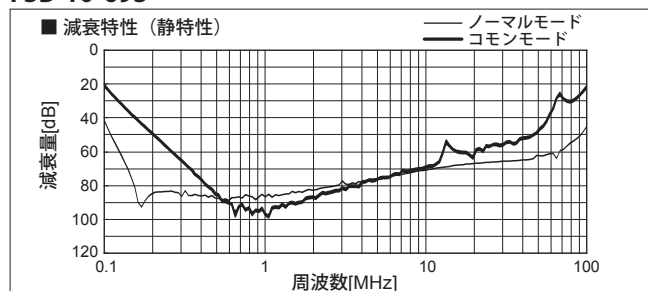
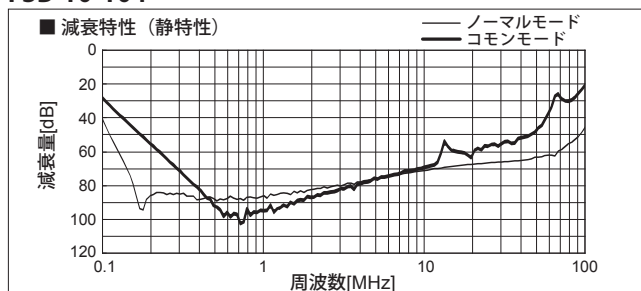


