

# ERIFLEX® FLEXIBAR - Flexible Wire Replacement

## NEW Generation Flexible Wire Replacement

Patent pending insulation on ERIFLEX FLEXIBAR



### Superior Flexibility

ERICO's exclusive manufacturing process offers superior flexibility:

- Copper laminates are free to slide within the insulation
- High insulation quality
- Wide variety of bending, twisting & folding possibilities

NEW

### Innovative patent pending insulation\*

ERIFLEX FLEXIBAR has added grooves on the inner surface of the insulation sleeve to improve sliding between the central conductor and the insulation material. The grooves help reduce the contact surface between the central conductor and the insulation material. This results in improved flexibility of the flexible busbar. Result: <20% of the inner surface is in contact with the central conductor. This ERICO patent-pending idea makes ERIFLEX FLEXIBAR more flexible than ever, and allows users to optimize the design of their electrical power connection.

\* This patent is applicable for the cross section indication by “\*” on the part number. Refer to table on page 14”

### ERIFLEX FLEXIBAR Flexible Wire Replacement - a preferred conductor

- ERIFLEX FLEXIBAR is formed with multiple layers of thin electrolytic copper, available in plain or tin plated
- ERIFLEX FLEXIBAR connections are made by punching and bolting directly through the laminates or by clamping or welding (using CADWELD®). There are no lugs to purchase, helping to eliminate faulty connection problems and making installation simpler and faster
- The insulation is a high-resistance, self-extinguishing PVC or silicone compound
- Traceability code and designation Part Number on product
- Easily formed, ERIFLEX FLEXIBAR improves assembly flexibility and aesthetics of panels
- Ideal alternative to large cable & rigid busbar
- Quality: 100% production dielectric tested
- Full range from 27 mm<sup>2</sup> up to 1200 mm<sup>2</sup>



### Diverse Applications

- Working Temperature -25°C up to 105°C (-13°F up to 221°F) ERIFLEX FLEXIBAR
- Nominal voltage = 1000 V AC/1500 V DC (IEC & UL®)
- Self-extinguishable
- High mechanical resistance
- High elongation value
- High current withstanding
- High copper quality (99.9% purity)
- High conductivity



## Connection Types

- Between main power and distribution equipment (contactors, circuit-breakers...)
- Between transformer and busduct
- Between busduct and electrical cabinet

## Space/Weight Savings

- Requires less installation space when compared to cable
- Reduces the length and number of conductors, reducing weight
- Insulation allows for closer spacing than traditional busbar designs.

## Cost Savings

- Eliminates cost and installation of lugs
- Reduces inventory costs

## Improves Reliability

- Connection is made directly to ERIFLEX FLEXIBAR thus eliminating the cable lug connection
- Excellent resistance to vibration
- No crimping

## Aesthetics

- Improves design flexibility and panel access

## Ease of Installation

- Installation is facilitated through the ease of bending and shaping even large sizes

**Volume  
-25%**

**-40%**

**Time saving & improved reliability**

## Skin Effect on A.C. Application

### COPPER CABLE



**150 AMPS**

1/0

53.5 sq. mm  
(.373 in.)

### ERIFLEX FLEXIBAR

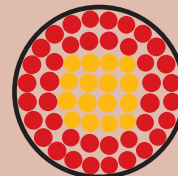


**158 AMPS**

3 x 9 x 0.8 mm

21.6 sq. mm  
**60% smaller**

— OR —>



**380 AMPS**

500MCM

253 sq. mm  
(.813 in.)

— OR —>

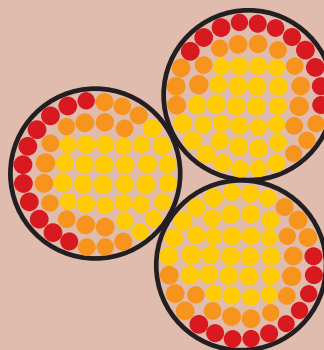


**379 AMPS**

3 x 24 x 1 mm

72 sq. mm  
**71% smaller**

= Conductor  
 = Reduced Conductivity  
 = Insulation



— OR —>



**1140 AMPS**

(3) 500MCM

759 sq. mm  
(.813 in.)

**1211 AMPS**

4 x 80 x 1 mm

320 sq. mm  
**58% smaller**

Representative to scale.

ERIFLEX FLEXIBAR ampacity and cable ampacity are based on (NEC Table 310-16, 75° column) conductor temperature rise of 45°C.