beyma

PROFESSIONAL LOUDSPEAKERS
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15B100R-GH
LOW FREQUENCY TRANSDUCER

KEY FEATURES

- 800 W program power
- Sensitivity: 98 dB @ 2,83 V @ 1 m
- Extended controlled displacement: X_{max} ± 6 mm
- Extended mechanical displacement capability: X_{damage} ± 25 mm
- Single roll foam surround.

TECHNICAL SPECIFICATIONS

Nominal diameter	381 mm	15 in
Rated impedance		8 Ω
Minimum impedance		6,9 Ω
Power capacity*		400 W_{RMS}
Program power		800 W
Sensitivity	98 dB	2,83v @ 1m @ 2π
Frequency range		40 - 4.500 Hz
Recom. enclosure vol.	40 / 150 l	1,41 / 5,3 ft^3
Voice coil diameter	100,7 mm	4 in
Magnetic assembly weight	9 kg	19,84 lb
BL factor		21,8 N/A
Moving mass		0,119 kg
Voice coil length		15,5 mm
Air gap height		10 mm
X_{damage} (peak to peak)		50 mm

THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	30 Hz
D.C. Voice coil resistance, R_e	5,4 Ω
Mechanical Quality Factor, Q_{ms}	10,894
Electrical Quality Factor, Q_{es}	0,258
Total Quality Factor, Q_{ts}	0,252
Equivalent Air Volume to C_{ms}, V_{as}	248,96 l
Mechanical Compliance, C_{ms}	230 μm / N
Mechanical Resistance, R_{ms}	2,09 kg / s
Efficiency, η_0	2,60 %
Effective Surface Area, S_d	0,088 m^2
Maximum Displacement, X_{max} * **	6 mm
Displacement Volume, V_d	492,8 cm^3
Voice Coil Inductance, L_e @ 1 kHz	1,6 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.

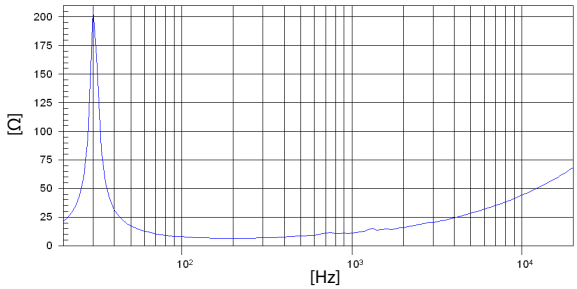
** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

*** 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.

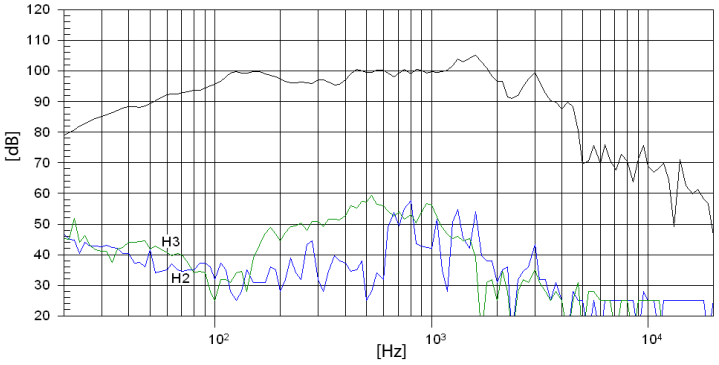
MOUNTING INFORMATION

Overall diameter	388 mm	15,28 in
Bolt circle diameter	370 mm	14,57 in
Baffle cutout diameter:		
- Front mount	352 mm	13,86 in
- Rear mount	355 mm	13,98 in
Depth	145 mm	5,71 in
Volume displaced by driver	7 l	0,25 ft^3
Net weight	10,2 kg	22,4 lb
Shipping weight	11,1 kg	24,4 lb

FREE AIR IMPEDANCE CURVE



FREQUENCY RESPONSE AND DISTORTION



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