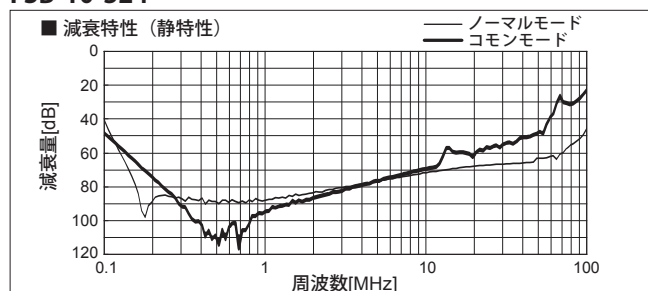
FSB-10-693



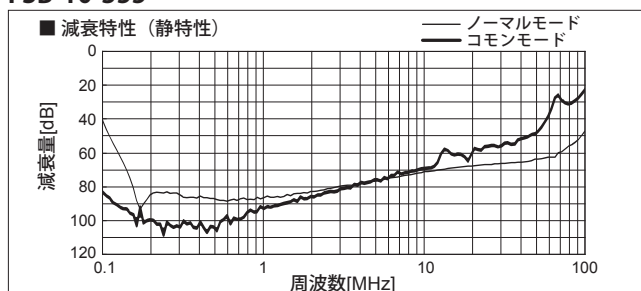
FSB-10-104



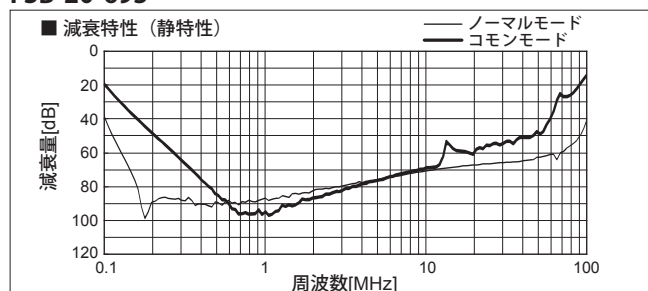
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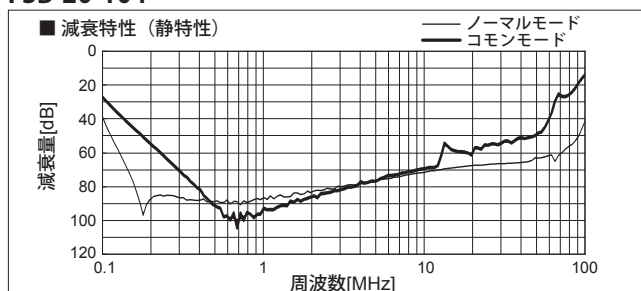
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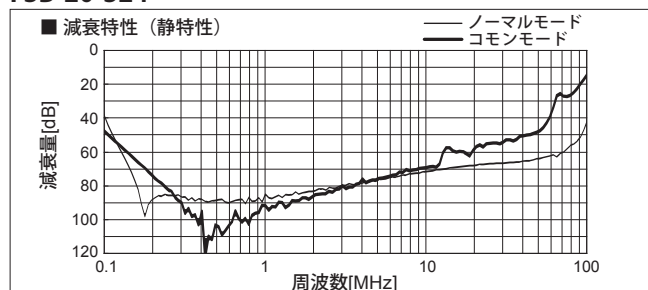
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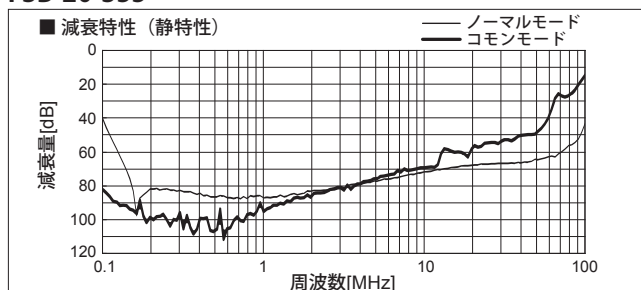
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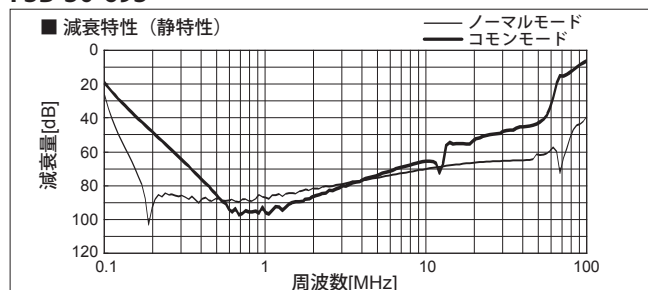
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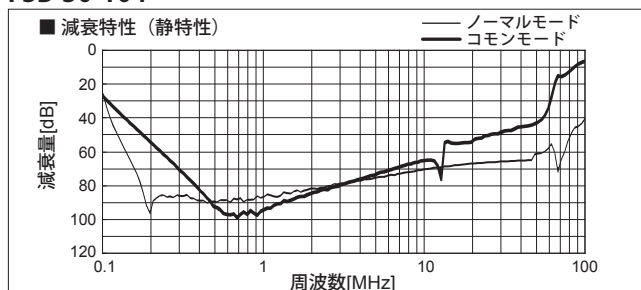
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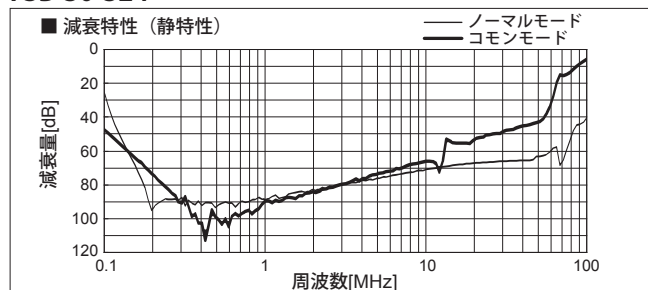
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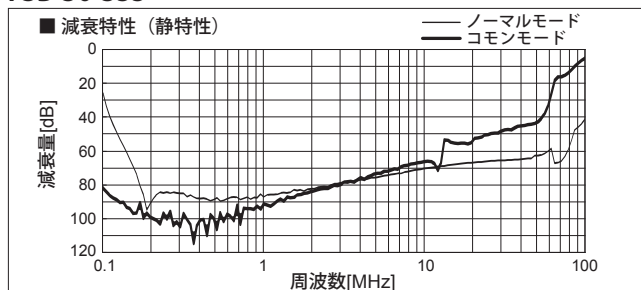
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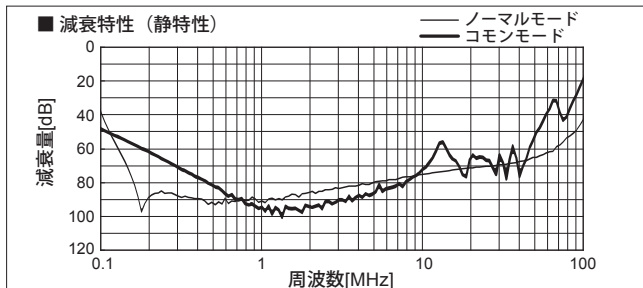
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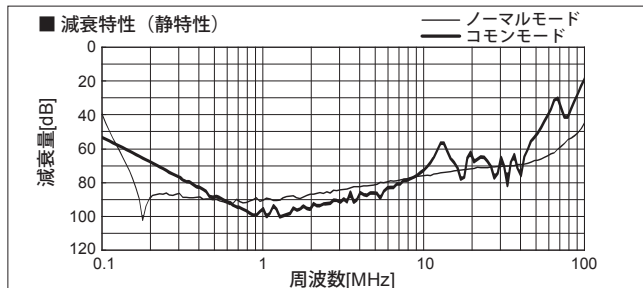
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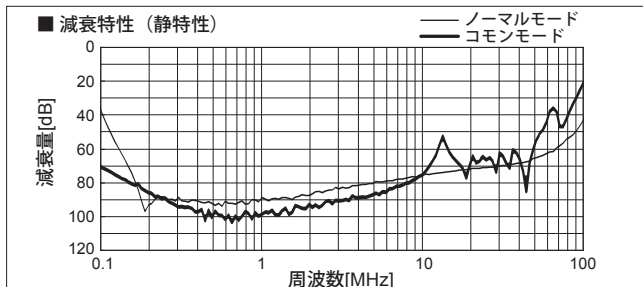
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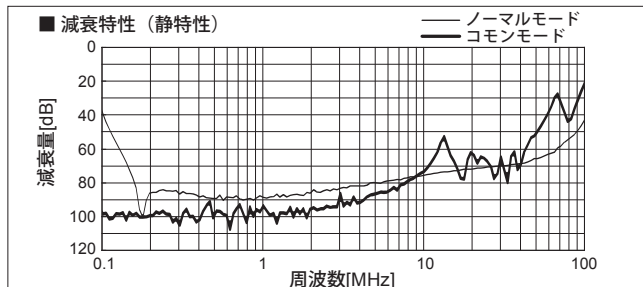
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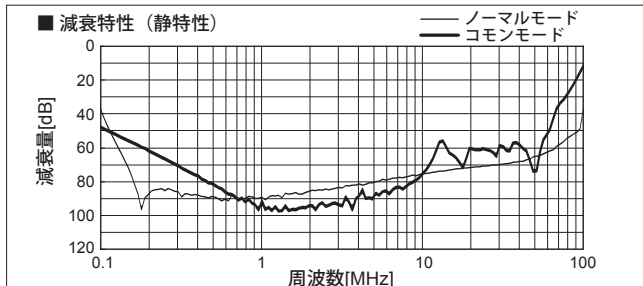
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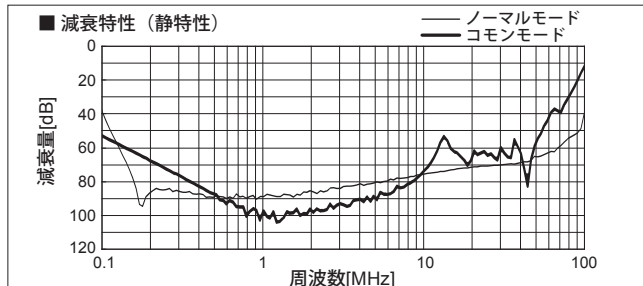
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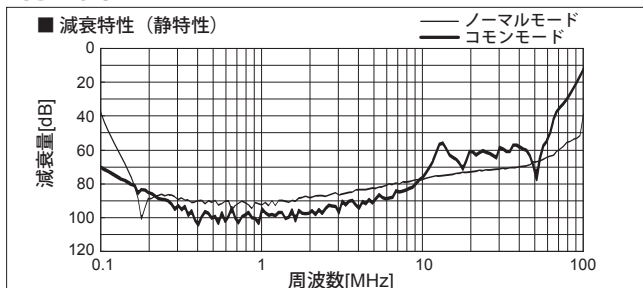
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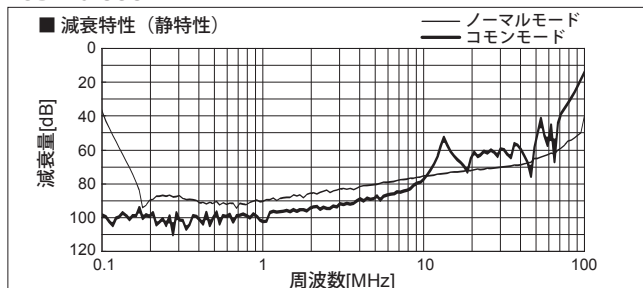
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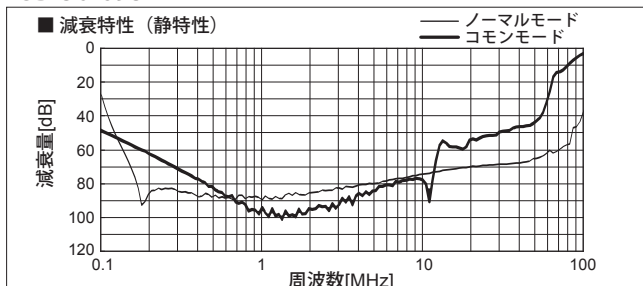
