beyma

PROFESSIONAL LOUDSPEAKERS

www.beyma.com

15MC500

LOW & MID FREQUENCY TRANSDUCER

MC Series

KEY FEATURES

maltcross TECHNOLOGY

- High power handling: 1.000 W program power
- 2,5” copper wire voice coil
- Malt Cross® Cooling System
- Low power compression losses
- High sensitivity: 98 dB
- FEA optimized magnetic circuit
- Aluminium demodulating ring
- Waterproof cone treatment for both sides of the cone
- Extended controlled displacement: X_{max} ± 8 mm
- 40 mm peak-to-peak excursion before damage
- Weight 6,2 kg
- Optimized for 2 or 3 way PA systems and line array for utlimate professional applications

TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm	15 in
Rated impedance		8 Ω
Minimum impedance		6,6 Ω
Power capacity [1]		500 W_{AES}
Program power [2]		1.000 W
Sensitivity	98 dB	1W / 1m @ Z_N
Frequency range		50 - 4.000 Hz
Recom. enclosure vol.	60 / 150 l	2,1 / 5,2 ft^3
Voice coil diameter	63,5 mm	2,5 in
Bl factor		18,3 N/A
Moving mass		0,098 kg
Voice coil length		19,5 mm
Air gap height		9,5 mm
X_{damage} (peak to peak)		40 mm

THIELE-SMALL PARAMETERS [3]

Resonant frequency, f_s	46 Hz
D.C. Voice coil resistance, R_e	5,7 Ω
Mechanical Quality Factor, Q_{ms}	8
Electrical Quality Factor, Q_{es}	0,49
Total Quality Factor, Q_{ts}	0,46
Equivalent Air Volume to C_{ms}, V_{as}	131,5 l
Mechanical Compliance, C_{ms}	120 μm / N
Mechanical Resistance, R_{ms}	3,5 kg / s
Efficiency, η_0	2,5 %
Effective Surface Area, S_d	0,088 m^2
Maximum Displacement, X_{max} [4]	8 mm
Displacement Volume, V_d	704 cm^3
Voice Coil Inductance, L_e	1,1 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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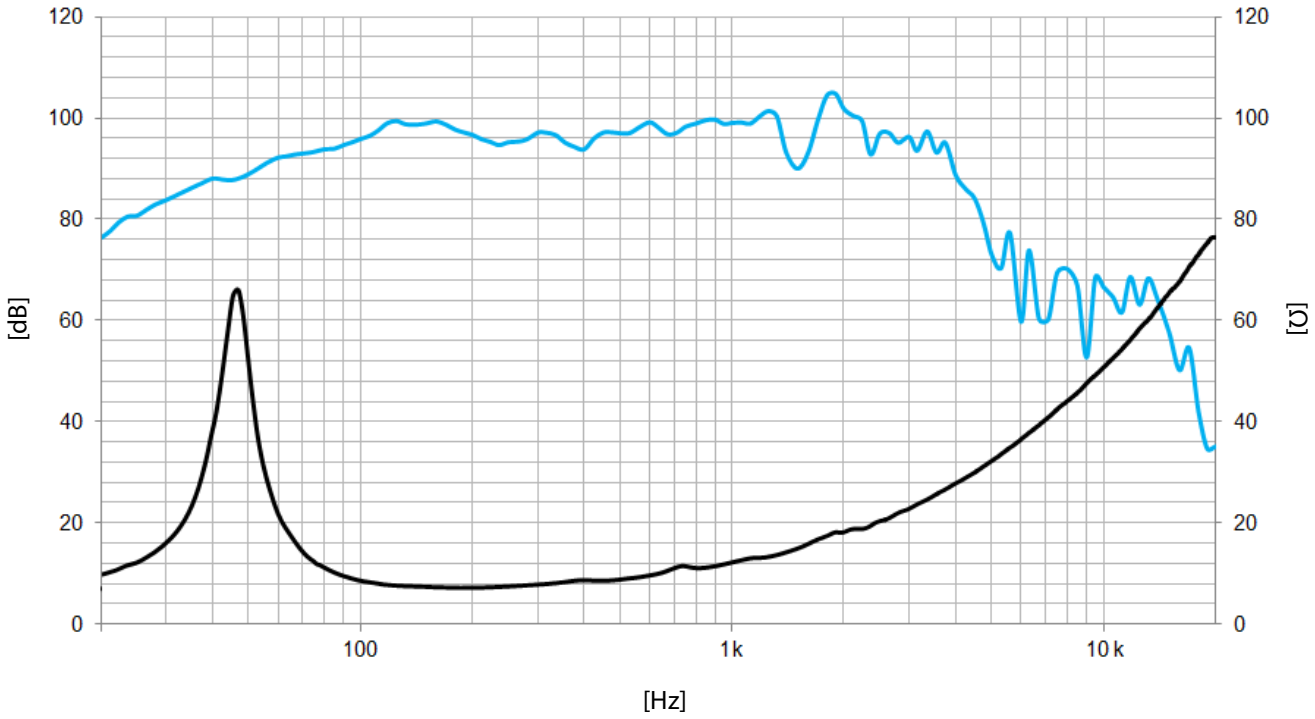

Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

MOUNTING INFORMATION

Overall diameter	388 mm	15,3 in
Bolt circle diameter	370 mm	14,6 in
Baffle cutout diameter:		
- Front mount	349,5 mm	13,8 in
Depth	170 mm	6,7 in
Net weight	6,2 kg	13,7 lb
Shipping weight	7,2 kg	15,9 lb

DIMENSION DRAWING