

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00008GG

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 Fire dampers

with type designation(s)
CSFH, CQFHD, CQFH, CDFH, CDFHD

Issued to

Jiangsu Josun Air Conditioner Co., Ltd.
TAIXING, JIANGSU, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation (EU) 2022/1157,
item No. MED/3.22. SOLAS 74 as amended, Regulation II-2/9 and IMO 2010 FTP Code

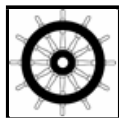
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2028-09-21**.

Issued at **Hamburg** on **2023-09-22**

DNV local unit:
Jiangyin NB & CMC

Approval Engineer:
Izabela Misztal



Notified Body
No.: **0098**

for **DNV GL SE**

Christine Mydlak-Roeder
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) 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. 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

“CSFH, CDFH, CQFH, CDFHD and CQFHD”

are single or multi-bladed, rectangular and circular fire dampers with a manual, electric or pneumatic actuation intended to use on bulkheads.

The fire damper blades are formed by two layers of 1.2 mm thick steel plates filled with ceramic wool between them.

Insulation of casing and blades core:

‘TG-2 type ceramic wool’ produced by Changzhou Thermal Insulation Material Factory Co. Ltd. of 170 kg/m³ density.

The fire dampers are fixed to the casing by means of the following steel bolts:

M8 Ø: CDFH 600 x 320, CSFH DN160, CDFHD DN600, CQFH 1200 x 320, CDFHD 700 x 700

M12 Ø: CQFHD 1200 x 1200

M16 Ø: CQFHD DN1000

M20 Ø: CQFHD DN1600

M10 x 50 mm: CQFHD 1600 x 1600

M8 x 40 mm: CSFH DN320

M8 x 45 mm: CSFH 200 x 320

For further details, see Type Examination documentation below.

Application/Limitation

The fire dampers are approved for installation in steel bulkheads. Other applications are subject to case-by-case approval.

Fire Damper type	Max. damper size (W x H) [mm]	Steel blade shape	Coaming thickness [mm]	Damper body wall thickness [mm]	Coaming length on unexposed side [mm]	Material	Max. number of blades	Blade max. size W x H x T [mm]	Application
CSFH	200 x 320	rectangular	5	4	650	SS	1	195 x 314 x 27	A60
CDFH	600 x 320	rectangular	4	4	650	SS	1	575 x 314 x 27	A60
CQFH	1200 x 320	rectangular	6	6	650	SS	1	1195 x 314 x 27	A60
CDFHD	700 x 700	rectangular	4	4	650	SS	3	695 x 229 x 27	A60
CQFHD	1600 x 1600	rectangular	10	10	650	SS	14	750 x 226 x 32	A60
CSFH-DN	Ø160	round	5	4	650	SS	1	Ø154 x 27	A60
CSFH-DN	Ø320	round	5	4	650	SS	1	Ø314 x 27	A60
CDFHD-DN	Ø600	round	5	4	650	SS	3	Ø544 x 27	A60
CQFHD-DN	Ø1000	round	6	6	650	SS	5	Ø939 x 27	A60
CQFHD	1200X1200	rectangular	5	6	650	SS	5	1195 x 236 x 32	A60
CQFHD-DN	Ø1600	round	10	10	650	SS	7	1551 x 226 x 32	A60

Steel thickness of damper casing to be equal to or greater than thickness of duct/sleeve required by the rules if the damper casing is part of the duct/sleeve.

The fire dampers may be operated by actuators of the following types (*):

- Pneumatic actuators:
 - o Type: “RS-63”, “RS-105” and “RS-125”,
- Electric actuators:
 - o Type: “BF230”,
- Manual actuators:
 - o Type: “DL-I-2”.

(*) Actuators of same make but with different size as mentioned above may also be used, provided that they have sufficient torque, similar installation arrangement and equivalent fire technical and functional properties.

The insulation used is to be regarded as minimum insulations for all fire rating and is not to be removed if the fire damper is to be used in division with lower fire ratings.

The damper shall be capable of being closed from both sides of the bulkhead.

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

Type Examination documentation

Test reports Nos.

- FT22198 dated 31 October 2022
- FT22199 dated 01 November 2022
- FT22200 dated 31 October 2022
- FT22201 dated 03 November 2022

all from FEFTC Far East Fire Testing Centre, Shanghai, China.

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, the MED Mark of Conformity and USCG Approval Number if applicable (see first page).