

5 1/4" - HD-A CONE DRIVER - 130 mm

PRESTIGE SERIES

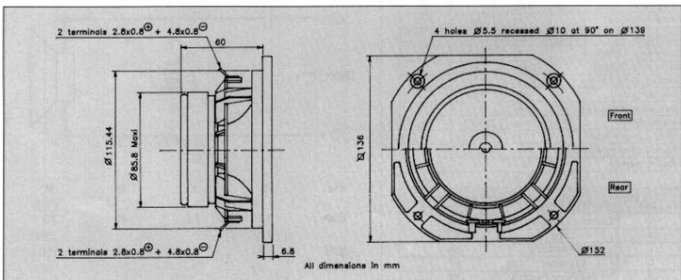
HD-A (High Definition Aerogel) cone
Non resonant die cast chassis
Ventilated chassis under spider
High loss, high compliance rubber suspension
Edgewound, flat copper wire
Kapton Voice Coil Former
High loss phase plug
Gold plated terminals

Cône Haute Définition Aérogel (HD-A)
Châssis Zamak moulé non résonant
Fond ventilé
Suspension caoutchouc amortissant h^o compliance
Bobine sur support Kapton
Fil cuivre plat sur chant
Ogive non résonante
Connectique plaquée or



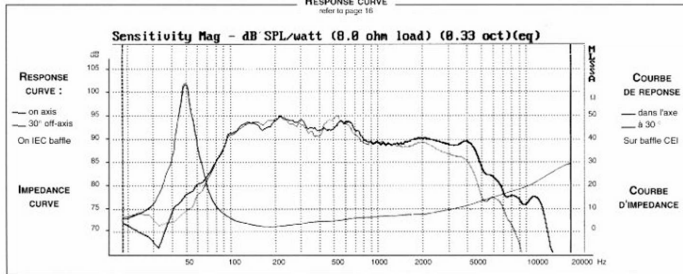
HD-A represents a true breakthrough in loudspeaker cone technology, surpassing all conventional materials being used today. Through an extraordinary combination of newly developed materials and processes, Audax has created an innovative composite membrane whose properties are very close to ideal for making loudspeaker diaphragms. Ultra light, extremely rigid and perfectly damped, this no-compromise cone is based on a totally controlled matrix of acrylic polymer gel in which an optimized proportion of Carbon and Kevlar fibers are embedded. An exclusive, proprietary process acts to perfectly align the fibers along the polymer chain. The procedure allows total control over the contour and weight of the cone, while making it possible to vary the thickness of the membrane along the profile. This 5 1/4" Bass-Midrange driver was developed for top range, no-compromise high end 2 or 3-way systems. It features a die cast Zamak chassis with unobstructed venting for enhanced transient response and a non resonant phase plug for high end frequency equalization. High power handling results from the flat, edgewound copper coil mounted onto a fiberglass reinforced Kapton voice coil former. Unequaled definition is achieved over a wide spectrum of frequencies and dynamic ranges while retaining a neutral tonal balance with precise and detailed imaging. The "Suggested applications" charts indicate various driver loads. The response curves shown on the diagram indicate the predicted low end response of the driver in the suggested box volume (Vb) with suggested port (Dp-Lp).

Le cône HD-A constitue une véritable percée technologique dans ce domaine, surpassant tous les matériaux connus à ce jour. Par une extraordinaire association d'une nouvelle matière et d'un procédé original, Audax a créé une membrane composite, innovation dont les propriétés sont proches de l'idéal pour un transducteur à radiation directe. Ultra léger, extrêmement rigide et parfaitement amorti, ce cône sans compromis est constitué d'une matrice contrôlée de gel polymère acrylique enveloppant des fibres de Carbone et de Kevlar idéalement ordonnées. Un procédé exclusif Audax permet un alignement optimisé des fibres dans la chaîne du polymère. Le procédé procure un contrôle total du profil et du poids du cône, tout en offrant la possibilité de faire varier l'épaisseur à chaque endroit. Ce boomer-médium de 130 mm est destiné à des systèmes 2 ou 3 voies de prestige. Il est équipé d'un châssis Zamak moulé à fond ventilé sous le spider afin de favoriser la meilleure réponse en transitoire et d'une ogive non résonante afin de linéariser le haut du spectre. Sa bonne tenue en puissance résulte de l'utilisation d'une bobine sur support Kapton renforcé fibre de verre en fil de cuivre plat sur chant. La connectique plaquée or permet une excellente soudabilité. Le tableau "Suggested applications" indique différents types de charge. Les courbes publiées correspondent à la réponse dans le grave pour un volume (Vb) et une dimension d'évent donnée (Dp-Lp).



RESPONSE CURVE

refer to page 16



SPECIFICATIONS

Technical Characteristics	Symbol	Value	Units
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PRIMARY APPLICATION

Nominal Impedance	Z	2 x 8	Ω
Resonance Frequency	Fs	46	Hz
Nominal Power Handling	P	50	W
Sensitivity	E	91	dB

VOICE COIL

Voice coil diameter	\varnothing	25	mm
Minimum Impedance	Zmin	3.5	Ω
DC Resistance	Re	3	Ω
Voice Coil Inductance	Lbm	0,3	mH
Voice coil Length	h	11,5	mm
Former	-	Kapton	-
Number of layers	n	2 x 1	-

MAGNET

Magnet dimensions	\varnothing x h	84 x 15	mm
Magnet weight	m	0,35	kg
Flux density	B	1,1	T
Force factor	BL	6,2	NA ⁻¹
Height of magnetic gap	He	5	mm
Stray flux	Fmag	-	Am ⁻¹
Linear excursion	Xmax	±3,25	mm

PARAMETERS

Suspension Compliance	Cms	1,14.10 ⁻³	mN ⁻¹
Mechanical Q Factor	Qms	5,2	-
Electrical Q Factor	Qes	0,24	-
Total Q Factor	Qts	0,23	-
Mechanical Resistance	Rms	0,58	kg s ⁻¹
Moving Mass	Mms	10,4.10 ⁻³	kg
Effective Piston Area	S	0,8.10 ⁻³	m ²
Volume Equivalent of Air at Cas	Vas	10,2.10 ⁻³	m ³
Mass of speaker	M	1,1	kg

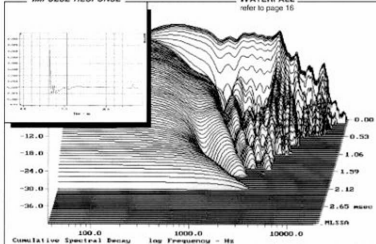
The specifications are given with voice coils connected in parallel

APPLICATION PARAMETERS

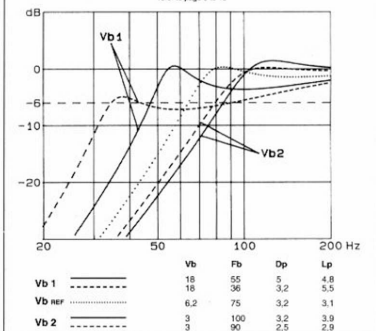
Vb	Box volume	dm ³
Fb	Tuning frequency	Hz
Dp	Port diameter	cm
Lp	Port length	cm

IMPULSE RESPONSE
WATERFALL

refer to page 16


SUGGESTED APPLICATIONS

refer to page 6 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.