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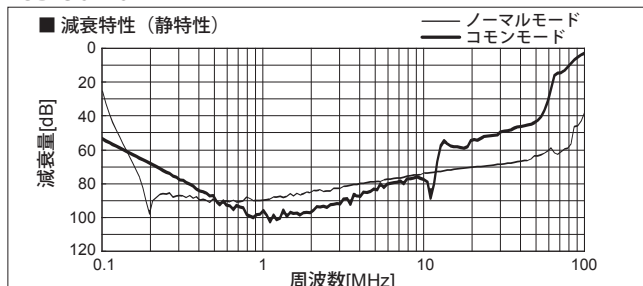
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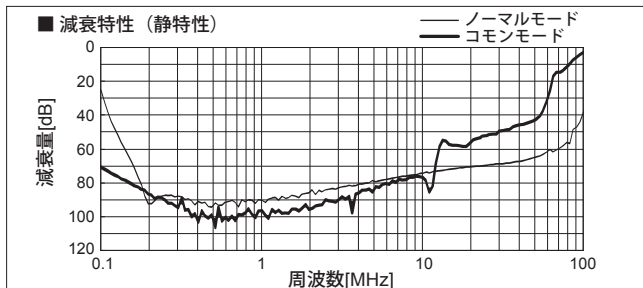
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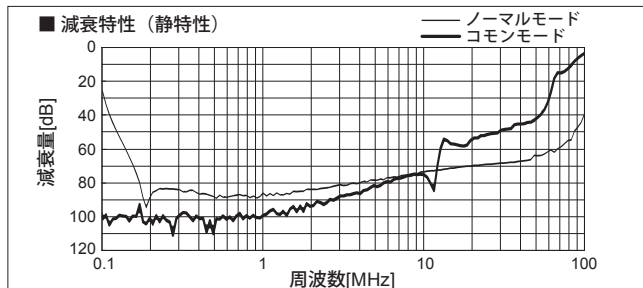
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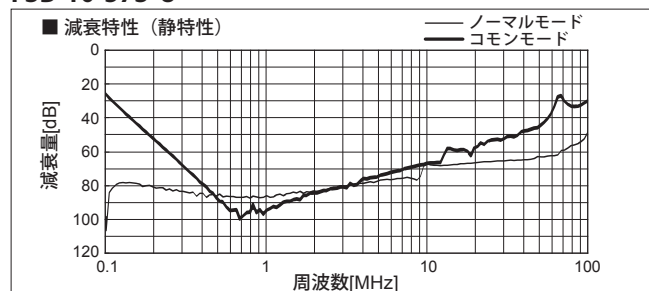
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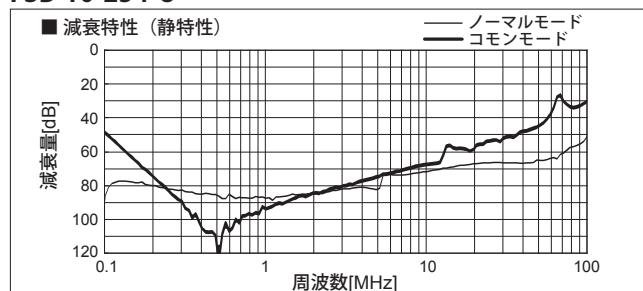
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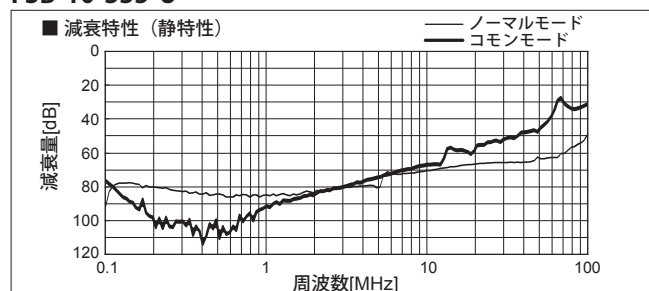
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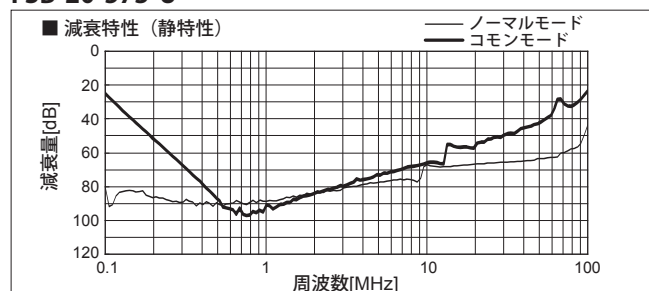
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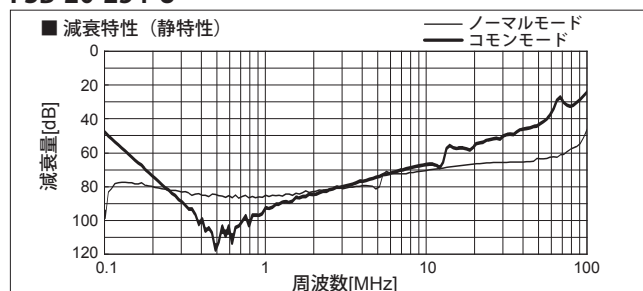
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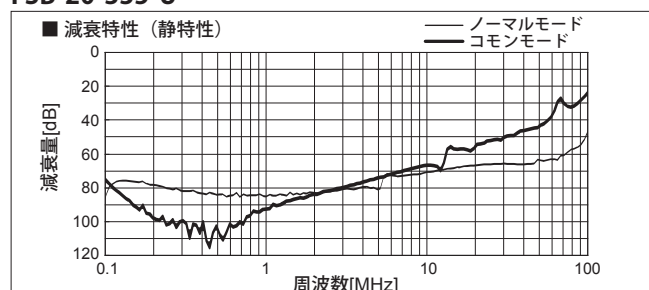
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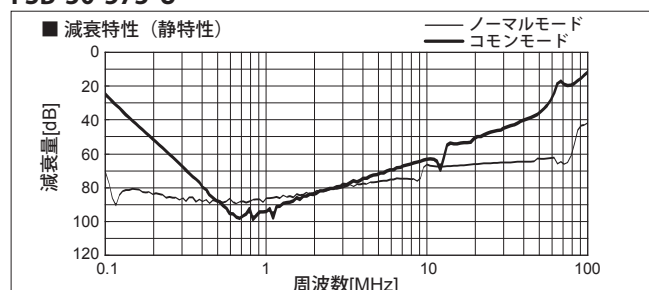
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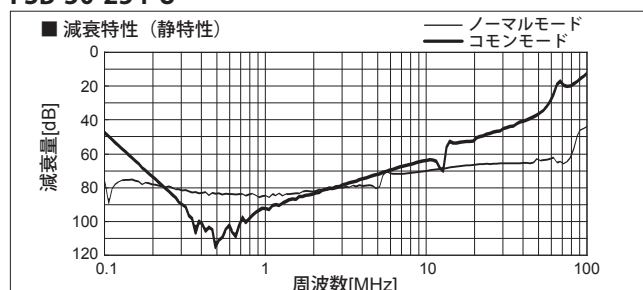
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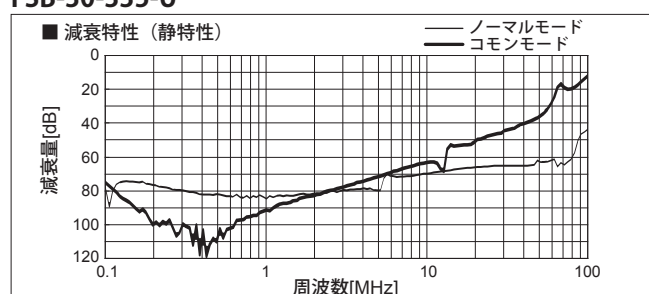
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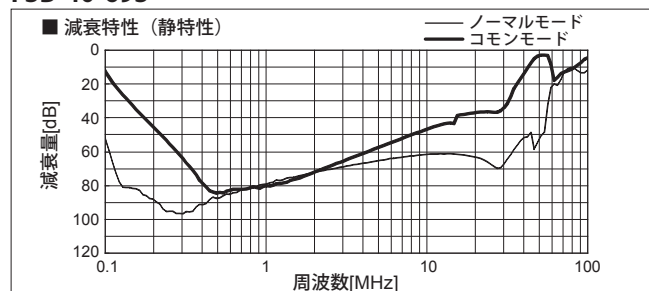
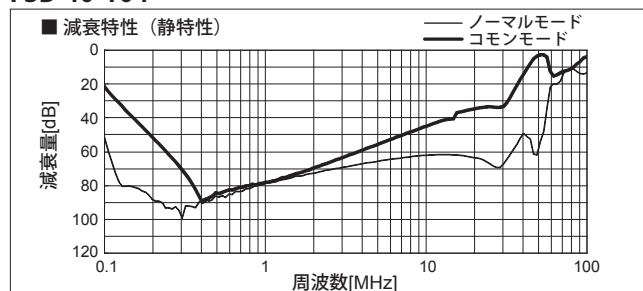
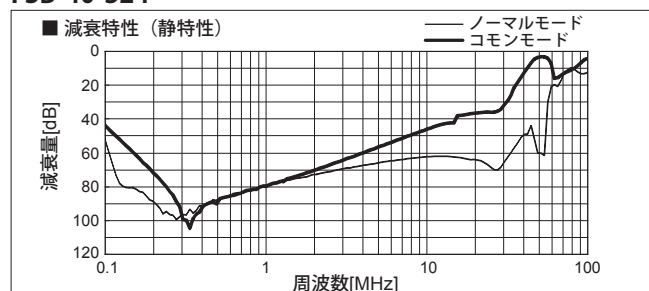
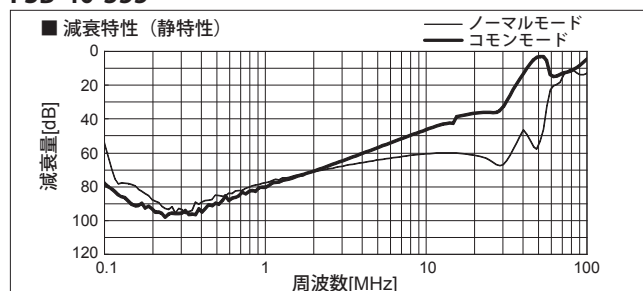
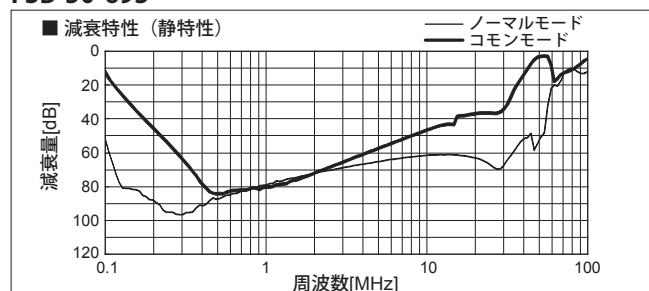
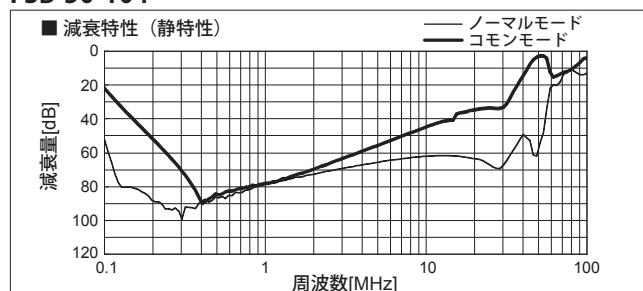
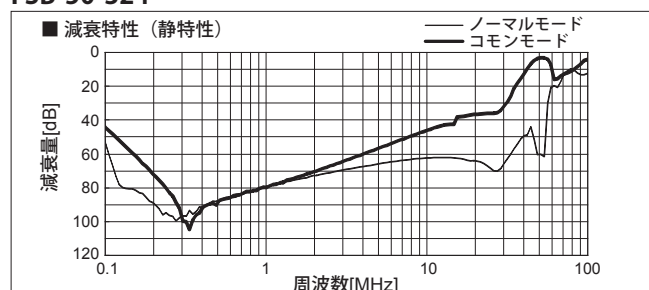
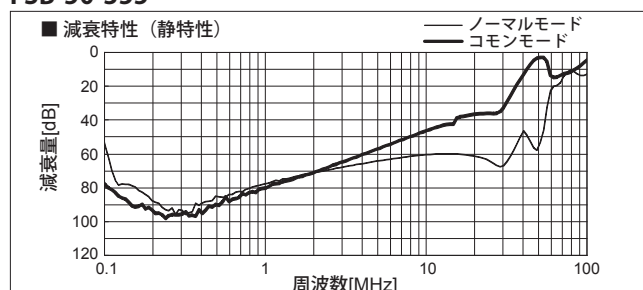
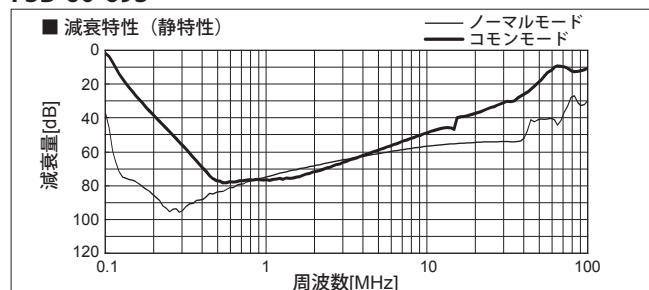
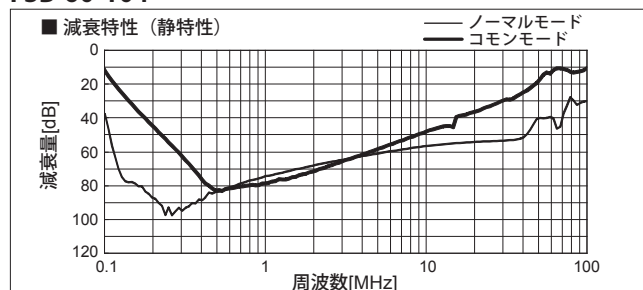
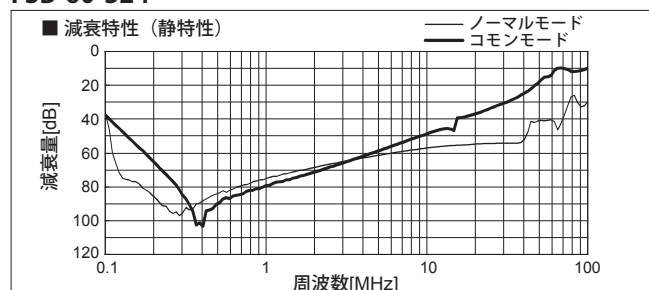
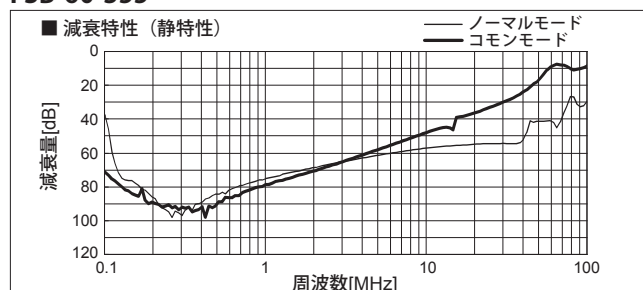


