beyma

PROFESSIONAL LOUDSPEAKERS

www.beyma.com

10NMFS

LOW FREQUENCY TRANSDUCER

Preliminary Data Sheet

KEY FEATURES

maltcross TECHNOLOGY

- High power handling and low distortion 10” subwoofer
- Exclusive Malt Cross® Technology Cooling System
- Low power compression losses
- High force factor design for top performance applications
- FEA optimized ceramic magnetic circuit and suspensions
- Ultra low air noise
- Carbon fiber cone and dustcap
- Enhanced linear behaviour
- Double BIMAX spider and NBR surround
- 2,5” QUATTRO in/out aluminium voice coil
- Optimized triple aluminum and copper demodulating circuit
- Extended controlled displacement: X_{max} ± 14,5 mm
- 50 mm peak-to-peak excursion before damage





TECHNICAL SPECIFICATIONS

Nominal diameter	250 mm	10 in
Rated impedance		8 Ω
Minimum impedance		8,4 Ω
Power capacity [1]		350 W_{AES}
Program power [2]		700 W
Long term max. power [3]		800 W
Sensitivity	90 dB	1W / 1m @ Z_N
Frequency range		30 - 2.000 Hz
Voice coil diameter	63,5 mm	2,5 in
Bl factor		16 N/A
Moving mass		0,089 kg
Voice coil length		32 mm
Air gap height		7 mm
X_{damage} (peak to peak)		50 mm

THIELE-SMALL PARAMETERS [4]

Resonant frequency, f_s	35 Hz
D.C. Voice coil resistance, R_e	5,9 Ω
Mechanical Quality Factor, Q_{ms}	5,9
Electrical Quality Factor, Q_{es}	0,45
Total Quality Factor, Q_{ts}	0,42
Equivalent Air Volume to C_{ms}, V_{as}	45 l
Mechanical Compliance, C_{ms}	233 µm / N
Mechanical Resistance, R_{ms}	3,3 kg / s
Efficiency, η_0	0,42 %
Effective Surface Area, S_d	0,037 m^2
Maximum Displacement, X_{max} [5]	14,5 mm
Displacement Volume, V_d	536 cm^3
Voice Coil Inductance, L_e	1,49 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] Long term maximum power according to IEC268-5 18.2.

[4] 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).

[5] 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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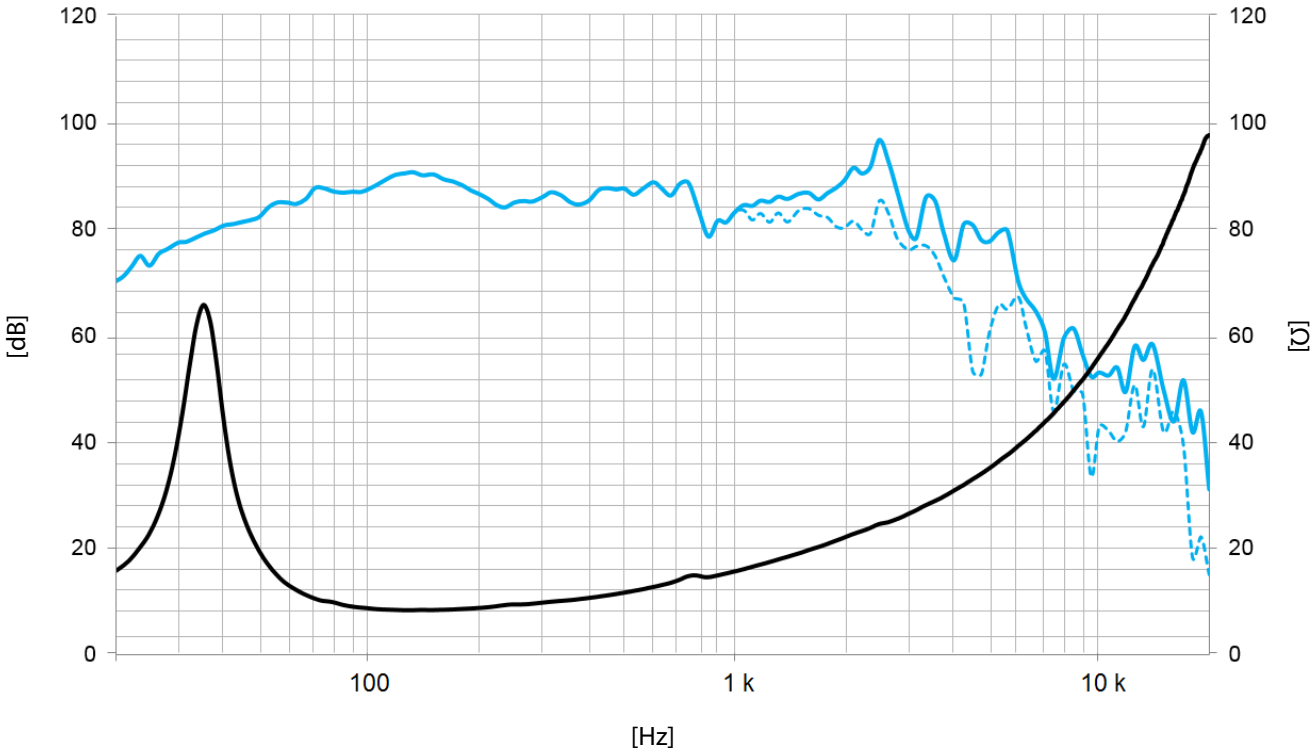
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Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

Frequency response on axis
Frequency response 45º off axis

MOUNTING INFORMATION

Overall diameter	279 mm	10,98 in
Bolt circle diameter	260,5 mm	10,26 in
Baffle cutout diameter:		
- Front mount	229 mm	9 in
Depth	172,8 mm	6,8 in
Net weight	6,5 kg	14,33 lb
Shipping weight	7,2 kg	15,9 lb

DIMENSION DRAWING

