

Marine & Offshore

Certificate number: 55926/A0 BV File number: ACE3/104/1 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

SAINT BONNET DE MORE - FRANCE

for the type of product FUSES / FUSES COMBINATION UNITS (LOW VOLTAGE)

MODULOSTAR CMC series

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships for the Classification of Steel Ships IEC 60269-1 (2014), IEC 60269-2 (2016) IEC 60947-1 (2014), IEC 60947-3 (2015)

This certificate is issued to attest that Bureau Veritas Marine & Offshore 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: 20 Mar 2024

For Bureau Veritas Marine & Offshore, At BV LYON, on 20 Mar 2019, Florian Aulen

JREAU PARIS 1828 Z TIONA

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 Marine & Offshore. 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 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 Marine & Offshore 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.veristarpm.com/veristarnb/jsp/viewPublicPdfTypec.jsp?id=mzc4iahlto BV Mod. Ad.E 530 June 2017 This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

<u>1. PRODUCT DESCRIPTION :</u>

The MODULOSTAR CMC series are fuse holder for Marine application.

| Туре | Rated voltage | Rated current | Voltage insulation | Intended fuse |
|--------------|---------------|---------------|--------------------|---------------|
| CMC8 series | 690 V | 25 A | 6 kV | 8.5 x 31.5 |
| CMC10 series | 1000 V | 32 A | 6 kV | 10.3 x 38.1 |

- Number of poles: 1P, 1P+N, 2P, 3P, 3P+N, 4P.

- With or without fuse light melting indicator.

- Utilization category: AC20B.

- Protection index: IP 20.

2. DOCUMENTS AND DRAWINGS :

Datasheet Ref: DS-LACYCS8-01-0418_EN. Datasheet Ref: DS-LACYCS10-01-0418_EN. Drawing Ref: 1063212, dated 08 Nov 2017. Drawing Ref: 1063639, dated 08 Nov 2017.

3. TEST REPORTS :

VDE:

- CB scheme Ref: 249845-TL3-1, dated 28 Aug 2018.
- CB scheme Ref: 249846-TL3-1, dated 28 Aug 2018.
- CB scheme Ref: 250080-TL3-1, dated 19 Jul 2018.
- CB scheme Ref: 250080-TL3-2, dated 19 Jul 2018.
- CB scheme Ref: 250082-TL3-1, dated 19 Jul 2018.
- CB scheme Ref: 250082-TL3-2, dated 19 Jul 2018.

MERSEN:

- Test report Ref: 2018340 / A, dated 15 Oct 2018.
- Test report Ref: 2018296, dated 08 Aug 2018.
- Test report Ref: 2018292 / A, dated 31 Jul 2018.
- Test report Ref: 2018292 / B, dated 31 Jul 2018.
- Test report Ref: 2017346 / 60269 E, dated 25 May 2018.
- Test report Ref: 2017346 / ERF 2A, dated 23 Mar 2018.
- Test report Ref: 2017346 / ERF 2B / B, dated 30 Mar 2018.

4. APPLICATION / LIMITATION :

BV Rules for the Classification of Steel Ships.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The FUSES / FUSES COMBINATION UNITS (LOW VOLTAGE) 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.

5.4 - For information, MERSEN FRANCE SB S.A.S has declared to Bureau Veritas the following production site:

MERSEN FRANCE SB S.A.S 15 RUE JACQUES DE VAUCANSON F-69720 SAINT BONNET DE MURE FRANCE

6. MARKING OF PRODUCT :

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

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

7. OTHERS :

It is **MERSEN FRANCE SB S.A.S**'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.

*** END OF CERTIFICATE ***