beyma

PROFESSIONAL LOUDSPEAKERS

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# 8G40

## LOW FREQUENCY TRANSDUCER

## G40 Series

## KEY FEATURES

- High power handling: 250 $W_{AES}$
- Sensitivity 95 dB (1W / 1m)
- 2,5” aluminum voice coil with polymide fiber glass former
- Extremely linear frequency response
- Low harmonic distortion
- Extended controlled displacement: $X_{max}$ ± 6,5 mm
- 23 mm peak-to-peak excursion before damage
- Designed for woofer applications
- Optimized for small bass-reflex cabinets





## TECHNICAL SPECIFICATIONS

| | | |
|---|---|---|
| **Nominal diameter** | 200 mm | 8 in |
| **Rated impedance** | | 8 Ω |
| **Minimum impedance** | | 7,3 Ω |
| **Power capacity** [1] | | 250 $W_{AES}$ |
| **Program power** [2] | | 500 W |
| **Sensitivity** | 95 dB | 1W / 1m @ $Z_N$ |
| **Frequency range** | | 70 - 6.000 Hz |
| **Recom. enclosure vol.** | 10 / 30 l | 0,35 / 1,06 $ft^3$ |
| **Voice coil diameter** | 63,5 mm | 2,5 in |
| **Bl factor** | | 12,2 N/A |
| **Moving mass** | | 0,021 kg |
| **Voice coil length** | | 16 mm |
| **Air gap height** | | 7 mm |
| **$X_{damage}$ (peak to peak)** | | 23 mm |

## THIELE-SMALL PARAMETERS [3]

| | |
|---|---|
| **Resonant frequency, $f_s$** | 70 Hz |
| **D.C. Voice coil resistance, $R_e$** | 6,1 Ω |
| **Mechanical Quality Factor, $Q_{ms}$** | 6,8 |
| **Electrical Quality Factor, $Q_{es}$** | 0,38 |
| **Total Quality Factor, $Q_{ts}$** | 0,36 |
| **Equivalent Air Volume to $C_{ms}$, $V_{as}$** | 17 l |
| **Mechanical Compliance, $C_{ms}$** | 246 µm / N |
| **Mechanical Resistance, $R_{ms}$** | 1,4 kg / s |
| **Efficiency, $\eta_0$** | 1,5 % |
| **Effective Surface Area, $S_d$** | 0,022 $m^2$ |
| **Maximum Displacement, $X_{max}$** [4] | 6,5 mm |
| **Displacement Volume, $V_d$** | 143 $cm^3$ |
| **Voice Coil Inductance, $L_e$** | 1,3 mH |

**Notes**:

[1] The power capaticty is determined according to AES2-1984 (r2003) standard.

[2] Program power is defined as power capacity + 3 dB.

[3] T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

[4] The $X_{max}$ is calculated as $(L_{vc} - H_{ag})/2 + (H_{ag}/3,5)$, where $L_{vc}$ is the voice coil length and $H_{ag}$ is the air gap height.

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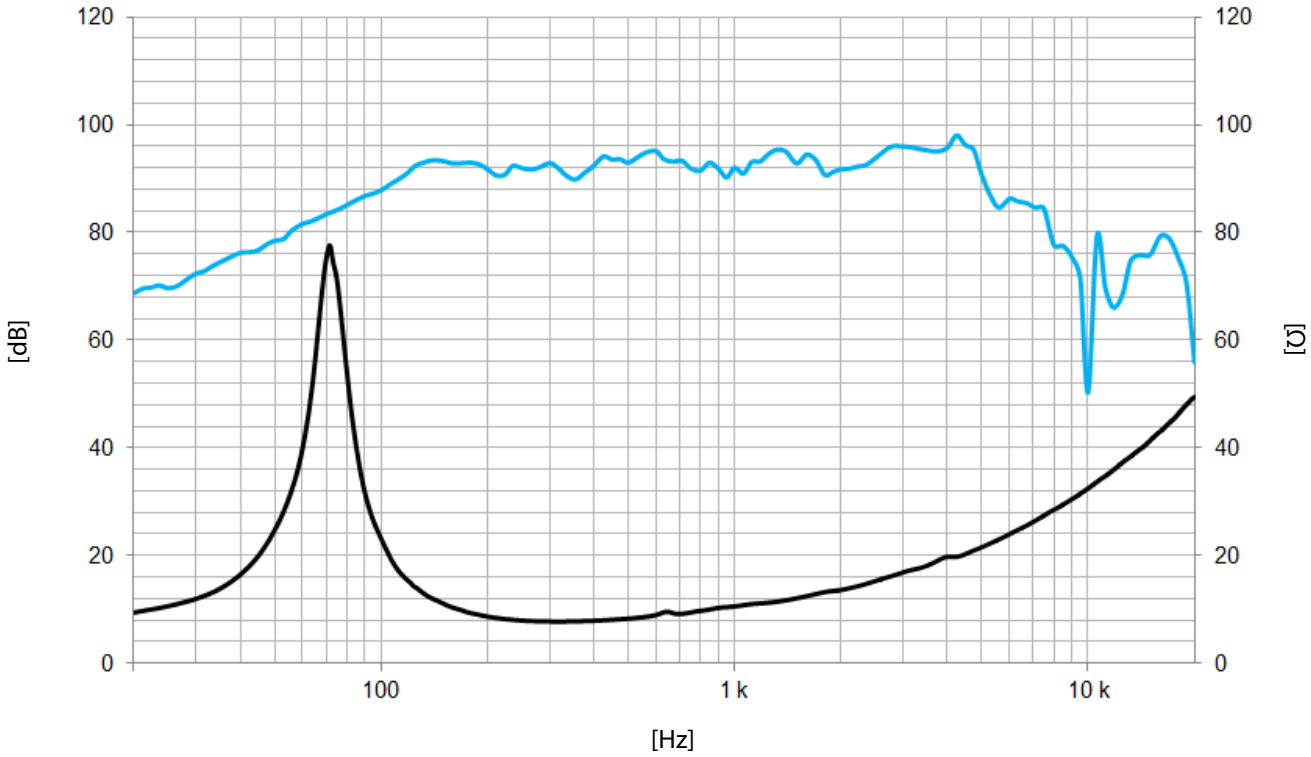
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**Note:** Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

## MOUNTING INFORMATION

| | | |
|---|---|---|
| **Overall diameter** | 212 mm | 8,3 in |
| **Bolt circle diameter** | 198 mm | 7,8 in |
| **Baffle cutout diameter:** | | |
| **- Front mount** | 181 mm | 7,1 in |
| **Depth** | 96 mm | 3,8 in |
| **Net weight** | 3,3 kg | 7,3 lb |
| **Shipping weight** | 3,5 kg | 7,6 lb |

## DIMENSION DRAWING

