

KEY FEATURES

- Ultra light loudspeaker (3 kg. 6.6 lb.)
- Corrugated cone with high stiffness
- 3" edgewound aluminium voice-coil with kapton former
- Highly vented magnetic structure
- Designed for extremely compact woofer systems

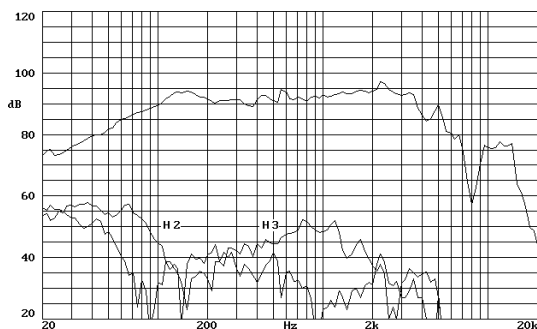


GENERAL DESCRIPTION

This 10" loudspeaker has been designed to achieve a very light loudspeaker with superior technical specifications. Thus, the magnetic system incorporates a high energy neodymium magnet of reduced dimensions. Moreover, the heat dissipation has been improved with the use of extra-cooling due to a vented air gap and the aluminium basket. It incorporates a 3" voice-coil that uses high quality materials: edgewound wire with high temperature bonding strength and kapton former. Finally, the corrugated cone with high stiffness provides an extremely extended and linear low frequency response, with reduced coloring and good efficiency.

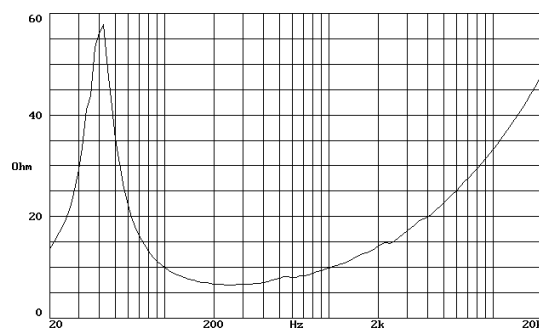
This transducer is highly recommended for those woofer applications that require a light and small loudspeaker with high demanding technical specifications.

FREQUENCY RESPONSE AND DISTORTION CURVES

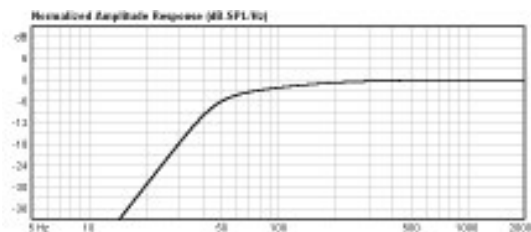


Note: on axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1w @ 1m.

FREE AIR IMPEDANCE CURVE



PREDICTED LOW FREQUENCY RESPONSE



Note: Bass-reflex cabinet, $V_b=30\text{ l}$, $f_b=45\text{ Hz}$

TECHNICAL SPECIFICATIONS

Nominal diameter	250 mm. 10 in.
Rated impedance	8 ohms
Minimum impedance	6.6 ohms
Power capacity	350 w AES
Program power	700 w
Sensitivity	95 dB 2.83v @ 1m @ 2 π
Frequency range	25 - 2000 Hz
Recom. enclosure vol.	20 / 70 l 0.7 / 2.5 ft. ³
Voice coil diameter	77 mm. 3 in.
Magnetic assembly weight	2.3 kg. 5.1 lb.
BL factor	14.5 N / A
Moving mass	0.041 kg.
Voice coil length	19 mm
Air gap height	9 mm
X damage (peak to peak)	28 mm

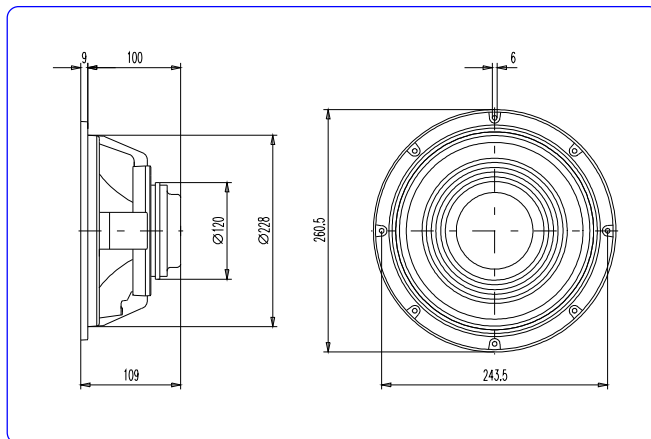
MOUNTING INFORMATION

Overall diameter	260.5 mm. 10.26 in.
Bolt circle diameter	243.5 mm. 9.59 in.
Baffle cutout diameter:	
- Front mount	228 mm. 8.98 in.
- Rear mount	230 mm. 9.06 in.
Depth	109 mm. 4.29 in.
Volume displaced by driver	2 l 0.07 ft. ³
Net weight	3 kg. 6.6 lb.
Shipping weight	3.3 kg. 7.3 lb.

THIELE-SMALL PARAMETERS

Resonant frequency, fs	40 Hz
D.C. Voice coil resistance, Re	6 ohms.
Mechanical Quality Factor, Qms	2.43
Electrical Quality Factor, Qes	0.29
Total Quality Factor, Qts	0.26
Equivalent Air Volume to Cms, Vas	71 l
Mechanical Compliance, Cms	383 μ m / N
Mechanical Resistance, Rms	4.2 kg / s
Efficiency, η_0 (%)	1.6
Effective Surface Area, Sd (m ²)	0.0365 m ²
Maximum Displacement, Xmax	5 mm
Displacement Volume, Vd	180 cm ³
Voice Coil Inductance, Le @ 1 kHz	0.52 mH

DIMENSION DRAWINGS



MATERIALS

- **Voice coil:** edgewound aluminium wire with high-temperature bonding strength. Kapton former able to withstand high temperatures.
- **Cone:** corrugated paper cone with high stiffness.
- **Surround:** treated cloth to assure good retaining of elasticity in despite of continuing use.
- **Spider:** cotton spider.
- **Metal parts:** anti-corrosion coated to resist aggressive environmental conditions
- **Basket:** specially designed die cast aluminium basket to avoid disturbing resonances.
- **Magnet:** high energy neodymium magnet.

Notes:

*The power capacity 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).



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