

## 4<sup>1</sup>/<sub>2</sub>" - PAPER CONE DRIVER - 100 mm

CLASSIC SERIES

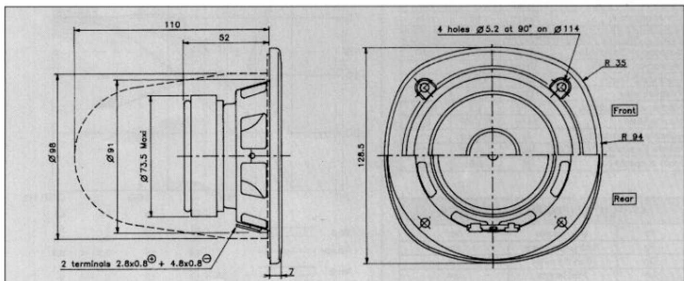
High loss rubber surround  
Coated paper cone  
Stamped steel chassis  
High temperature voice coil  
Aluminium voice coil former  
Optional polymer cup

Suspension caoutchouc amortissant haute compliance  
Cône papier traité  
Chassis acier embouti  
Bobine haute température  
Support bobine aluminium  
Capot plastique optionnel



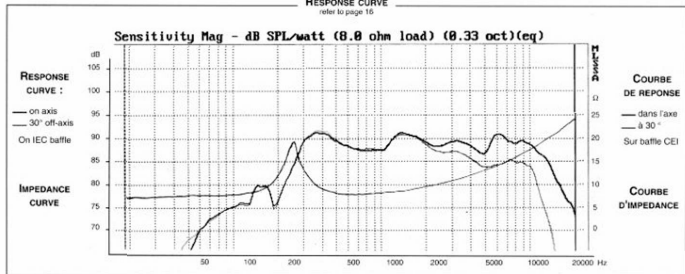
This 4" midrange has been designed for high-end systems, and is available with an optional sealed back enclosure, as mentioned on page 265. It features a state of the art curvilinear paper cone, which is critically damped and coupled to a high-loss rubber surround. Special consideration has been taken to ensure a smooth response and edge diffraction is reduced with a newly designed trimming. The high temperature, 1" voice coil ensures excellent power handling. 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 a été conçu pour équiper des systèmes haut de gamme tout en offrant une charge plastique (voir page 265) spécialement adaptée. Il est doté d'un cône en papier à profil curviligne couplé à une suspension en caoutchouc amortissante haute compliance. Un soin tout particulier a été apporté à cet ensemble afin d'assurer une réponse en fréquence linéaire ainsi qu'une coupure haute naturelle. Une esthétique nouvelle est également proposée en la conception d'une couronne décorative inédite. La bobine haute température sur support aluminium autorise une bonne tenue en puissance. 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 |
|---------------------------|--------|-------|-------|
|---------------------------|--------|-------|-------|

#### PRIMARY APPLICATION

|                        |    |     |    |
|------------------------|----|-----|----|
| Nominal Impedance      | Z  | 8   | Ω  |
| Resonance Frequency    | Fs | 240 | Hz |
| Nominal Power Handling | P  | 35  | W  |
| Sensitivity            | E  | 89  | dB |

#### VOICE COIL

|                       |      |           |    |
|-----------------------|------|-----------|----|
| Voice coil diameter   | Ø    | 25        | mm |
| Minimum Impedance     | Zmin | 8,3       | Ω  |
| DC Resistance         | Re   | 7,6       | Ω  |
| Voice Coil Inductance | Lbm  | 0,23      | mH |
| Voice coil Length     | h    | 7         | mm |
| Former                | -    | Aluminium | -  |
| Number of layers      | n    | 2         | -  |

#### MAGNET

|                        |       |       |     |
|------------------------|-------|-------|-----|
| Magnet dimensions      | Ø x h | 72x15 | mm  |
| Magnet weight          | m     | 0,24  | kg  |
| Flux density           | B     | 1     | T   |
| Force factor           | BL    | 4,8   | NA' |
| Height of magnetic gap | He    | 4     | mm  |
| Stray flux             | Fmag  | -     | Am' |
| Linear excursion       | Xmax  | ±1,5  | mm  |

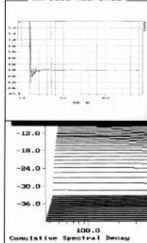
#### PARAMETERS

|                                 |     |                        |                    |
|---------------------------------|-----|------------------------|--------------------|
| Suspension Compliance           | Cms | 0,1 · 10 <sup>-3</sup> | mN <sup>-1</sup>   |
| Mechanical Q Factor             | Qms | 4,16                   | -                  |
| Electrical Q Factor             | Qes | 2,09                   | -                  |
| Total Q Factor                  | Qts | 1,39                   | -                  |
| Mechanical Resistance           | Rms | 1,52                   | kg s <sup>-1</sup> |
| Moving Mass                     | Mms | 4,2 · 10 <sup>-3</sup> | kg                 |
| Effective Piston Area           | S   | 0,57 · 10 <sup>3</sup> | m <sup>2</sup>     |
| Volume Equivalent of Air at Cas | Vas | -                      | m <sup>3</sup>     |
| Mass of speaker + cup           | M   | 0,6 + 0,1              | kg                 |

### APPLICATION PARAMETERS

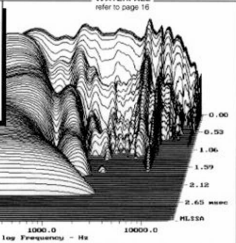
|    |                        |          |
|----|------------------------|----------|
| Fc | Crossover Frequency    | Hz       |
| S  | Slope                  | dB / Oct |
| L  | Self-inductance        | mH       |
| C  | Capacitor              | µF+      |
| P  | Nominal Power Handling | W        |

### IMPULSE RESPONSE



### WATERFALL

refer to page 16



### SUGGESTED APPLICATIONS

refer to page 8 to 13