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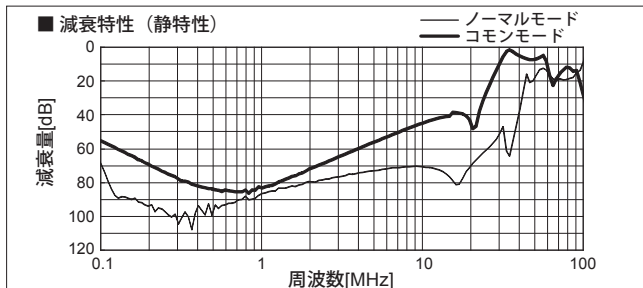


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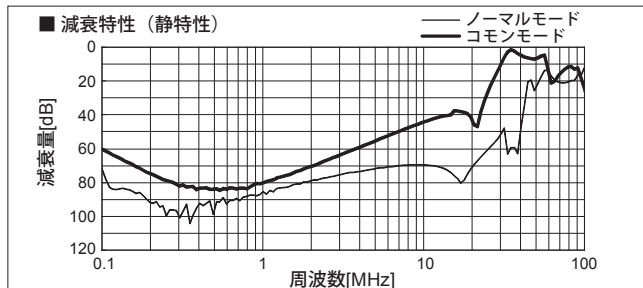


FSB-40-693

FSB-40-104

FSB-40-324

FSB-40-355

FSB-50-693

FSB-50-104

FSB-50-324

FSB-50-355

FSB-60-693

FSB-60-104

FSB-60-324

FSB-60-355


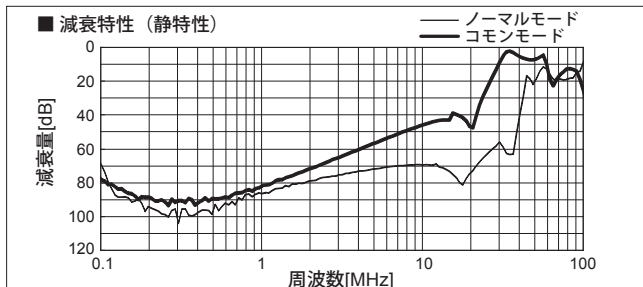
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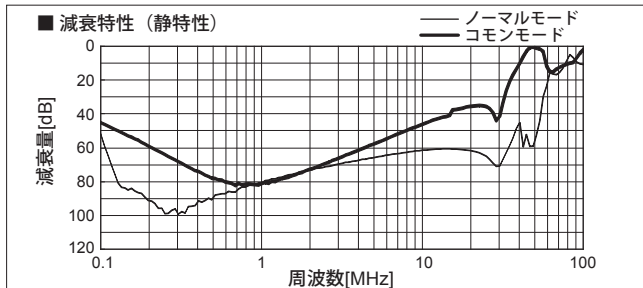
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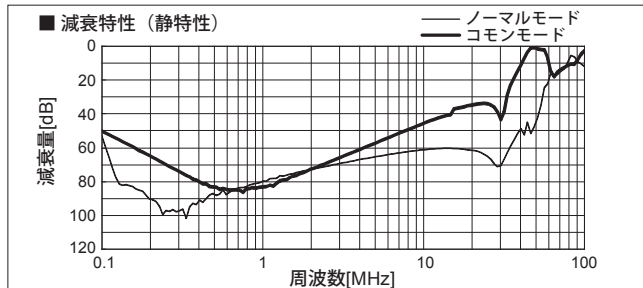
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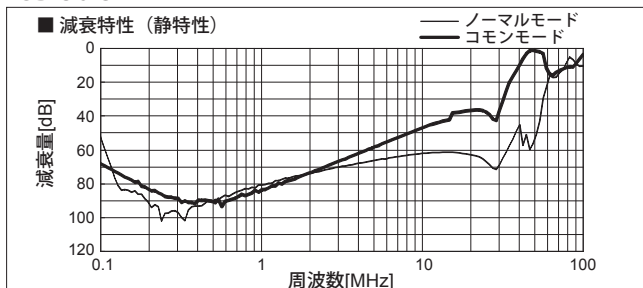
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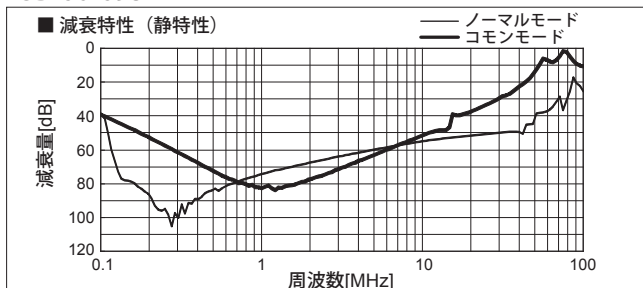
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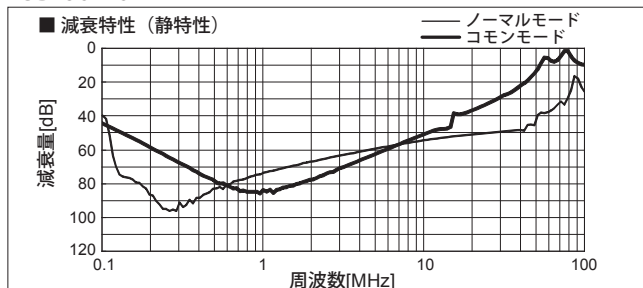
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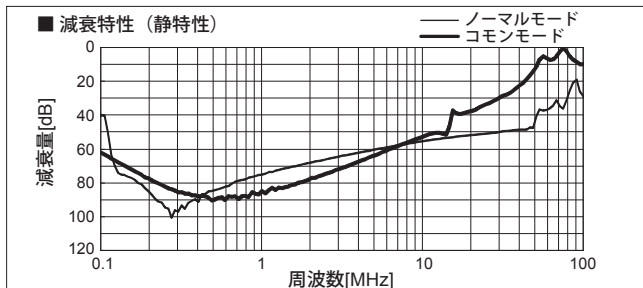
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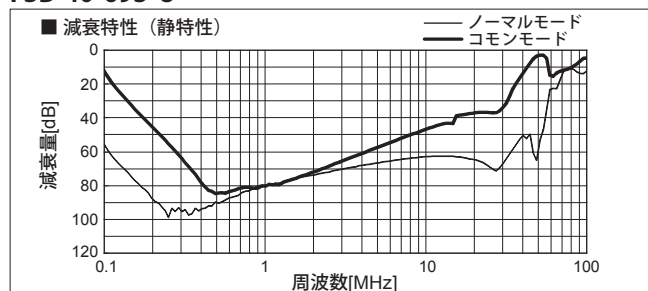
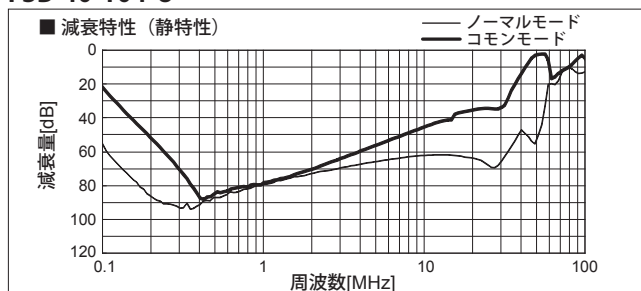
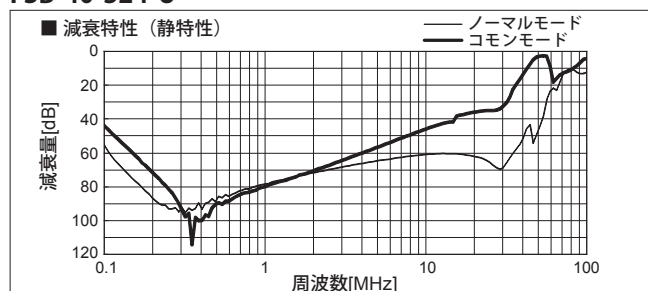
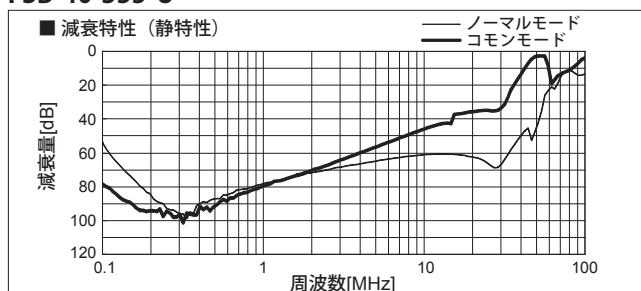
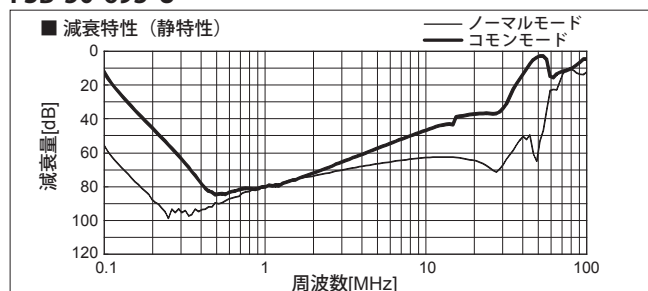
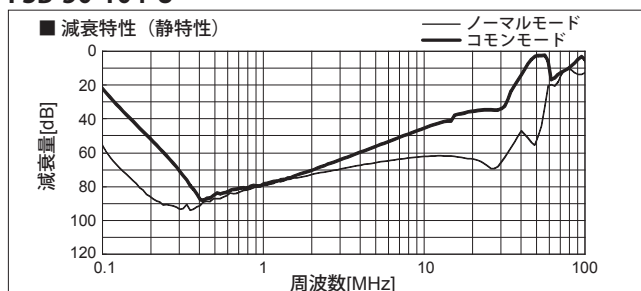
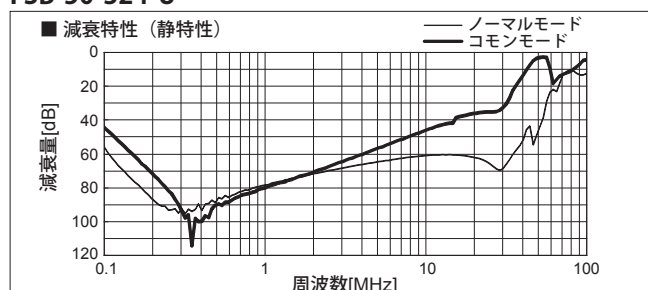
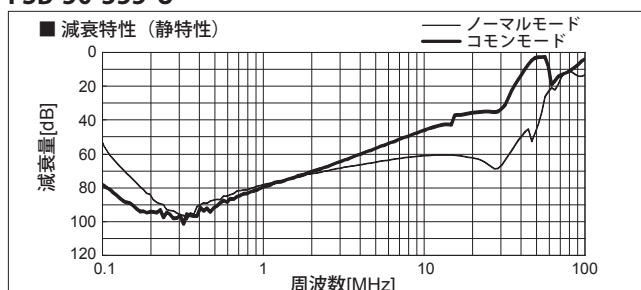
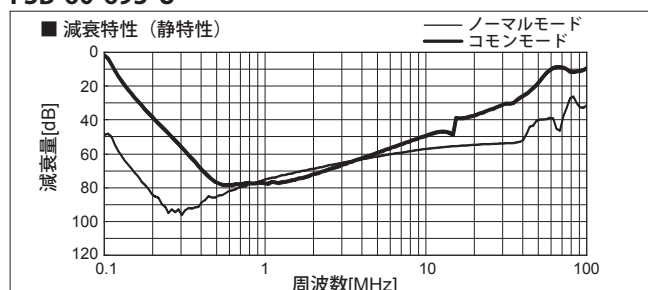
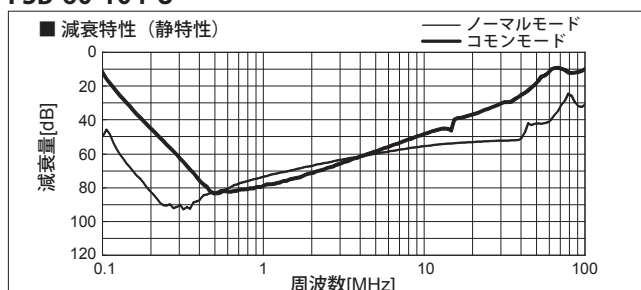
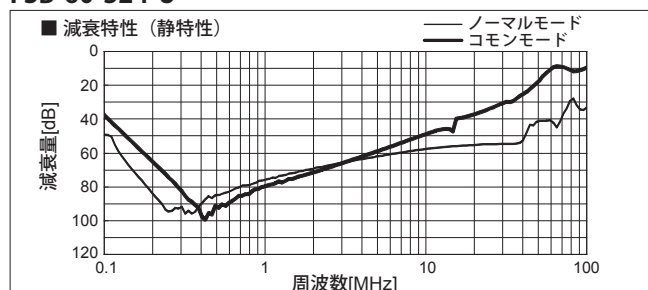
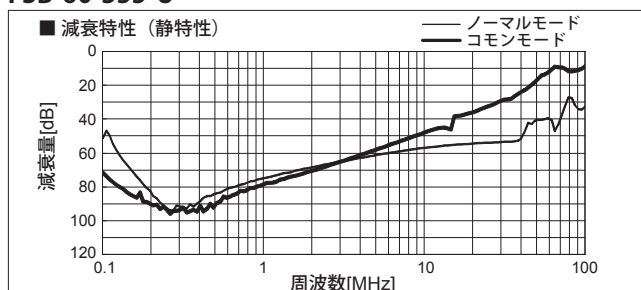


