



Marine & Offshore  
Division

Certificate number: 03924/E1 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*

www.veristar.com

## 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)**

Fuse links with indicator NH00, NH0, NH1, NH2, NH3 series (aM, gG).

**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 03 Apr 2017,  
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 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 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 :

Specification ref. DS-LFBCA5-05-0416\_EN, dated 21.Jun.2016.  
 Specification ref. DS-LFBCA54-03-0616\_EN, dated 21.Jun.2016.  
 Specification ref. DS-LFBCA6-05-0416\_EN, dated 21.Jun.2016.  
 Specification ref. DS-LFBCS4-06-0616\_EN, dated 21.Jun.2016.  
 Specification ref. DS-LFBCG5-04-0416\_EN, dated 22.Jun.2016.  
 Specification ref. DS-LFBCG6-04-0416\_EN, dated 21.Jun.2016.

### 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 **NH series** 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 and as such does not require a BV product certificate.

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.

**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 - It is **MERSEN FRANCE SB S.A.S** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 03924/E0 BV issued on 23.Dec.2015. by the Society.

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