beyma

PROFESSIONAL LOUDSPEAKERS
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CM-10

LOW & MID FREQUENCY TRANSDUCER

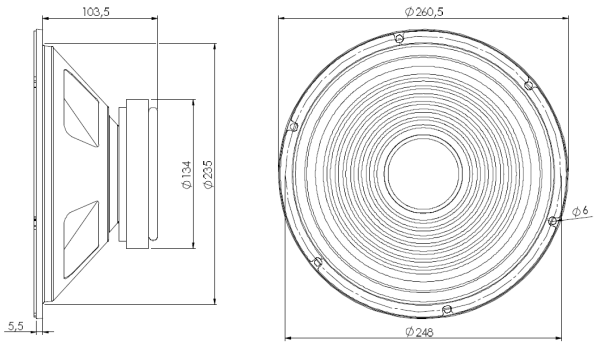
KEY FEATURES

- 250W program power.
- Sensitivity 95 dB, 1W @ 1m .
- Extended controlled displacement: X_{max} ± 6,5 mm.
- Treated cloth surround.
- Smooth and flat response and low distortion.
- Suited for bass and midbass applications in small vented cabinets.
- Steel basket.
- Ferrite magnet.

TECHNICAL SPECIFICATIONS

Nominal diameter	250 mm	10 in
Rated impedance		8 Ω
Minimum impedance		7,4 Ω
Power capacity*		125 W_{RMS}
Program power		250 W
Sensitivity	95 dB	1W @ 1m @ 2π
Frequency range		50 - 5.000 Hz
Recom. enclosure vol.	40 / 100 l	1,41 / 3,53 ft^3
Voice coil diameter	38,5 mm	1,5 in
Magnetic assembly weight	2,75 kg	6,06 lb
BL factor		12,2 N/A
Moving mass		0,035 kg
Voice coil length		16 mm
Air gap height		7 mm
X_{damage} (peak to peak)		24,5 mm

DIMENSION DRAWINGS



THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	61 Hz
D.C. Voice coil resistance, R_e	6,15 Ω
Mechanical Quality Factor, Q_{ms}	6,38
Electrical Quality Factor, Q_{es}	0,55
Total Quality Factor, Q_{ts}	0,51
Equivalent Air Volume to C_{ms}, V_{as}	40,7 l
Mechanical Compliance, C_{ms}	192 μm / N
Mechanical Resistance, R_{ms}	2,13 kg / s
Efficiency, η_0	1,60 %
Effective Surface Area, S_d	0,039 m^2
Maximum Displacement, X_{max} * **	6,5 mm
Displacement Volume, V_d	195 cm^3
Voice Coil Inductance, L_e @ 1 kHz	1,2 mH

MOUNTING INFORMATION

Overall diameter	260,5 mm	10,26 in
Bolt circle diameter	248 mm	9,76 in
Baffle cutout diameter:		
- Front mount	235 mm	9,25 in
- Rear mount	240 mm	9,45 in
Depth	103,5 mm	4,07 in
Volume displaced by driver	2,5 l	0,09 ft^3
Net weight	2,93 kg	6,46 lb
Shipping weight	3,30 kg	7,28 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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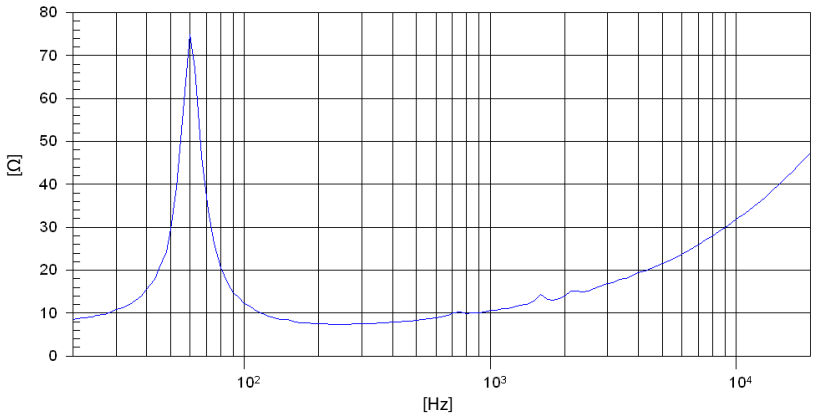
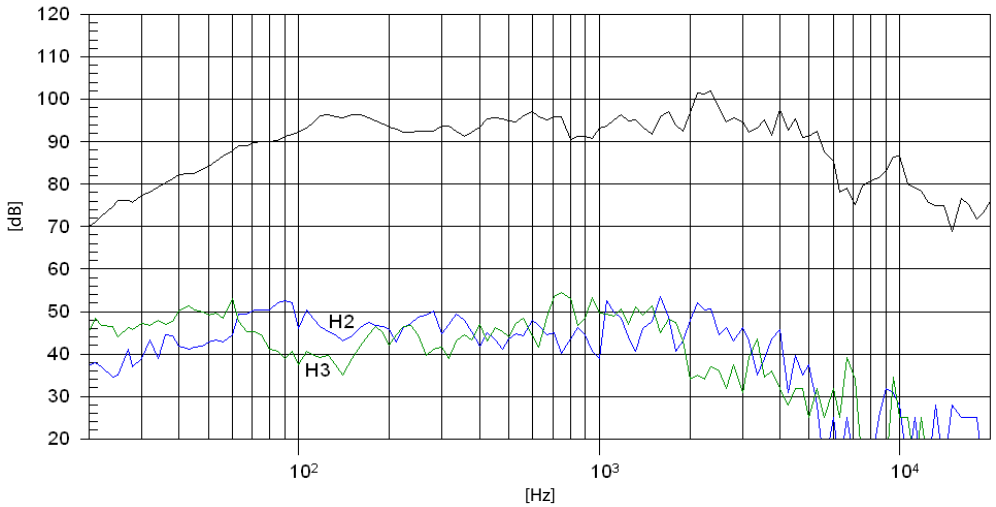
FREE AIR IMPEDANCE CURVE



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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08/13