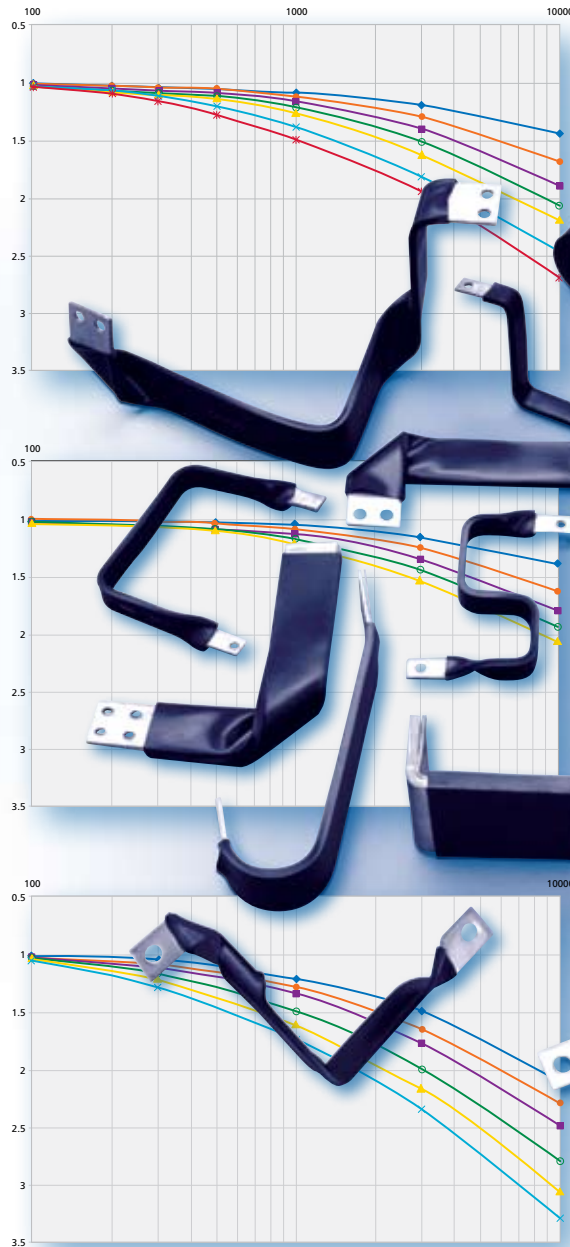


ERIFLEX®

ERIFLEX® FLEXIBAR Performance with Frequency



ERICO®



Current and temperature ratings of ERIFLEX® FLEXIBAR as published in the ERIFLEX® catalog are based on operating frequency up to 100Hz.

If a particular application of ERIFLEX FLEXIBAR will require operation at higher frequencies, the maximum current values must be reduced (or de-rated) to achieve the published temperature rise.

All copper conductors have higher impedance at higher frequencies. This is not a unique characteristic of ERIFLEX FLEXIBAR. However, the rectangular cross-section of ERIFLEX FLEXIBAR reduces this effect as compared to cables with round cross-section.

The formula below specifies how the de-rating factors on the attached graphs should be used:

$$I_f \cong \frac{I_{100Hz}}{K_f}$$

Where I_f equals the de-rated current at the operating frequency and K_f equals the de-rating factor at that frequency.

To determine the K_f (current de-rating value) for a particular configuration, select the graph that pertains to the width of ERIFLEX FLEXIBAR and the curve that pertains to the number of laminates. Next, identify the frequency of the current according to the logarithmic scale on the x-axis. The de-rating factor for the specific configuration can be read from the y-axis of the graph at the point where the curve meets the desired frequency. The current value listed in the catalog must then be divided by K_f to determine the current value at which the published temperature rise will be achieved.

