

12XM CO AXIAL



This dual loudspeaker incorporates a 12" bass transducer, and a concentrically mounted 2" compression driver into an integrated voice coil gap magnet system. This design achieves high efficiency, smooth frequency response, low distortion, reduces phasing problems in the crossover region, and simplifies enclosure design. It is ideally suited for use in stage monitoring systems, keyboards systems and other applications in which high quality sound is required.

Sistema coaxial de 12" para la unidad de graves y transductor de compresión de 2" para la unidad de agudos, ambos montados concéntricamente sobre el mismo circuito magnético. Este diseño permite alcanzar una buena eficiencia con una banda pasante excelente y reduce notablemente los problemas de fase en la zona de transición de ambos reproductores asegurando una respuesta coherente. Estudiado para aplicaciones en sistemas muy compactos de gran calidad.

SPECIFICATIONS

L.F. UNIT	
Nominal diameter	300 mm. 12 in.
Rated impedance	8 ohms.
Power capacity*	250 w RMS
Program Power	500 Watts.
Sensitivity	94 dB 2.83v @ 1m @ 2π
Frequency range	40-3500 Hz
Recom. enclosure vol.	50/100 l 1.76/3.53 ft. ³
Voice coil diameter	100 mm. 4 in.
Magnetic assembly weight	8.8 kg. 19.36 lb.
BL factor	13.4 N/A
Moving mass	0.044 kg.
Voice coil length	17 mm.
Air gap height	9 mm.
X damage	28 mm.
Voice Coil Inductance, Le @ 1kHz	0.95 mH

H.F. UNIT	
Rated impedance	8 ohms.
Minimum impedance	7 ohm @ 1kHz
Power capacity	80 w
Frequency range	0.1 - 17 kHz
Sensitivity 1w @ 1m	102 dB
Voice coil diameter	72.2 mm. 2.8 in.
Flux density	1.875 T
BL factor	11 N/A
Dispersion	90°

MOUNTING INFORMATION

Overall diameter	320 mm. 12.6 in.
Bolt circle diameter	300 mm. 11.8 in.
Baffle cutout diameter:	
-Front mount	286 mm. 11.26 in.
-Rear mount	280 mm. 11.02 in.
Depth	149 mm. 5.86 in.
Volume displaced by driver	6.5 l 0.23 ft. ³
Net weight	10.27 kg. 22.6 lb.
Shipping weight	11 kg. 24.2 lb.

MATERIALS

L.F. UNIT	
Basket	Die cast aluminium
Cone	Paper
Surround	Plasticised cloth
Voice coil	Edgewound alum. ribbon
Magnet	Ferrite
H.F. UNIT	
Diaphragm	Titanium
Voice coil	Edgewound alum. ribbon
Voice coil former	Kapton

THIELE-SMALL PARAMETERS**

Resonant Frequency, fs	42 Hz
D.C. Voice Coil Resistance, Re	5.3 ohms.
Mechanical Quality Factor, Qms	10.83
Electrical Quality Factor, Qes	0.36
Total Quality Factor, Qts	0.34
Equivalent Air Volume to Cms, Vas	125 l
Mechanical Compliance, Cms	290 μm/N
Mechanical Resistance, Rms	1.07 kg/s
Efficiency, ηo (%)	2.5
Effective Surface Area, Sd(m ²)	0.053 m ²
Maximum Displacement, Xmax	4 mm.
Displacement Volume, Vd	210 cm. ³

NOTES

*The power capacity corresponds to the RMS maximum value that can dissipate the loudspeaker when a sinus signal is applied for a period of at least two hours. Program power is defined as the transducer's ability to handle normal music program material.

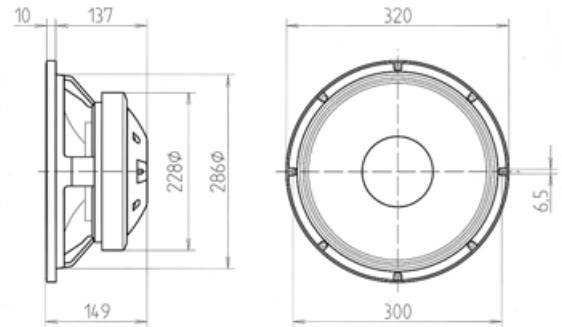
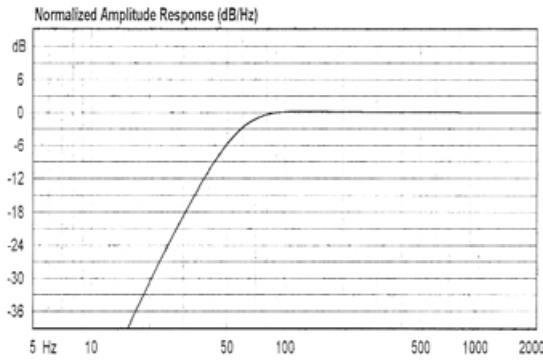
** T-S parameters are measured after an exercise period using a preconditioning power test, using a velocity-current laser transducer, and will reflect the long term parameters, once the loudspeaker has been working for a short period of time.