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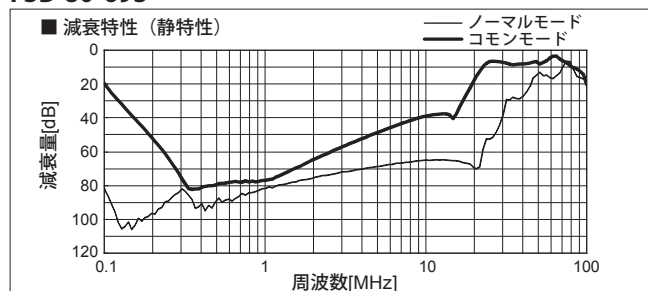


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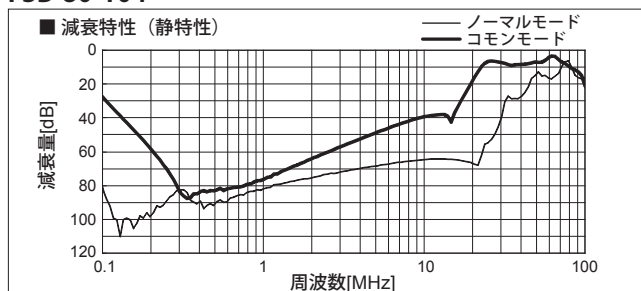