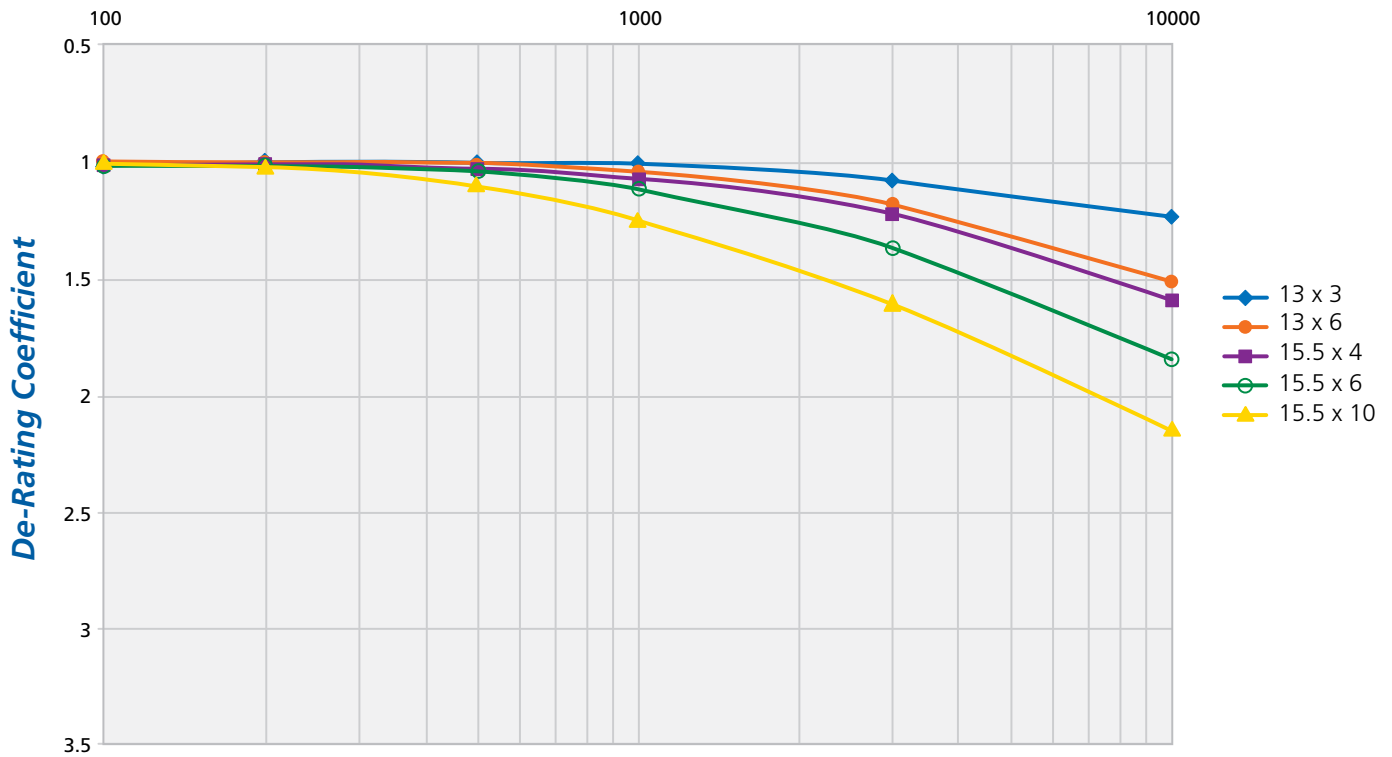
Example: Consider a system with current of 470 amps at 3 kHz. For ERIFLEX FLEXIBAR width of 32 mm and a temperature rise of 50°C, it can be seen from the graph, de-rating factors range from 1.2 to 1.9 depending on the number of laminates. Multiply the operating current of the system by the de-rating coefficient for each 32 mm ERIFLEX FLEXIBAR at 3 kHz. Next compare the calculated currents to the currents in the catalogue. You will notice that the lowest number of laminates that will produce a temperature rise at or less than 50°C is 8, thus you would choose ERIFLEX FLEXIBAR part number 505518 in North America, or 552670 in Europe.

For further information, contact ERICO Application Engineering or visit www.erico.com.

