

18LEX1000Fe

LOW FREQUENCY TRANSDUCER

LEX Series



- 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 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	460	460 mm	
Rated impedance			8 Ω
Minimum impedance			7,2 Ω
Power capacity 1		1.0	00 W _{AES}
Program power ²			2.000 W
Sensitivity	98 dB	1W /	1m @ Z _N
Frequency range		35 -	1.000 Hz
Recom. enclosure		\	/ _b = 174 l
(Bass-reflex design)		F	_b = 37 Hz
Voice coil diameter	88,9	mm	3,5 in
BI factor			23,8 N/A
Moving mass			0,196 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	34 Hz
D.C. Voice coil resistance, R _e	5,4 Ω
Mechanical Quality Factor, Q _{ms}	7,3
Electrical Quality Factor, Qes	0,39
Total Quality Factor, Qts	0,38
Equivalent Air Volume to C _{ms} , V _{as}	250 I
Mechanical Compliance, C _{ms}	111 μm / N
Mechanical Resistance, R _{ms}	5,7 kg/s
Efficiency, η ₀	2,4 %
Effective Surface Area, S _d	0,1255 m ²
Maximum Displacement, X _{max} ⁴	11 mm
Displacement Volume, V _d	1380 cm ³
Voice Coil Inductance, Le	1,9 mH

Notes

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

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

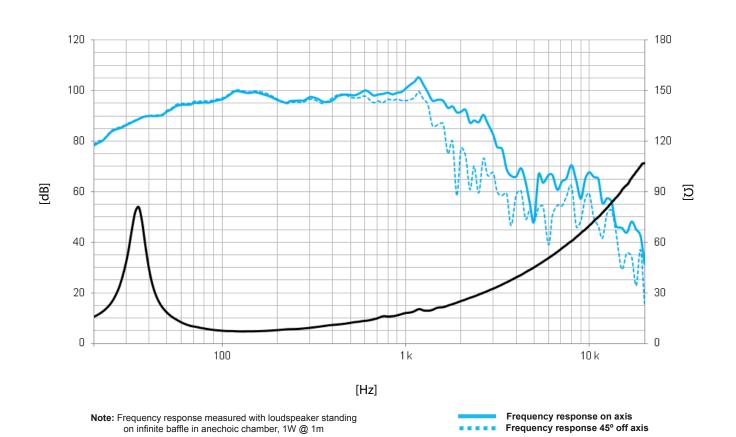
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

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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MOUNTING INFORMATION

Overall diameter	462 mm	18,2 in
Bolt circle diameter	441 mm	17,4 in
Baffle cutout diameter:		
- Front mount	426 mm	16,8 in
Depth	224 mm	8,8 in
Volume displaced by driver	7,5 I	0,26 ft ³
Net weight	11,7 kg	25,7 lb
Shipping weight	13,0 kg	28,6 lb

DIMENSION DRAWING