FSB-40-693-U

FSB-40-104-U

FSB-40-324-U

FSB-40-355-U

FSB-50-693-U

FSB-50-104-U

FSB-50-324-U

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FSB-60-104-U

FSB-60-324-U

FSB-60-355-U


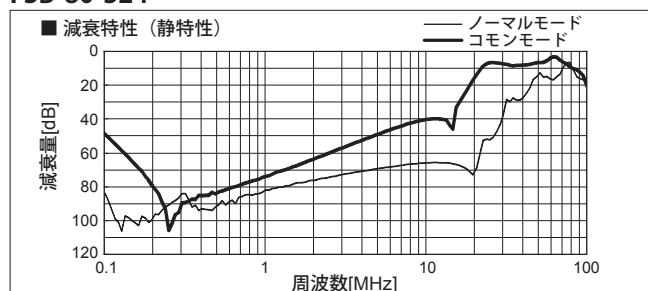
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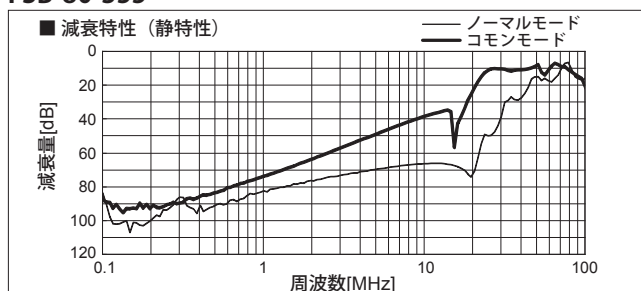
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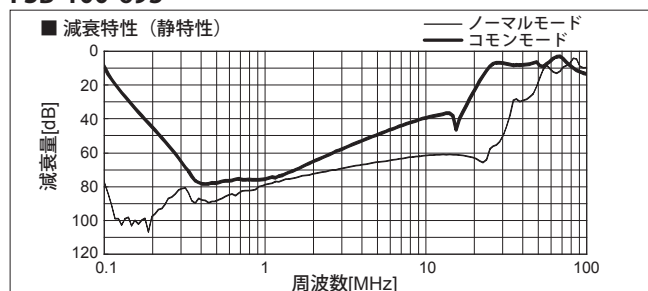
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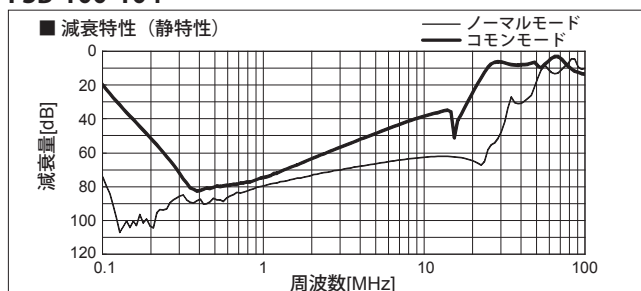
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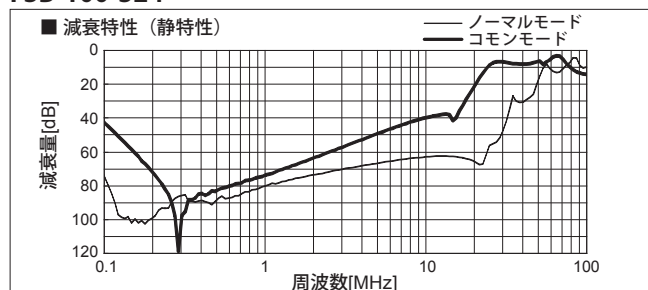
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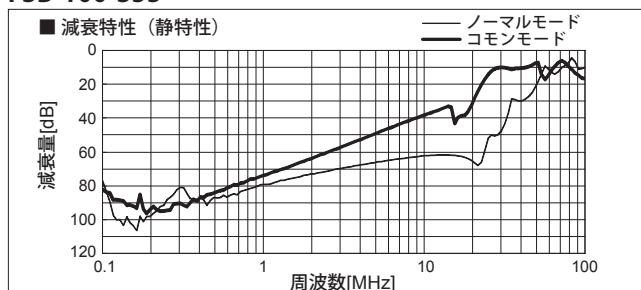
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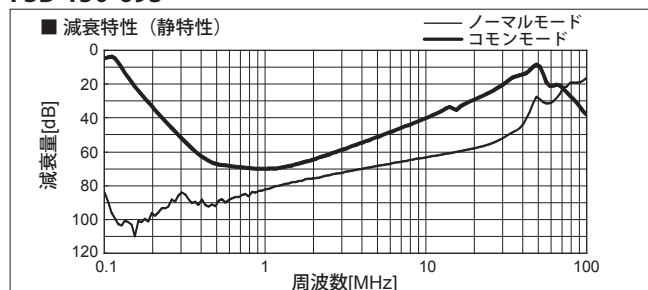
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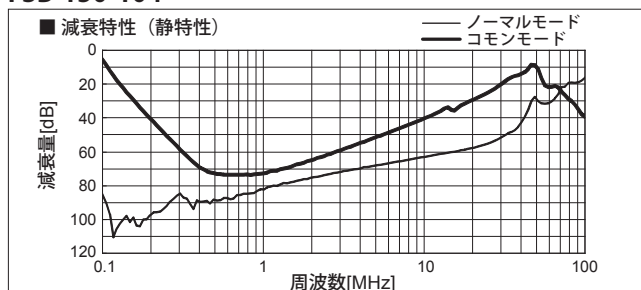
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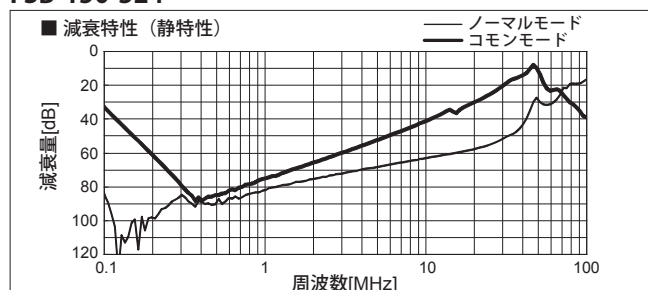
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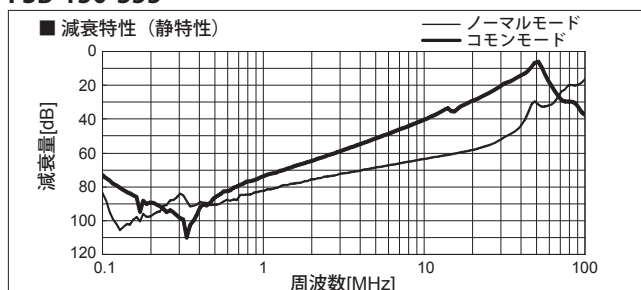
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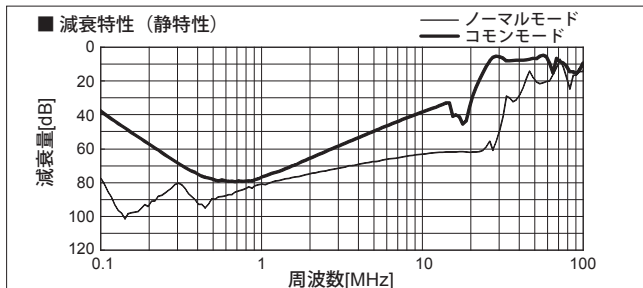
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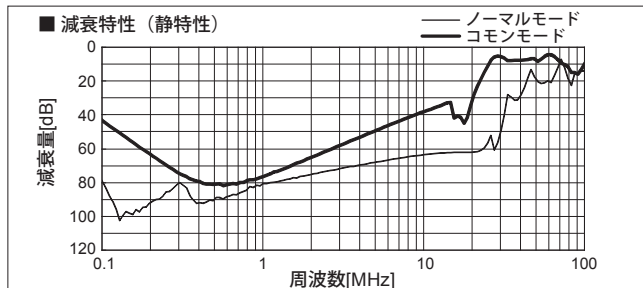
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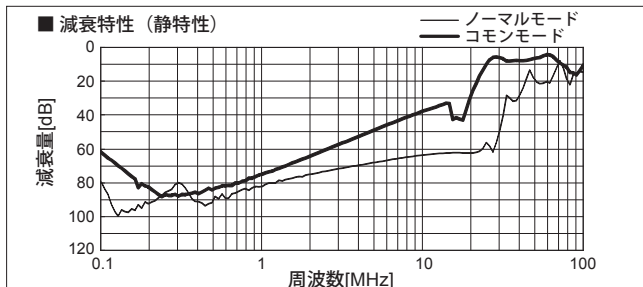
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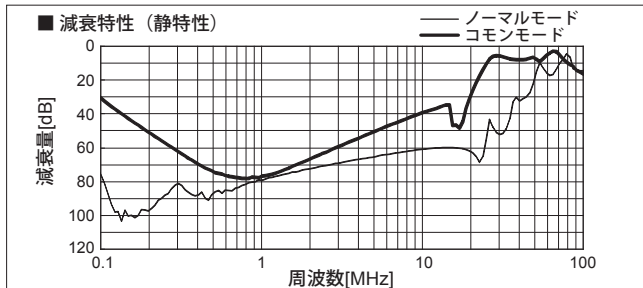
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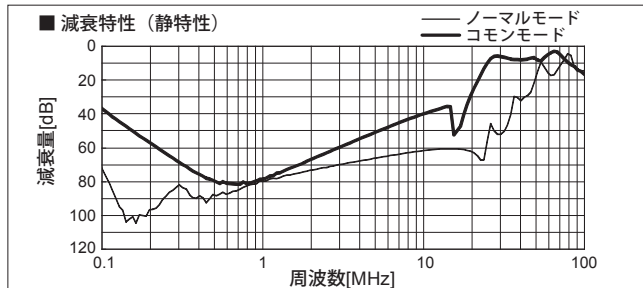
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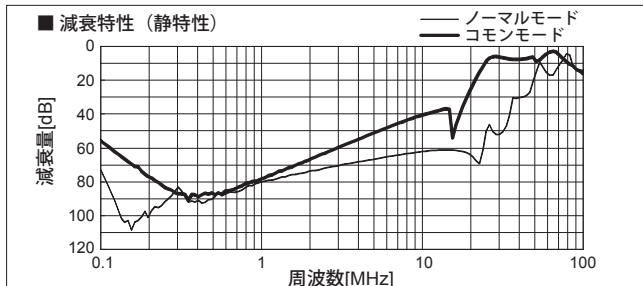
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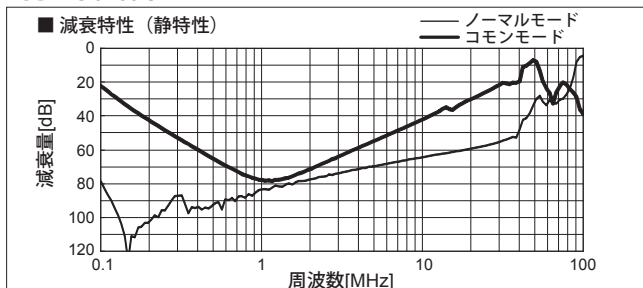
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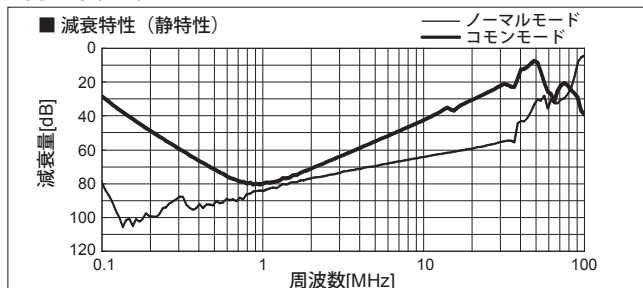
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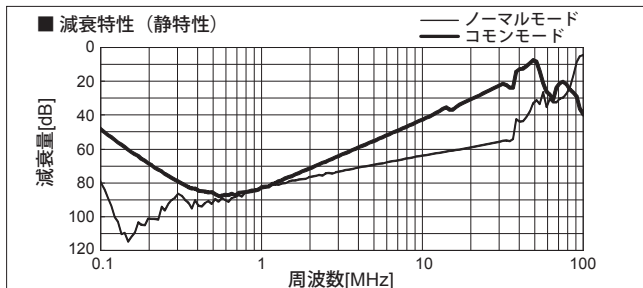
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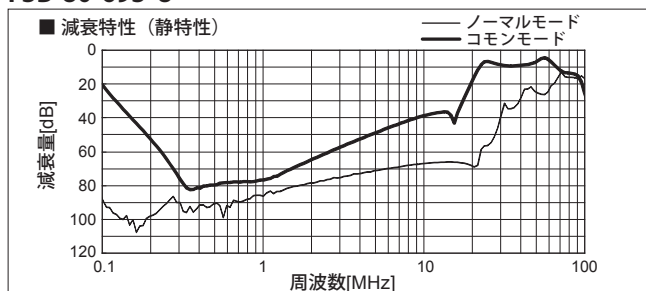
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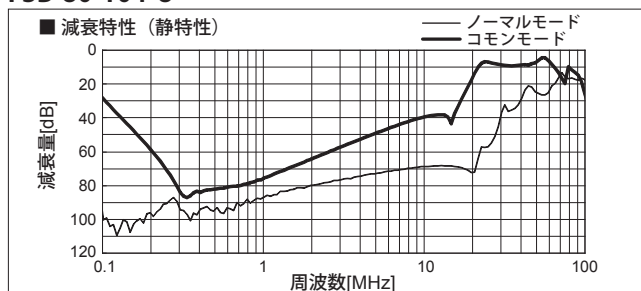
FSB-150-324-H



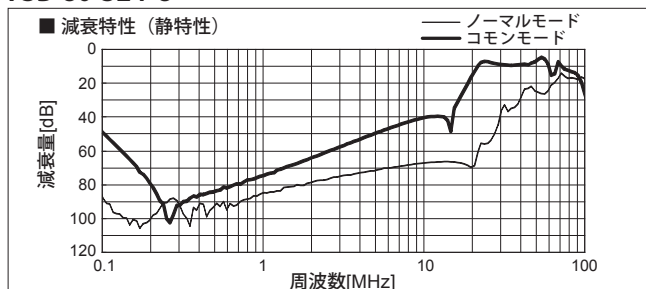
FSB-80-693-U



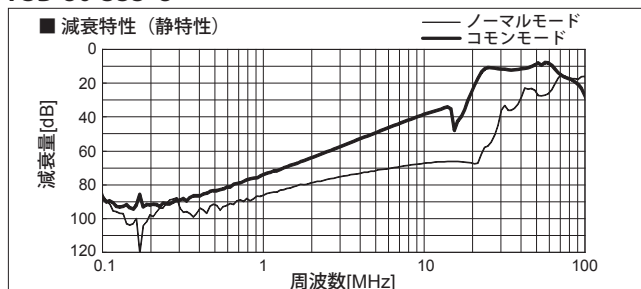
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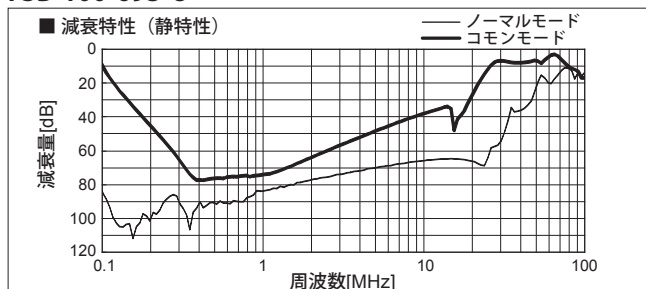
FSB-80-324-U