De-Rating vs. Frequency for ERIFLEX® FLEXIBAR

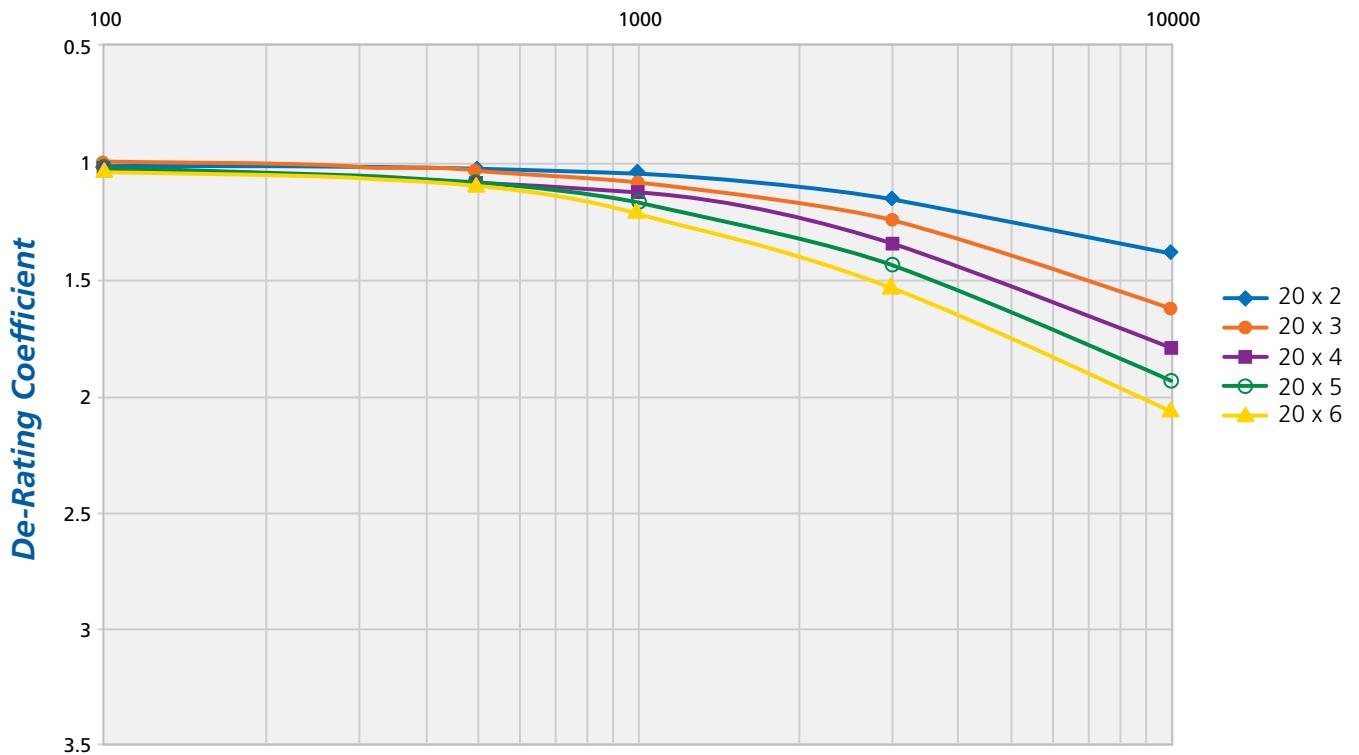
Widths 13 and 15.5 mm

Frequency (Hz.)



Width 20 mm

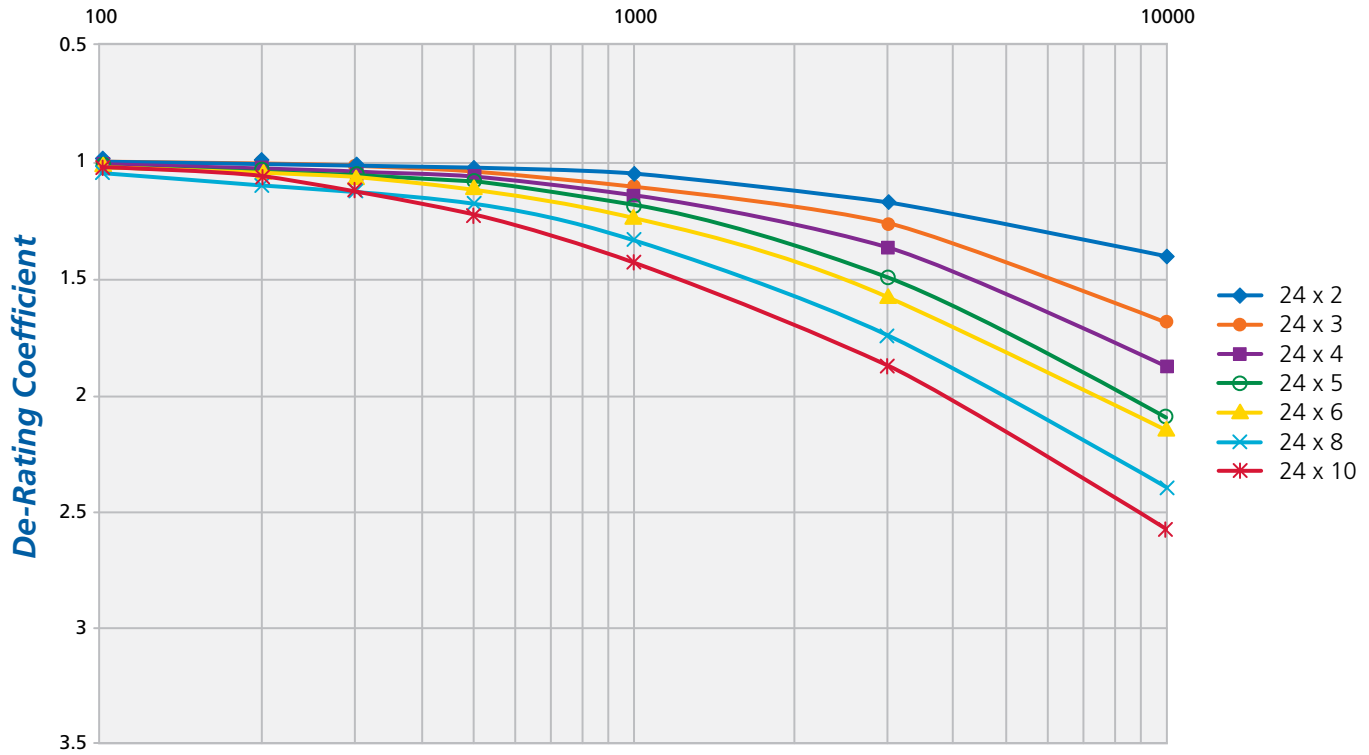
Frequency (Hz.)



