

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 'A' and 'B' class fire proof windows and side scuttles

with type designation(s)

WDF-C29 Type Class A-60 Soundproof Electrical Heated Fire Window

Issued to

Wuxi Dongzhou Marine Equipment Co., Ltd
Wuxi, China

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

Regulation **(EU) 2020/1170,**

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

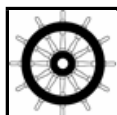
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-12-29.**

Issued at **Hamburg** on **2020-12-30**

DNV GL local station:
Jiangyin NB & CMC

Approval Engineer:
Marcin Tobiasz



Notified Body
No.: **0098**

for **DNV GL SE**

Christine Mydlak-Roeder
Head of Notified Body

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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

"WDF-C29 Type Class A-60 Soundproof Electrical Heated Fire Window"

a rectangular window constructed of outside rim, auxiliary window frame, soundproof electrical heated fireproof glass, press plate, insulation and seal materials.

- 71.28 mm glass assembly provided by Qinghuangdao Yaohua Industrial and Technical Glass Co., Ltd. Assembly is composed of 19 mm thick tempered glass, 22 mm thick fireproof liquid, 6 mm thick tempered glass, 9 mm thick mid-air gap, 8 mm thick tempered glass, 2.28 mm thick electrical heating wire and 5 mm, thick tempered glass.
- Press plate: 6 mm thick aluminium alloy. The press plate of window is fixed to the outside rim by 104 pcs M6 x 16 mm stainless steel bolts.
- Auxiliary window frame is made of 1 mm thick steel plate and is fixed to the press plate by 40 pcs M4 x 30 mm stainless steel bolts.
- insulation is a TG-II-2 type ceramic wool (density 170 kg/m³, produced by Yixing Yuanyang Ship Materials Co., Ltd.) and 10 mm YB type inorganic fireproof board (density 1000 kg/m³, produced by Suzhou Youlian Ship's Equipment Co., Ltd.).
- Seal material:
 - watertight rubber strip 5 x 20 mm thick provided by Jiangyin Haida Rubber Co., Ltd. Placed between window glass and outside rim,
 - fireproof rubber strip 4 x 20 mm thick provide by Shanghai Jiaer Fu Decoration Material Co., Ltd. Used between window glass and press plate.

The window frame is fixed to the bulkhead by welding.

For further details see 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 19 mm tempered glass (from the outside)

Maximum size of fire window: 1742 mm x 2022 mm (W x H)

Maximum clear light size: 1640 mm x 1920 mm (W x H)

Maximum size of glass pane: 1700 mm x 1980 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 authority in each case.

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

Type Examination documentation

Test report no. FT17240 dated 2 November 2017 from Far East Fire Testing Centre, Shanghai, China.

Drawing No. 261WDF1704-00 (2 pages) dated 9 June 2017 from manufacturer.

Drawing No. 261WDF1704-01 dated 9 June 2017 from manufacturer.

Drawing No. 261WDF1704-02 dated 9 June 2017 from manufacturer.

Drawing No. 261WDF1704-03 dated 9 June 2017 from manufacturer.

Drawing No. 261WDF1704-04 dated 9 June 2017 from manufacturer.

Tests carried out

Tested according to IMO Res. MSC.307(88) - 2010 FTP Code, Annex 1, Part 3.

Marking of product



Job Id: **344.1-010860-1**
Certificate No: **MEDB00006XX**

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