

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class A Door**with type designation(s)
ZMA60CX Type Class A-60 Fire Door

Issued to

Huanan Building Materials (Shenzhen) Co., Ltd.
Dongguan City Guangdong, Chinais found to comply with
DNV GL offshore standards
DNV GL rules for classification – Ships
DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations**Application :****Approved for use as an integrated part of fire retarding divisions of class A-60.****This certificate is recognized by Transport Canada.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2018-01-15**This Certificate is valid until **2022-12-31**.for **DNV GL**DNV GL local station: **Guangzhou FiS**Approval Engineer: **Piotr Orzechowski**

Mårten Schei-Nilsson
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.



Product description

"ZMA60CX Type Class A-60 Fire Door"

a single leaf hinged door composed of a 37 mm insulation material, density 120 kg/m³ (manufactured by Rockwool Firesafe Insulation Co., Ltd.), covered with 6 mm thick calcium silicate board on each side, faced with 0.55 mm thick galvanized steel plate on both sides. The door leaf is fitted with three hinges and C-1 type steel door lock (Nantong Hujiang Locks Co., Ltd.).

The three sided door frame composed of 3 mm steel sheets with continuous groove arranged inside of the door frame for the expansion rubber strip.

The door frame is screwed to the bulkhead by M6x25 stainless steel screws leaving the distance of 360 mm from the top of door frame to the top of bulkhead. The frame may also be welded to the bulkhead.

The door may also be fitted with:

- Observation Window type FB-32, clear opening size: 420 x 420 mm (Width x Height), consisting of 5 mm normal glass, 22 mm fireproof solution and 5 mm normal glass, nominal thickness 32 mm.
- Fire Hoseport in lower corner of the lock side, clear opening size: 150 x 150 mm (Width x Height)

Total thickness of door leaf is 50 mm.

For further details, see drawings or test report listed under Type Approval 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.

Maximum size of door leaf: 1036 mm x 2206 mm (width x height)
Maximum size of clear opening: 1000 mm x 2200 mm (width x height)

Any surface materials used have to be approved for smoke and toxicity and low flame spread characteristics (IMO 2010 FTP Code parts 2 and 5 or IMO FTPC Parts 2 and 5 when in compliance with the 2010 FTP Code Ch. 5.2 and 8) when required according to relevant rules and regulations

The 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, October 2017.

Test report No. FT13188, dated 8 July 2013, from Far East Fire Testing Centre (FEFTC), Shanghai, China.

Drawing No. Q262HN89-00SY (nine sheets) dated 10 May 2013 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 of manufacturer, type designation and fire-technical rating.

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)", DNV GL confirms that the products listed in this certificate are in accordance with Transport Canada's requirements.

Periodical assessment

DNV GL'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.