

MIDRANGE MR8N301

Professional Low Frequency Transducer

PART NUMBER 11100006

The MR8N301 is a high efficiency, high power midrange specially designed to provide superior sound pressure level in a very compact size. The total weight is reduced to less than half of a comparable ceramic midrange thanks to an incredibly powerful neodymium magnet assembly. The unique sealed basket design doesn't require a back sealing chamber, simplifying the cabinet design and improving heat dissipation. Every detail of this speaker has been optimized to offer maximum linearity and perfect control to the midrange and mid-high frequencies.

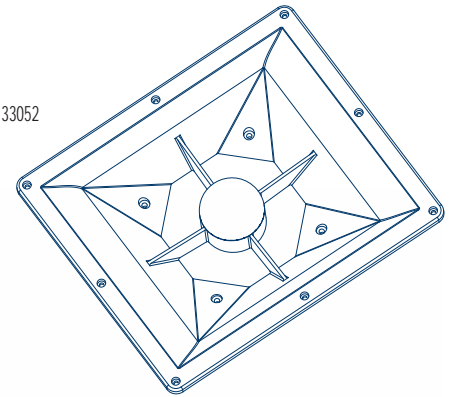
Features

- 3-inch Inside/outside voice coil, high BL neodymium design
- 400 Watt Continuous program power handling
- Very high sensitivity (107 dB/1w in horn loaded application), very high BL factor
- Frequency range: 300 Hz - 3 kHz (mid and mid-high frequencies)
- Unique aluminum sealed basket featuring vented fin heat dissipation design
- Calibrated back volume for a perfect time domain transient reproduction

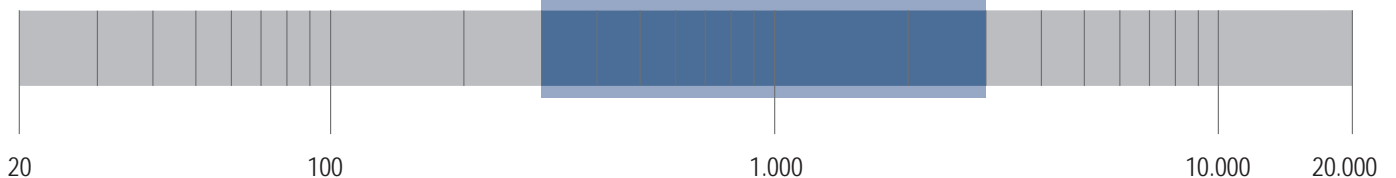
Applications

The MR8N301 is especially designed for horn-loading and line array configurations. The ideal range of application are mid and mid-high frequencies. The combination of the 3" voice coil, the neodymium motor and the heat sink basket design makes this driver the ideal solution for the most demanding applications.

H6000
80° x 60° Horn
part number 13133052

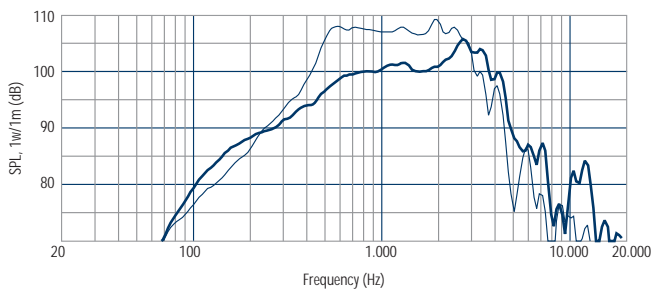
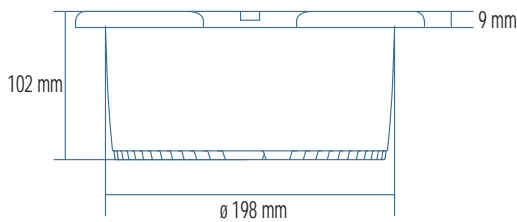
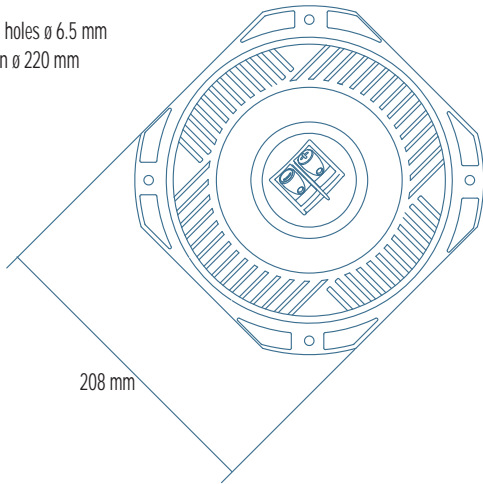


