We connect and protect

# nVent ERIFLEX Flexibar Advanced, Tinned Copper

## Power Utilities

After extensive research, nVent ERIFLEX is proud to establish a new gold standard in terms of insulation for flexible busbar called nVent ERIFLEX Flexibar Advanced. The new product is low smoke, halogen-free and flame retardant all while maintaining the level of flexibility and reliability that our partners have come to expect from nVent ERIFLEX Flexibar.

Compared to standard PVC insulation, nVent ERIFLEX Flexibar Advanced does not generate corrosive gases and produces a relatively low smoke opacity in accordance with ISO 5659-2. The low smoke characteristic improves the visibility conditions for people to be able to easily locate the emergency exit and also allows rescue workers to assess an emergency situation more clearly. nVent ERIFLEX Flexibar Advanced means greater safety for individuals, less damage for your electrical equipment and less environmental impact.

The halogen–free feature enables a reduction in the quantity of toxic smoke. nVent ERIFLEX Flexibar Advanced does not contain any halogens, according to IEC 60754-1, minimizing toxicity and making it the ideal product for use in enclosed spaces such as data centers, rail and other spaces where people are welcome such as hospitals and schools. This also facilitates the use of nVent ERIFLEX Flexibar Advanced in specific applications such as submarines, switchboards and other enclosed environments that require a low emissions solution.

In addition to being halogen-free, nVent ERIFLEX Flexibar Advanced is also compliant with the UL 94-V0 testing standard. The flame retardant portion of the test illustrates the self-extinguish feature. This superior feature of nVent ERIFLEX Flexibar Advanced is also shown by the Limiting Oxygen Index (LOI) at 30%. In case of fire, ERIFLEX Flexibar Advanced generates a limited quantity of smoke that is less damaging to your electrical equipment.

## CERTIFICATIONS

## FEATURES

Thin layers of tinned electrolytic copper formed into a stack

Full range from 19.5 mm² up to 1200 mm² and 125 A to 2800 A

Insulated by high-resistance, halogen free, flame retardant and low smoke material with less than 20% contact with conductor for high flexibility

Easily bent, folded, and twisted, improving assembly flexibility, shortening connections, and decreasing footprint

Dramatically smaller and more flexible than comparable cable based on ampacity

Better power density than cable with lower skin effect ratio

Connections made by punching and bolting directly through the copper laminates or clamping onto the end of the nVent ERIFLEX Flexibar

No lugs needed, reducing installation time and improving resistance to vibration

Weight savings and material savings compared to wire alternatives

Reduces total installation cost

Traceability codes and designation part numbers printed on insulation

Conforms to NF EN 45545 obtaining an HL3 classification for chapters R22 and R23

100% production dielectric tested

RoHS compliant

Tinned copper allows for copper or aluminum conductor connections

On request, can be manufactured with other colors (typically with Orange sleeve for battery connection)

Compliant to ISO 6469-1 (Electrically propelled road vehicles - Part 1: Rechargeable energy storage system) - Section 6.2.2 Vibrations

## SPECIFICATIONS

Table 1/4

| Catalog Number | Article Number | Dielectric Strength | Halogen Free Rating | Low Smoke Rating | Smoke, Toxicity and Acidity Rating | UV Resistance Rating |
|---|---|---|---|---|---|---|
| FADV2MTC3X9 | 534001 | 20 | UL® 2885, IEC® 60754-1, IEC® 62821-1 | IEC® 61034-2, ISO 5659-2, UL® 2885 | IEC® 60754-2 | UL® 854, UL® 2556 |

| Table 2/4 | | | | | | |
|---|---|---|---|---|---|---|
| **Catalog Number** | **Article Number** | **Insulation Elongation** | **Insulation Thickness** | **Max Working Voltage, EN 50264-3-1** | **Max Working Voltage, UL/CSA/IEC** | **Working Temperature** |
| FADV2MTC3X9 | 534001 | 500 | 1.8 | 6000 | 1000, 1500 | −50 to 115 |

| Table 3/4 | | | | | | |
|---|---|---|---|---|---|---|
| **Catalog Number** | **Article Number** | **Certification Details** | **ΔT 40 K** | **ΔT 50 K** | **ΔT 60 K** | **Conducting Layers (N)** |
| FADV2MTC3X9 | 534001 | UL® 67, UL® 758 | 120 | 134 | 147 | 3 |

| Table 4/4 | | | | | |
|---|---|---|---|---|---|
| **Catalog Number** | **Article Number** | **A** | **B** | **2 Bar Current Coefficient** | **3 Bar Current Coefficient** |
| FADV2MTC3X9 | 534001 | 9 | 0.8 | 1.72 | 2.25 |

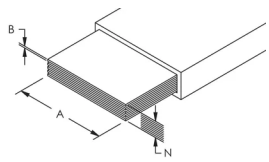
## ADDITIONAL PRODUCT DETAILS

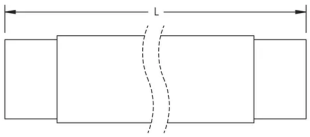
ADMISSIBLE CURRENTS: This table indicates the temperature rise produced by chosen current in the given section. This calculation does not take into account the heat dissipation from the switch gear.

ΔT = Temperature of conductors – Internal temperature of panel.

Refer to technical documentation for additional ampacity ratings.

## DIAGRAMS




## WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at www.nvent.com and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

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