

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

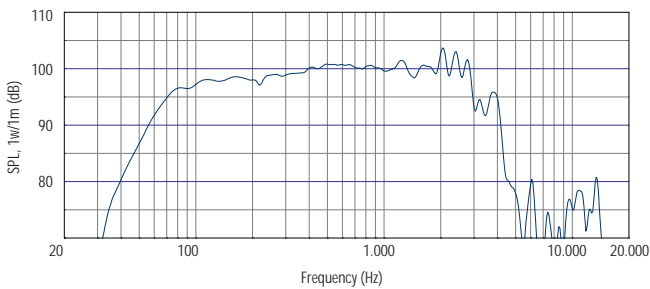
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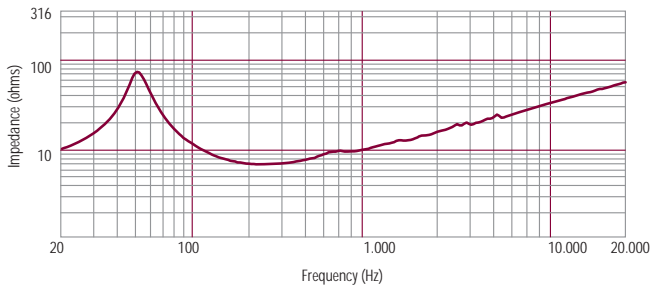
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Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 80 litres and tuned at 50Hz, applying a sinusoidal signal of 2.83 V@8 at 1m.



Impedance magnitude curve measured in free air.

General Specifications

| | | |
|--|-----------------|---------|
| Nominal Diameter | 380/15 | mm/inch |
| Rated Impedance | 8 | ohm |
| Program Power ¹ | 1000 | Watts |
| Power handling capacity ² | 500 | Watts |
| Sensitivity ³ | 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 ⁴

| | | | |
|---|------|-------|----------------|
| 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 ² |
| Max. linear excursion (mathematical) ⁵ | 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 ⁶ | 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

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