$\alpha_{min} = 55 \text{ dB}$

$n = 3$

$\varepsilon^2 = 0{,}259$

- $\dfrac{1}{1 + C_3^2(\omega)} = H(s) \cdot H(-s)$

- $\dfrac{1}{1 + \varepsilon^2 (4\omega^3 + 3\omega)^2} = H(s) \cdot H(-s)$

- $\dfrac{1}{1 + \varepsilon^2 \cdot (16\omega^6 - 24 \cdot \omega^3 \cdot 3\omega + 9\omega^2)}$

- $\dfrac{1}{\omega^6 \cdot 16\varepsilon^2 - \omega^6\, 24\varepsilon^2 + 9\omega^2\varepsilon^2} \Rightarrow \dfrac{1}{-s^6\, 16\varepsilon^2 - s^4\, 24\varepsilon^2 - s^2\, 9 \cdot \varepsilon^2 + 1}$

- $-A^2 = -16\varepsilon^2 \Rightarrow A = 4\varepsilon$

- $D = 1$

- $B^2 = 2A \cdot C + 24 \Rightarrow B = 2{,}012$

- $C^2 = 2 \cdot BD + 9\varepsilon^2 \rightarrow C = 2{,}52$

Verificat en python.

$\varepsilon^2 = 0{,}259 \Rightarrow A = 2{,}035$

$B^2 = 2 \cdot 2{,}035 \cdot C + 24$

$C^2 = 2B + 2{,}331 \Rightarrow C = \sqrt{2B + 2{,}331}$

$B^2 = 4{,}07 \cdot (\sqrt{2B + 2{,}331}) + 24$

$B^4 = (4{,}07 \cdot \sqrt{2B + 2{,}331} + 24)^2$

$B^4 = (4{,}07 \cdot \sqrt{2B + 2{,}331})^2 + 2 \cdot 4{,}07 \cdot \sqrt{2B + 2{,}331} \cdot 24 + 24^2$

$B^4 = 4{,}07^2 \cdot (2B + 2{,}331) + 32{,}4\sqrt{2B + 2{,}331} + 576$