

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB00008VZ

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 Penetrations through "A" class divisions: busbar trunking penetration systems

with type designation(s)
MDY busbar penetration system

issued to

SOP-Metal Oy
Vaasa, Finland

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

Regulation **(EU) 2024/1975**,

item No. MED/3.26c. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ. 1488

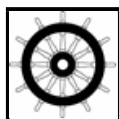
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2030-01-14**.

Issued at **Høvik** on **2025-01-15**

DNV local unit:
Finland CMC

Approval Engineer:
Helge Bjørnara



for **DNV AS**

Notified Body
No.: **0575**

Mydlak-Röder, Christine
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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

“MDY busbar penetration system”, consisting of steel sleeve welded to division, fitted with a busduct in the centre composed of Al-casing, support frame and plastic-insulated double Cu-busbars BKYXM 2x40x10 protected with 300 mm Flammadure E473 fire protected material. The busduct with 300 mm fire protective material is fitted symmetrically in steel sleeve. The gap between busduct and steel sleeve is 50 mm.

The gap between steel sleeve and busduct is filled with 60 mm PKOL fire protection plate (manufactured by Saint-Gobain, density 150 kg/m³). On the edges of the opening on both sides of the division there is PKOL fire protection plate with KBS coating. On the uninsulated side of the division there is 60 mm PKOL fire protection plate and steel cover box fixed on the steel division with 10 screws M8x16/16. On the insulated side of the division there is 60 mm PKOL fire protection plate with steel cover plate with 21.5 mm edges. The whole penetration was covered with 1.6 mm dry KBS coating.

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

Application/Limitation

Approved for use as a busbar penetrations system for plastic-insulated Cu-busbars BKYXM 2x40x10 in class A-60 steel bulkheads and decks. Other applications are subject to case-by-case approval.

Class A-15 and A-30 shall be insulated as class A-60 and in addition the division shall be insulated at least 200 mm around the penetration.

Table 1: Approved busbar penetration in A-60 steel bulkhead.

Busduct size [mm]	Busbars	Sleeve size [mm]	Sleeve length [mm]	Sleeve Thickness [mm]	Steel cover box/plate size (W x H) [mm]	Sleeve position	Sleeve insulation
400 x 163 – 1000 x 163	4 – 3x7	500 x 263 – 1100 x 263	65	6	680 x 420 – 1280 x 420	On insulated side of division.	Fully insulated on both sides*.

* penetration insulation is covered with steel cover box/plate on both sides of the division.

Table 2: Approved busbar penetration in A-60 steel deck.

Busduct size [mm]	Busbars	Sleeve size [mm]	Sleeve length [mm]	Sleeve Thickness [mm]	Steel cover plate size (W x H) [mm]	Sleeve position	Sleeve insulation
400 x 163 – 1000 x 163	4 – 3x7	500 x 263 – 1100 x 263	100	8	680 x 420 – 1280 x 420	On insulated side of division.	Fully insulated on both sides*.

* penetration insulation is covered with steel cover box/plate on both sides of the division.

Only the penetration system is covered by this type approval certificate. The busbars itself shall hold a valid type approval certificate.

The insulation material used has to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

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

Type Examination documentation

Test report No. VTT-S-00376-12 dated 18 April 2012 from VTT Espoo, Finland.

Test report No. VTT-S-00378-12 dated 18 April 2012 from VTT Espoo, Finland.

Drawing No. RKMDY111019-2 dated 19 October 2011 from ABB Oy.

Drawing No. RKPL111125 E dated 25 November 2011 from ABB Oy.

Drawing No. RKPL111127 D dated 25 November 2011 from ABB Oy.

Installation instruction No. 1TFL291014 dated 5 April 2012 from ABB Oy.

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

Marking of product

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