EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB00008RJ

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 Fire door control systems (components)

with type designation(s)
ECS2023

issued to
Parmarine Oy
LEPPÄVIRTA, Finland

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2023/1667,**
item No. MED/3.17. SOLAS 74 as amended, Regulation II-2/9 & X/3, 2000 HSC Code 7 and IMO 2010 FTP Code

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

This Certificate is valid until **2028-11-08**.

Issued at **Høvik** on **2023-11-09**

DNV local unit:
Finland CMC

Approval Engineer:
Nanna Martine Jacobsen

Notified Body
No.: **0575**

for **DNV AS**

Sverre Olav Bergli
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), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2023 dated August 21st, 2023.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

ECS2023,
is an electrical fire door control system for A-60 sliding doors. Main system components are control box, DC motor with planetary gear box (type M4, PN 267, manufactured by Crouzet), motor connecting box (type X6, PN 166, manufactured by Digitools), open and close limit switches (type E2A-M12KN08-M1-B1, manufactured by Omron), flexible hose system and interconnecting wiring.

The control of the system is located inside the control box and contains the controls of the system (Schneider Electric Main switch and Ormon PLC) as well as the UPS, battery pack, DC converter and Thermostat. The outer dimensions of the control box are 400 x 600 x 226 mm (W x H x B) and it is made of 1.5 mm thick steel. Additionally, there is a steel cover on the inside of the control box that have a thickness of 2.0 mm. The cavity between the outer and inner cover is insulated with 25 mm thick Insulfrax LTX blanket (density of 128 kg/m^3, manufactured by Unifrax) and 20 mm Paroc Marine Slab LO 150 (density 150 kg/m^3, manufactured by Paroc). The side of the control box facing the bulkhead is insulated with 25 mm thick Insulfrax LTX blanket. The control box door is insulated with 25 mm Insulfrax LTX blanket and 19 mm HT/Armaflex (manufactured by Armacell) and do not have an additional steel cover inside of the box.

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

Application/Limitation

Approved for use as a fire door control system for approved fire sliding doors.

The fire door control system has only been evaluated with respect to fire technical properties.

Maximum weight of door to be actuated by the control system: 510 kg

The fire door control system is to be installed and tested in accordance with SOLAS II-2/9.4.1.1.5 or HSC Code 7.9.3.3.

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.

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

Type Examination documentation

Test report No. EUFI29-23001903-T1 dated 16 August 2023 from Eurofins, Espoo, Finland

Drawing No. LP00014178 Rev. A dated 27 April 2023 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 4.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, MED Mark of Conformity and USCG approval number if applicable (see first page).