

12GA50

FULL RANGE FREQUENCY TRANSDUCER

KEY FEATURES

- High sensitivity: 102 dB (1W / 1m)
- Power handling: 250 W_{AES}
- Double cone for an extended bandwith coverage
- Special treated surround to obtain an extremely linear frequency response
- 2" aluminium voice coil
- Copper shorting cap for low harmonic distortion
- Designed for high quality full-range reproduction and music instruments reinforcement





TECHNICAL SPECIFICATIONS

Nominal diameter	300	mm (12 in
Rated impedance			8 Ω
Minimum impedance			6,8 Ω
Power capacity ¹		2	250 W _{AES}
Program power ²			500 W
Sensitivity	102 dB	1W /	1m @ Z _N
Frequency range		100 - 1	8.000 Hz
Voice coil diameter	50,8	8 mm	2 in
BI factor			10 N/A
Moving mass			0,034 kg
Voice coil length			9 mm
Air gap height			7 mm
X _{damage} (peak to peak)			24 mm

THIELE-SMALL PARAMETERS³

Resonant frequency, f _s	90 Hz
D.C. Voice coil resistance, R _e	6,2 Ω
Mechanical Quality Factor, Q _{ms}	14,8
Electrical Quality Factor, Qes	1,26
Total Quality Factor, Q _{ts}	1,16
Equivalent Air Volume to C _{ms} , V _{as}	34 I
Mechanical Compliance, C _{ms}	$87~\mu m$ / N
Mechanical Resistance, R _{ms}	1,3 kg / s
Efficiency, η ₀	2,1 %
Effective Surface Area, S _d	$0,053 \text{ m}^2$
Maximum Displacement, X _{max} ⁴	3 mm
Displacement Volume, V _d	159 cm ³
Voice Coil Inductance, L _e	0,6 mH

Notes

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

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

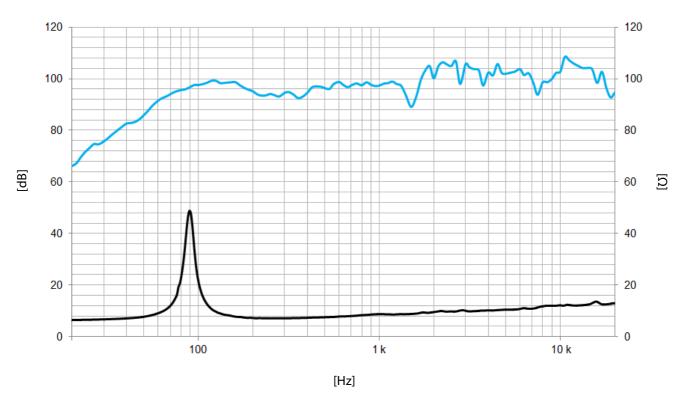
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^4}$ 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	139 mm	5,5 in
Net weight	3,5 kg	7,7 lb
Shipping weight	4 kg	8,8 lb

DIMENSION DRAWING

