beyma

PROFESSIONAL LOUDSPEAKERS
www.beyma.com

15LEX1000Fe

LOW FREQUENCY TRANSDUCER

Lex Series

KEY FEATURES

maltcross TECHNOLOGY

- High power handling and low distortion 15” subwoofer
- Exclusive Malt Cross® Technology Cooling System
- Low power compression losses
- High sensitivity: 97 dB (1W / 1m)
- FEA optimized ceramic magnetic circuit
- Ultra low air noise
- Optimized linear behaviour
- Weatherproof cone with treatment for both sides
- 3,5” DUO in/out copper voice coil
- Extended controlled displacement: X_{max} ± 11 mm
- 51 mm peak-to-peak excursion before damage
- Optimized for direct radiation and band-pass subwoofer applications





TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm	15 in
Rated impedance		8 Ω
Minimum impedance		7,4 Ω
Power capacity [1]		1.000 W_{AES}
Program power [2]		2.000 W
Sensitivity	97 dB	1W / 1m @ Z_N
Frequency range		40 - 1.000 Hz
Recom. enclosure		V_b = 115 l
(Bass-reflex design)		F_b = 42 Hz
Voice coil diameter	88,9 mm	3,5 in
Bl factor		23,2 N/A
Moving mass		0,142 kg
Voice coil length		27 mm
Air gap height		12 mm
X_{damage} (peak to peak)		51 mm

THIELE-SMALL PARAMETERS [3]

Resonant frequency, f_s	41 Hz
D.C. Voice coil resistance, R_e	5,4 Ω
Mechanical Quality Factor, Q_{ms}	5,1
Electrical Quality Factor, Q_{es}	0,37
Total Quality Factor, Q_{ts}	0,34
Equivalent Air Volume to C_{ms}, V_{as}	116 l
Mechanical Compliance, C_{ms}	106 µm / N
Mechanical Resistance, R_{ms}	7,2 kg / s
Efficiency, η_0	2,1 %
Effective Surface Area, S_d	0,088 m^2
Maximum Displacement, X_{max} [4]	11 mm
Displacement Volume, V_d	968 cm^3
Voice Coil Inductance, L_e	1,7 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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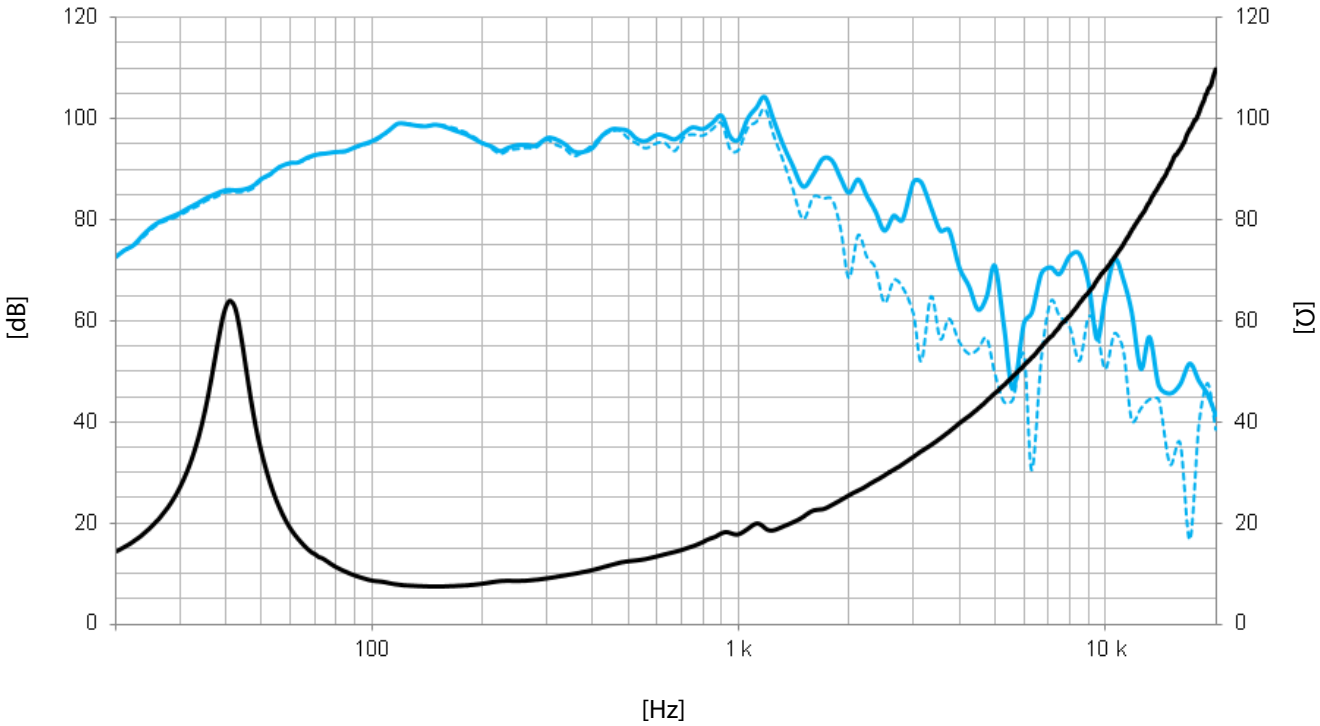
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Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

Frequency response on axis
Frequency response 45º off axis

MOUNTING INFORMATION

Overall diameter	393 mm	15,5 in
Bolt circle diameter	373 mm	14,7 in
Baffle cutout diameter:		
- Front mount	352 mm	13,9 in
Depth	182 mm	7,2 in
Volume displaced by driver	5,0 l	0,18 ft³
Net weight	11,0 kg	24,2 lb
Shipping weight	12,0 kg	26,4 lb

DIMENSION DRAWING

