beyma

PROFESSIONAL LOUDSPEAKERS

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10WRS300

LOW FREQUENCY TRANSDUCER

WRS Series

KEY FEATURES

- High power handling: 600 W program power
- 2” copper voice coil
- High sensitivity: 95 dB (1W / 1m)
- Optimized pressed steel frame
- FEA optimized ceramic magnetic circuit
- Weatherproof cone treatment for both sides of the cone
- Low harmonic distortion and linear response
- Wide range of applications of low and mid-low frequencies





TECHNICAL SPECIFICATIONS

Nominal diameter	250 mm	10 in
Rated impedance		8 Ω
Minimum impedance		7,5 Ω
Power capacity [1]		300 W_{AES}
Program power [2]		600 W
Sensitivity	95 dB	1W / 1m @ Z_N
Frequency range		55 - 5.000 Hz
Recom. enclosure vol.	15 / 50 l	0,53 / 1,77 ft^3
Voice coil diameter	50,8 mm	2 in
Bl factor		13,9 N/A
Moving mass		0,039 kg
Voice coil length		15 mm
Air gap height		8 mm
X_{damage} (peak to peak)		30 mm

THIELE-SMALL PARAMETERS [3]

Resonant frequency, f_s	52 Hz
D.C. Voice coil resistance, R_e	6,1 Ω
Mechanical Quality Factor, Q_{ms}	5,5
Electrical Quality Factor, Q_{es}	0,40
Total Quality Factor, Q_{ts}	0,38
Equivalent Air Volume to C_{ms}, V_{as}	42 l
Mechanical Compliance, C_{ms}	242 μm / N
Mechanical Resistance, R_{ms}	2,3 kg / s
Efficiency, η_0	1,4 %
Effective Surface Area, S_d	0,035 m^2
Maximum Displacement, X_{max} [4]	6 mm
Displacement Volume, V_d	210 cm^3
Voice Coil Inductance, L_e	1 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 $(L_{vc} - H_{ag})/2 + (H_{ag}/3,5)$, where L_{vc} is the voice coil length and H_{ag} is the air gap height.

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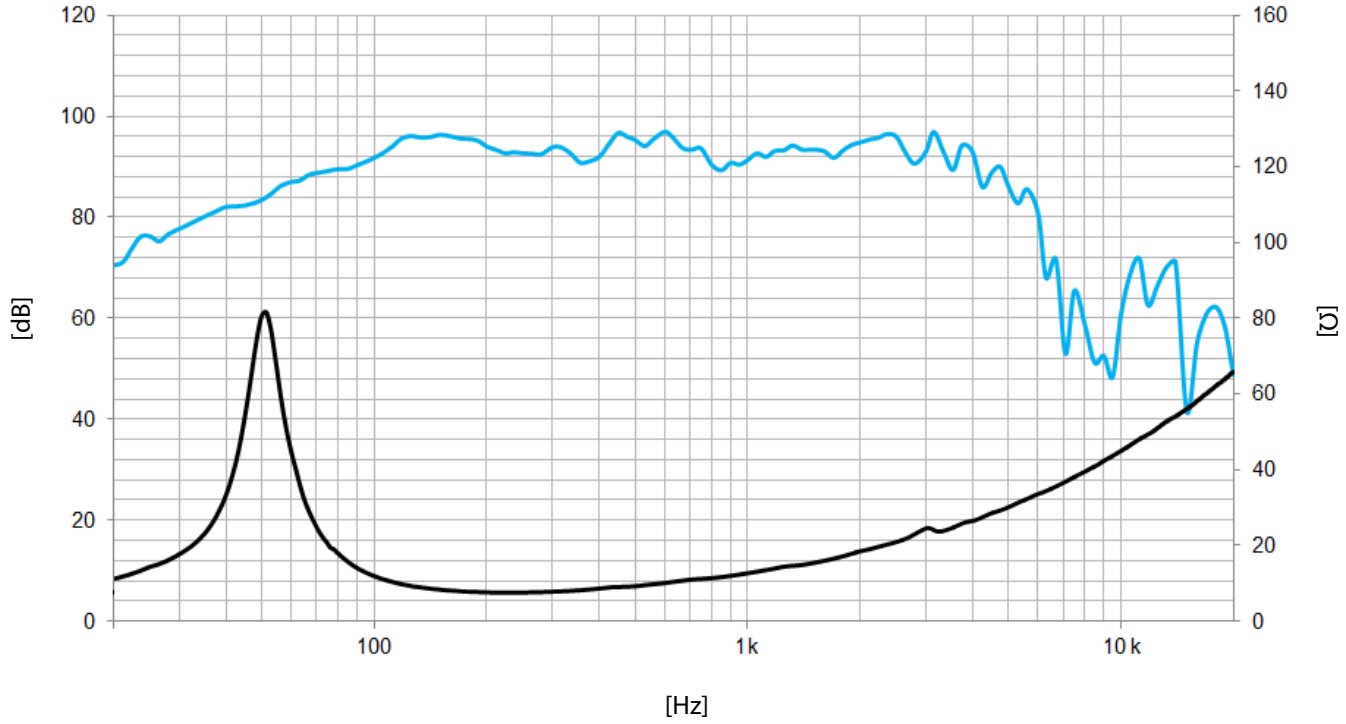
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Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

MOUNTING INFORMATION

Overall diameter	258 mm	10,2 in
Bolt circle diameter	241 mm	9,5 in
Baffle cutout diameter:		
- Front mount	230 mm	9,0 in
Depth	114 mm	4,5 in
Net weight	3,5 kg	7,7 lb
Shipping weight	3,9 kg	8,6 lb

DIMENSION DRAWING

