DNV·GL

Certificate No:
MEDB00004DH

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Fire Doors

with type designation(s)
Fire door "A-type"

Issued to
BY Controls Inc.
Gimhae-si, Gyungsangnam-do, Republic of Korea

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 **2023-10-08**.

Issued at **Høvik** on **2018-10-09**

DNV GL local station:
Gimhae Station

Approval Engineer:
Helge Bjørnarå

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
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 United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005.

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 AS 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

NORWEGIAN ACCREDITATION PROD 019

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Product description

Fire door "A-type",
a single leaf sliding door. Door leaf is composed from 24 mm thick steel frame and 8 mm thick steel plate stiffened by 8 mm thick angle bars and insulated by three layer (1st layer of 75 mm thickness with nominal density of 64 kg/m^3; 2nd and 3d layer of 45 mm thickness each with nominal density of 128 kg/m^3) of insulation type "Firemaster Marine Plus Blanket" from Thermal Ceramic UK Ltd.

Total thickness of door leaf is 195 mm.

Door frame, top rail and bottom rail are composed of steel plates supported by steel brackets. Door frame and top rail are insulated with 45 mm thick insulation with nominal density of 128 kg/m^3 type "Firemaster Marine Plus Blanket" by Thermal Ceramic UK Ltd. Insulation is fixed by pin and washer system. For pin pattern, refer to drawings mentioned below. Door frame is fullly welded into the bulkhead.

For further details see Type Examination documentation below.

Application/Limitation

The 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.

This certificate only covers fire technical properties of the product.

Maximum size of clear opening: 1200 mm x 2100 mm (W x H)

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

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

Type Examination documentation

Fire test report No. KOMERI-0402-13T642 dated 2013-06-28 from Korea Marine Equipment Research Institute, Korea.

Drawing (as part of test report) Nos.: PLTN322 Rev.A; PLTN268 Rev.B; PLTN285 Rev.A; PLTN286 Rev.B; PLTN323 Rev.A; PLTN327 Rev.B; PLTN328 Rev.A from manufacturer.

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, Mark of Conformity and USCG approval if applicable (see page 1).