE MURE - FRANCE

*for the type of product*

**FUSES / FUSES COMBINATION UNITS (LOW VOLTAGE)**  
NH00, NH0, NH1, NH2, NH3 series.

**Requirements:**

BV Rules for the Classification of Steel Ships.  
IEC 60269-1 (2009)

*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 23 Dec 2020**

**For BUREAU VERITAS,**

At BV LYON, on 23 Dec 2015,  
Jean-Marc Cabuzel



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

| Designation/Fuse-link  | Rated voltage(V) | Rated current (A) | Breaking capacity (kA) |
|------------------------|------------------|-------------------|------------------------|
| <b>Knife-Cartridge</b> |                  |                   |                        |
| <b>NH00 gG</b>         | 690              | 8-100             | 120 kA<br>400/500V     |
| <b>NH00 gG</b>         | 500              | 125-160           |                        |
| <b>NH00 aM</b>         | 690              | 16-100            |                        |
| <b>NH00 aM</b>         | 500              | 125-160           |                        |
| <b>NH0 gG</b>          | 690              | 10-100            | 80 kA<br>690V          |
| <b>NH0 gG</b>          | 500              | 125-160           |                        |
| <b>NH0 aM</b>          | 690              | 40-160            |                        |
| <b>NH1 gG</b>          | 690              | 16-200            |                        |
| <b>NH1 gG</b>          | 500              | 224-355           |                        |
| <b>NH1 aM</b>          | 690              | 50-250            |                        |
| <b>NH2 gG</b>          | 690              | 32-315            |                        |
| <b>NH2 gG</b>          | 500              | 355-500           |                        |
| <b>NH2 aM</b>          | 690              | 100-400           |                        |
| <b>NH3 gG</b>          | 690              | 315-500           |                        |
| <b>NH3 gG</b>          | 500              | 630-800           |                        |
| <b>NH3 aM</b>          | 690              | 315-500           |                        |
| <b>NH3 aM</b>          | 500              | 630               |                        |

### 2. DOCUMENTS AND DRAWINGS :

According to documents filed in ACE 03/017/01.

### 3. TEST REPORTS :

According to test reports filed in ACE 03/017/01.

### 4. APPLICATION / LIMITATION :

4.1 - BV Rules for the Classification of Steel Ships.

4.2 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

### 5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above products are to be supplied by **MERSEN France SB S.A.S.** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320.

5.3 - **MERSEN France SB S.A.S.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products :

**FUSETECH KFT  
GUBA SANDOR UTCA 38  
7400 KAPOSVAR  
HUNGARY**

**6. MARKING OF PRODUCT :**

The items prescribed below shall be marked on a easily visible place of fuse surface in an indelible way.

- 1 - Rated voltage (V)
- 2 - Rated current (A)
- 3 - Rated breaking capacity
- 4 - Fusing Factor
- 5 - Manufacturer's name
- 6 - Model N°
- 7 - Approved class name.

**7. OTHERS :**

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **MERSEN France SB S.A.S.**, will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 03924/D0 BV issued on 14.Dec.2010. by the Society.

**\*\*\* END OF CERTIFICATE \*\*\***