

18LEX1200Nd

LOW FREQUENCY TRANSDUCER

KEY FEATURES — Maltcross

- High power handling and low distortion 18" subwoofer
- Exclusive Malt Cross[®] Technology Cooling System
- Low power compression losses
- High sensitivity: 98 dB (1W / 1m)
- FEA optimized neodymium magnetic circuit
- Ultra low air noise
- Optimized linear behaviour

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



TECHNICAL SPECIFICATIONS

Nominal diameter	460 mm	18 in
Rated impedance		8 Ω
Minimum impedance		5,8 Ω
Power capacity ¹	1.200 W _{AES}	
Program power ²		2.400 W
Sensitivity	98 dB 1W / 1	lm @ Z _N
Frequency range	40 -	1.000 Hz
Recom. enclosure	V _b	= 172
(Bass/reflex design)	F	= 42 Hz
Voice coil diameter	101,6 mm	4 in
BI factor		26,4 N/A
Moving mass		200 g
Voice coil length		27 mm
Air gap height		12 mm
X _{damage} (peak to peak)		48 mm



THIELE-SMALL PARAMETERS³

Resonant frequency, f _s	36 Hz
D.C. Voice coil resistance, R _e	5,3 Ω
Mechanical Quality Factor, Q _{ms}	10,9
Electrical Quality Factor, Q _{es}	0,35
Total Quality Factor, Q _{ts}	0,33
Equivalent Air Volume to C _{ms} , V _{as}	219
Mechanical Compliance, C _{ms}	0,1 mm / N
Mechanical Resistance, R _{ms}	4,1 kg / s
Efficiency, η ₀	2,8 %
Effective Surface Area, S _d	1255 cm ²
Maximum Displacement, X _{max} ⁴	11 mm
Displacement Volume, V _d	1,3
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).

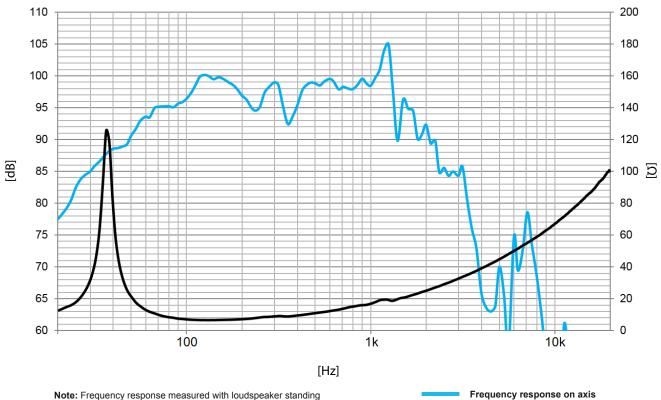
⁴ The X_{max} is calculated as (L_{vc} - H_{aq})/2 + (H_{aq}/3,5), where L_{vc} is the voice coil length and H_{aq} is the air gap height.



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LEX Series



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

MOUNTING INFORMATION

Overall diameter	462 mm	18,18 in
Bolt circle diameter	440 mm	17,32 in
Baffle cutout diameter:		
- Front mount	415 mm	16,33 in
Depth	225 mm	8,85 in
Net weight	9 kg	19,8 lb
Shipping weight	10,2 kg	22,5 lb

DIMENSION DRAWING