De-Rating vs. Frequency for ERIFLEX® FLEXIBAR

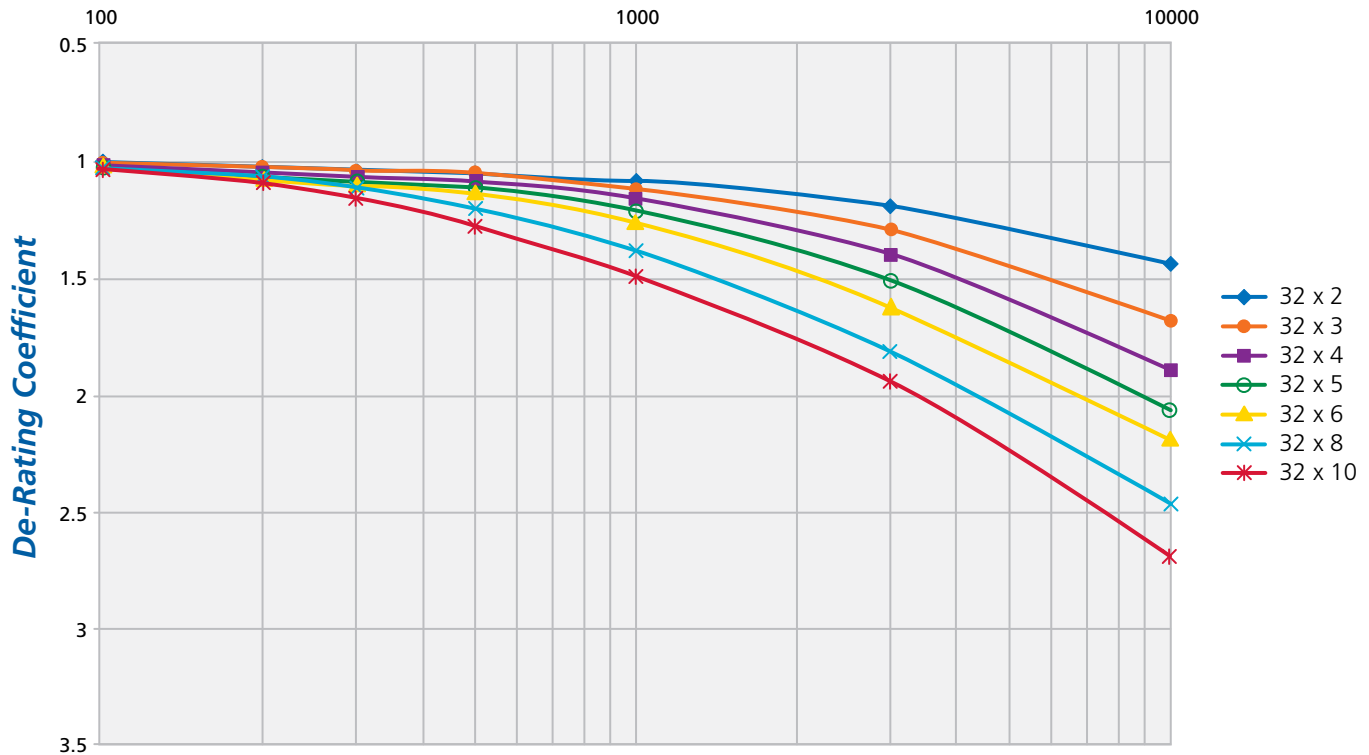
Width 24 mm

Frequency (Hz.)



