

15LEX1600Fe

LOW FREQUENCY TRANSDUCER

LEX Series

KEY FEATURES — maltcross

- High power handling and low distortion 15" subwoofer
- Exclusive Malt Cross[®] Technology Cooling System
- Low power compression losses
- High sensitivity: 96 dB (1W / 1m)
- FEA optimized ceramic magnetic circuit
- · Aluminium demodulating ring
- Ultra low air noise
- Optimized linear behaviour



TECHNICAL SPECIFICATIONS

Nominal diameter	380 mn	n 15 in
Rated impedance		8 Ω
Minimum impedance		6,1 Ω
Power capacity ¹		1.600 W _{AES}
Program power ²		3.200 W
Sensitivity	96 dB 1V	V / 1m @ Z _N
Frequency range	4	0 - 1.500 Hz
Recom. enclosure		V _b = 94 I
(Bass-reflex design)		$F_{b} = 40 \text{ Hz}$
Voice coil diameter	101,6 mn	n 4 in
BI factor		25,8 N/A
Moving mass		0,179 kg
Voice coil length		32 mm
Air gap height		15 mm
X _{damage} (peak to peak)		60 mm
Notes:		

- Exclusive NCR membrane (Neck Coupling Reinforcement)
- Weatherproof cone with treatment for both sides •
- Double silicone spider
- 4" DUO in/out copper voice coil
- Extended controlled displacement: Xmax ± 13 mm
- 60 mm peak-to-peak excursion before damage
- · Optimized for direct radiation and band-pass subwoofer applications



THIELE-SMALL PARAMETERS³

Resonant frequency, f _s	38 Hz
D.C. Voice coil resistance, R _e	5,3 Ω
Mechanical Quality Factor, Q _{ms}	6,9
Electrical Quality Factor, Q _{es}	0,34
Total Quality Factor, Q _{ts}	0,33
Equivalent Air Volume to C _{ms} , V _{as}	106 I
Mechanical Compliance, C _{ms}	97 μm / N
Mechanical Resistance, R _{ms}	6,2 kg / s
Efficiency, η ₀	1,7 %
Effective Surface Area, S _d	0,088 m ²
Maximum Displacement, X _{max} ⁴	13 mm
Displacement Volume, V _d	1144 cm ³
Voice Coil Inductance, L _e	1,7 mH

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).

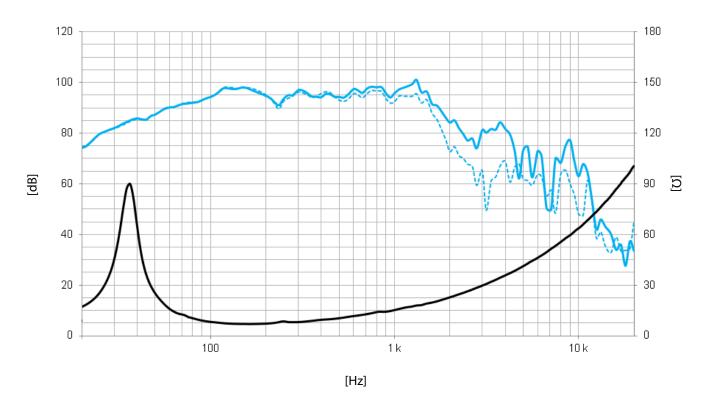
⁴ The X_{max} is calculated as (L_{vc} - H_{ag})/2 + (H_{ag}/3,5), where L_{vc} is the voice coil length and H_{ag} is the air gap height.



15LEX1600Fe

LOW FREQUENCY TRANSDUCER

LEX Series



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

Frequency response on axis Frequency response 45° off axis

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	191 mm	7,5 in
Volume displaced by driver	5,5 I	0,19 ft ³
Net weight	13,9 kg	30,6 lb
Shipping weight	14,9 kg	32,8 lb

DIMENSION DRAWING

