beyma

PROFESSIONAL LOUDSPEAKERS
www.beyma.com

8MC500Nd

LOW & MID FREQUENCY TRANSDUCER

MC Series

KEY FEATURES

maltcross TECHNOLOGY

- High power handling: 1.000 W program power
- Exclusive Malt Cross® Technology Cooling System
- Low power compression losses
- High sensitivity: 98 dB (1W / 1m)
- FEA optimized neodymium magnetic circuit
- Optimized non-linear behaviour
- 2,5" DUO double layer in/out copper voice coil
- Aluminium demodulating ring
- Waterproof cone with treatment for both sides
- Extended controlled displacement: X_{max} ± 5 mm
- 42 mm peak-to-peak excursion before damage
- Weight 2,8 kg
- Optimized for bass or mid-bass high performance audio systems

TECHNICAL SPECIFICATIONS

Nominal diameter	200 mm	8 in
Rated impedance		8 Ω
Minimum impedance		7,1 Ω
Power capacity [1]		500 W_{AES}
Program power [2]		1.000 W
Sensitivity	98 dB	1W / 1m @ Z_N
Frequency range		80 - 6.000 Hz
Recom. enclosure		V_b = 12 l
(Bass-reflex design)		F_b = 90 Hz
Voice coil diameter	63,5 mm	2,5 in
Bl factor		16,7 N/A
Moving mass		0,023 kg
Voice coil length		14 mm
Air gap height		8 mm
X_{damage} (peak to peak)		42 mm

THIELE-SMALL PARAMETERS [3]

Resonant frequency, f_s	69 Hz
D.C. Voice coil resistance, R_e	5,3 Ω
Mechanical Quality Factor, Q_{ms}	2,6
Electrical Quality Factor, Q_{es}	0,19
Total Quality Factor, Q_{ts}	0,18
Equivalent Air Volume to C_{ms}, V_{as}	15,9 l
Mechanical Compliance, C_{ms}	231 µm / N
Mechanical Resistance, R_{ms}	3,8 kg / s
Efficiency, η_0	2,6 %
Effective Surface Area, S_d	0,022 m^2
Maximum Displacement, X_{max} [4]	5 mm
Displacement Volume, V_d	110 cm^3
Voice Coil Inductance, L_e @ 1 kHz	0,5 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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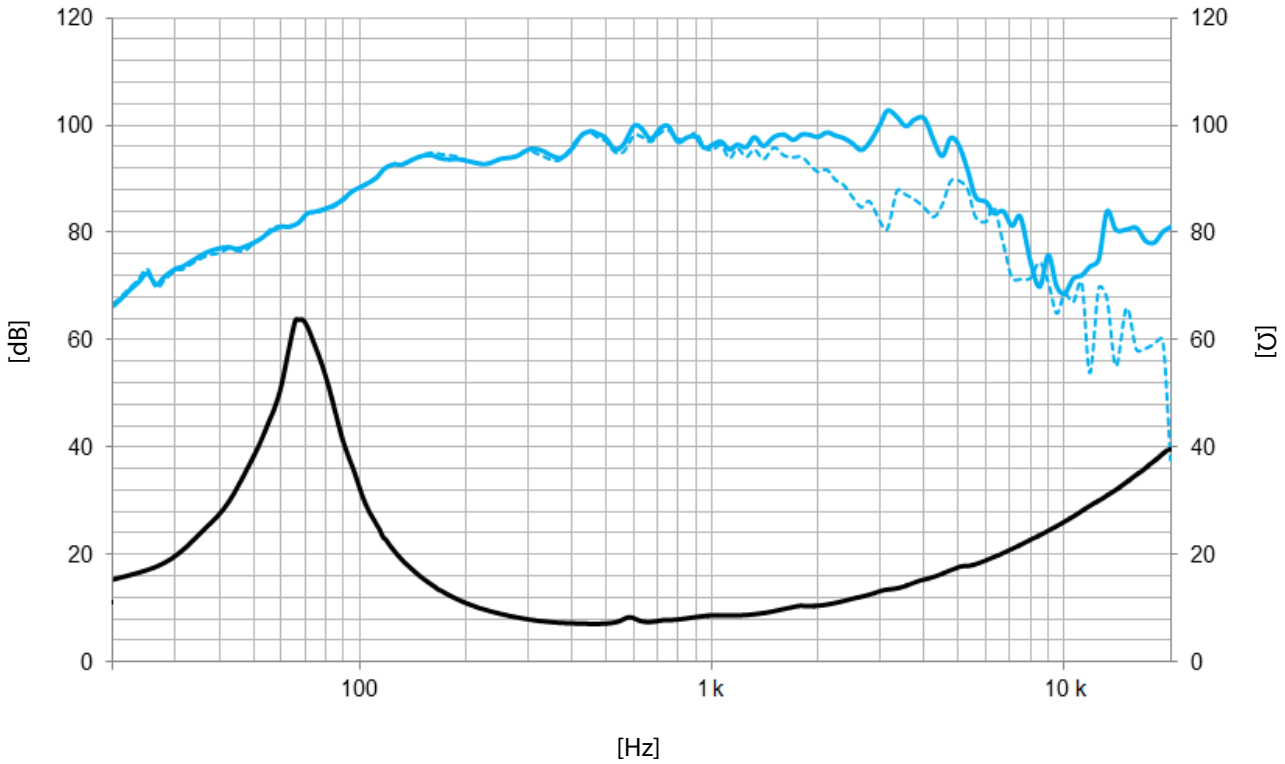

Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

Frequency response on axis
Frequency response 45º off axis

MOUNTING INFORMATION

Overall diameter	212 mm	8,3 in
Bolt circle diameter	195 mm	7,7 in
Baffle cutout diameter:		
- Front mount	182 mm	7,2 in
Depth	100 mm	3,9 in
Net weight	2,8 kg	6,2 lb
Shipping weight	3,1 kg	6,8 lb

DIMENSION DRAWING