

4" - TPX CONE DRIVER - 100 mm

PRESTIGE SERIES

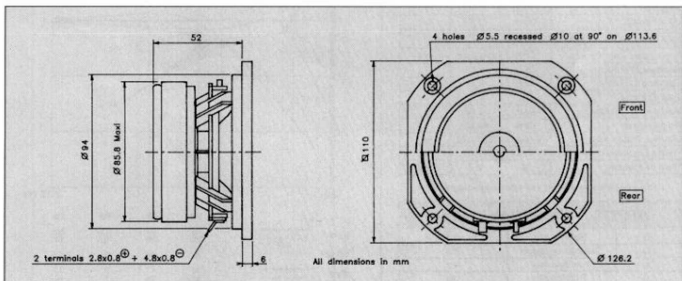
TPX cone
Non resonant die cast chassis
Ventilated chassis under spider
High loss, high compliance rubber surround
Pure Titanium voice coil former
High loss phase plug
Gold plated terminals

Cône TPX
Châssis Zamak moulé non résonant
Fond ventilé
Suspension caoutchouc amortissant h^e compliance
Bobine sur support pur Titane
Ogive non résonante
Connectique plaquée or



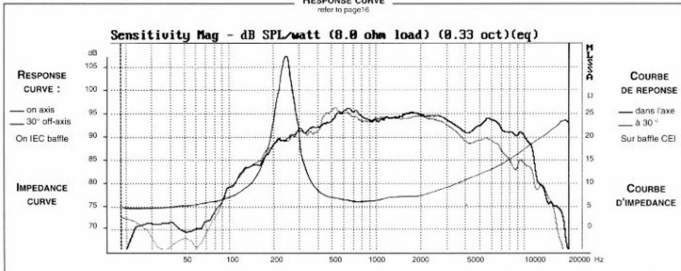
This 4" midrange driver features a patented TPX diaphragm coupled to a high loss Norsorex suspension. TPX is an advanced polymer that is extremely rigid, very light and possesses high internal damping. Norsorex is a remarkably well damped material which is used to eliminate undesirable distortion generated from the cone. The pure Titanium former ensures that the transfer of energy from the voice coil to the cone is maximized. The Supra Magnet Structure (short coil in a wide gap) promotes better transient response and provides motional linearity. Unobstructed venting of the Zamak die cast chassis contributes to the dramatic transient response. The smooth frequency response, equalized with a Norsorex phase plug, minimizes the need for a complex crossover. Gold plated terminals offer excellent solderability. A crossover design is suggested in Fig. 1 and corresponding chart for matching this driver with a woofer in our line is provided. Easily coupled with 2nd order crossover as shown Fig 1. Two crossover points are suggested for adequate power handling.

Ce médium de 100 mm est doté d'un cône en TPX, brevet Audax, matériau offrant d'exceptionnelles propriétés d'amortissement interne, de rigidité et de faible densité (0.83). Le cône TPX est associé à une suspension en Norsorex contrôlant et éliminant les ondes stationnaires et les modes parasites du cône. Le support de bobine en Titane pur assure une transmission optimale de l'énergie de la bobine mobile à la membrane. La structure magnétique "Supra" (bobine plus courte que l'entrefer) permet une meilleure réponse en transitoire et une bonne linéarité motionnelle. La réponse en fréquence linéaire (régularisée par une ogive en Norsorex non résonante) permet l'utilisation d'un filtre à rotation de phase réduite. La connectique plaquée or permet une excellente soudabilité. Un schéma de filtre passe-bas est proposé (Fig 1) pour un raccordement optimisé aux woofers de notre série. Il peut être filtré au second ordre (12 dB/Oct) selon le schéma Fig 1. Deux fréquences de coupure sont proposées afin d'obtenir la tenue en puissance adéquate.



RESPONSE CURVE

refer to page 16



SPECIFICATIONS

Technical Characteristics	Symbol	Value	Units
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PRIMARY APPLICATION

Nominal Impedance	Z	8	Ω
Resonance Frequency	Fs	235	Hz
Nominal Power Handling	P	40	W
Sensitivity	E	94	dB

VOICE COIL

Voice coil diameter	Ø	25	mm
Minimum Impedance	Zmin	5,5	Ω
DC Resistance	Re	5,2	Ω
Voice Coil Inductance	Lbm	0,35	mH
Voice coil Length	h	3,4	mm
Former	-	Titane	-
Number of layers	n	4	-

MAGNET

Magnet dimensions	Ø x h	84 x 15	mm
Magnet weight	m	0,35	kg
Flux density	B	1,1	T
Force factor	BL	5,85	NA ⁻¹
Height of magnetic gap	He	5	mm
Stray flux	Fmag	-	Am ²
Linear excursion	Xmax	0,8	mm

PARAMETERS

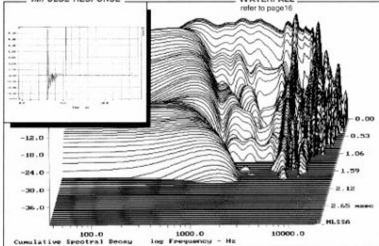
Suspension Compliance	Cms	0,17.10 ⁻²	mN ⁻¹
Mechanical Q Factor	Qms	4,45	-
Electrical Q Factor	Qes	0,61	-
Total Q Factor	Qts	0,54	-
Mechanical Resistance	Rms	0,9	kg s ⁻¹
Moving Mass	Mms	2,71.10 ⁻²	kg
Effective Piston Area	S	0,52.10 ⁻²	m ²
Volume Equivalent of Air at Cas	Vas	0,65.10 ⁻¹	m ³
Mass of speaker	M	1	kg

APPLICATION PARAMETERS

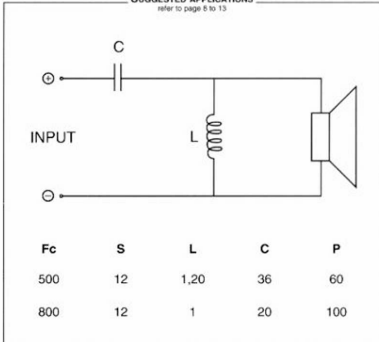
Fc	Crossover Frequency	Hz
S	Slope	dB / Oct.
L	Self-inductance	mF
C	Capacitor	µF
P	Nominal Power Handling	W

IMPULSE RESPONSE
WATERFALL

refer to page 16


SUGGESTED APPLICATIONS

refer to page 8 to 13



Please refer to method of measurement and measurement conditions pages 15 to 19.

Audax may, without prior notification modify the specifications on its products further to research and development requirements.