

### KEY FEATURES

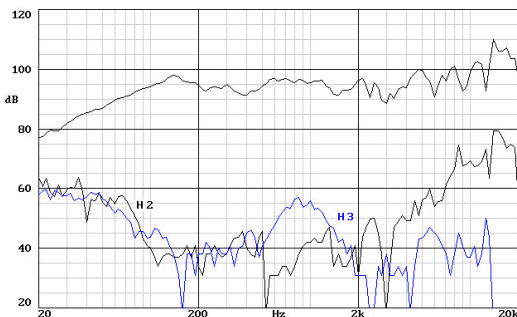
- 12" bass loudspeaker and 1" exit compression driver combination
- High power handling: 250 w AES (L.F. unit) and 40 w AES (H.F. unit)
- Extended and linear frequency response (45-20000 Hz)
- High sensitivity: 98 dB (L.F. unit) and 105 dB (H.F. unit)
- Low weight (neodymium compression driver)
- Bass loudspeaker designed for compact bass-reflex cabinets



### GENERAL DESCRIPTION

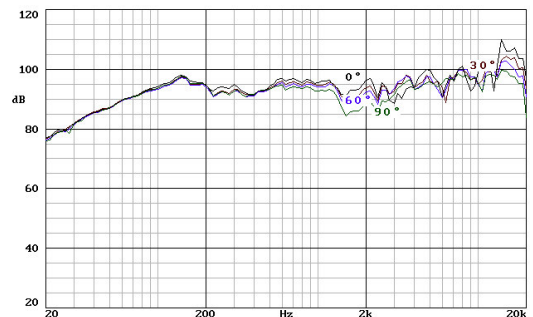
This 12" coaxial loudspeaker has been designed in order to achieve an excellent compromise between power handling, efficiency and weight. Its low frequency unit features a 2.5" (62.4 mm) aluminium voice coil which handles 250 w AES, while the high frequency unit features a 1.75" (44.4 mm) edgewound aluminium ribbon voice coil which yields a 40 w AES power handling. The combination of these two drivers give as a result an extended and linear frequency response with low distortion and high efficiency. Moreover, this dual loudspeaker has a relatively low weight (5.2 kg.) that makes easier to fit it with a compact bass-reflex enclosure.

### FREQUENCY RESPONSE AND DISTORTION CURVES

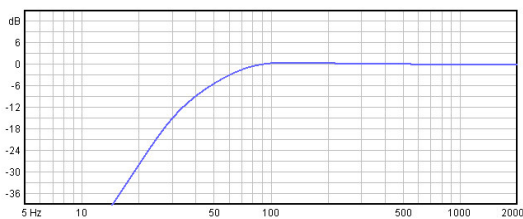


Note: on axis filtered frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1w @ 1m.

### FREQUENCY RESPONSE OUT OF AXIS

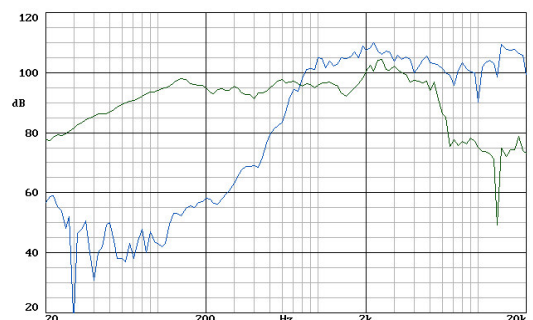


### PREDICTED LOW FREQUENCY RESPONSE



Note: bass-reflex cabinet,  $V_b=70$  l,  $f_b=45$  Hz

### FREQUENCY RESPONSE OF LF & HF UNITS



Note: on axis frequency response of low and high frequency units, 1w @ 1m.

