

## KEY FEATURES

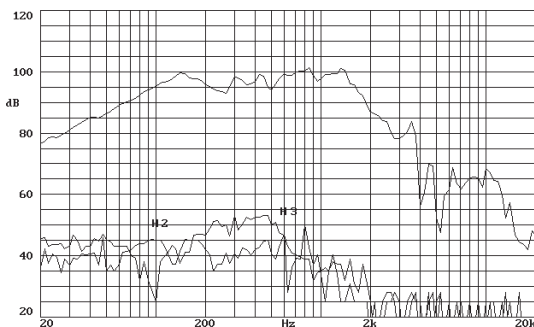
- High power handling (750 W<sub>AES</sub>)
- 4.5" edgewound copper voice coil with polyimide fiber glass former
- Large Xmax allowing longer voice coil displacements
- Dual spider configuration of improved temperature behaviour: retain good mechanical properties at high power
- Additional heat dissipation due to the use of a metal intercooler
- Designed for high demanding subwoofer and woofer applications



## GENERAL DESCRIPTION

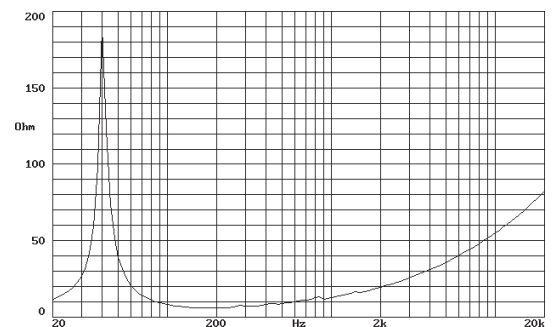
This 15" bass loudspeaker has been specifically designed to deliver high impact bass response, with exceptional high power handling capacity (750 W<sub>AES</sub>). It incorporates an edgewound copper ribbon voice coil (4.5" diameter) made with the highest quality materials: high temperature magnet wire and polyimide fiber glass former. In order to achieve a reduced power compression it features a massive vented magnetic structure. Moreover, an optimum cooling system based on a metal intercooler allows a fast heat exchange and contributes too to the reduction of thermal power compression. This model covers the low frequency range with smooth response, low harmonic distortion and high efficiency and it is mostly recommended for high demanding subwoofer and woofer applications.

## FREQUENCY RESPONSE AND DISTORTION CURVES

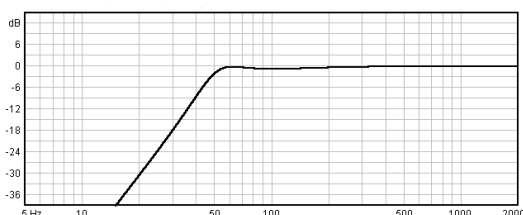


Note: on axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1w @ 1m.

## FREE AIR IMPEDANCE CURVE

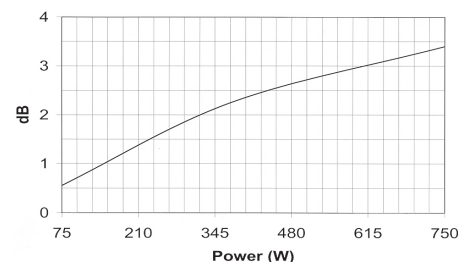


## PREDICTED LOW FREQUENCY RESPONSE



Note: Bass-reflex cabinet, Vb=100 l, fb=50 Hz

## POWER COMPRESSION LOSSES



Note: These losses are calculated from a five minutes AES power test applying band limited pink noise (25-1200 Hz). The loudspeaker is free-air standing.

### TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm.	15 in.
Rated impedance	8 ohms.	
Minimum impedance	6.5 ohms.	
Power capacity*	750 w AES	
Program power	1500 w	
Sensitivity	98 dB	2.83v @ 1m @ 2π
Frequency range	30 - 1500 Hz	
Recom. enclosure vol.	50 / 250 l	1.8 / 8.8 ft. <sup>3</sup>
Voice coil diameter	114 mm.	4.5 in.
Magnetic assembly weight	9.9 kg.	21.8 lb.
BL factor	24.3 N / A	
Moving mass	0.142 kg.	
Voice coil length	21 mm.	
Air gap height	9 mm.	
X damage (peak to peak)	35 mm.	

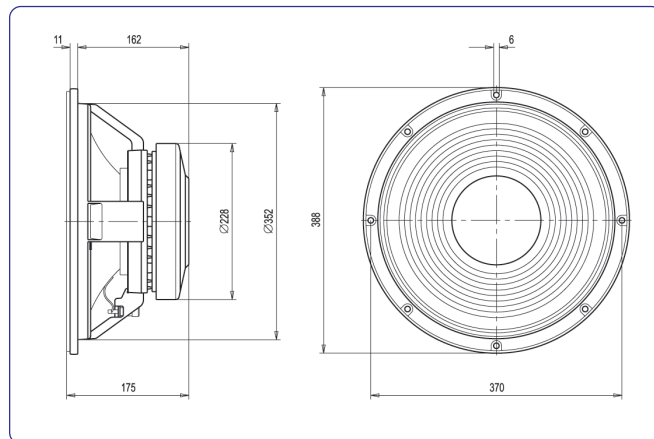
### MOUNTING INFORMATION

Overall diameter	388 mm.	15.28 in.
Bolt circle diameter	370 mm.	14.57 in.
Baffle cutout diameter:		
- Front mount	352 mm.	13.86 in.
- Rear mount	355 mm.	13.98 in.
Depth	175 mm.	6.88 in.
Volume displaced by driver	6 l	0.21 ft. <sup>3</sup>
Net weight	11.5 kg.	25.3 lb.
Shipping weight	12.5 kg.	27.5 lb.

### THIELE-SMALL PARAMETERS\*\*

Resonant frequency, fs	45 Hz
D.C. Voice coil resistance, Re	5.7 ohms.
Mechanical Quality Factor, Qms	10.5
Electrical Quality Factor, Qes	0.33
Total Quality Factor, Qts	0.32
Equivalent Air Volume to Cms, Vas	115 l
Mechanical Compliance, Cms	88 μm / N
Mechanical Resistance, Rms	3.2 kg / s
Efficiency, ηo (%)	3
Effective Surface Area, Sd (m <sup>2</sup> )	0.0880 m <sup>2</sup>
Maximum Displacement, Xmax	6.5 mm.
Displacement Volume, Vd	570 cm <sup>3</sup>
Voice Coil Inductance, Le @ 1 kHz	1.2 mH

### DIMENSION DRAWINGS



### MATERIALS

- **Voice coil:** edgewound copper wire with high temperature bonding strength. Polyimide fiber glass former able to withstand high temperatures.
- **Cone:** special cone prepared to endure high displacement forces.
- **Surround:** treated cloth to assure good retaining of elasticity in despite of continuing use.
- **Spider:** dual spider combination that maintains good mechanical properties at high applied power.
- **Metal parts:** anti-corrosion coated back plate designed to resist aggressive environmental conditions
- **Basket:** specially designed die cast aluminium basket to avoid disturbing resonances.
- **Magnet:** high Curie temperature ferrite.

#### 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.

\*\* 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).



acústica beyma, s.a.

Polígono Industrial Moncada II · C/. Pont Sec, 1c · 46113 MONCADA - Valencia (Spain)

· Tel. ( 34 ) 96 130 13 75 · Fax ( 34 ) 96 130 15 07 · <http://www.beyma.com> · E-mail: [beyma@beyma.com](mailto:beyma@beyma.com) ·