300 3000

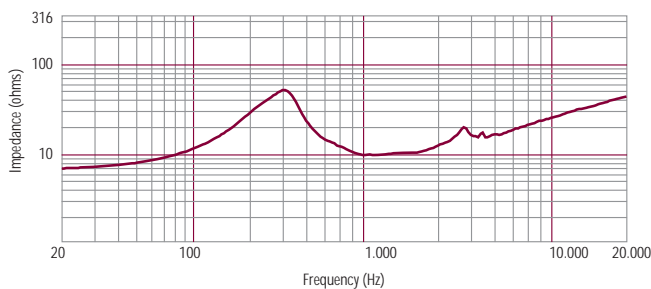




4 holes ϕ 6.5 mm
on ϕ 220 mm



Frequency response curve of the loudspeaker taken in a hemispherical, free field environment and mounted on IEC panel (ticker curve) and on a 80 x 60 horn (lighter curve).



Impedance magnitude curve measured in free air.

General Specifications

| | | |
|--|-----------------|---------|
| Nominal Diameter | 200/8 | mm/inch |
| Rated Impedance | 8 | ohm |
| Program Power ¹ | 400 | Watts |
| Power handling capacity ² | 200 | Watts |
| Sensitivity ³ | 102 | dB |
| Frequency Range | 300 - 3000 | Hz |
| Effective Piston Diameter | 168/6.6 | mm/inch |
| Max Excursion Before Damage (peak to peak) | 15/0.6 | mm/inch |
| Minimum Impedance | 9.8 | ohm |
| Voice Coil Diameter | 76/3 | mm/inch |
| Voice Coil Material | Aluminum | |
| Voice Coil Winding Depth | 11/0.4 | mm/inch |
| Number of layers | 2 | |
| Kind of layer | inside/outside | |
| Top Plate Thickness | 8/0.3 | mm/inch |
| Cone Material | No pressed pulp | |
| Cone Design | Curved | |
| Surround Material | Polycotton | |
| Surround Design | Triple - roll | |

Thiele - Small Parameters ⁴

| | | | |
|---|------|-------|----------------|
| Resonance frequency | Fs | 310 | Hz |
| DC resistance | Re | 6.6 | ohm |
| Mechanical factor | Qms | 3.45 | |
| Electrical factor | Qes | 0.41 | |
| Total factor | Qts | 0.37 | |
| BL Factor | BL | 17.8 | T · m |
| Effective Moving Mass | Mms | 10.1 | gr |
| Equivalent Cas air load | Vas | 1.65 | liters |
| Effettive piston area | Sd | 0.021 | m ² |
| Max. linear excursion (mathematical) ⁵ | Xmax | 3.5 | mm |
| Voice - coil inductance @ 1KHz | Le1K | 1.16 | mH |
| Half-space efficiency | Eff | 12.8 | % |

Mounting Information

| | | |
|--|-----------|------------|
| Overall Diameter | 238/9.4 | mm/inch |
| Bolt Circle Diameter | 220/8.7 | mm/inch |
| Bolt Hole Diameter | 6.5/0.3 | mm/inch |
| Front Mount Baffle Cut-out | 202/8,0 | mm/inch |
| Rear Mount Baffle Cut-out | 182/7.2 | mm/inch |
| Depth | 101.5/4.0 | mm/inch |
| Volume occupied by the driver ⁶ | 2/0.07 | liters/ft3 |

Shipping Information

| | | |
|-----------------|---------|--------|
| Net Weight | 3.5/7.7 | Kg/Lbs |
| Shipping Weight | 4.0/8.8 | 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 500-2000 Hz 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.