

10MCS500

LOW & MID FREQUENCY TRANSDUCER
MCS Series

KEY FEATURES

- High power handling: 1000 W program power
- 2,5" copper wire voice coil
- Beyma's Malt Cross[®] ultimate Cooling System
- Low power compression losses
- High sensitivity: 96 dB (1W / 1m)
- Optimized pressed steel frame
- FEA optimized magnetic circuit
- Designed with MMSS technology for high control, linearity and low harmonic distortion. LSI optimized parameters
- Waterproof cone with treatment for both sides of the cone
- Optimized for 2 or 3 way PA systems and line arrays for ultimate professional applications

TECHNICAL SPECIFICATIONS

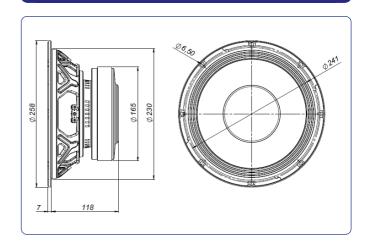
Nominal diameter		250 mm	
Rated impedance			8 Ω
Minimum impedance			7,2 Ω
Power capacity*		500	W_{AES}
Program power		1.	000 W
Sensitivity	96 dB	1W / 1m	@ Z _N
Frequency range		70 - 5.0	000 Hz
Voice coil diameter	63	,5 mm	2,5 in
BI factor		17	,6 N/A
Moving mass		0,0	047 kg
Voice coil length		19	,5 mm
Air gap height		9	,5 mm
X _{damage} (peak to peak)		4	10 mm

THIELE-SMALL PARAMETERS**

Resonant frequency, f _s	70 Hz
D.C. Voice coil resistance, R _e	5,7 Ω
Mechanical Quality Factor, Q _{ms}	10,1
Electrical Quality Factor, Q _{es}	0,38
Total Quality Factor, Qts	0,37
Equivalent Air Volume to C _{ms} , V _{as}	18,8 I
Mechanical Compliance, C _{ms}	109 μm / N
Mechanical Resistance, R _{ms}	2,05 kg / s
Efficiency, η ₀	1,65 %
Effective Surface Area, S _d	$0,035 \text{ m}^2$
Maximum Displacement, X _{max} ***	8 mm
Displacement Volume, V _d	280 cm ³
Voice Coil Inductance, L _e @ 1 kHz	1,1 mH



DIMENSION DRAWINGS



MOUNTING INFORMATION

Overall diameter	258 mm	10,15 in
Bolt circle diameter	241 mm	9,49 in
Baffle cutout diameter:		
- Front mount	230 mm	9,05 in
Depth	125 mm	4,92 in
Net weight	5,7 kg	12,56 lb
Shipping weight	6,1 kg	13,45 lb

Notes

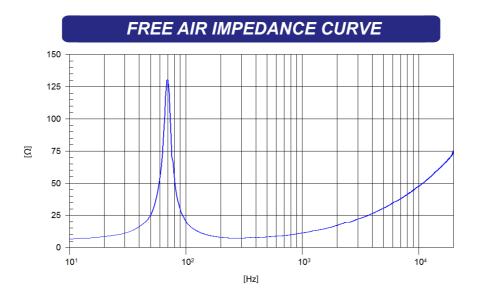
- * The power capacity is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- ** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).
- *** 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.



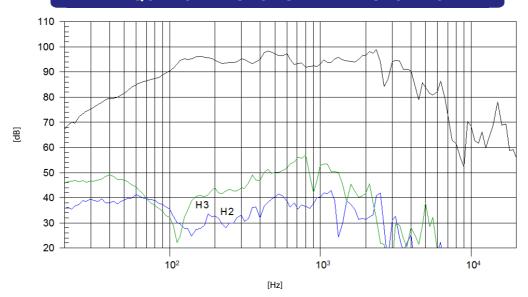


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FREQUENCY RESPONSE AND DISTORTION



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

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