NOTAS

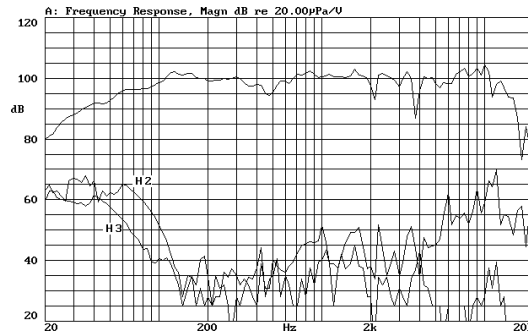
*La potencia admisible corresponde a la máxima potencia RMS que puede disipar el altavoz durante al menos dos horas, cuando se le aplica una señal senoidal determinada. Por potencia programa se entiende la capacidad del altavoz en el manejo de señales transitorias, como sería el proporcionado por el contenido de un pasaje musical normal.

* Los parámetros T-S han sido medidos después de un periodo de fatiga y estabilización de las suspensiones, mediante transductor laser de velocidad-corriente, y son el reflejo de los parámetros a largo plazo del altavoz, una vez éste haya sido instalado y haya trabajado en un corto espacio de tiempo.

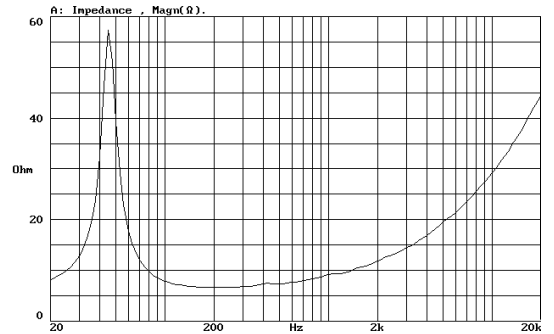
PREDICTED LOW FREQUENCY RESPONSE • Bass-reflex cabinet. Vb=50.00 l. fb=50.0 Hz



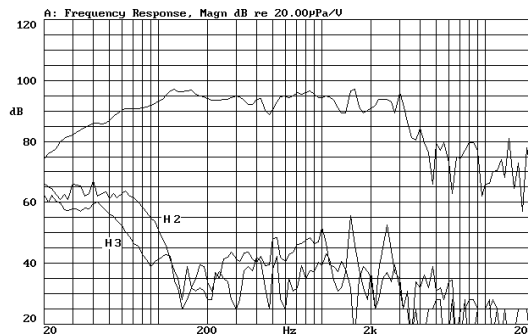
FREQUENCY RESPONSE & DISTORTION CURVES, MAGN. On axis, 1w @ 1m. Measured with FD 250, with EQ & -7.5 dB ATT.



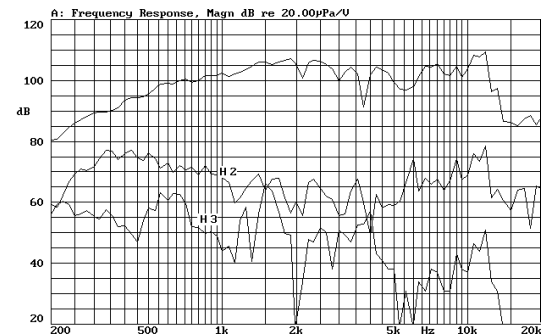
FREE AIR IMPEDANCE CURVE, L.F. UNIT



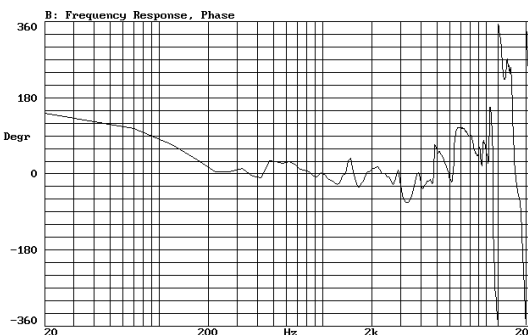
FREQUENCY RESPONSE & DISTORTION CURVES, MAGN. On axis, 1w @ 1m. L.F. UNIT



FREQUENCY RESPONSE & DISTORTION CURVES, MAGN. On axis, 1w @ 1m. H.F. UNIT



FREQUENCY RESPONSE, PHASE, On axis, 1w @ 1m. L.F. UNIT



FREQUENCY RESPONSE, PHASE On axis, 1w @ 1m. H.F. UNIT

