



Certificate No:
TAF00001GV

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class A Door

with type designation(s)
Class A0-1 fire door

Issued to

DSEI Co., Ltd.
Changwon-si, Republic of Korea

is found to comply with

DNV GL rules for classification – Ships

DNV GL offshore standards

DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Approved for use as an integrated part of fire retarding division of class A-0.

This certificate is recognized by Transport Canada.

Issued at **Høvik** on **2021-09-16**

This Certificate is valid until **2026-09-15**.

DNV local station: **Gimhae**

for **DNV**

Approval Engineer: **Karolina Kuśmider**

Helene David-Andersen
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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.



Form code: TA 251

Revision: 2021-03

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Product description

"DSEI-A0-1"

is a single leaf hinged door constructed of 0.6 mm thick door panel with an insulating core of one layer of a 35 mm thick 140K mineral wool (density 140 kg/m³, produced by Byucksan Co. Ltd.). The door leaf is covered by one layer of a 1.6 mm thick doubling plate. The insulation is glued to the steel plate with OCUA-970SNF type adhesive produced by Daihan Polymer Co., Ltd.

Total door leaf thickness is 38 mm.

The door leaf is fixed to the frame with 4 steel hinges. The four-sided door frame is composed of 1.6 mm thick steel plate and the frame may either be welded or bolted (M4 x 38 and M5 x 25) to the bulkhead spaced maximum 300 mm apart.

The door is fitted with:

- A fireproof window in the upper part of the door. Its size is 470 mm x 570 mm (W x H) and its thickness is 16 mm. The window is of Kontlafoam (RFG-T2D16) type, produced by Jeong-am Safety Glass Co. Ltd.
- A hose port of 150 mm x 150 mm size in the lower end of the door.
- A fireproof MD-7000 type lock provided by Monday Co., Ltd. The lock is installed at 1050 mm height above the bottom edge of the door leaf.

For details, see drawings listed under Type Examination documentation.

Application/Limitation

Approved for installation in steel bulkheads of class A-0. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) is subject to case-by-case approval.

Maximum door leaf size: 1034 mm x 2112 mm (W x H)
Maximum clear door opening: 1000 mm x 2100 mm (W x H)
Maximum clear window opening: 400 mm x 500 mm (W x H)
Maximum clear fire hose opening: 150 x 150 mm (W x H)

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.

Note that this is a fire safety certificate which only covers fire technical properties (i.e. not to cover strength evaluations related to watertightness, weathertightness, etc.).

A fire door of marginally larger dimensions than a fire-tested fire door may be individually assessed and accepted by Flag Administration (or Recognized Organization acting on its behalf) for a specific project with the same classification, provided documented compliance with IMO MSC.1/Circ.1319.

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.

Test Report no. KOMERI-0402-17T1607, dated 27 November 2017, from Korea Marine Equipment Research Institute, Busan, Korea.

Drawing no. DSEI-A-17381 dated 03 August 2017 from the manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

The door has been successfully tested for extended test period of 68 minutes.

Marking of product

The product is to be marked with name of manufacturer, type designation and fire-technical rating.

Transport Canada Approval



Job Id: **262.1-035172-1**
Certificate No: **TAF00001GV**

Based on the procedures laid down in the Transport Canada Publication entitled "Procedures for Approval of Life-Saving Appliances, Fire Safety Systems, Equipment and Products (TP 14612)", DNV confirms that the product listed in this certificate is in accordance with Transport Canada's requirements.

Periodical assessment

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.