

12MCS500

LOW & MID FREQUENCY TRANSDUCER MCS Series

- **KEY FEATURES** maltcross
- High power handling: 1.000 W program power
- 2,5" copper wire voice coil
- Beyma's Malt Cross® Cooling System
- Low power compression looses
- High sensitivity: 98 dB (1W / 1m)
- Optimized pressed steel frame

- FEA optimized magnetic circuit
- Aluminum demodulating ring
- Waterproof cone treatment for both sides of the cone
- Optimized for 2 or 3 way PA systems and line array applications





TECHNICAL SPECIFICATIONS

Nominal diameter	300	mm	12 in
Rated impedance			8 Ω
Minimum impedance			7,3 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			17,6 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, Re	5,6 Ω
Mechanical Quality Factor, Q _{ms}	7,8
Electrical Quality Factor, Qes	0,38
Total Quality Factor, Qts	0,36
Equivalent Air Volume to C _{ms} , V _{as}	57 I
Mechanical Compliance, C _{ms}	132 μ m / N
Mechanical Resistance, R _{ms}	2,7 kg / s
Efficiency, η ₀	2,6 %
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, Le	1,1 mH

¹ The power capaticty is determined according to AES2-1984 (r2003) standard.

² Program power is defined as power capacity + 3 dB.

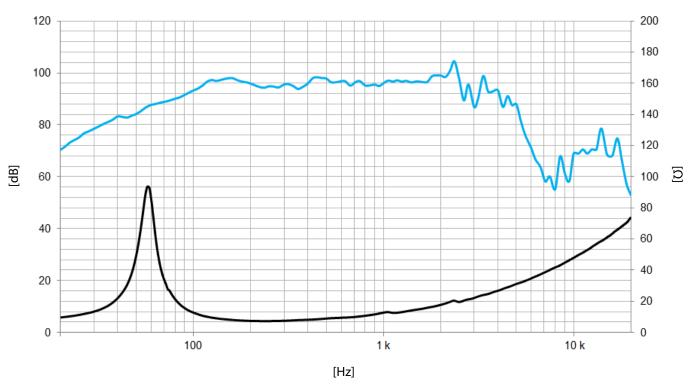
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

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	310 mm	12,2 in
Bolt circle diameter	292 mm	11,5 in
Baffle cutout diameter:		
- Front mount	280 mm	11,0 in
Depth	141 mm	5,5 in
Net weight	6 kg	13,2 lb
Shipping weight	6,7 kg	14,8 lb

DIMENSION DRAWING

