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PROFESSIONAL LOUDSPEAKERS

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PRO8BK 4Ω

Custom 8” Transducer

TECHNICAL SPECIFICATIONS

Nominal diameter	200 mm	8 in
Rated impedance		4 Ω
Minimum impedance		4,5 Ω
Power capacity [1]		250 W_{AES}
Program power [2]		500 W
Sensitivity	94 dB	1W / 1m @ Z_N
Frequency range		80 - 8.000 Hz
Voice coil diameter	38,1 mm	1,5 in
Bl factor		7,7 N/A
Moving mass		0,019 kg
Voice coil length		14 mm
Air gap height		6 mm
X_{damage} (peak to peak)		29 mm

THIELE-SMALL PARAMETERS [3]

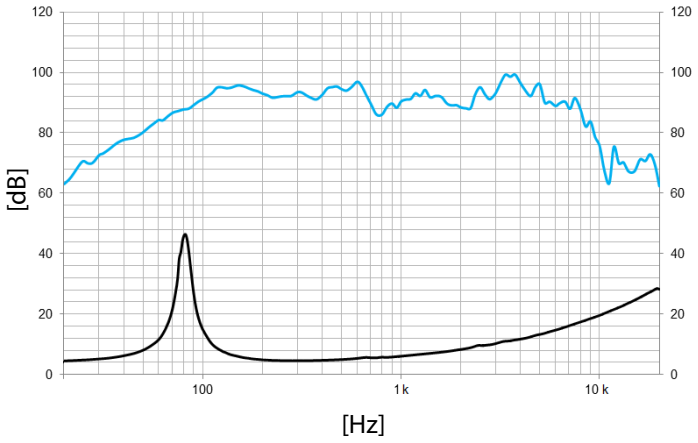
Resonant frequency, f_s	83 Hz
D.C. Voice coil resistance, R_e	3,4 Ω
Mechanical Quality Factor, Q_{ms}	8,8
Electrical Quality Factor, Q_{es}	0,56
Total Quality Factor, Q_{ts}	0,53
Equivalent Air Volume to C_{ms}, V_{as}	13,4 l
Mechanical Compliance, C_{ms}	195 µm / N
Mechanical Resistance, R_{ms}	1,1 kg / s
Efficiency, η_0	1,3 %
Effective Surface Area, S_d	0,022 m^2
Maximum Displacement, X_{max} [4]	5,7 mm
Displacement Volume, V_d	125 cm^3
Voice Coil Inductance, L_e	0,5 mH

MOUNTING INFORMATION

Overall diameter	210 mm	8,3 in
Bolt circle diameter	196 mm	7,7 in
Baffle cutout diameter:		
- Front mount	180 mm	7,1 in
Depth	92 mm	3,6 in
Net weight	2,4 kg	5,3 lb
Shipping weight	2,6 kg	5,7 lb

MATERIALS

Voice coil winding	Aluminum
Voice coil former	Glass fiber
Spider	Polycotton
Magnet	Ferrite
Cone	Paper
Frame	Steel



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

Notes:

This datasheet is done with the measurement of a laboratory prototype. Small differences may appear when thw driver is transferred to the production line and manufactured in big quantities.

[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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