Width 32 mm

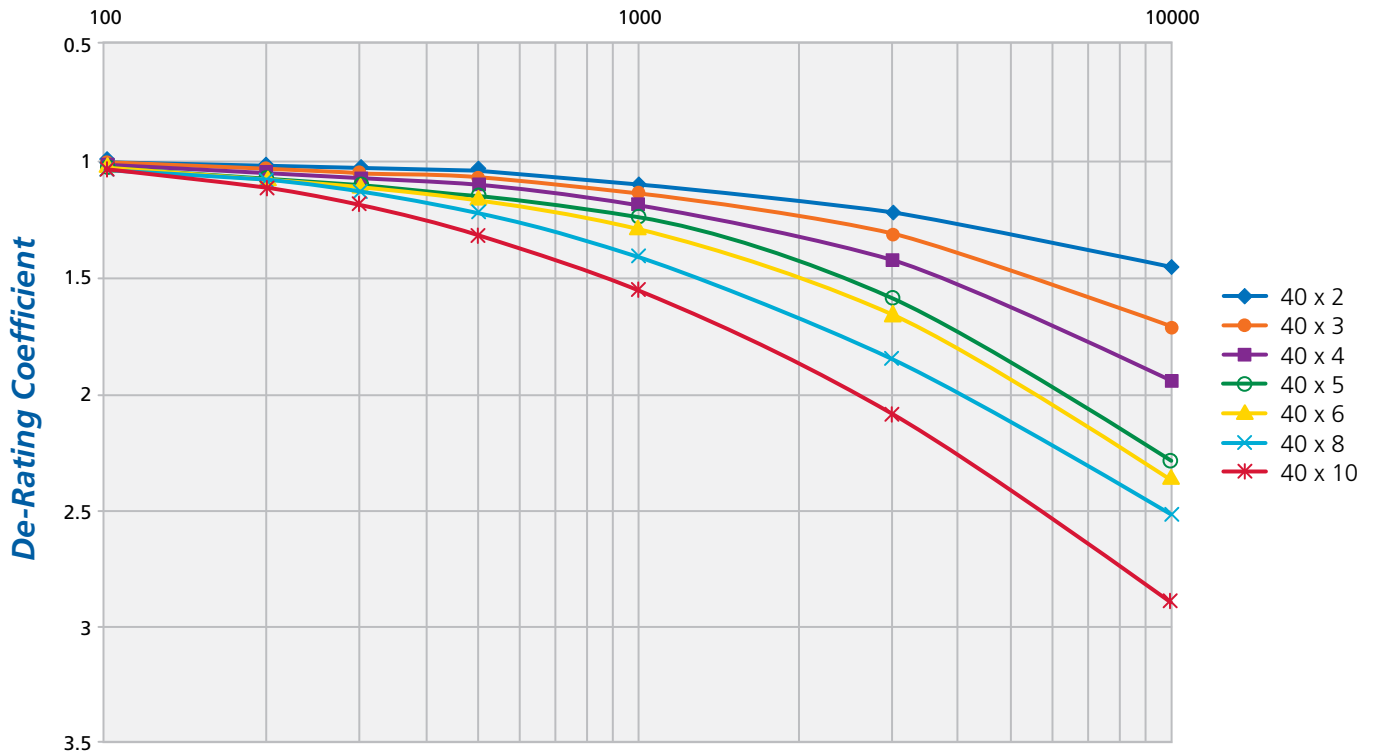
Frequency (Hz.)



