

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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)
Class A-60 fire sliding door, type A 3000 Double

Issued to
KAEFER Schiffsausbau GmbH
Bremen, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511

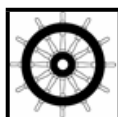
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-08-23**.

Issued at **Hamburg** on **2018-08-24**

DNV GL local station:
Bremerhaven

Approval Engineer:
John Alan Walton



Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudzus
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), as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

Double leaf sliding door "Type 3000 A Double:

Prototype double leaf sliding door whose maximum standard clear opening is 2320mm (W) x 2420mm (H) has been tested as per RINA Test Laboratory reports Nos. 2007CS014325/1 dated 19th October 2007 and No.2007CS014325/2 dated 9th November 2007:

Each leaf is composed of symmetrical panels having a total thickness of 50mm and its construction may include vertical and transversal joints. Such panels, having maximum dimensions of 1200 mm (W) x 2300mm (H), are composed of two slabs of material named LOLAMAT BOARD, 3 mm thick and having density of 1440 kg/m³, in between a mineral wool layer (thickness of 44 mm) and density of 170 kg/m³ named MEGAROCK or density of 195 kg/m³ named RPI 17 (manufacturer Rockwool). Metal containing profiles are fitted into the leaf blade edges. The panel joints are made removing the mineral wool on the panel edges (for a depth of 20mm) and fitting inserts, having construction identical to the panels, 42.5mm thick, and having width of 40mm. The inserts are glued to the LOLAMAT BOARD slabs by means of an approved adhesive (COSMOPUR KI 1644E). One leaf may be fitted with a self-closing hose port.

The door may be welded or bolted directly to the bulkhead or alternatively and with reference to the Technical Assessment report No.20181048 dated 17th July 2018 issued by MPA Dresden, be fitted to a steel structural mounting frame welded to the bulkhead around the opening in accordance with the Kaefer Welding Instruction Double Fire Sliding Door (Document No. SA18KD6DD021 dated May 2018).

Double leaf sliding door "Type 3000 A Double" with maximum clear opening sizes as listed below and as per RINA Thermal-mechanical analysis report Nos. TR 005/2009/TCHF dated 14th July 2009 and TR 2010/004/TCHD dated March 2010:

3500 mm (W) x 5000 mm (H)
5000 mm (W) x 4250 mm (H)

5000 mm (W) x 5000 mm (H)
6000 mm (W) x 2500 mm (H)
6000 mm (W) x 3000 mm (H)

The latter three versions shall be fitted with two additional rolling-pins fitted within each door leaf at a distance of 1250mm apart.

For further details refer to the documentation listed below under "Type Examination documentation".

Application/Limitation

The Class A-60 fire sliding door, type A 3000 Double is approved for installation in steel bulkheads of Class A-60. Installation of this door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

This fire door having larger dimensions than the fire-tested fire door may be individually assessed and accepted by the flag administration (or recognised organisation acting on its behalf) for a specific project with the same classification, provided documented compliance with IMO MSC.1/Circ.1319.

For larger doors exceeding 50% in surface area, a full analysis based on SOLAS Ch.II-2 Reg.17 should be performed to assess the safety of the vessel.

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

Each product is to be supplied with its manual for installation and maintenance.

Type Examination documentation

Job Id: **344.1-008554-1**
Certificate No: **MEDB00004G4**

KAEFER drawing Nos. BT07RI6KP099 (62 sheets) dated 1 October 2007 and IT07FU6SZ107 (8 sheets) dated 27 June 2008 approved respectively on 18 October 2007 and on 23 July 2008 with endorsement No. LABS-46 and No. LABS-159.

KAEFER drawing Nos. IT08FU6SZ001 (3 sheets) Rev. A and IT08FU6SZ002 (3 sheets) Rev. A dated 18 August 2008 and BT09AGITU098 dated 3 July 2009 approved on 15 July 2009 respectively with No. LABS-307, LABS-308 and LABS-309.

KAEFER drawing No. IT07FU6SZ118 page 1/3 Rev. C dated 6 August 2009 approved on 14 August 2009 with No. LABS-337 and KAEFER drawing No. BTIOFU6 1T008 dated 4 May 2010 approved on 5 May 2010 with No. LABS-443.

Kaefer Welding Instruction Double Fire Sliding Door (Document No. SA18KD6DD021 dated May 2018).

Tests carried out

IMO Res.MSC.61(67), Annex 1, Part 3; IMO Res. A.754(18) and in compliance with IMO Res.307(88) – (2010 FTP Code), Para 8.

Marking of product

The product is to be marked with name of manufacturer, type designation, MED Mark of Conformity and USCG approval number (if applicable).

Product marking with the MED Mark of Conformity and USCG approval number (if applicable) is not permitted before the Module B certificate is combined with a valid Module D certificate.