beyma

PROFESSIONAL LOUDSPEAKERS
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12BR70

LOW FREQUENCY TRANSDUCER

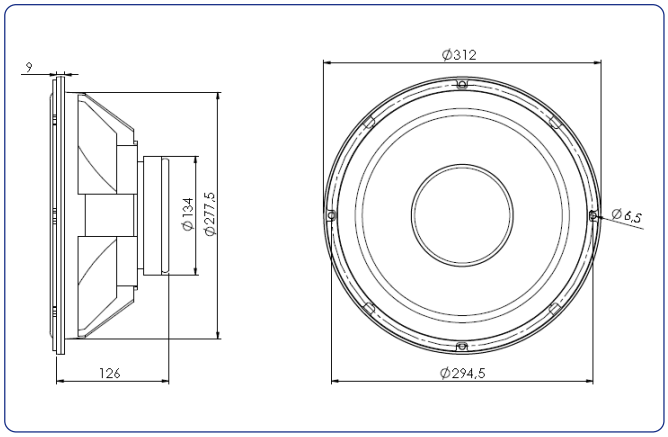
KEY FEATURES

- 125 W_{RMS} power handling
- Sensitivity: 93 dB @ 1 W @ 1 m
- 2” copper voice coil
- Extended controlled displacement: X_{max} ± 8 mm
- Low resonance for low frequency extension
- Flat frequency response and low distortion
- Rubber surround
- Die cast aluminium basket
- Ferrite magnet

TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm	12 in
Rated impedance		8 Ω
Minimum impedance		6,6 Ω
Power capacity*		125 W_{RMS}
Program power		250 W
Sensitivity	93 dB	1W @ 1m @ 2π
Frequency range		25 - 4.000 Hz
Recom. enclosure vol.	50 / 120 l	1,77 / 4,24 ft^3
Voice coil diameter	52 mm	2 in
Magnetic assembly weight	2,75 kg	6,06 lb
Bl factor		12,1 N/A
Moving mass		0,074 kg
Voice coil length		19 mm
Air gap height		7 mm

DIMENSION DRAWINGS



THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	31 Hz
D.C. Voice coil resistance, R_e	5,6 Ω
Mechanical Quality Factor, Q_{ms}	4,44
Electrical Quality Factor, Q_{es}	0,56
Total Quality Factor, Q_{ts}	0,50
Equivalent Air Volume to C_{ms}, V_{as}	142 l
Mechanical Compliance, C_{ms}	345 μm / N
Mechanical Resistance, R_{ms}	3,3 kg / s
Efficiency, η_0	0,76 %
Effective Surface Area, S_d	0,054 m^2
Maximum Displacement, X_{max} * **	8 mm
Displacement Volume, V_d	340 cm^3
Voice Coil Inductance, L_e @ 1 kHz	0,85 mH

MOUNTING INFORMATION

Overall diameter	312 mm	12,28 in
Bolt circle diameter	294,5 mm	11,59 in
Baffle cutout diameter:		
- Front mount	277,5 mm	10,93 in
- Rear mount	280 mm	11,02 in
Depth	125 mm	4,92 in
Net weight	3,6 kg	7,93 lb
Shipping weight	4,1 kg	9,04 lb

Notes:

* The power capaticty is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer’s ability to handle normal music program material.

** 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).

*** 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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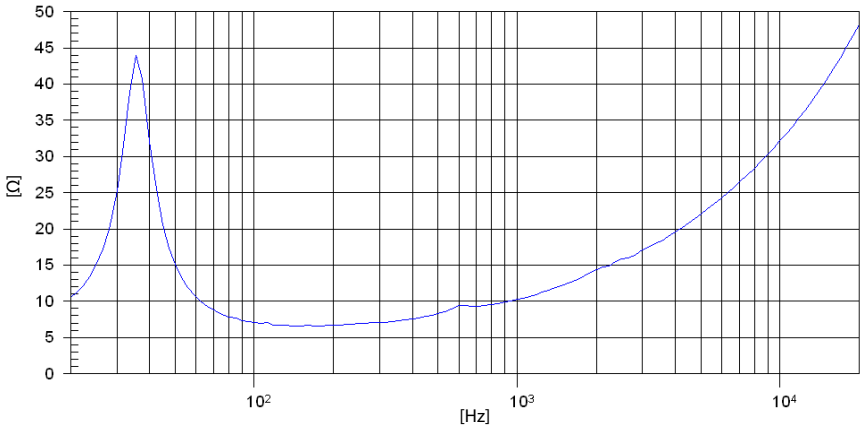
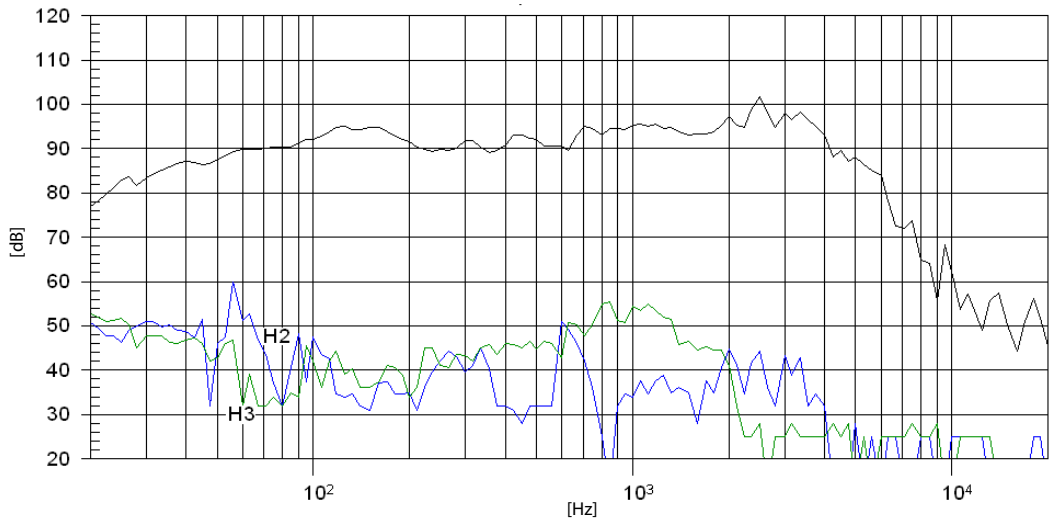
FREE AIR IMPEDANCE CURVE



FREQUENCY RESPONSE AND DISTORTION



Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

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