

EC-TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

DBI Certification did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with requirements of Marine Equipment Directive (MED) 2014/90/EU, subject to any conditions in the schedule attached hereto.

Manufacturer Address	Lethe GmbH, Seehafenstrasse 17, DE-21079, Hamburg, Germany
Directive Reference	MED Directive 2014/90/EU , Regulation as amended by MED (EU) 2017/306.
Regulation Item	MED/3.16 Fire doors
Product Type	Class B-15 Doors
Product Description	B-Class doors designated LYD 3PLUS-B15
Specified Standards	IMO Res. MSC.61(67)-(FTP code) Annex 1 Part 3 and Annex 2, IMO MSC/Circ. 1120 and IMO MSC.1/Circ.1273

The attached (*schedule of approval*) forms part of this certificate.


This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with.

Date of issue 2017-08-16 Issued by DBI Certification Notified Body No. **2531**
Expiry date 2022-08-16

*The certificate supersedes the certificate version issued: 2012-08-16 by NB no. 0845
This certificate was first issued 2012-08-16 by NB no.0845.*

Signed

Name


Allan Laursen
Responsible for evaluation


Merete Poulsen
Responsible for certification decision

This product has been assigned a USCG Approval Category No.:164.136/EC2531 to note type approval to module B only as pertains to obtaining US Coast Guard approval 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. This approval is limited to fire doors without windows and doors with a total window area of 645 cm², or less, in each door leaf. Approval limited to maximum door size tested

Notes:

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the notified body named on this certificate.

Should the specified regulations or standards be amended during the period of validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on the market and on board vessels to which the amended regulations or standards apply.

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-control phase module (D, E, or F) of ANNEX B of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

In case limitations of use apply, these should be indicated in the Annex of this certificate.

This certificate is issued under the authority of the Danish Maritime Authority.

(Annex) Schedule of Approval

Place of Production

Lethe GmbH, Seehafenstrasse 17, DE-21079, Hamburg, Germany

Product Description

Door leaf:

The exterior dimensions of the door leaf are 1068 x 2078 x 64.5 mm (width x height x thickness).

The clear opening dimensions of the door are 1000 x 2050 mm (width x height).

The door leaf is manufactured from 0.8 mm aluminium sheet and reinforced inside along all four edges with 2 mm thick aluminium profiles. The frame consists of the following profiles:

- Along the top of the door leaf an outer aluminium U-profile 65 x 48.5 x 65 x 2 mm is mounted with a second 30 x 44 x 30 x 2 mm aluminium U-profile placed inside along the top of the outer U-profile. Opposite to the inner U-profile another U-profile 20 x 44 x 20 x 2 mm aluminium is mounted to form a closed rail for the door closer mechanism. 6 x 40 mm Promatect H is glued inside along the bottom of the lower U-profile.
- Along the hinged side as well as along the lock side, 20 x 48.5 x 20 x 2 mm aluminium U-profile. Extra reinforcement consisting of a 16 x 44 x 16 x 3 mm steel U-profile is mounted along the hinges.
- Along the lock side an extra reinforcement consisting of 1.5 mm steel was forming a cover casing for the lock. This casing is insulated outside with 6/20 mm thick Promatect H glued to the steel sheet.
- An aluminium-profile 20 x 16.3 x 32.5 x 20 x 16.3 x 2 mm is mounted inside along the bottom of the door leaf forming a groove for the automatic door seal device. The profile is fixed along the bottom of the door leaf with seven \varnothing 3 mm steel pop rivets.
- Outside along the bottom, two 20 x 13 x 0.8 mm stainless steel L-profiles are mounted with a distance between the two 20 mm flanges along the bottom edge, making space for the automatic door seal to pass through. Both profiles are fixed to the door leaf with four \varnothing 4 mm aluminium pop rivets.
- A 13 x 55.6 x 13 x 0.8 mm stainless steel U-profile is mounted outside along the vertical edges as well as the top edge of the door leaf. The profiles are fixed to the door leaf with M4 stud bolts, six along the vertical edges and three along the top edge.

The insulation inside the door leaf consists of Rockwool Marine Slab 150 glued to the aluminium sheets.

The door leaf is mounted with an extra cover plate on one face.. A 12 mm thick honeycomb aluminium composite board is glued to the door leaf with Jowapur 683.24. The exterior dimensions of the cover plate are 1033 x 2058 mm (width x height). The cover plate may be mounted on both sides of the door leaf or omitted altogether.

Along the top and the vertical edges of the cover plate the door leaf is mounted with a sealing gasket.

The door leaf is furnished with two or three stainless steel hinges visible at the unexposed face of the door leaf, one latch/bolt lock, and along the top with an automatic door closer. The following types of hinges may be used: Tectus TE 525 3D (located outside or inside door leaf) and VN 7748/100 (visible).

A sealing gasket (type ADÜTP from GFA-Dichtungen) may also be mounted on the door leaf.

