

KEY FEATURES

- Ultra light loudspeaker (3.1 kg. 6.84 lb.)
- Corrugated cone with high stiffness
- 3" edgewound aluminium voice coil with kapton former
- Highly vented magnetic structure
- Designed for extremely compact woofer systems

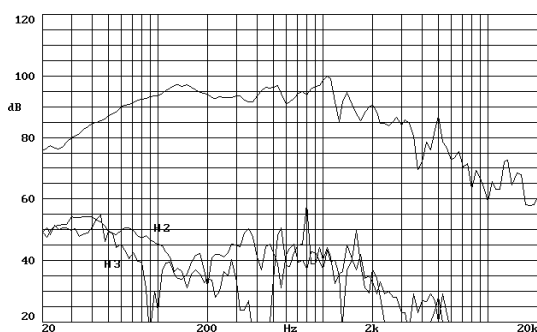


GENERAL DESCRIPTION

This 12" 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, which has a high stiffness, provides an extremely extended and linear low frequency response, with reduced coloring and good efficiency.

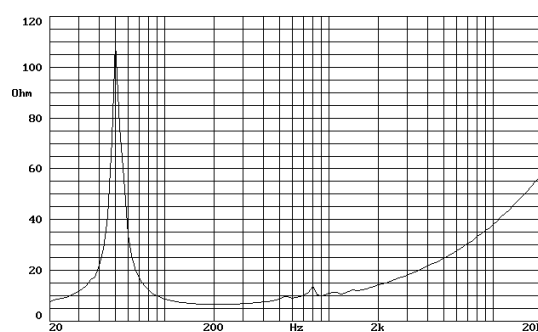
This transducer is highly recommended for those woofer applications that require a light and small loudspeaker with high demanding technical specifications.

FREQUENCY RESPONSE AND DISTORTION CURVES

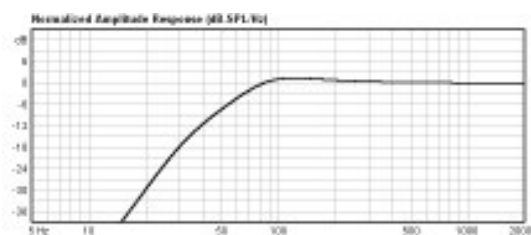


Note: on axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1w @ 1m.

FREE AIR IMPEDANCE CURVE



PREDICTED LOW FREQUENCY RESPONSE



Note: Bass-reflex cabinet, Vb=50 l, fb=53 Hz

TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm. 12 in.
Rated impedance	8 ohms
Minimum impedance	6.6 ohms
Power capacity	350 w AES
Program power	700 w
Sensitivity	97 dB 2.83v @ 1m @ 2 π
Frequency range	25 - 1200 Hz
Recom. enclosure vol.	20 / 70 l 0.7 / 2.5 ft. ³
Voice coil diameter	77 mm. 3 in.
Magnetic assembly weight	2.4 kg. 5.3 lb.
BL factor	14 N / A
Moving mass	0.048 kg.
Voice coil length	19 mm
Air gap height	9 mm
X damage (peak to peak)	28 mm

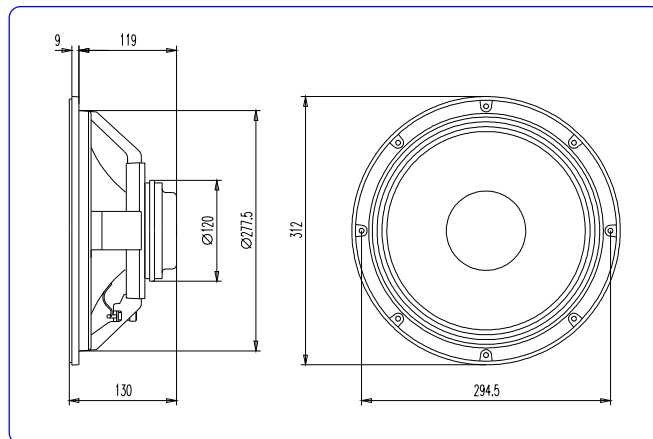
MOUNTING INFORMATION

Overall diameter	312 mm. 12.28 in.
Bolt circle diameter	294.5 mm. 11.59 in.
Baffle cutout diameter:	
- Front mount	277.5 mm. 10.93 in.
- Rear mount	281 mm. 11.06 in.
Depth	130 mm. 5.12 in.
Volume displaced by driver	3 l 0.11 ft. ³
Net weight	3.1 kg. 6.84 lb.
Shipping weight	3.8 kg. 8.38 lb.

THIELE-SMALL PARAMETERS

Resonant frequency, fs	51 Hz
D.C. Voice coil resistance, Re	6 ohms.
Mechanical Quality Factor, Qms	9.96
Electrical Quality Factor, Qes	0.46
Total Quality Factor, Qts	0.43
Equivalent Air Volume to Cms, Vas	96 l
Mechanical Compliance, Cms	201 μ m / N
Mechanical Resistance, Rms	1.6 kg / s
Efficiency, η_0 (%)	2.5
Effective Surface Area, Sd (m ²)	0.0585 m ²
Maximum Displacement, Xmax	5 mm
Displacement Volume, Vd	290 cm ³
Voice Coil Inductance, Le @ 1 kHz	0.6 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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