12G40

LOW FREQUENCY TRANSDUCER G40 Series

KEY FEATURES

- High power handling 500 W_{AES}
- High sensitivity: 97 dB (1W / 1m)
- 3" copper voice coil with polymide fiber glass former
- Extended controlled displacement: X_{max} ± 7 mm
- 28 mm peak-to-peak excursion before damage
- Designed for woofer applications





TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm	12 in
	300 11111	
Rated impedance		8 Ω
Minimum impedance		6,7 Ω
Power capacity ¹	500 W _{AES}	
Program power ²	1.	000 W
Sensitivity	97 dB 1W / 1m	ı @ Z _N
Frequency range	45 - 4.0	000 Hz
Recom. enclosure vol.	20 / 70 I 0,7 /	2,6 ft ³
Voice coil diameter	76,2 mm	3 in
BI factor	18	3,4 N/A
Moving mass	0,	062 kg
Voice coil length	17	7,5 mm
Air gap height		8 mm
X _{damage} (peak to peak)		28 mm

THIELE-SMALL PARAMETERS³

Resonant frequency, f _s	44 Hz
D.C. Voice coil resistance, R _e	6 Ω
Mechanical Quality Factor, Q _{ms}	11,6
Electrical Quality Factor, Q _{es}	0,30
Total Quality Factor, Q _{ts}	0,30
Equivalent Air Volume to C _{ms} , V _{as}	81 I
Mechanical Compliance, C _{ms}	$206~\mu m$ / N
Mechanical Resistance, R _{ms}	1,5 kg / s
Efficiency, η ₀	2,3 %
Effective Surface Area, S _d	$0,053 \text{ m}^2$
Maximum Displacement, X _{max} ⁴	7 mm
Displacement Volume, V _d	371 cm ³
Voice Coil Inductance, Le	2,1 mH

Notes

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

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

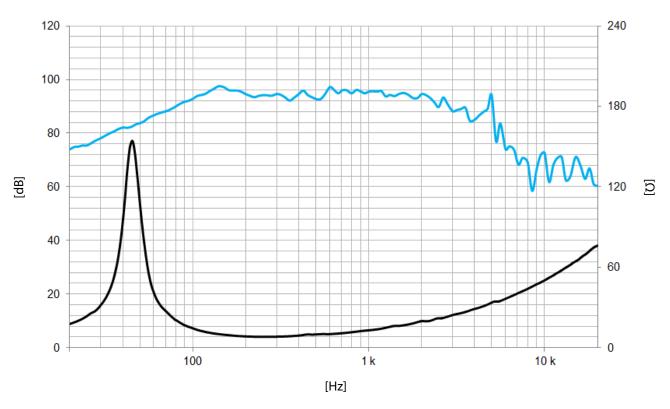
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^4}$ 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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Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

MOUNTING INFORMATION

Overall diameter	312 mm	12,3 in
Bolt circle diameter	294,5 mm	11,6 in
Baffle cutout diameter:		
- Front mount	278 mm	10,9 in
Depth	133 mm	5,2 in
Net weight	7,1 kg	15,6 lb
Shipping weight	7,8 kg	17,2 lb

DIMENSION DRAWING

