

12MC500

LOW & MID FREQUENCY TRANSDUCER

MC Series

- **KEY FEATURES** maltcross
- 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 (1W / 1m)
- FEA optimized magnetic circuit
- Aluminum 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 5,8 kg
- Optimized for 2 or 3 way PA systems and line array for ultimate professional applications





TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm	12 in
Rated impedance		8 Ω
Minimum impedance		5,8 Ω
Power capacity ¹		500 W _{AES}
Program power ²		1.000 W
Sensitivity	98 dB 1W	/ 1m @ Z _N
Frequency range	65	- 5.000 Hz
Voice coil diameter	63,5 mm	2,5 in
BI factor		17,3 N/A
Moving mass		0,059 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	57 Hz
D.C. Voice coil resistance, R _e	5,5 Ω
Mechanical Quality Factor, Q _{ms}	8,6
Electrical Quality Factor, Q _{es}	0,39
Total Quality Factor, Qts	0,38
Equivalent Air Volume to C _{ms} , V _{as}	54,9 I
Mechanical Compliance, C _{ms}	128 μm / N
Mechanical Resistance, R _{ms}	2,5 kg / s
Efficiency, η ₀	2,5 %
Effective Surface Area, S _d	$0,055 \text{ m}^2$
Maximum Displacement, X _{max} ⁴	8 mm
Displacement Volume, V _d	440 cm ³
Voice Coil Inductance, L _e	0,7 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).

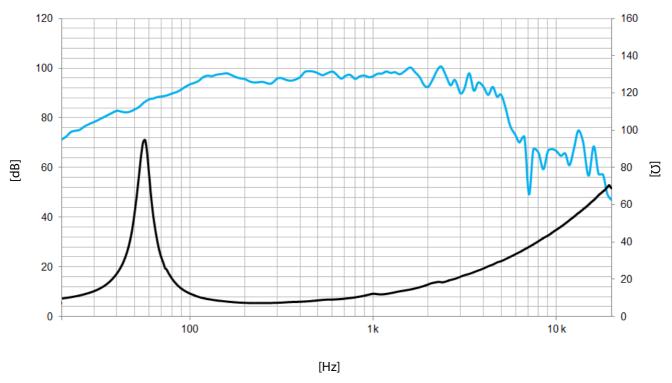
⁴ The X_{max} is calculated as $(L_{vc} - H_{ao})/2 + (H_{ao}/3.5)$, where L_{vc} is the voice coil length and H_{ao} is the air gap height.



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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	312 mm	12,3 in
Bolt circle diameter	294,5 mm	11,6 in
Baffle cutout diameter:		
- Front mount	278 mm	10,9 in
Depth	141 mm	5,5 in
Net weight	5,8 kg	12,8 lb
Shipping weight	6,5 kg	14,3 lb

DIMENSION DRAWING

