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| CERTIFICATE NUMBER | 23-2473222-PDA |
| EFFECTIVE DATE | 09-Nov-2023 |
| EXPIRY DATE | 08-Nov-2028 |
| ABS TECHNICAL OFFICE | Houston ESD - Electrical |

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

ERICO FRANCE SARL

located at

**RUE CHARLES DALLIERE BP 31, , 42161 ANDREZIEUX
BOUTHEON CEDEX, France**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Busbar Trunking System
Model: nVent ERIFLEX IBS/IBSB/IBSBR Series
nVent ERIFLEX IBS/IBSB/IBSBR Advanced
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 08/Nov/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Soheni Haque

Soheni Haque, Sr. Managing Principal Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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Tier: 3 - Type Approved, unit certification not required

Product: Busbar Trunking System
Model: nVent ERIFLEX IBS/IBSB/IBSBR Series
nVent ERIFLEX IBS/IBSB/IBSBR Advanced

Endorsements:

Intended Service:

Marine & Offshore Applications - Flexible buses for connecting to Power, Control Panels, Molded Case Circuit Breakers, as well as an alternative to cable for all low-voltage applications on board of ships and offshore platforms.

Description:

nVent ERIFLEX Insulated Braided Conductors (models IBS, IBSB & IBSBR) are made of PVC covered or bare braided copper conductors with integral terminals. The conductors are braided, tinned electrolytic copper strands. The integral terminals are constructed by compressing and heating the end of the braided conductors, punched with holes for cable connections.

nVent ERIFLEX IBS/IBSB Advanced is formed by weaving electrolytic copper wire to form a durable low voltage connector with integral pre-punched palms, insulated with TPE compound to have flexibility, compact power capacity, low smoke, halogen-free and flame retardant properties.

Identifications for various nVent ERIFLEX Insulated Braided Conductors are listed in the Product Catalogues.

Rating:

1. Conductor: 18 AWG to 2000 kcmil
2. Maximum Working Voltage: 1000 VAC / 1500 VDC
3. Temperature Rating:
 - (1) nVent ERIFLEX IBS/IBSB/IBSBR Series: 75°C wet, 105°C dry; or 75°C wet, 90°C dry; or 105°C dry.
 - (2) nVent ERIFLEX IBS/IBSB Advanced: -50°C to 115°C

Service Restriction:

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
2. Where used in Panelboards, Dead Front Switchboards, and Motor Control Centers:
 - (1) Ampacities are to be per Table given in UL Report E125470 dated 12 Feb 2013
 - (2) The acceptability of the Temperature Rise at the connection point of the IBS/IBSB/IBSBR to a Component, such as to a Circuit Breaker wiring terminal, shall be evaluated in the End-Use Application,
 - (3) The ability of the IBS/IBSB/IBSBR to withstand a Short Circuit shall be evaluated in the End-Use Application.

Comments:

1. Flexible buses (Insulated Braided Conductors) are to bear the recognized marking including the company identification, model or product designation.
2. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

Terms of Validity:

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Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

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STANDARDS

ABS Rules:

2023 Rules for Conditions of Classification, Part 1 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:
2023 Marine Vessel Rules: 4-8-3/1.7, 4-8-3/5.3.2, 4-8-3/5.5

2023 Rules for Conditions of Classification, Part 1 - Offshore Units and Structures: 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2023 Mobile Offshore Units Rules: 4-3-1/11, 6-1-7/9.9

National:

UL 67, Ed.13, 2023;
UL 891, Ed.12, 2019 / CSA-C22.2 No. 244, Ed. 2, 2019
UL 758 Ed.3, 2022
UL 94, Ed.7, 2023
UL 2885, issue 4, 2021
UL 854, Ed.12, 2020
UL 2556, Ed.5, 2021

CSA-C22.2 No. 29, Ed.6, 2015
CSA-C22.2 No. 210, 2020

International:

IEC 60695-11-10 (2013)
IEC 61439-1 (2020)
IEC 60754-1, 60754-2 (2011)
IEC 62821-1 (2015)

Government:

N/A

EUMED:

N/A

OTHERS:

NF EN 61439-1 (2021)
EN IEC 60947-7-1 (2009)