

HiFi AUDIO DESIGN

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Closed Enclosure Calculator (choose Volume)



- EBP < 50 - use only for a sealed box
- EBP 50 - 100 - can be used in either
- EBP > 100 - vented box only
- EBP > 130 - can be used for Horn Loudspeakers

Driver Parameters

F_s : Hz - Resonant frequency of the driver.

Q_{es} : Electrical Q of the driver

Q_{ts} : Total Q of the driver

V_{as} : liters - Volume of air with same compliance.

- Estimate volume of internal driver and parts (V_{dr})
- Consider the depth, width and height of enclosure when estimating
- Enter volume of enclosure desired (V_b)

V_{dr} : liters - Volume of internal driver and parts

V_b : liters - Volume of enclosure to calculate performance specifications.

Calculate Q_{tc} , f_3 & Peak

Calculated Performance

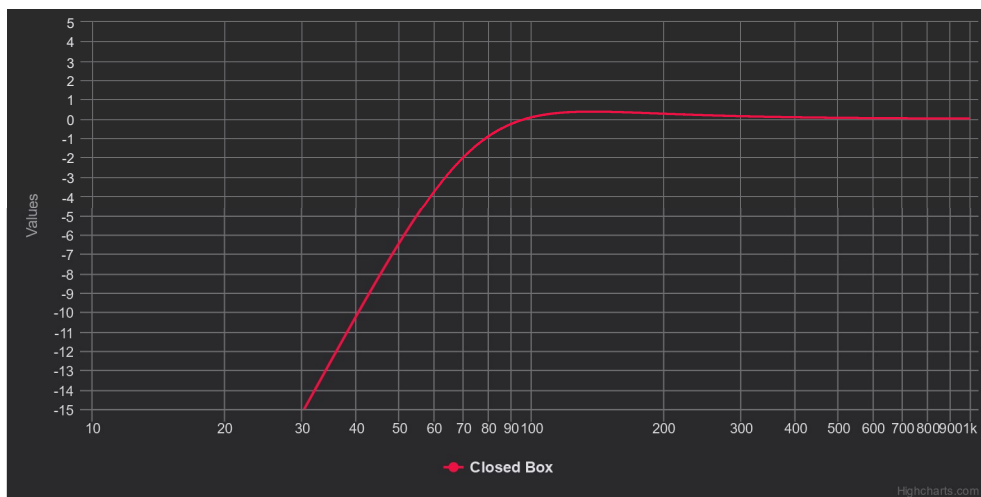
EBP = useable for sealed and vented loudspeaker

Q_{tc} = total Q of the speaker in an enclosure including all system resistances.

Optimal Q_{tc} is 0.707

f_{-3} = Hz, Frequency where the level has dropped by 3 dB

Frequency Response



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