

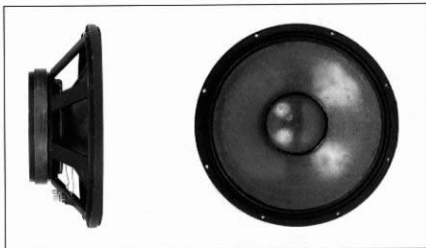
15" - HD-I CONE DRIVER - 380 mm

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

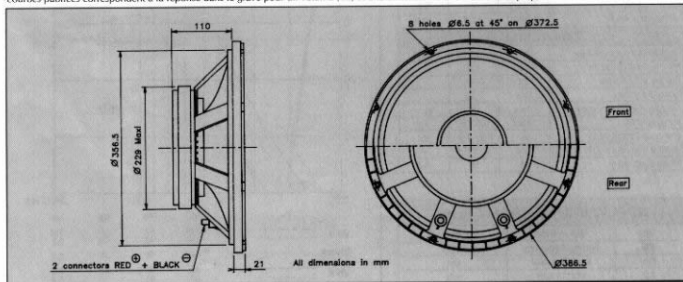
Cône HD-I (High Definition Inertal)
 Très haut rendement - 101 dB
 Puissance très élevée - 400 W
 Suspension toile traitée
 Châssis moulé ultra-rigide
 Ailettes de refroidissement - Noyau ventilé
 Bobine sur support Kapton (Ø 100 mm)
 Fil cuivre plat sur chant
 Bornes plaquées or



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).

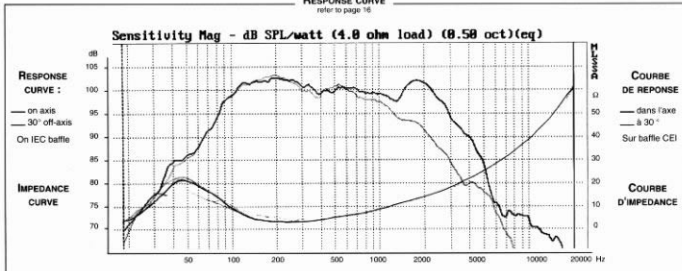
Une nouvelle percée technologique basée sur une même philosophie: se rapprocher du cône idéal, ultra-léger, ultra-rigide, parfaitement amorti afin de minimiser les modes parasites tout en maintenant la reproduction intégrale du signal transmis. HD-I est un nouveau concept de composite combinant une structure 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 |
|---------------------------|--------|-------|-------|
|---------------------------|--------|-------|-------|

PRIMARY APPLICATION

| | | | |
|------------------------|----|-----|----------|
| Nominal Impedance | Z | 4 | Ω |
| Resonance Frequency | Fs | 48 | Hz |
| Nominal Power Handling | P | 400 | W |
| Sensitivity | E | 101 | dB |

VOICE COIL

| | | | |
|-----------------------|---------------|--------|----------|
| Voice coil diameter | \varnothing | 100 | mm |
| Minimum Impedance | Zmin | 3.3 | Ω |
| DC Resistance | Re | 2.2 | Ω |
| Voice Coil Inductance | Lbm | 0.52 | mH |
| Voice coil Length | h | 14 | mm |
| Former | - | Kapton | - |
| Number of layers | n | 2 | - |

MAGNET

| | | | |
|------------------------|------------------------|-----------|-----|
| 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' |
| Height of magnetic gap | He | 7 | mm |
| Stray flux | Fmag | - | Am' |
| Linear excursion | Xmax | ± 3.5 | mm |

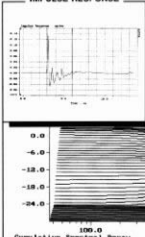
PARAMETERS

| | | | |
|---------------------------------|-----|----------------------|--------------------|
| Suspension Compliance | Cms | $1.75 \cdot 10^{-5}$ | mN' |
| 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 ⁻¹ |
| Moving Mass | Mms | $65.1 \cdot 10^{-5}$ | kg |
| Effective Piston Area | S | $8.92 \cdot 10^{-2}$ | m ² |
| Volume Equivalent of Air at Cas | Vas | $198 \cdot 10^{-1}$ | m ³ |
| Mass of speaker | M | 10 | kg |

APPLICATION PARAMETERS

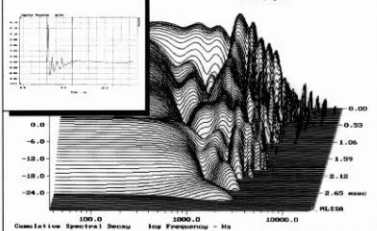
| | | |
|----|------------------|-----------------|
| Vb | Box volume | dm ³ |
| Fb | Tuning frequency | Hz |
| Dp | Port diameter | cm |
| Lp | Port length | cm |

IMPULSE RESPONSE



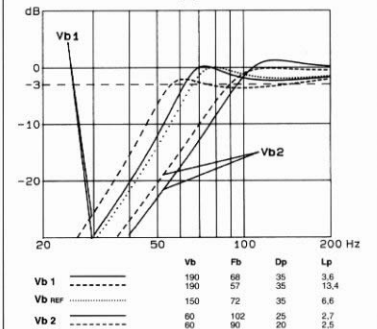
WATERFALL

refer to page 16



SUGGESTED APPLICATIONS

refer to page 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.