### TECHNICAL SPECIFICATIONS

#### L.F. UNIT

Nominal diameter	300 mm. 12 in.
Rated impedance	8 ohms.
Minimum impedance	7.3 ohms.
Power capacity*	250 w AES
Program Power	500 w
Sensitivity	98 dB 2.83v @ 1m @ 2π
Frequency range	45-6000 Hz
Recom. enclosure vol.	30 / 100 l 1.06 / 3.53 ft. <sup>3</sup>
Voice coil diameter	62.4 mm. 2.5 in.
Magnetic assembly weight	4.3 kg. 9.46 lb.
BL factor	12.8 N/A
Moving mass	0.040 kg.
Voice coil length	17 mm.
Air gap height	7 mm.
X damage	24 mm.

#### H.F. UNIT

Rated impedance	16 ohms.
Minimum impedance	10.9 ohms.@ 4.5 kHz
Power capacity	40 w AES above 1.5 kHz
Frequency range	0.7 - 20 kHz
Sensitivity 1w @ 1m	105 dB
Voice coil diameter	44.4 mm. 1.75 in.
Flux density	1.8 T
BL factor	10.5 N/A
Dispersion	90° conical

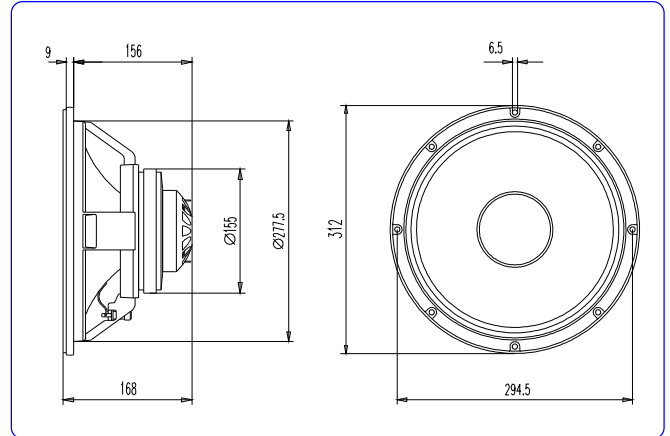
### THIELE-SMALL PARAMETERS

Resonant frequency, fs	43 Hz
D.C. Voice coil resistance, Re	6.3 ohms.
Mechanical Quality Factor, Qms	7.40
Electrical Quality Factor, Qes	0.42
Total Quality Factor, Qts	0.39
Equivalent Air Volume to Cms, Vas	147 l
Mechanical Compliance, Cms	342 μm / N
Mechanical Resistance, Rms	1.5 kg / s
Efficiency, ηo (%)	2.7
Effective Surface Area, Sd (m <sup>2</sup> )	0.0550 m <sup>2</sup>
Maximum Displacement, Xmax	5 mm
Displacement Volume, Vd	272 cm <sup>3</sup>
Voice Coil Inductance, Le @ 1 kHz	1.5 mH

**Notes:**

\*The power capacity is determined according to AES2-1984 (r2003) standard.  
Program power is defined as the transducer's ability to handle normal music program material.

### DIMENSION DRAWINGS



### MATERIALS

#### L.F. UNIT

- **Basket:** Die cast aluminium
- **Cone:** Paper
- **Surround:** Plasticised cloth
- **Voice coil:** Aluminium
- **Magnet:** Ferrite

#### H.F. UNIT

- **Diaphragm:** Polyester
- **Voice coil:** Edgewound aluminium ribbon
- **Voice coil former:** Kapton
- **Magnet:** Neodymium

### MOUNTING INFORMATION

Overall diameter	312 mm.	12.28 in.
Bolt circle diameter	294.5 mm.	11.6 in.
<b>Baffle cutout diameter:</b>		
- Front mount	277.5 mm.	10.92 in.
- Rear mount	277.5 mm.	10.92 in.
Depth	168 mm.	6.61 in.
Volume displaced by driver	5.5 l.	0.16 ft. <sup>3</sup>
Net weight	5.2 kg.	11.44 lb.
Shipping weight	5.9 kg.	12.98 lb.

\*\*T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).