

# MID-BASS MB15N301

Professional Low Frequency Transducer

PART NUMBER **11100074**

## Features

- 3.0-inch, fibreglass inside/outside copper voice coil
- 1000 Watt continuous program power handling
- 99 dB Sensitivity
- 40Hz –3.5KHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Triple-roll surround and exponential cone geometry

The MB15N301 is a neodymium, high efficiency, 15" mid-bass. High sensitivity, excellent linearity and very high power handling capabilities.

The magnetic structure is powered by a large neodymium magnet that provides an extremely high flux density in the gap.

The new hyper-vented aluminium basket and magnetic assembly design provide an excellent heat dissipation and lower power compression. Special air-forced ventilations are provided for voice coil, magnet assembly and basket.

M-roll surround and spider design offer great linearity and precise reproduction.

The waterproof body cone treatment and polycotton surround ensure a durable performance in every application.

## Applications

The very light moving mass and linear curve response make the MB15N301 the solution for high quality two or three way system.

The aluminium voice coil guarantee a very high efficiency in conjunction to a proper Q factor for good bass response.



40 3500

20

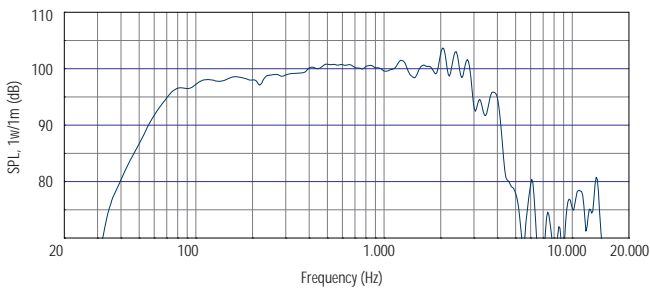
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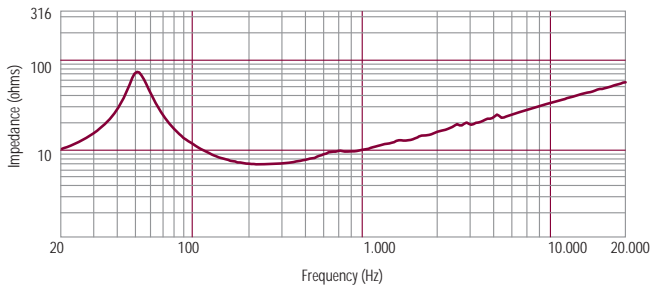
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Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 80 litres and tuned at 50Hz, applying a sinusoidal signal of 2.83 V@8 at 1m.



Impedance magnitude curve measured in free air.

## General Specifications

Nominal Diameter	380/15	mm/inch
Rated Impedance	8	ohm
Program Power <sup>1</sup>	1000	Watts
Power handling capacity <sup>2</sup>	500	Watts
Sensitivity <sup>3</sup>	99	dB
Frequency Range	40 - 3500	Hz
Effective Piston Diameter	330/13.0	mm/inch
Max Excursion Before Damage (peak to peak)	40/1.57	mm/inch
Minimum Impedance	6.8	ohm
Voice Coil Diameter	76/3.0	mm/inch
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	17/0.67	mm/inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	10/0.39	mm/inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	Triple-roll	

## Thiele - Small Parameters <sup>4</sup>

Resonance frequency	Fs	48	Hz
DC resistance	Re	5.8	ohm
Mechanical factor	Qms	4.6	
Electrical factor	Qes	0.39	
Total factor	Qts	0.37	
BL Factor	BL	19.2	T · m
Effective Moving Mass	Mms	90	gr
Equivalent Cas air load	Vas	134	liters
Effettive piston area	Sd	0.086	m <sup>2</sup>
Max. linear excursion (mathematical) <sup>5</sup>	Xmax	6.0	mm
Voice - coil inductance @ 1KHz	Le1K	0.9	mH
Half-space efficiency	Eff	3.70	%

## Mounting Information

Overall Diameter	388/15.3	mm/inch
Bolt Circle Diameter	369-373.5/14.5-14.7	mm/inch
Bolt Hole Diameter	5.5/0.22	mm/inch
Front Mount Baffle Cut-out	355/13.98	mm/inch
Rear Mount Baffle Cut-out	358/14.09	mm/inch
Depth	152/5.98	mm/inch
Volume occupied by the driver <sup>6</sup>	3.0/0.11	liters/ft3

## Shipping Information

Net Weight	3.7/8.16	Kg/Lbs
Shipping Weight	4.7/10.36	Kg/Lbs

## Notes to Specifications

<sup>1</sup> Program Power is defined as 3 dB greater than AES power. - <sup>2</sup> AES standard. - <sup>3</sup> Sensitivity measurement is based on a 500-2,5 kHz pink noise signal with input power of 2.83V @ 8 Ohms. - <sup>4</sup> Thiele-Small parameters are measured after a 2 hour warm up period running the loudspeaker at full power handling capacity. - <sup>5</sup> The maximum linear excursion is calculated as:  $(Hvc - Hg)/2 + Hg/4$  where Hvc is the voice coil depth and Hg the gap depth. - <sup>6</sup> Calculated for front mounting on 18 mm thick board.