

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 mm	18 in
Rated impedance		8 Ω
Minimum impedance		7,2 Ω
Power capacity 1	1.0	000 W _{AES}
Program power ²		2.000 W
Sensitivity	98 dB 1W /	1m @ Z _N
Frequency range	35 -	1.000 Hz
Recom. enclosure	\	V _b = 174 I
(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 PARAMETERS3

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, Q _{ts}	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, L _e	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.

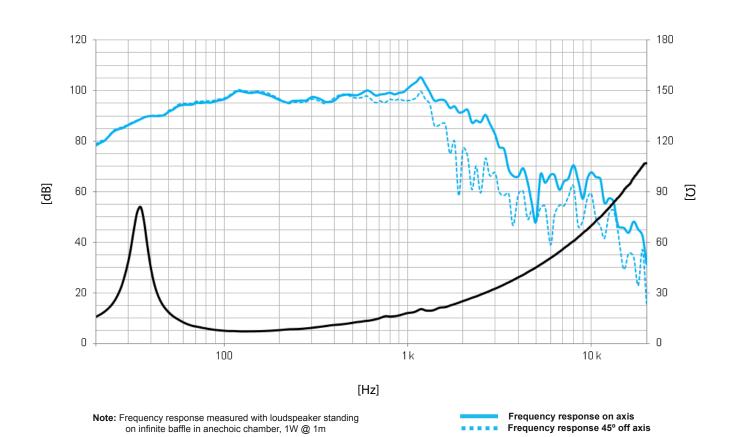
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

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.



18LEX1000Fe

LOW FREQUENCY TRANSDUCER
LEX Series



MOUNTING INFORMATION

Overall diameter	462 mm	18,2 in
Bolt circle diameter	440 mm	17,3 in
Baffle cutout diameter:		
- Front mount	415 mm	16,3 in
Depth	224 mm	8,8 in
Volume displaced by driver	7,5 I	0,26 ft ³
Net weight	11,75 kg	25,9 lb
Shipping weight	13,0 kg	28,6 lb

DIMENSION DRAWING

