

### KEY FEATURES

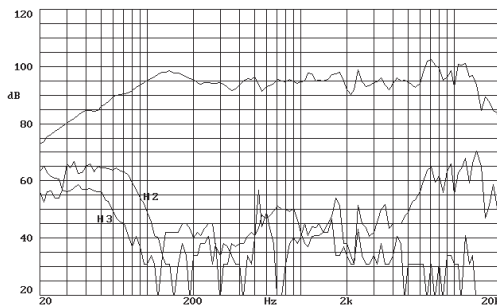
- Exceptional power handling: 300 w AES (low frequencies) and 100 w AES (high frequencies)
- Combination of a 15" bass loudspeaker and a 2" exit compression driver
- L.F. unit: 3" (77 mm) edgewound aluminium ribbon voice coil
- H.F. unit: 2.8" (72.2 mm) edgewound aluminium ribbon voice coil
- Titanium diaphragm compression driver
- Low weight due to the common magnet system for both units
- Coherent response
- Bass loudspeaker designed for the use in compact bass-reflex cabinets



### GENERAL DESCRIPTION

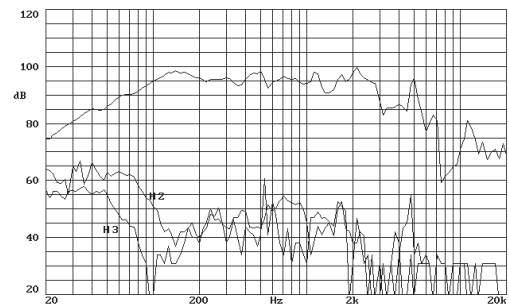
This dual loudspeaker incorporates a 12" bass transducer, featuring a 3" voice coil diameter, edgewound aluminium ribbon wire, and a concentrically mounted 2" compression driver into an integrated voice coil gap magnet system. This design achieves high efficiency, smooth frequency response, low distortion, reduces phasing problems in the crossover region, and simplifies enclosure design.

### FREQUENCY RESPONSE AND DISTORTION CURVES

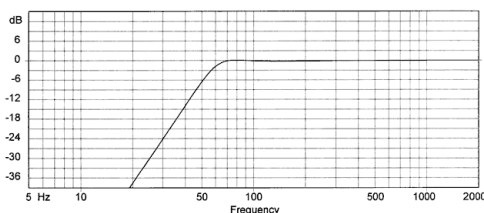


Note: on axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1w @ 1m.

### FREQUENCY RESPONSE AND DISTORTION CURVES, L.F. UNIT

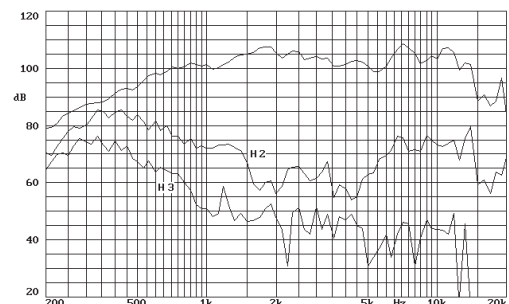


### PREDICTED LOW FREQUENCY RESPONSE



Note: Bass-reflex cabinet, Vb=60 l, fb=60 Hz

### FREQUENCY RESPONSE AND DISTORTION CURVES, H.F. UNIT



### TECHNICAL SPECIFICATIONS

#### L.F. UNIT

Nominal diameter	300 mm. 12 in.
Rated impedance	8 ohms.
Minimum impedance	7.1 ohms.
Power capacity*	300 w AES
Program Power	600 w
Sensitivity	98 dB 2.83v @ 1m @ 2 $\pi$
Frequency range	35-3000 Hz
Recom. enclosure vol.	40 / 100 l 1.49 / 3.53 ft. <sup>3</sup>
Voice coil diameter	77 mm. 3 in.
Magnetic assembly weight	6.4 kg. 14.11 lb.
BL factor	14.5 N/A
Moving mass	0.045 kg.
Voice coil length	13 mm.
Air gap height	8 mm.
X damage	30 mm.

#### H.F. UNIT

Rated impedance	8 ohms.
Minimum impedance	6.5 ohms. @ 1kHz
Power capacity	100 w AES
Frequency range	800 - 17000 Hz
Sensitivity 1w @ 1m	105 dB
Voice coil diameter	72.2 mm. 2.8 in.
Flux density	1.4 T
BL factor	7.5 N/A
Dispersion	90°

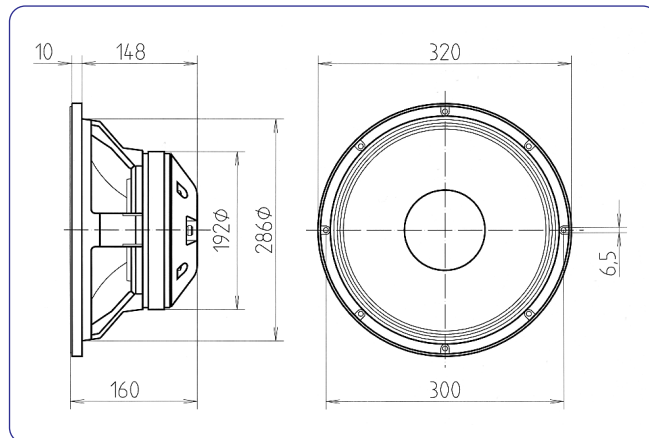
### THIELE-SMALL PARAMETERS\*\*

Resonant Frequency, fs	45 Hz
D.C. Voice Coil Resistance, Re	5.6 ohms.
Mechanical Quality Factor, Qms	10.4
Electrical Quality Factor, Qes	0.380
Total Quality Factor, Qts	0.370
Equivalent Air Volume to Cms, Vas	70 l
Mechanical Compliance, Cms	186 $\mu$ m/N
Mechanical Resistance, Rms	1.49 kg/s
Efficiency, $\eta_0$ (%)	2.9
Effective Surface Area, Sd (m <sup>2</sup> )	0.055 m <sup>2</sup>
Maximum Displacement, Xmax	3.5 mm.
Displacement Volume, Vd	200 cm. <sup>3</sup>
Voice Coil Inductance, Le@ 1kHz	1 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:** Cast aluminium
- **Cone:** Paper
- **Surround:** Plasticised cloth
- **Voice coil:** Edgewound aluminium ribbon
- **Magnet:** Ferrite

#### H.F. UNIT

- **Diaphragm:** Titanium
- **Voice coil:** Edgewound aluminium ribbon
- **Voice coil former:** Kapton

### MOUNTING INFORMATION

Overall diameter	320 mm. 12.6 in.
Bolt circle diameter	300 mm. 11.8 in.
<b>Baffle cutout diameter:</b>	
-Front mount	286 mm. 11.26 in.
-Rear mount	280 mm. 11.02 in.
Depth	160 mm. 6.30 in.
Volume displaced by driver	7 l 0.25 ft. <sup>3</sup>
Net weight	7.85 kg. 17.31 lb.
Shipping weight	8.5 kg. 18.73 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).



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