

18LX60V2

LOW FREQUENCY TRANSDUCER
LX60 Series

KEY FEATURES

- High power handling: 700 W_{AES}
- High sensitivity: 98 dB
- FEA optimized magnetic circuit
- Designed with MMSS technology for high control, linearity and low harmonic distortion.
- CONEX spider for higher resistance and consistency.
- Waterproof treatment for both sides of the cone.
- 4" DUO double layer inner/outer voice coil.
- Extended controlled displacement: X_{max} ± 9 mm
- Massive mechanical displacement capability:
 X_{damage} ± 47 mm



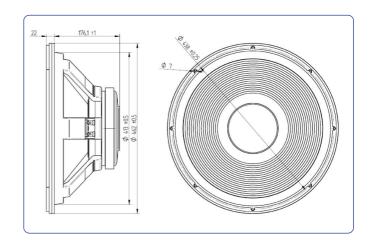
Nominal diameter	460 mm 18 in
Rated impedance	8 Ω
Minimum impedance	6,4 Ω
Power capacity*	700 W _{AES}
Program power	1400 W
Sensitivity	98 dB 1W @ 1m @ 2π
Frequency range	25 - 1.000 Hz
Recom. enclosure vol.	80 / 250 I 2,8 / 8 ft ³
Voice coil diameter	100 mm 4 in
Magnetic assembly weight	9 kg 19,84 lb
BI factor	21,8 N/A
Moving mass	0,215 kg
Voice coil length	20 mm
Air gap height	10 mm
X _{damage} (peak to peak)	47 mm

THIELE-SMALL PARAMETERS**

Resonant frequency, f _s	35 Hz
D.C. Voice coil resistance, R _e	5,1 Ω
Mechanical Quality Factor, Q _{ms}	15,7
Electrical Quality Factor, Qes	0,5
Total Quality Factor, Q _{ts}	0,48
Equivalent Air Volume to C _{ms} , V _{as}	236 I
Mechanical Compliance, C _{ms}	94,5 μm / N
Mechanical Resistance, R _{ms}	3,1 kg / s
Efficiency, η ₀	1,91 %
Effective Surface Area, S _d	0,132 m ²
Maximum Displacement, X _{max} ***	9 mm
Displacement Volume, V _d	1178 cm ³
Voice Coil Inductance, L _e @ 1 kHz	2,1 mH



DIMENSION DRAWINGS



MOUNTING INFORMATION

Overall diameter Bolt circle diameter	468 mm 438 mm	18,11 in 17,24 in
Baffle cutout diameter:		
- Front mount	413 mm	16,26 in
- Rear mount	418 mm	16,46 in
Depth	200 mm	5,70 in
Volume displaced by driver	13 I	0,46 ft ³
Net weight	11,7 kg	25,7 lb
Shipping weight	13,2 kg	29,0 lb

Notes:

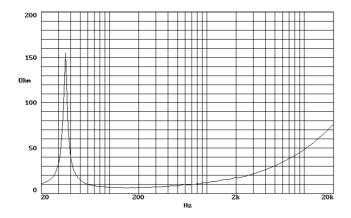
- * The power capaticty is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- ** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).
- *** 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.



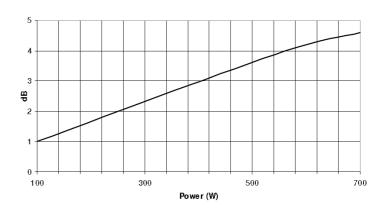
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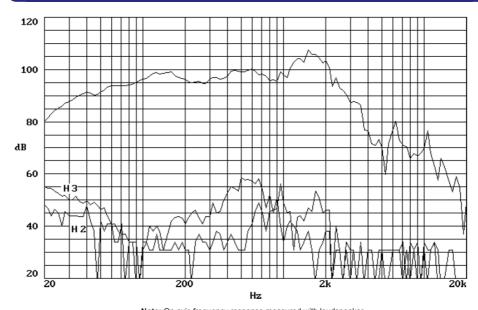
FREE AIR IMPEDANCE CURVE



POWER COMPRESSION LOSSES



FREQUENCY RESPONSE AND DISTORTION



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

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