beyma

PROFESSIONAL LOUDSPEAKERS
www.beyma.com

15MI100

MID FREQUENCY TRANSDUCER
MI100 Series

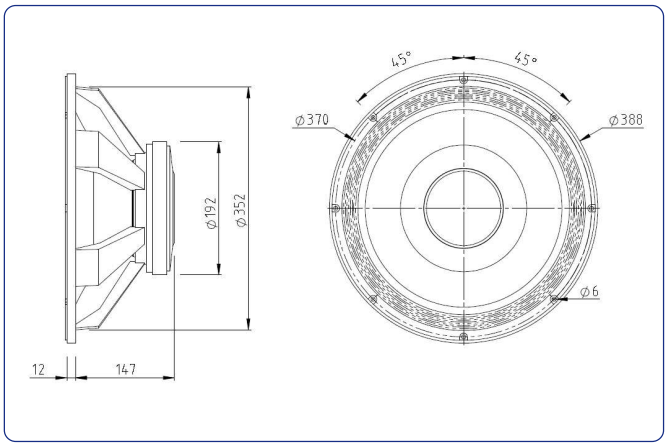
KEY FEATURES

- Very high efficiency (4,3%)
- High sensitivity: 100 dB (1W / 1m)
- FEA optimized magnetic circuit.
- Extremely linear frequency response.
- Low harmonic distortion.
- Large magnetic assembly to provide efficient heat dissipation.
- Designed for high quality mid-frequency reproduction.

TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm	15 in
Rated impedance		8 Ω
Minimum impedance		6,6 Ω
Power capacity*		450 W_{AES}
Program power		900 W
Sensitivity	100 dB	1W @ 1m @ Z_N
Frequency range		40 - 5.000 Hz
Voice coil diameter	77 mm	3 in
Bl factor		19,2 N/A
Moving mass		0,077 kg
Voice coil length		13,7 mm
Air gap height		10 mm
X_{damage} (peak to peak)		24 mm

DIMENSION DRAWINGS



THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	37 Hz
D.C. Voice coil resistance, R_e	6,2 Ω
Mechanical Quality Factor, Q_{ms}	6,3
Electrical Quality Factor, Q_{es}	0,30
Total Quality Factor, Q_{ts}	0,29
Equivalent Air Volume to C_{ms}, V_{as}	264 l
Mechanical Compliance, C_{ms}	240 μm / N
Mechanical Resistance, R_{ms}	2,8 kg / s
Efficiency, η_0	4,3 %
Effective Surface Area, S_d	0,088 m^2
Maximum Displacement, X_{max} * **	4,5 mm
Displacement Volume, V_d	396 cm^3
Voice Coil Inductance, L_e @ 1 kHz	1 mH

MOUNTING INFORMATION

Overall diameter	388 mm	15,28 in
Bolt circle diameter	370 mm	14,57 in
Baffle cutout diameter:		
- Front mount	352 mm	13,86 in
Depth	163 mm	6,42 in
Volume displaced by driver	7 l	0,25 ft^3
Net weight	7,8 kg	17,2 lb
Shipping weight	8,6 kg	18,9 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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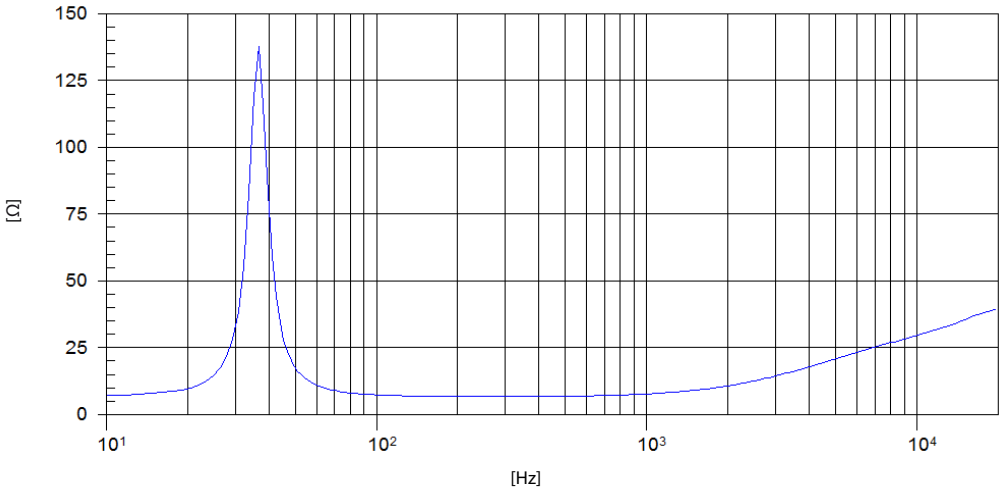
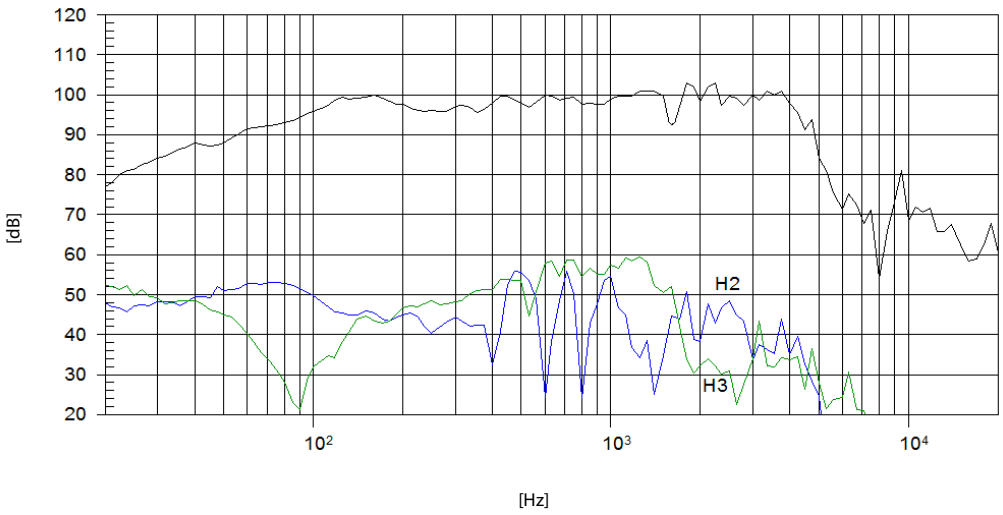
FREE AIR IMPEDANCE CURVE



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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