



Marine & Offshore
Division

Certificate number: 03926/F0 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)

Plastic fuse bases for NH fuse links type sizes 00, 0, 1, 2, 3 (1 to 4 poles)

Ceramic fuse bases for NH fuse links type sizes 00, 0, 1, 2, 3 (1 & 3 poles)

Requirements:

BV Rules for the Classification of Steel Ships.

IEC 60269-1 (2014), IEC 60269-2 (2013).

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: 05 Oct 2021

For BUREAU VERITAS,

At BV LYON, on 05 Oct 2016,

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 electronic version is available at: <http://www.veristarp.com/veristarnb/jsp/viewPublicPdfTypec.jsp?id=zlmhtlzcjh>

BV Mod. Ad.E 530 October 2014

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

1.1 - Approval range:

Type	Designation	Rated voltage	Rated power/current
Plastic fuses base EP, TP, PP for fuse links NH sizes 00, 0, 1, 2, 3 for 1 to 4 poles	BB00	690V	12W
	BB01		25W
	BB02		25W
	BB03		25W
	BB04		25W
	BB11		32W
	BB12		32W
	BB13		32W
	BB14		32W
	BB21		45W
	BB22		45W
	BB23		45W
	BB24		45W
	BB31		60W
	BB32		60W
Ceramic fuses base E, EP, TP, P, PP for fuse links NH sizes 00, 0, 1, 2, 3 for 1 & 3 poles	BB33	690V	60W
	BB34		60W
	BB00		160A
	EB00		160A
	BB01		160A
	BB03		160A
	BB11		250A
	BB12		400A
	BB13		250A
	BB23		400A
BB31	630A		
BB33	630A		

2. DOCUMENTS AND DRAWINGS:

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

3. TEST REPORTS:

Mersen Test Report N° 1024303/1 to 1024303/14 dated October and November 2011.
Additional test reports issued by Siemens in 1995.

For F0 version:

Mersen:

- Test report No. 2015252/A, dated 20.Nov.2015.
- Test report No. 2015252/E, dated 04.Jan.2016.
- Test report No. 2015252/F, dated 20.Nov.2015.
- Test report No. 2015252/B, dated 20.Nov.2015.
- Test report No. 2015252/D, dated 04.Jan.2016.
- Test report No. 2015252/C, dated 04.Jan.2016.
- Test report No. 2015252/G, dated 20.Nov.2015.

ENVIRONNETECH:

Mechanical test report No. RENV-FNN-15-400691/A (00), dated 14.Oct.2015.

4. APPLICATION / LIMITATION:

Bureau Veritas Rules for the Classification of Steel Ships.

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 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 an easily visible place of fuse surface in an indelible way.

- Rated voltage (V)
- Rated current (A)
- Manufacturer's name
- Model N°

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° 03926/E1 BV issued on 23.Dec.2013. by the Society.

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