# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
**MEDB00007T6**

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 AS under the authority of the Government of Norway.

## This is to certify:

**That the 'A' and 'B' class fire proof windows and side scuttles**

with type designation(s)
**Marine Class A-60 Fireproof High Sound Reduction Rectangular Window**

Issued to
**Wuxi MNET Equipment Tech Co., Ltd.**
**Wuxi, Jiangsu, China**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
**item No. MED/3.25. SOLAS 74 as amended, Regulation II-2/9, IMO MSC/Circ.1120 and IMO 2010 FTP Code, IGC Code 3**

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

This Certificate is valid until **2027-04-19**.

Issued at **Høvik** on **2022-04-20**

DNV local station:
**Jiangyin NB & CMC**

Approval Engineer:
**Thorvald Furuseth**

Notified Body
No.: **0575**

for **DNV AS**

**Sverre Olav Bergli**
**Head of Notified Body**

NORWEGIAN ACCREDITATION PROD 019

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

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

"Marine Class A-60 Fireproof High Sound Reduction Rectangular Window"

An assembly composed of a window glass unit with framing and sealing arrangement.

The window glass unit can be one of the two below types:

1. 15 mm toughened glass + 6 mm air layer + 5 mm toughened glass + 22 mm fireproof solution + 5 mm toughened glass. Total glass unit thickness is 53 mm. (Glass unit is from Yixing City Yushi Special Glass Co., Ltd.).
2. 12 mm toughened glass + 6 mm air layer + 8 mm toughened glass + 22 mm fireproof solution + 5 mm toughened glass. Total glass unit thickness is 53 mm. (Glass unit is from Qinhuangdao Haigang Yuehua Industrial Technical Glass Factory).

The framing consists of a 75 x 75 x 10 mm angle steel main frame which has an aluminium assistant window frame bolted to it (using M8 steel bolts) with 3 pcs 8 mm thick YB fireproof boards in between. A steel glass press ring is screwed to the opposite side of the assistant window frame (using M6 steel bolts) to hold the glass unit in place. The window installation also includes burn resistant rubber packing, expansion graphite fireproof tape and TG-2 ceramic wool.

The steel main frame is seal welded to the steel bulkhead from both sides.

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

## Application/Limitation

The window is approved for installation in steel bulkheads of class A-60. Other applications are subject to case-by-case approval.

Restricted application: fire against 15 mm/ 12 mm toughened glass (fire from outside).

Maximum size of exposed fire technical glazing unit: 1850 x 1250 mm (W x H).
Maximum clear light size: 1800 x 1200 mm (W x H).

The window has only been evaluated with respect to fire technical properties (e.g. strength requirements have not been considered). Arrangement and location of any window is subject to approval from relevant authorities in each case.

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

## Type Examination documentation

Test report No. FT09188 dated 2 September 2009 (window type 1 above) from FEFTC Shanghai, China.
Test report No. FT09189 dated 3 September 2009 (window type 2 above) from FEFTC Shanghai, China.

Drawing No. 261WHL069-00, dated 26 May 2009, from Wuxi Delin Marine and Ocean Technology (Group), China.
Drawing No. 261WHL069-01, dated 26 May 2009, from Wuxi Delin Marine and Ocean Technology (Group), China.
Drawing No. 261WHL069-02, dated 26 May 2009, from Wuxi Delin Marine and Ocean Technology (Group), China.
Drawing No. 261WHL069-03, dated 26 May 2009, from Wuxi Delin Marine and Ocean Technology (Group), China.
Drawing No. 261WHL069-04, dated 26 May 2009, from Wuxi Delin Marine and Ocean Technology (Group), China.

## Tests carried out

Tested according to IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch. 8.

## Marking of product

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