MIDRANGE

MR10N301

Professional Low Frequency Transducer

The MR10N301 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 the best response and perfect control to the midrange frequencies.

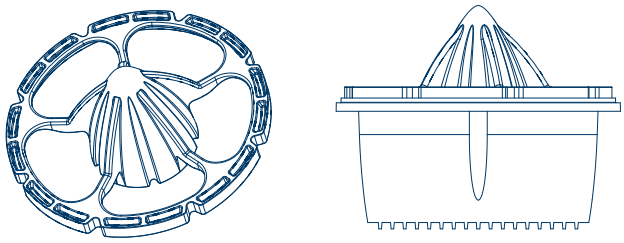
PART NUMBER **11100005**

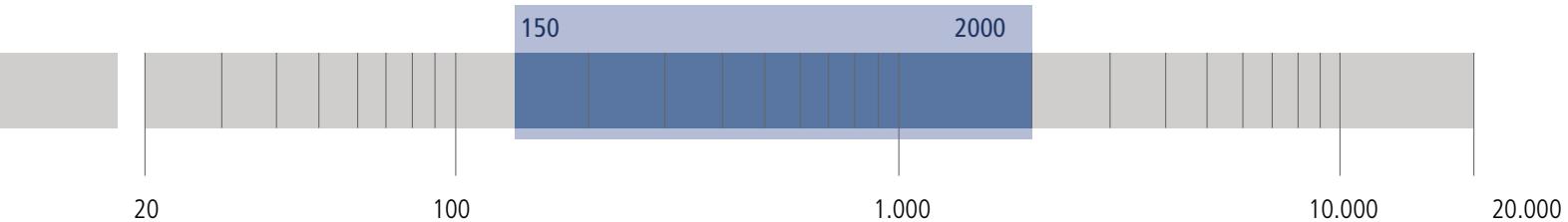
- 3-inch Inside/outside voice coil, high BL neodymium design
- Very high sensitivity (109 dB/1w in horn loaded application), very high BL factor
- 600 Watt Continuous program power handling
- Frequency range: 150 Hz - 2 kHz (mid and mid-low frequencies)
- Unique aluminum sealed basket featuring vented fin heat dissipation design
- Calibrated back volume for a perfect time domain transient reproduction

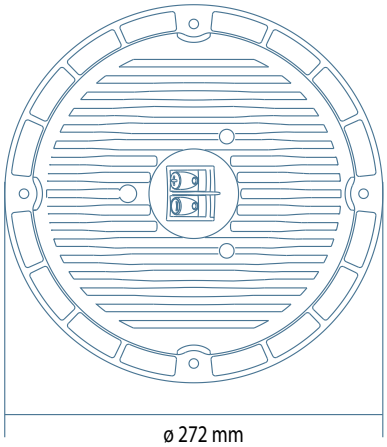
APPLICATIONS

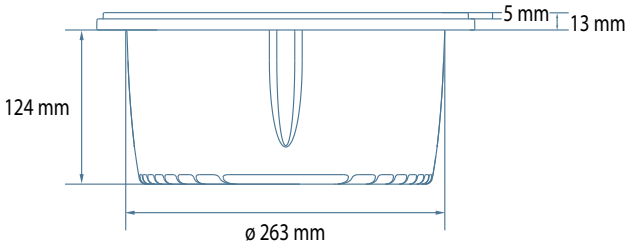
The MR10N301 is especially designed for horn-loading and line array configurations.
The ideal range of application are mid and mid-low frequencies.
The combination of the 3" voice coil, the neodymium motor and the heat sink basket design makes this driver the ideal solution for the most demanding applications.

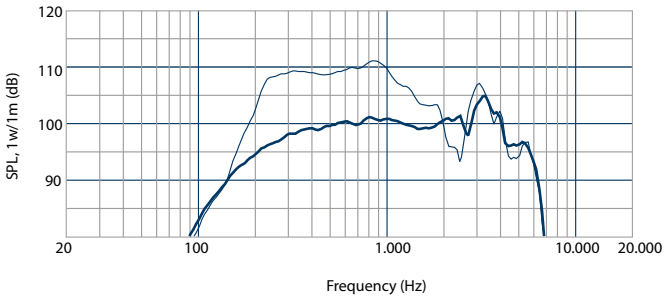
PHASE PLUG
part number 13360051



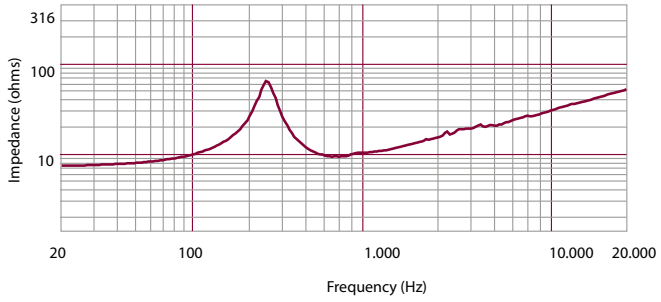








Frequency response curve of the loudspeaker taken in a hemispherical, free field environment and mounted on IEC panel (ticker curve) and on a 60x40 horn (lighter curve)



Impedence magnitude curve measured in free air

GENERAL SPECIFICATIONS

Nominal Diameter	260/10	mm/inch
Rated Impedance	8	ohm
Program Power [1]	600	Watts
Power handling capacity [2]	300	Watts
Sensitivity [3]	102	dB
Frequency Range	150 - 2000	Hz
Effective Piston Diameter	210/8.3	mm/inch
Max Excursion Before Damage (peak to peak)	20/0,8	mm/inch
Minimum Impedance	8.5	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	10/0.4	mm/inch
Cone Material	No pressed pulp	
Cone Design	Curved	
Surround Material	Polycotton	
Surround Design	M - roll	

THIELE - SMALL PARAMETERS [4]

Resonance frequency	Fs	250	Hz
DC resistance	Re	6.2	ohm
Mechanical factor	Qms	6.48	
Electrical factor	Qes	0.72	
Total factor	Qts	0.65	
BL Factor	BL	20.7	T · m
Effective Moving Mass	Mms	31.8	gr
Equivalent Cas air load	Vas	2.2	liters
Effettive piston area	Sd	0.035	m^2
Max. linear excursion (mathematical) [5]	Xmax	1.4	mm
Voice - coil inductance @ 1KHz	Le1K	1.17	mH
Half-space efficiency	Eff	9.26	%

MOUNTING INFORMATION

Overall Diameter	272/10.7	mm/inch
Bolt Circle Diameter	244.5/9.6	mm/inch
Bolt Hole Diameter	7/0.3	mm/inch
Front Mount Baffle Cut-out	235/9.3	mm/inch
Rear Mount Baffle Cut-out	232/9.1	mm/inch
Depth	124/4.9	mm/inch
Volume occupied by the driver [6]	5.0/0.18	liters/ft3

SHIPPING INFORMATION

Net Weight	3.9/8.6	Kg/Lbs
Shipping Weight	4.3/9.5	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.

The data are not binding; RCF reserves the right to modify the data at any time and without previous notice.