De-Rating vs. Frequency for ERIFLEX® FLEXIBAR

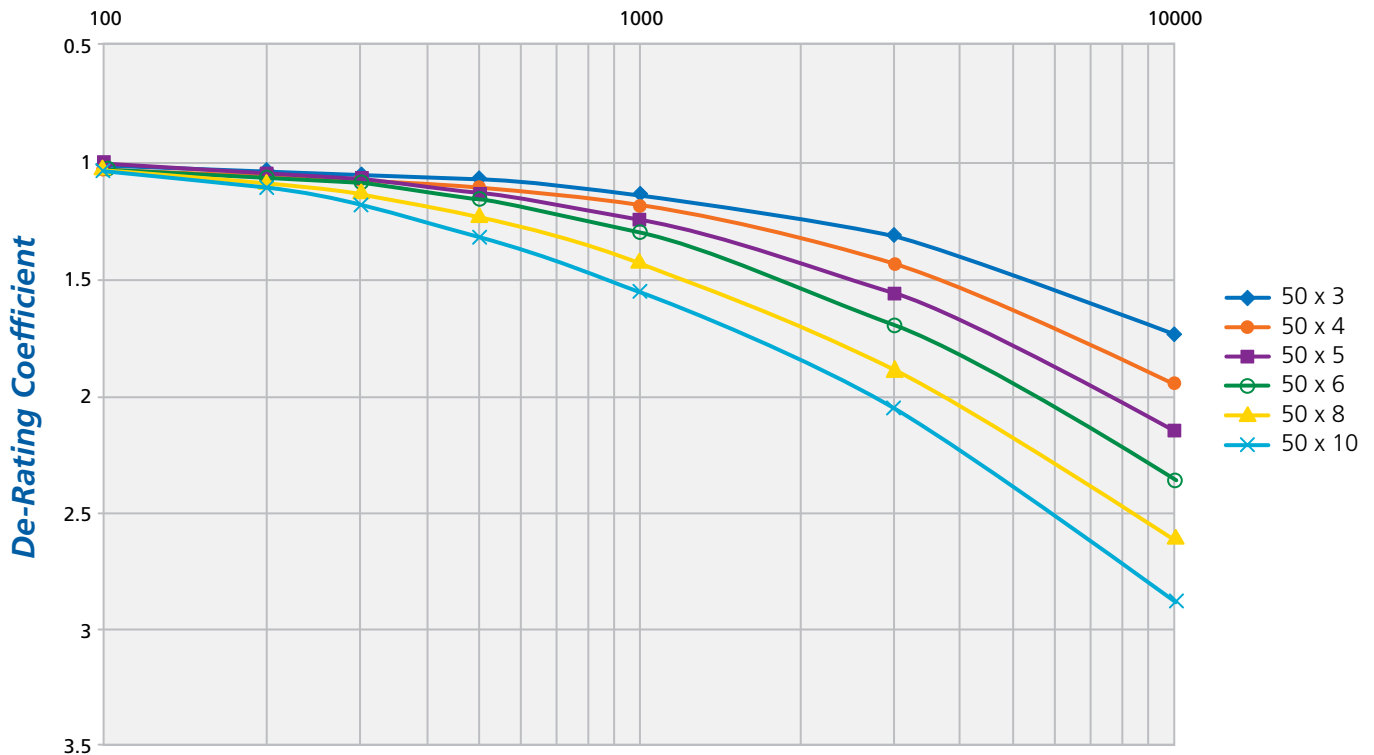
Width 40 mm

Frequency (Hz.)



Width 50 mm

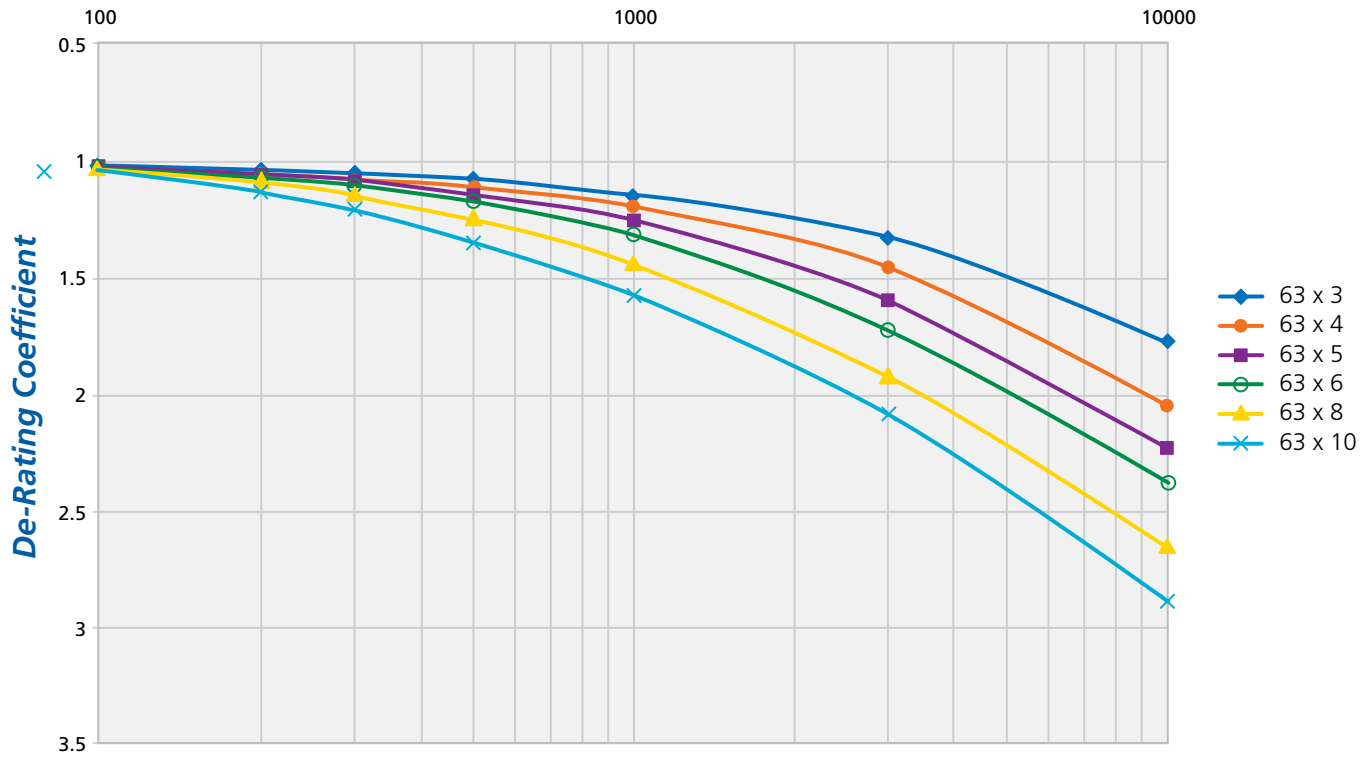
Frequency (Hz.)



