

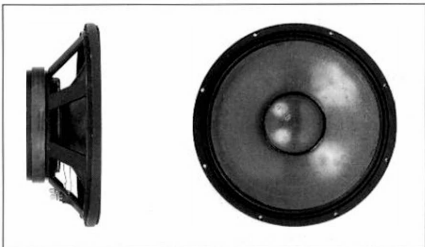
## 15" - HD-I CONE DRIVER - 380 mm

4 Ω

CAR LINE

HD-I (High-Definition Inertal) cone  
 Very high efficiency - 101 dB  
 Very high power - 400 W  
 Coated textile suspension  
 Ultra stiff die cast chassis  
 Heatsink design - Vented pole piece  
 Kapton voice coil former (4" Ø)  
 Flat copper wire  
 Gold plated binding posts

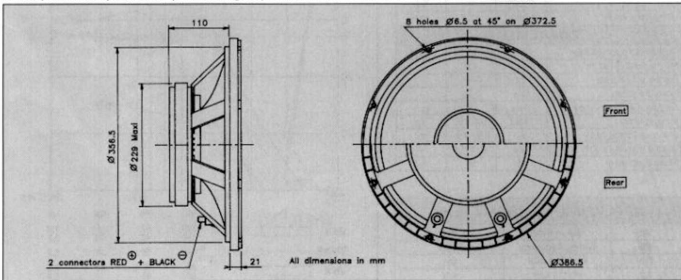
Cône HD-I (High Definition Inertal)  
 Très haut rendement - 101 dB  
 Puissance très élevée - 400 W  
 Suspension toile traitée  
 Châssis moulé ultra-rigide  
 Ailettes de refroidissement - Noyau ventilé  
 Bobine sur support Kapton (Ø 100 mm)  
 Fil cuivre plat sur chant  
 Bornes plaquées or



To expand the range of products utilizing our patented HD-A cone technology into larger woofers and Professional application, Audax is proud to introduce the new patented HD-I cone technology. HD-I couples stiffness and lightness with high internal damping. This composite is based on a three dimensional array of long carbon fibers coupled with a proprietary polymer laminate with anisotropic material behavior. Approaching the ideal cone material, it is ultra-light, ultra stiff and perfectly damped to dramatically reduce any standing waves or break-up modes, while maintaining the full transmission of the micro information contained in a musical message. This 15" woofer is designed to work in bass reflex systems and folded horn bins to produce deep bass with low distortion at high power levels. The very high sensitivity (101 dB) and exceptional power handling (400 W) result from the very large diameter magnet (9") coupled with a 4" edgewound flat copper wire voice coil mounted onto a fiberglass reinforced Kapton former. The magnet has a vented pole piece and is heatsinked to the Zamak chassis to maximize heat dissipation. Gold plated binding posts fitted onto the Ultra stiff die cast chassis are designed to accept large diameter cables. 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).

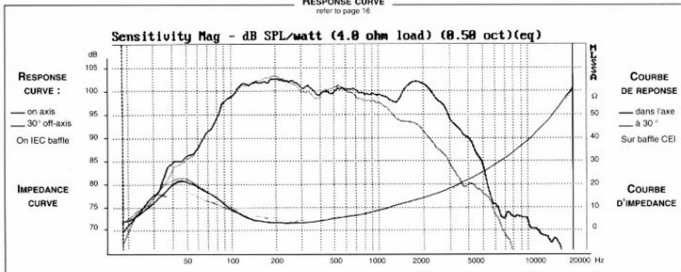
Une nouvelle percée technologique basée sur une même philosophie: se rapprocher du cône idéal, ultra-léger, ultra-rigide, parfaitement amorti afin de minimiser les modes parasites tout en maintenant la reproduction intégrale du signal transmis. HD-I est un nouveau concept de composite combinant une structure aux propriétés anisotropes offrant à la fois un comportement équivalent au sandwich "nid d'abeille" et un coefficient d'amortissement interne équivalent aux meilleurs polymères. Ses performances de résistance mécanique sous contrainte est un facteur déterminant.

Ce woofer de 380 mm est particulièrement destiné à la reproduction des graves à fort niveau et sans distorsion dans des systèmes bass reflex ou à pavillon replié. Son très haut rendement (101 dB) et sa très forte tenue en puissance (400 W) résultent de l'utilisation d'une large structure magnétique (225 mm) associée à une bobine de 100 mm sur support Kapton renforcé fibre de verre à fil de cuivre plat sur chant. Le châssis ultra rigide en Zamak moulé à ailettes de refroidissement et le noyau ventilé assurent une dissipation optimale de la chaleur. Les borniers plaqués or permettent l'utilisation de câbles de forte section. Le tableau "Suggested applications" indique différents types de charge dont celui utilisé pour la mesure de la courbe de réponse (Vb REF). 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

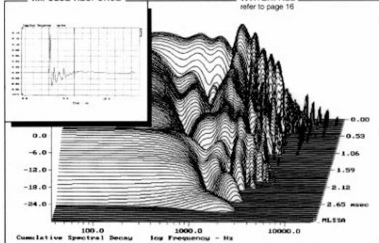
Technical Characteristics	Symbol	Value	Units
<b>PRIMARY APPLICATION</b>			
Nominal Impedance	Z	4	$\Omega$
Resonance Frequency	Fs	48	Hz
Nominal Power Handling	P	400	W
Sensitivity	E	101	dB
<b>VOICE COIL</b>			
Voice coil diameter	$\varnothing$	100	mm
Minimum Impedance	Zmin	3.3	$\Omega$
DC Resistance	Re	2.2	$\Omega$
Voice Coil Inductance	Lbm	0.52	mH
Voice coil Length	h	14	mm
Former	-	Kapton	-
Number of layers	n	2	-
<b>MAGNET</b>			
Magnet dimensions	$\varnothing \times h$	224 X 23	mm
Magnet weight	m	3.43	kg
Flux density	B	1.2	T
Force factor	BL	19	NA <sup>-1</sup>
Height of magnetic gap	He	7	mm
Stray flux	Fmag	-	Am <sup>-1</sup>
Linear excursion	Xmax	$\pm 3.5$	mm
<b>PARAMETERS</b>			
Suspension Compliance	Cms	$1.75 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	1.56	-
Electrical Q Factor	Qes	0.17	-
Total Q Factor	Qts	0.15	-
Mechanical Resistance	Rms	12.4	kg s <sup>-1</sup>
Moving Mass	Mms	65.1 $\cdot 10^{-3}$	kg
Effective Piston Area	S	$8.92 \cdot 10^{-2}$	m <sup>2</sup>
Volume Equivalent of Air at Cas	Vas	$198 \cdot 10^{-1}$	m <sup>3</sup>
Mass of speaker	M	10	kg

## APPLICATION PARAMETERS

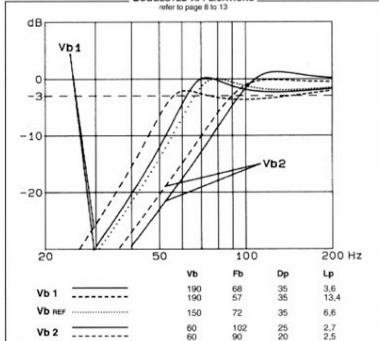
Symbol	Description	Unit
Vb	Box volume	dm <sup>3</sup>
Fb	Tuning frequency	Hz
Dp	Port diameter	cm
Lp	Port length	cm

**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.