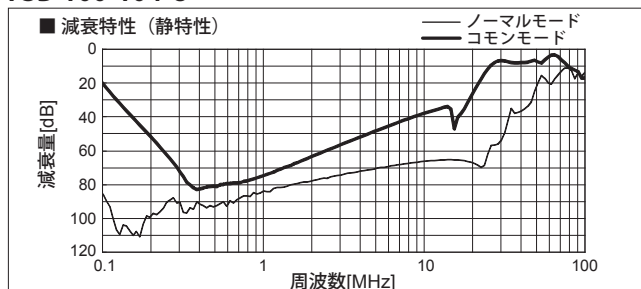
FSB-80-355-U



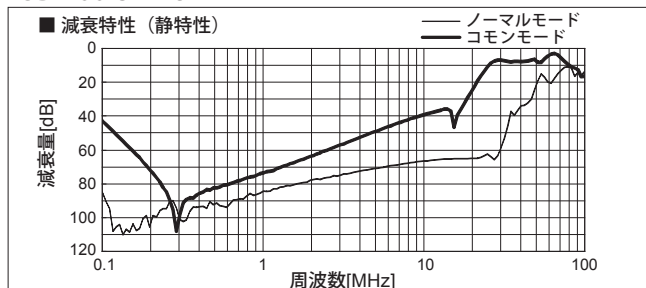
FSB-100-693-U



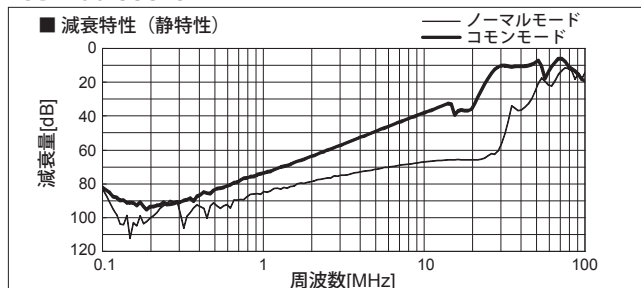
FSB-100-104-U



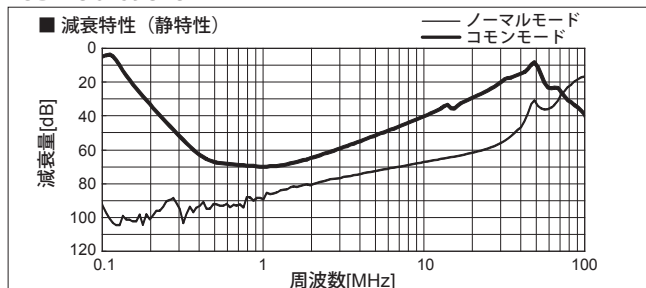
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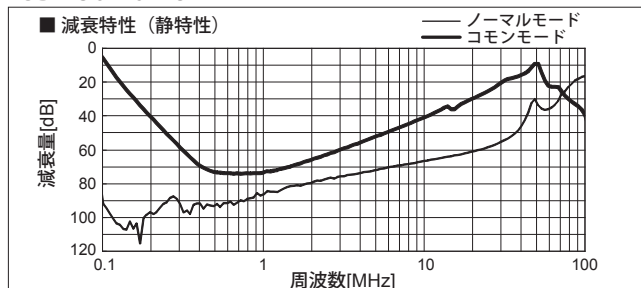
FSB-100-355-U



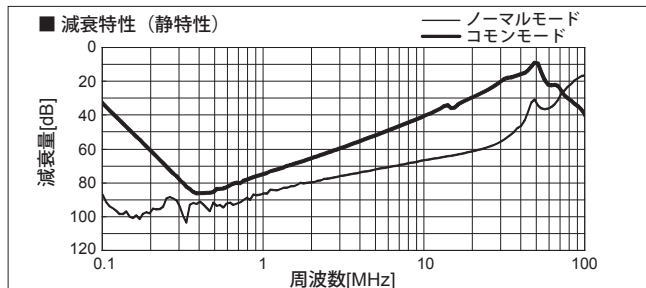
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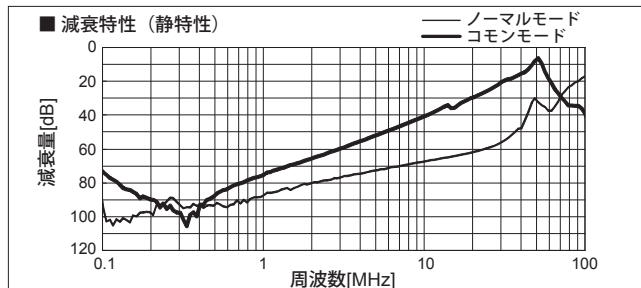
FSB-150-104-U



FSB-150-324-U

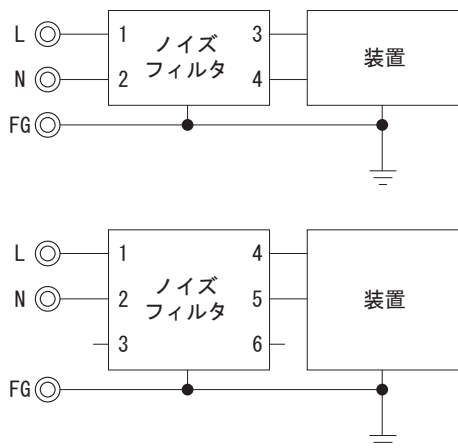


FSB-150-355-U



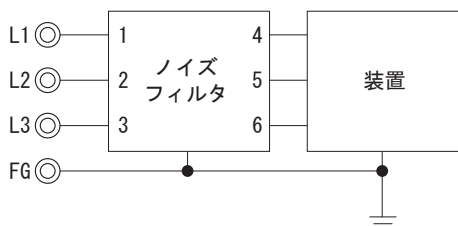
1 ノイズフィルタの接続方法

(1) 単相 2 線

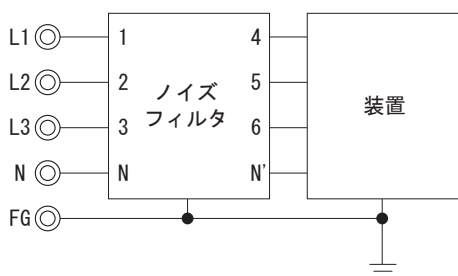


※三相 3 線式ノイズフィルタは単相入力としても使用可能です。

(2) 三相 3 線式



(3) 三相 4 線式



[参考] 入力電流算出計算例

入力電圧 400 [V] 装置入力容量 4000 [VA]

$$\text{入力電流} = \frac{4000 \text{ [VA]}}{400 \text{ [V]} \times \sqrt{3}} = 5.8 \text{ [A]}$$

2 接続の注意事項

ノイズフィルタが異常発熱を起こす原因となるため、以下の注意事項を遵守ください。判定が困難な場合には当社までご相談ください。

(1) 入力電圧

入力電圧は各モデルの定格電圧以内（又は使用最大）でご使用ください。

なお、AC電源用ノイズフィルタに接続される入力電圧波形は、商用周波数（50/60Hz）を想定しています。以下の条件の使用はできません。

- 1) 正弦波以外の三角波、矩形波など歪みの大きい入力電圧波形
- 2) 400Hzなど高い周波数の入力電圧波形

(2) 入力電流

入力電流は各モデルの定格電流以内でご使用ください。

なお、ノイズフィルタは短時間であれば定格電流より大きな負荷電流（ピーク電流）を流すことができます。一般的なスイッチング電源などの突入電流（～40A又は、定格電流の10倍、単発、数ms程度）については特に問題ありません。