De-Rating vs. Frequency for ERIFLEX® FLEXIBAR

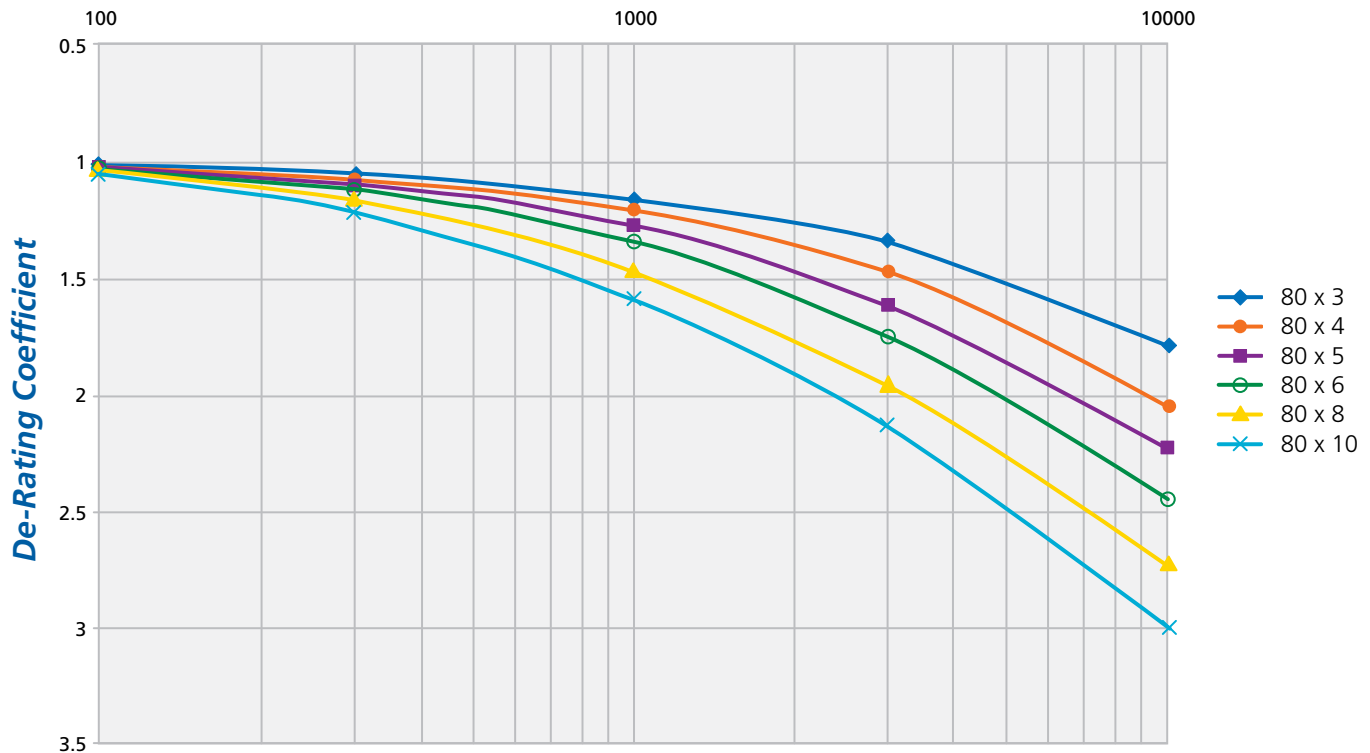
Width 63 mm

Frequency (Hz.)



