beyma

PROFESSIONAL LOUDSPEAKERS

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18PWB1000Fe/S

LOW FREQUENCY TRANSDUCER

PWB Series

KEY FEATURES

- High power handling: 2.000 W program power
- 4” voice coil
- High sensitivity: 96 dB (1W / 1m)
- FEA optimized magnetic circuit
- Low power compression losses
- Weatherproof cone with treatment for both sides of the cone
- High excursion capabilities: X_{max} ± 12,5 mm
- Low frequency extension, deep sound and high control

TECHNICAL SPECIFICATIONS

Nominal diameter	460 mm	18 in
Rated impedance		8 Ω
Minimum impedance		6,8 Ω
Power capacity [1]		1.000 W_{AES}
Program power [2]		2.000 W
Sensitivity	96 dB	1W / 1m @ Z_N
Frequency range		30 - 2.000 Hz
Recom. enclosure		V_b = 200 l
(Bass Reflex Desing)		F_b = 35Hz
Voice coil diameter	101,6 mm	4 in
Bl factor		25 N/A
Moving mass		0,245 kg
Voice coil length		30 mm
Air gap height		12 mm
X_{damage} (peak to peak)		55 mm

THIELE-SMALL PARAMETERS [3]

Resonant frequency, f_s	27 Hz
D.C. Voice coil resistance, R_e	6 Ω
Mechanical Quality Factor, Q_{ms}	8,2
Electrical Quality Factor, Q_{es}	0,40
Total Quality Factor, Q_{ts}	0,38
Equivalent Air Volume to C_{ms}, V_{as}	317 l
Mechanical Compliance, C_{ms}	142 μm / N
Mechanical Resistance, R_{ms}	5,1 kg / s
Efficiency, η_0	1,5 %
Effective Surface Area, S_d	0,1255 m^2
Maximum Displacement, X_{max} [4]	12,5 mm
Displacement Volume, V_d	1.560 cm^3
Voice Coil Inductance, L_e	2 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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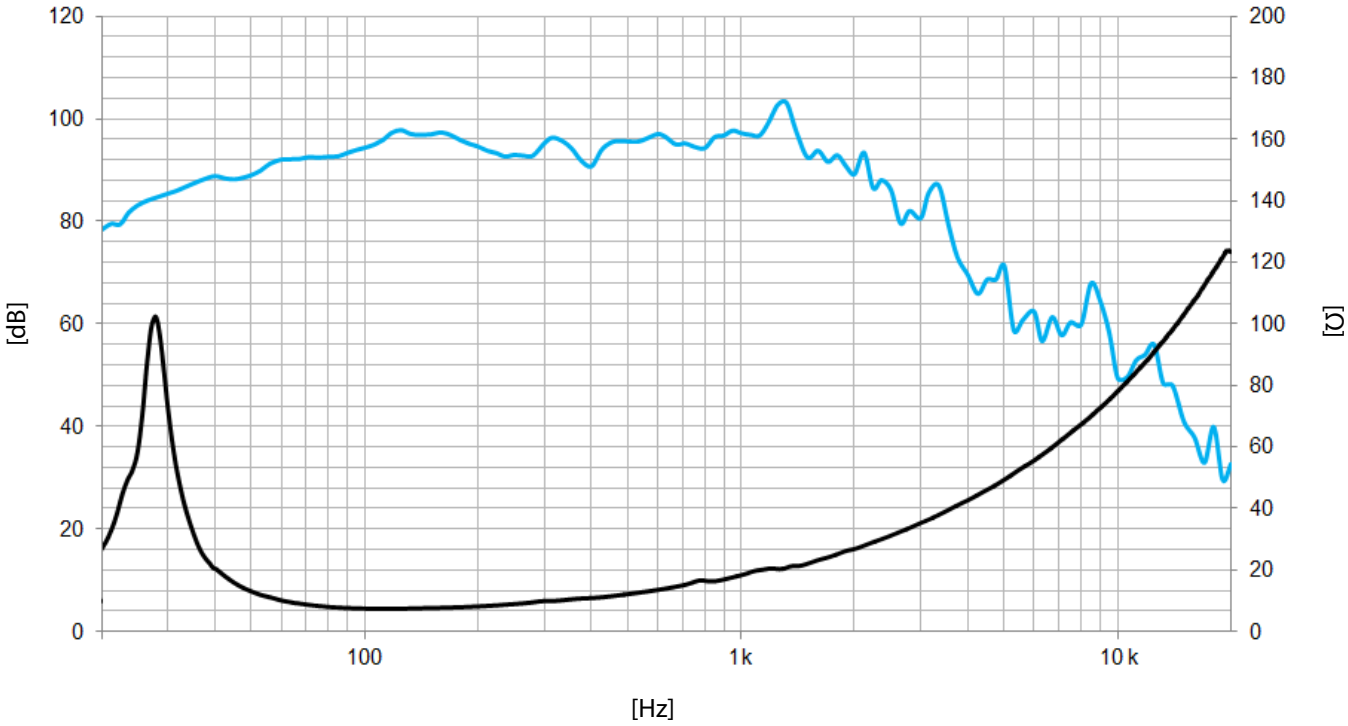

Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

MOUNTING INFORMATION

Overall diameter	461 mm	18,1 in
Bolt circle diameter	438 mm	17,2 in
Baffle cutout diameter:		
- Front mount	415 mm	16,4 in
Depth	212 mm	8,4 in
Net weight	13,5 kg	30 lb
Shipping weight	15,1 kg	33,9 lb

DIMENSION DRAWING