

12LEX1300Nd LOW FREQUENCY TRANSDUCER **LEX Series**

KEY FEATURES — maltcross

- High power handling and low distortion 12" subwoofer
- Exclusive Malt Cross[®] Technology Cooling System
- Low power compression losses
- High sensitivity: 96 dB (1W / 1m)
- FEA optimized neodymium magnetic circuit
- Ultra low air noise
- Optimized non-linear behaviour

- · Waterproof cone with treatment for both sides Double silicone spider •
- 4" DUO double layer in/out voice coil
- Aluminium demodulating ring
- Extended controlled displacement: X_{max} ± 11 mm
- 65 mm peak-to-peak excursion before damage
- Optimized for direct radiation and band-pass subwoofer applications



THIELE-SMALL PARAMETERS³

Resonant frequency, f _s	45 Hz
D.C. Voice coil resistance, R _e	5 Ω
Mechanical Quality Factor, Q _{ms}	4,2
Electrical Quality Factor, Q _{es}	0,25
Total Quality Factor, Q _{ts}	0,24
Equivalent Air Volume to C _{ms} , V _{as}	43 I
Mechanical Compliance, C _{ms}	100 μm / N
Mechanical Resistance, R _{ms}	8,4 kg / s
Efficiency, η ₀	1,5 %
Effective Surface Area, S _d	0,055 m²
Maximum Displacement, X _{max} ⁴	11 mm
Displacement Volume, V _d	605 cm ³
Voice Coil Inductance, L _e	1,3 mH

TECHNICAL SPECIFICATIONS

Nominal diameter	200	10 in
Nominal ulameter	300 m	nm 12 in
Rated impedance		8 Ω
Minimum impedance		6,8 Ω
Power capacity ¹		1.300 W _{AES}
Program power ²		2.600 W
Sensitivity	96 dB 1	W / 1m @ Z _N
Frequency range		45 - 1.500 Hz
Recom. enclosure		V _b = 45 I
(Bass-reflex design)		F _b = 50 Hz
Voice coil diameter	101,6 m	nm 4 in
BI factor		26,4 N/A
Moving mass		0,125 kg
Voice coil length		28 mm
Air gap height		14 mm
X _{damage} (peak to peak)		65 mm

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).

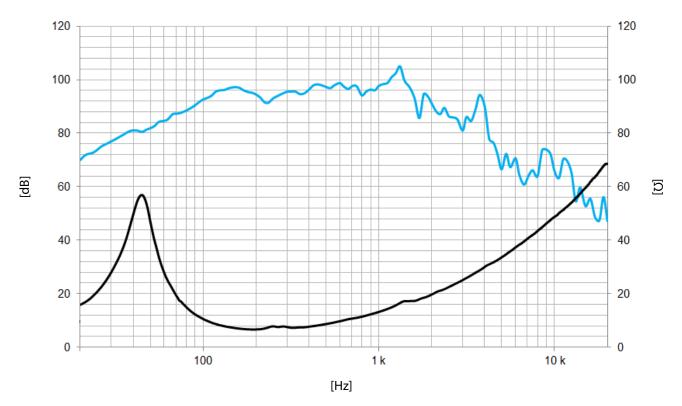
⁴ The X_{max} is calculated as (L_{vc} - H_{aq})/2 + (H_{aq}/3,5), where L_{vc} is the voice coil length and H_{aq} is the air gap height.



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

MOUNTING INFORMATION			
Overall diameter	315 mm	12,4 in	
Overall diameter	01011111	12,7 111	
Bolt circle diameter	297,5 mm	11,7 in	
Baffle cutout diameter:			
- Front mount	282 mm	11,1 in	
Depth	176 mm	6,9 in	
Volume displaced by driver	3,5 I	0,12 ft ³	
Net weight	8,3 kg	18,3 lb	
Shipping weight	9,0 kg	19,8 lb	

DIMENSION DRAWING

