beyma

PROFESSIONAL LOUDSPEAKERS

www.beyma.com

8WR250

LOW FREQUENCY TRANSDUCER

Preliminary Data Sheet

KEY FEATURES

- High power handling: 500 W program power
- 2” copper wire voice coil
- High sensitivity: 95 dB (1W / 1m)
- FEA optimized ceramic magnetic circuit
- Designed with MMSS technology
- Low harmonic distortion and linear response
- Waterproof cone with treatment on both sides of the cone
- Aluminium frame
- Extended controlled displacement: X_{max} ± 6 mm
- 32 mm peak-to-peak excursion before damage
- Wide range of applications of low and mid-low frequencies

TECHNICAL SPECIFICATIONS

Nominal diameter	200 mm	8 in
Rated impedance		8 Ω
Minimum impedance		7,6 Ω
Power capacity*		250 W_{AES}
Program power		500 W
Sensitivity	95 dB	1W / 1m @ Z_N
Frequency range		65 - 4.000 Hz
Voice coil diameter	50,8 mm	2 in
Bl factor		15,1 N/A
Moving mass		0,026 kg
Voice coil length		15 mm
Air gap height		8 mm
X_{damage} (peak to peak)		32 mm

THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	62 Hz
D.C. Voice coil resistance, R_e	5,9 Ω
Mechanical Quality Factor, Q_{ms}	2,4
Electrical Quality Factor, Q_{es}	0,26
Total Quality Factor, Q_{ts}	0,24
Equivalent Air Volume to C_{ms}, V_{as}	17,7 l
Mechanical Compliance, C_{ms}	251 μm / N
Mechanical Resistance, R_{ms}	4,2 kg / s
Efficiency, η_0	1,5 %
Effective Surface Area, S_d	0,022 m^2
Maximum Displacement, X_{max} * **	6 mm
Displacement Volume, V_d	132 cm^3
Voice Coil Inductance, L_e @ 1 kHz	0,9 mH

Notes:

* The power capaticty 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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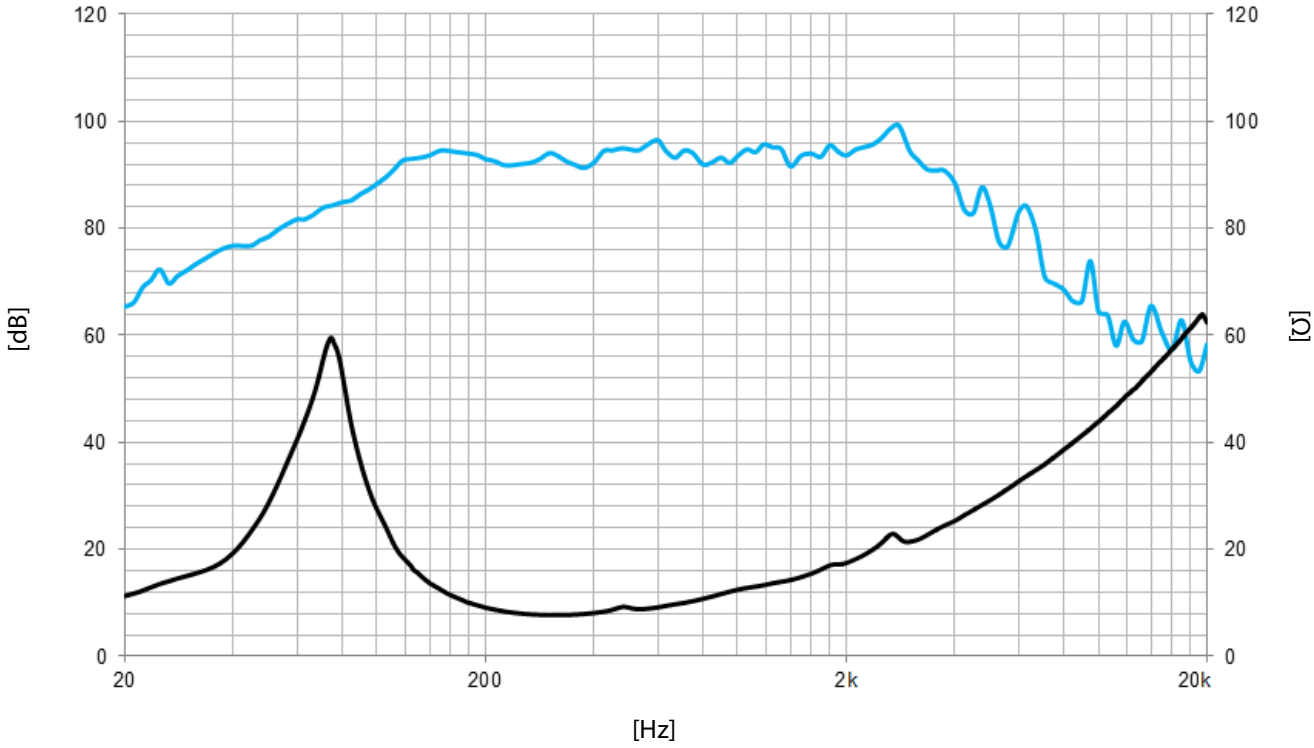

Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

MOUNTING INFORMATION

Overall diameter	212 mm	8,35 in
Bolt circle diameter	197,5 mm	7,78 in
Baffle cutout diameter:		
- Front mount	182 mm	7,17 in
Depth	95 mm	3,74 in
Net weight	3,3 kg	7,3 lb
Shipping weight	3,6 kg	7,9 lb

DIMENSION DRAWING