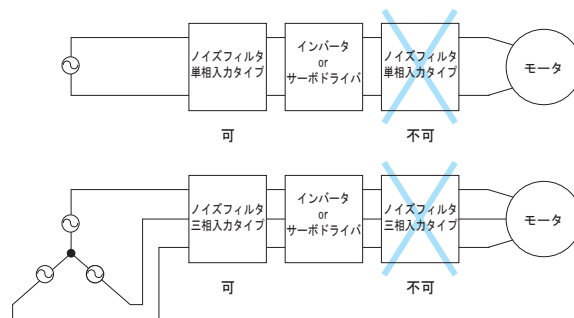
但し、以下の条件については使用できません。

- 1) ピーク電流の持続時間が長い場合
- 2) ピーク電流または高周波の繰り返し電流が継続的に流れる場合

(3) 汎用インバータ（サーボドライバ）との接続

ノイズフィルタは、必ずインバータ（サーボドライバ）の前段にご使用ください。

インバータ（サーボドライバ）とモータ間での使用はできません。



(4) 三相 4 線式接続時の注意

三相 3 線式入力の場合、デルタ結線は使用できません。

ノイズフィルタのN、N' 端子を使用する場合、中性線 (N相) を必ず接続してください。

三相 4 線式で中性線と各ライン間に単相負荷を接続している場合、中性線にライン電流よりも大きな電流が流れる場合があります。

入力電流がノイズフィルタの定格電流を超えないようにご使用ください。

3 安全規格

■規格申請時の必要事項

本ノイズフィルタを使用して規格申請する場合、下記項目を満足させてください。

- 機器組込み形としてご使用ください。
- 保護接地端子を筐体の安全アースに接続してください。

(1) 減衰特性（静特性）測定回路

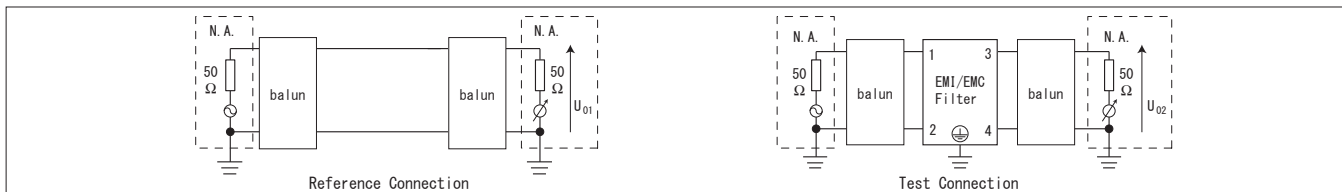
※ 減衰量 = $20 \log (U_{01}/U_{02})$ [dB]

U₀₁ : フィルタがない状態での発生電圧 (Reference Connection)

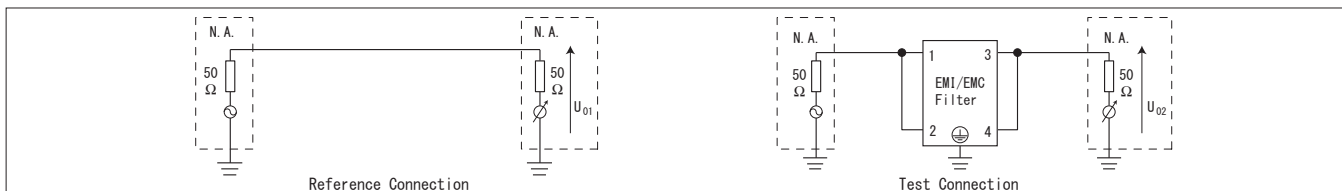
U₀₂ : フィルタを挿入した状態での発生電圧 (Test Connection)

※N.A. : ネットワークアナライザ

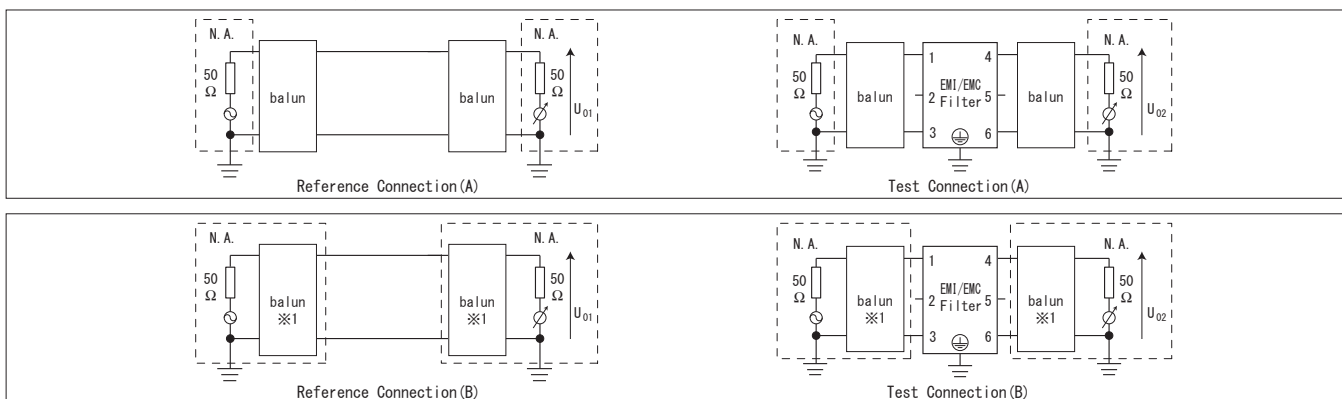
■単相入力タイプの場合（ノーマルモード）



■単相入力タイプの場合（コモンモード）



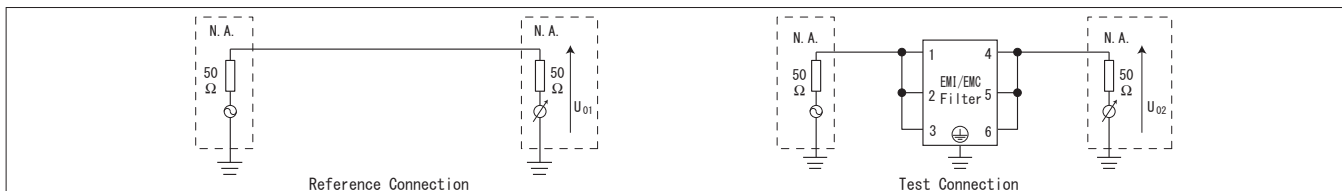
■三相入力タイプ（三相3線式）の場合（ノーマルモード）



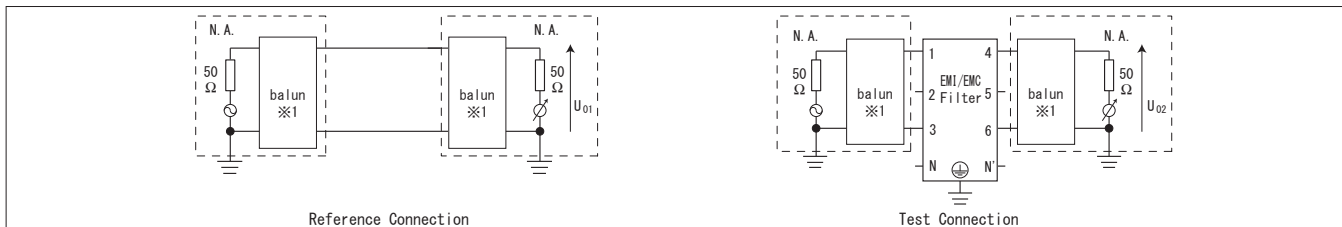
※ 上記測定回路の (A) または (B) で測定

※1 測定器内のミックスモード S パラメータによる平衡測定

■三相入力タイプ（三相3線式）の場合（コモンモード）

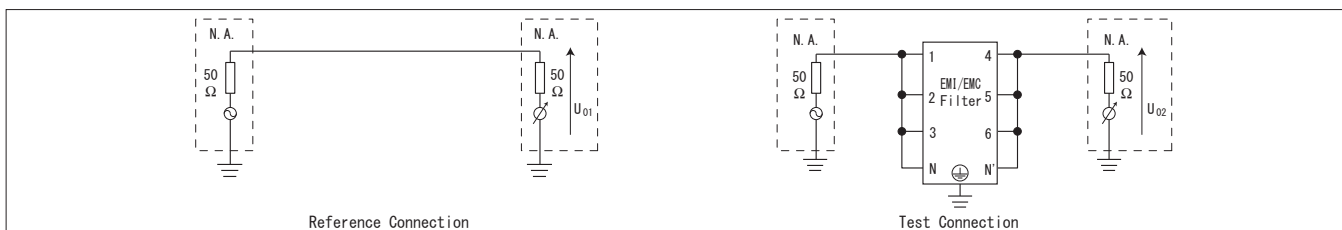


■三相入力タイプ（三相4線式）の場合（ノーマルモード）



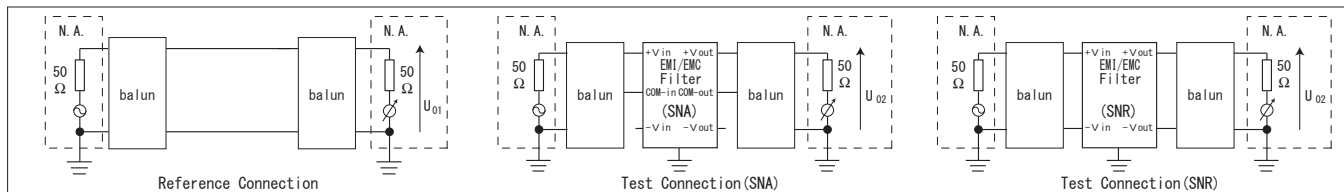
※1 測定器内のミックスモード S パラメータによる平衡測定

■三相入力タイプ（三相4線式）の場合（コモンモード）

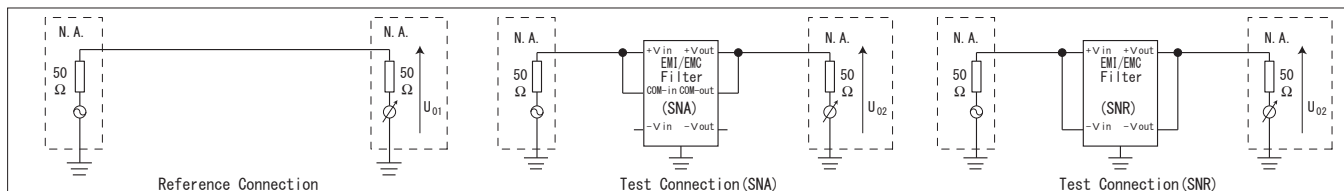


※ 減衰量 = $20 \log(U_{01}/U_{02})$ [dB]
 U_{01} : フィルタがない状態での発生電圧 (Reference Connection)
 U_{02} : フィルタを挿入した状態での発生電圧 (Test Connection)
 ※N.A. : ネットワークアナライザ

■ DC 入力タイプの場合（ノーマルモード）



■ DC 入力タイプの場合（コモンモード）



(2) パルス減衰特性測定回路