Width 80 mm

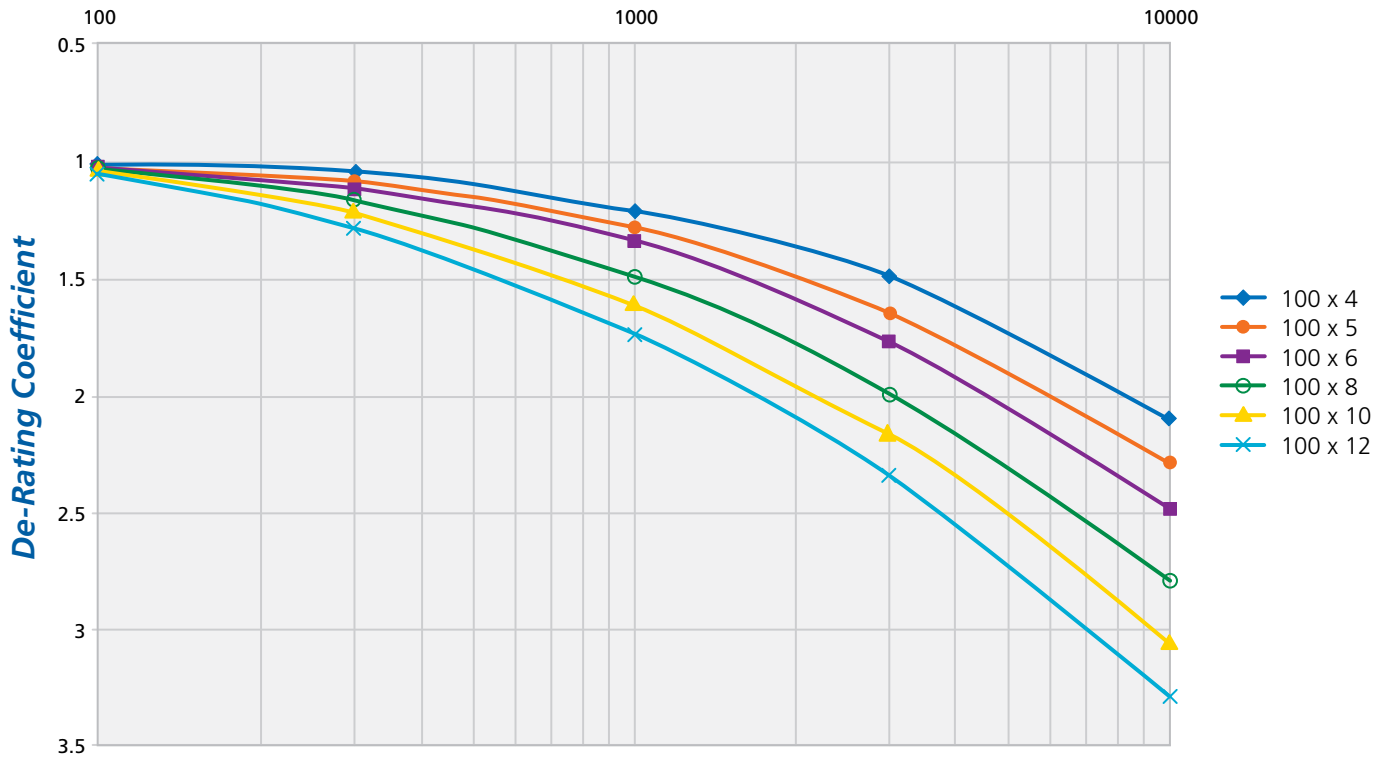
Frequency (Hz.)



De-Rating vs. Frequency for ERIFLEX® FLEXIBAR

Width 100 mm

Frequency (Hz.)



ERICO®

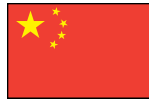


www.erico.com



AUSTRALIA

Phone 61-2-9751-8500
Fax 61-2-9475-5334



CHINA

Phone 86-21-3430-4878
Fax 86-21-5831-8177



HUNGARY

Phone 31-13-58-35-415
Fax 31-13-58-35-499



NORWAY

Phone 47-67-53-12-00
Fax 47-67-12-42-68



SWITZERLAND

Phone 00-800-5000-1090
Fax 00-800-6000-1090



BELGIUM

Phone 32-14-69-96-88
Fax 32-14-69-96-90



DENMARK

Phone 46-40-611-13-60
Fax 46-40-611-9415



INDONESIA

Phone 62-21-575-0941
Fax 62-21-575-0942



POLAND

Phone 48-71-374-40-22
Fax 48-71-374-40-43



THAILAND

Phone 66-2-267-5776
Fax 66-2-636-6988



BRAZIL

Phone 55-11-3623-4333
Fax 55-11-3621-4066



FRANCE

Phone 33-4-77-36-54-32
Fax 33-4-77-55-20-10



ITALY

Phone 39-02-8474-2250
Fax 39-02-8474-2251



SINGAPORE

Phone 65-6-268-3433
Fax 65-6-268-1389



**UNITED ARAB
EMIRATES**

Phone 971-4-881-7250
Fax 971-4-881-7270



CANADA

Phone 1-800-677-9089
Fax 1-800-677-8131



GERMANY

Phone 0-800-189-0272
Fax 0-800-189-0274



MEXICO

Phone 52-55-5260-5991
Fax 52-55-5260-3310



SPAIN

Phone 34-93-467-7726
Fax 34-93-467-7725



UNITED KINGDOM

Phone 44-118-958-8386
Fax 44-118-955-0925



CHILE

Phone 56-2-370-2908
Fax 56-2-370-2914



HONG KONG

Phone 852-2764-8808
Fax 852-2764-4486



NETHERLANDS

Phone 31-13-58-35-400
Fax 31-13-58-35-499



SWEDEN

Phone 46-40-611-13-60
Fax 46-40-611-94-15



UNITED STATES

Phone 1-440-248-0100
Fax 1-440-248-0723

Pictures, drawings and technical descriptions of this brochure are not contractual. ERICO reserves the right to change at any time and without advanced notice, its manufacturing according to the evolution of standards/techniques.

Copyright ©2007 ERICO International Corporation. All rights reserved.
CADDY, CADWELD, CRITEC, ERICO, ERIFLEX, ERITECH, and LENTON are registered trademarks of ERICO International Corporation.

P720B-WWEN P755LT07WWEN 011WB7