An automatic door seal is mounted along the bottom. The door seal is activated by means of a pivot sticking out at the hinged side of the door leaf. By closing of the door the pivot is pressed inwards and hereby activating the door seal. The door seal was mounted with 8 x 2.5 mm Promaseal PL 2.5 SK inside.

Door frame:

The door frame is manufactured from three profiles formed of 1.25 mm galv. steel sheet as listed below:

- Towards the exposed side the frame profile consists of a profile with the external dimensions 6 x 11 x 83 x 75 x 20 x 1.25 mm.
- Towards the unexposed side the frame profile consists of a profile with the external dimensions 17 x 65 x 58.5 x 18 x 17.5 x 19.8 x 7 x 1.25 mm.
- Placed inside the above mentioned profiles is a C-shaped profile with the external dimensions 10 x 42 x 71 x 42 x 10 x 1.25 mm. This profile is filled out with Rockwool Marine Slab 150 insulation (pos. 6).
- The bottom frame (door sill) consists of a 12 x 18.5 x 72.5 x 18.5 x 12 x 3 mm steel profile covered by a cover profile 18.5 x 75 x 18.5 x 1.5 mm stainless steel.

The exterior dimensions of the door frame are 1206 x 2173 x 77.5 mm (width x height x thickness).

15 x 2.5 mm Promaseal PL 2.5 SK intumescent strips are mounted towards the door leaf inside the 20 mm rabbet of the door frame. Covering the Promaseal strips the door frame is mounted with a sealing gasket (type ADTP-2642b from GFA-Dichtungen).

The stone wool used in the door, is of type "Rockwool Marine Slab 150" with a nominal density of 150 kg/m³.

The calcium silicate board used in the door is of type "Promatect H" with a nominal density of 870 kg/m³.

The adhesives used in the door, is of type "Promat-Kleber K84" and "Jowapur 68324" and is to be applied in an amount of 1050 g/m² and 200 g/m² respectively.

Product Classification

Doors mounted in a B-Class bulkhead and manufactured as described above may be regarded as a Class B-15 Doors.

Application / Limitation of Product

Minimum thickness of the door leaf is 51 mm.

Since the door fulfils the requirements regarding insulation and integrity stated in MSC.1/Circ.1273 the following extended measures may be accepted for a specific project:

The maximum height of the door leaf is 2390 mm, the maximum width of the door leaf is 1228 mm, but the maximum area of the door leaf must not exceed 2.44 m².

The insulation material, any surface materials and the adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

The insulation materials used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity

Type Approval Documentation

Test report: DBI File PGA10061, Serial No. 13337, dated 2012-08-14.

Drawings: Nos. LYD 3PLYS-B15/1415/01 and LYD 3PLUS-B15/1415/02 dated both from Lethe GmbH and dated 2012-08-08.

Tested according to Recommendation on Fire Test Procedures for "A", "B" and "F" Class Divisions, IMO Resolution A.754(18) as well as the International Code for Application of Fire Test Procedures, Resolution MSC.61(67)), IMO FTP Code, Annex 1 Part 3, Test for "A", "B" and "F" Class Divisions, together with the unified interpretations of SOLAS chapter II-2, the FSS Code, the FTP Code and related fire test procedures (IMO MSC/Circ. 1120 and IMO MSC.1/Circ.1273).

Test report: DBI File PGA10117, Serial No. 13412, dated 2012-04-15.

Drawings: Nos. LYD 3PLYS-B15/3415/01 and LYD 3PLUS-B15/3415/02 both from Lethe GmbH and dated 2012-04-19.

Tested according to International code for Application of Fire Test Procedures, 2010 Resolution MSC.307(88), 2010 FTP Code, Annex 1 part 3, Test for "A", "B" and "F" Class Divisions.

Assessment: DBI File PHA10207, dated 2012-08-06.

Drawings: No. LYD 3PLUS-B15-131e/01 dated 2012-07-10, LYD 3PLUS-B15-131s/01 dated 2012-04-18, LYD 3PLUS-B15-133s/01 dated 2012-07-10, LYD 3PLUS-B15-231e/01 dated 2012-07-10, LYD 3PLUS-B15-231s/01 dated 2012-07-10 and LYD 3PLUS-B15-233s/01 dated 2012-07-10 all from Lethe GmbH.

Assessed according to Recommendation on Fire Test Procedures for "A", "B" and "F" Class Divisions, IMO Resolution A.754(18) as well as the International Code for Application of Fire Test Procedures, Resolution MSC.61(67)), IMO FTP Code, Annex 1 Part 3, Test for "A", "B" and "F" Class Divisions. The assessment comprises three types of hinges, single or double gasket layer and application of 12 mm honeycomb aluminium composite board to one or both sides of the door leaf.

Marking of Product

The product or packing is to be marked with name of manufacturer, type designation, technical rating and Mark of Conformity.

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-control phase module (D, E, or F) of ANNEX II of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

End of Certificate