beyma))

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

DIMENSION DRAWINGS


TECHNICAL SPECIFICATIONS

Nominal diameter	250 mm	10 in
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 - 5.000 Hz
Voice coil diameter	63,5 mm	2,5 in
Bl factor		17,6 N/A
Moving mass		0,047 kg
Voice coil length		19,5 mm
Air gap height		9,5 mm
X$_{damage}$ (peak to peak)		40 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, Q$_{ts}$	0,37
Equivalent Air Volume to C$_{ms}$, V$_{as}$	18,8 l
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 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
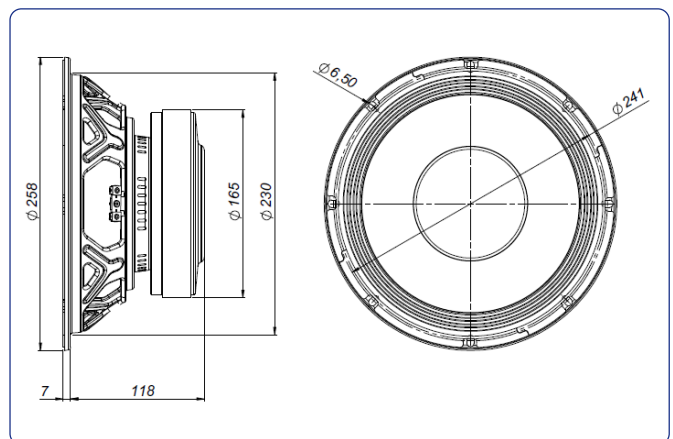
MOUNTING INFORMATION

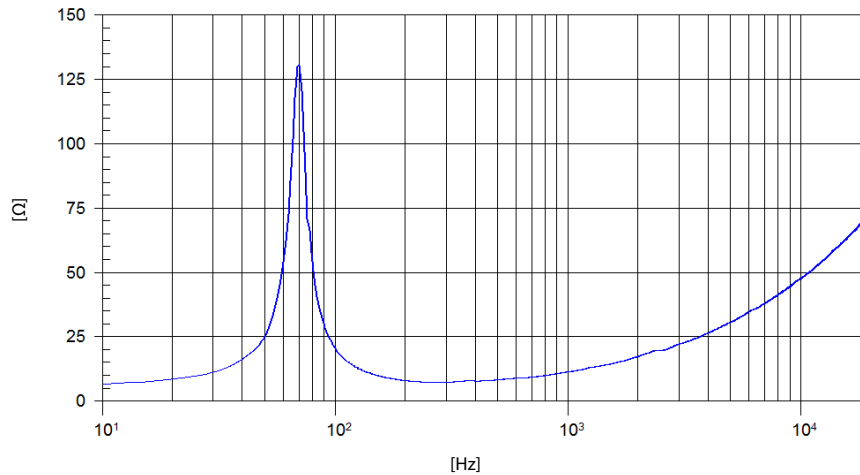|		
Overall diameter	258 mm	10,15 in
Bolt circle diameter	241 mm	9,49 in
Baffle cutout diameter:		
- Front mount	230 mm	9,05 in
Depth	125 mm	4,92 in
Net weight	5,7 kg	12,56 lb
Shipping weight	6,1 kg	13,45 lb

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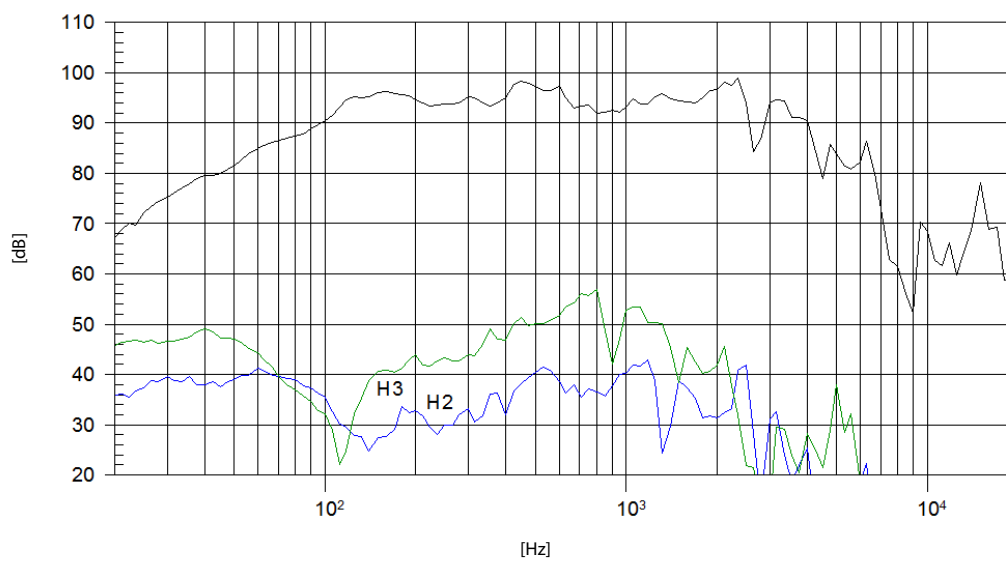
** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

*** 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.

maltcross
TECHNOLOGY

beyma
PROFESSIONAL LOUDSPEAKERS
www.beyma.com

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MCS Series

FREE AIR IMPEDANCE CURVE

FREQUENCY RESPONSE AND DISTORTION

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

09/16