

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00008EK

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Fire Doors

with type designation(s)

Fire Sliding Door A-60 / FSD A-60 A3000 XV double

Issued to

KAEFER Schiffsausbau GmbH
Bremen, Germany

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2022/1157,

item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511, IMO MSC.1/Circ.1319

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2028-08-14**.

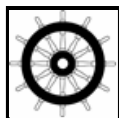
Issued at **Hamburg** on **2023-08-15**

DNV local unit:

Hamburg – CMC North/East

Approval Engineer:

Timo Linn



Notified Body
No.: **0098**

for **DNV GL SE**

Christine Mydlak-Roeder
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

"Fire Sliding Door A-60 / FSD A-60 A3000 XV double" consists of two sliding door leaves of the same size which are guided in a track or guide rail in front of an "A-60" bulkhead. (see Appendix A1, Fig.1.1 of mentioned test reports below)

The two non-bypass sliding door leaves consist of the individual panels "Lolamat W 50 LF A-60" which are connected together by means of a force-fit tongue and groove. (See appendices A4 and A5).

The individual panels "Lolamat W 50 LF A-60" have a sandwich structure with an insulation board core of Rockwool SeaRox. The Lolamat panels are bonded with the Rockwool core with an adhesive of approved type. The construction is as follows:

- Lolamat panel t = 3.0 mm
- Rockwool seaRox t = 44.0 mm
- Lolamat panel t = 3.0 mm

The frames of the two sliding fire door leaves are formed by U-profiles (AISI 304) at the upper edge and at the two adjacent perpendicular edges.

The upright L-profiles of the frame in addition to a flame labyrinth made of stainless-steel profiles (AISI 304) seal the sliding fire door leaves to the fire chamber.

The flame labyrinth consists, with the doors in the closed state, of interlocking metal angle sections which are provided with intumescent material (Promaseal GT). (See Appendix A3, Fig. 3.1 of test reports)

The test object door frame consists of L-profiles and a mild steel floor plate (red primed) to replicate the deck.

The frame is formed by three L-profiles screwed together which is in turn screwed to the bulkhead at intervals of 200 mm. (See Appendix A8, Fig. 8.1 of test reports)

At the meeting edge, the active door leaf runs into the entry funnel in the passive door leaf. The active door leaf is fitted with a hook lock to hold the door closed. There is a hose hatch located at the bottom of the meeting edge of the left door leaf.

Intumescent materials (Promaseal GT) are attached to the side surfaces of the entry funnel of the second door leaf.

The overall construction of the sliding door can be summarized as follows:

Clear opening dimensions of sliding door:	width 5000 mm, height 3050 mm
Sliding Door outside dimensions (in sum):	width 5176 mm, height 3100 mm, Thickness: 50 mm
Clear opening of bulkhead cut-out:	width 5110 mm, height 3095 mm

For further details see drawings listed under Type Examination documentation below.

Application/Limitation

The double sliding door is approved for installation in steel bulkheads of class A-60. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. clear opening dimensions of sliding door:	5000 x 3050 mm (W x H)
Max. size of door outside dimension (in sum):	5176 x 3100 mm (W x H)
Max. clear opening of bulkhead cut-out:	5110 x 3095 mm (W x H)

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the MED Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

The door has been successfully tested for extended test period of 68 minutes.

The product is to be supplied with its manual for installation, use and maintenance.

Type Examination documentation

Test report No. 20201195/02 dated 17 January 2023 from MPA Dresden, Freiberg, Germany.

Test report No. 20201195/01 dated 09 November 2022 from MPA Dresden, Freiberg, Germany.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire technical rating, the MED Mark of Conformity and USCG Approval Number if applicable (see first page).