

15LEX1000Nd

LOW FREQUENCY TRANSDUCER Preliminary Data Sheet



- 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 neodymium magnetic circuit
- Ultra low air noise
- Optimized non-linear behaviour

- Waterproof cone with treatment for both sides
- 3,5" DUO double layer in/out copper voice coil
- Extended controlled displacement: X_{max} ± 10 mm
- 65 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		6,8 Ω	
Power capacity ¹	1.00	1.000 W _{AES}	
Program power ²		2.000 W	
Sensitivity	97 dB 1W / 1	m @ Z _N	
Frequency range	40 - 1	1.500 Hz	
Recom. enclosure	V	V _b = 115 l	
(Bass-reflex design)	$F_{\mathtt{b}}$	= 40 Hz	
Voice coil diameter	88,9 mm	88,9 mm 3,5 ir	
BI factor	;	21,9 N/A	
Moving mass	(0,147 kg	
Voice coil length		25 mm	
Air gap height		12 mm	
X _{damage} (peak to peak)		65 mm	

THIELE-SMALL PARAMETERS 3

Resonant frequency, f _s	41 Hz
D.C. Voice coil resistance, R _e	5,2 Ω
Mechanical Quality Factor, Q _{ms}	3,9
Electrical Quality Factor, Q _{es}	0,41
Total Quality Factor, Qts	0,37
Equivalent Air Volume to C _{ms} , V _{as}	113 I
Mechanical Compliance, C _{ms}	103 μm / N
Mechanical Resistance, R _{ms}	9,7 kg / s
Efficiency, η ₀	1,8 %
Effective Surface Area, S _d	0,088 m ²
Maximum Displacement, X _{max} ⁴	10 mm
Displacement Volume, V _d	$880 \ cm^{3}$
Voice Coil Inductance, Le	1,1 mH

Notes

¹ The power capaticty is determined according to AES2-1984 (r2003) standard.

² Program power is defined as power capacity + 3 dB.

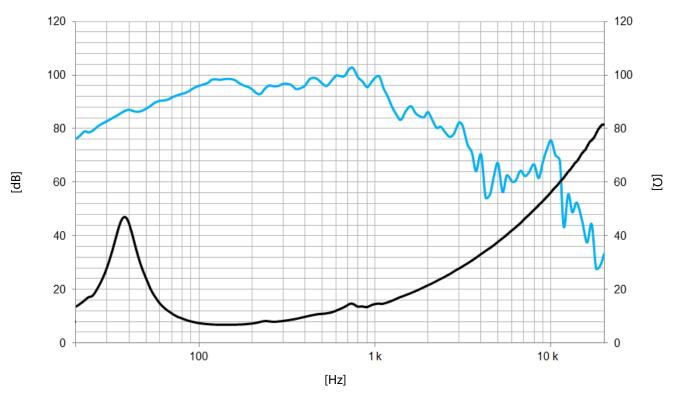
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^4}$ 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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Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

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	189 mm	7,4 in
Volume displaced by driver	4,5 I	0,16 ft ³
Net weight	6,7 kg	14,8 lb
Shipping weight	7,7 kg	17,0 lb

DIMENSION DRAWING

