

# 15MCS500

**LOW & MID FREQUENCY TRANSDUCER** 

**MCS 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: 97,5 dB (1W / 1m)

- Optimized pressed steel frame
- FEA optimized magnetic circuit
- 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	380	mm	15 in
Rated impedance			8 Ω
Minimum impedance			7,2 Ω
Power capacity 1		Ę	500 W <sub>AES</sub>
Program power <sup>2</sup>			1.000 W
Sensitivity	97,5 dB	1W /	1m @ Z <sub>N</sub>
Frequency range		50 -	4.000 Hz
Voice coil diameter	63,5	mm	2,5 in
BI factor			18 N/A
Moving mass			0,098 kg
Voice coil length			19,5 mm
Air gap height			9,5 mm
X <sub>damage</sub> (peak to peak)			40 mm

## THIELE-SMALL PARAMETERS 3

Resonant frequency, f <sub>s</sub>	46 Hz
D.C. Voice coil resistance, R <sub>e</sub>	5,8 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	7,8
Electrical Quality Factor, Q <sub>es</sub>	0,50
Total Quality Factor, Qts	0,48
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	133,5 I
Mechanical Compliance, C <sub>ms</sub>	122 $\mu$ m / N
Mechanical Resistance, R <sub>ms</sub>	3,6 kg / s
Efficiency, η <sub>0</sub>	2,5 %
Effective Surface Area, S <sub>d</sub>	0,088 m <sup>2</sup>
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	8 mm
Displacement Volume, V <sub>d</sub>	704 cm <sup>3</sup>
Voice Coil Inductance, Le	1,1 mH

<sup>&</sup>lt;sup>1</sup> The power capaticty is determined according to AES2-1984 (r2003) standard.

<sup>&</sup>lt;sup>2</sup> Program power is defined as power capacity + 3 dB.

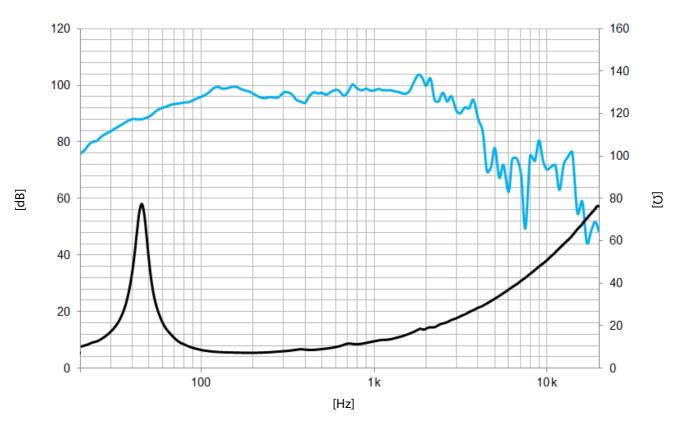
<sup>3</sup> T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $<sup>^4</sup>$  The X<sub>max</sub> is calculated as (L<sub>vc</sub> - H<sub>ag</sub>)/2 + (H<sub>ag</sub>/3,5), where L<sub>vc</sub> is the voice coil length and H<sub>ag</sub> 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	385 mm	15,2 in
Bolt circle diameter	367 mm	14,4 in
Baffle cutout diameter:		
- Front mount	353 mm	13,9 in
Depth	172 mm	6,77 in
Net weight	6,2 kg	13,7 lb
Shipping weight	7,2 kg	15,9 lb

## **DIMENSION DRAWING**

