

## MID-BASS

# MB12N405

Professional Low Frequency Transducer

PART NUMBER **11100112**

- 4-inch, fibreglass inside/outside aluminium voice coil
- 2000W continuous program power handling
- 98.5 dB Sensitivity
- 50 Hz – 2.0 kHz Frequency range
- Hypervented for minimum power compression
- Triple roll surround and exponential cone geometry

The MB12N405 is a hypervented neo mid-bass design with a linear frequency response and very high efficiency.

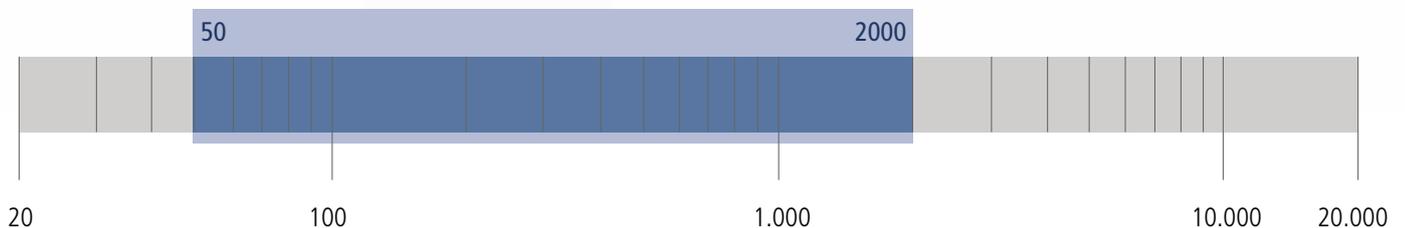
To get this performance the magnetic structure use a high flux neo disc and the cone assembly a fibre loaded exponential shape along with a high excursion triple roll, constant geometry surround.

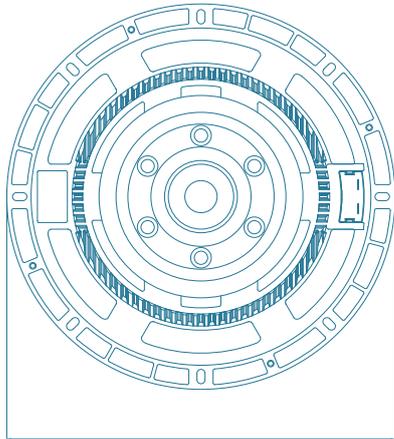
The fibreglass former and aluminium voice coil provide a very high power handling maintaining a light mass and a proper Q factor for bass alignment.

## APPLICATIONS

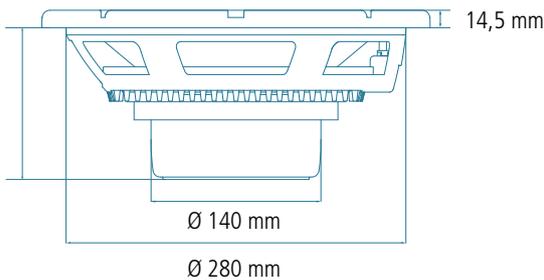
The MB12N405 is ideal where is required extremely high power handling, very high efficiency and perfect linearity.

Is the ideal 12" mid-bass woofer for reference high fidelity, high performance mid-bass application in compact 2 way system.





Ø 320 mm

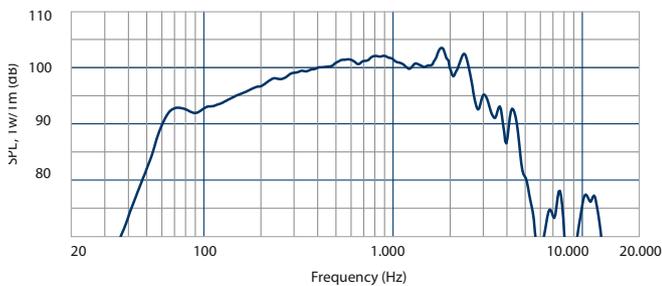


118 mm

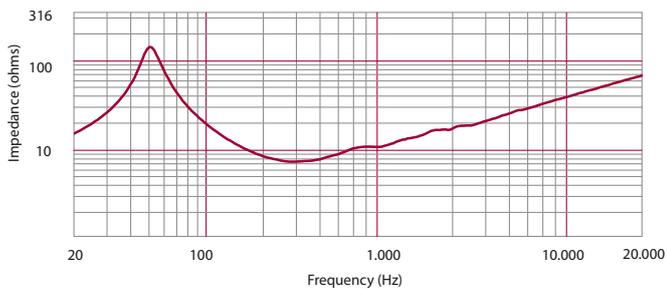
14,5 mm

Ø 140 mm

Ø 280 mm



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 55 litres and tuned at 60Hz, applying a sinusoidal signal of 2.83 V @8 at 1m.



Impedance magnitude curve measured in free air

## GENERAL SPECIFICATIONS

Nominal Diameter	300 / 12	mm/inch
Rated Impedance	8	ohm
Program Power <sup>1</sup>	2000	Watts
Power handling capacity <sup>2</sup>	1000	Watts
Sensitivity <sup>3</sup>	98,5	dB
Frequency Range	50-2000	Hz
Effective Piston Diameter	260 / 10,2	mm/inch
Max Excursion Before Damage (peak to peak)	53 / 2,08	mm/inch
Minimum Impedance	6,6	ohm
Voice Coil Diameter	100 / 4	mm/inch
Voice Coil Material	Aluminum	
Voice Coil Winding Depth	20 / 0,78	mm/inch
Number of layers	2	
Kind of layer	inside/outside	
Top Plate Thickness	12 / 0,47	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	52	Hz
DC resistance	Re	5,0	ohm
Mechanical factor	Qms	6,0	
Electrical factor	Qes	0,21	
Total factor	Qts	0,20	
BL Factor	BL	23,5	T · m
Effective Moving Mass	Mms	72,5	gr
Equivalent Cas air load	Vas	53	liters
Effective piston area	Sd	0,053	m <sup>2</sup>
Max. linear excursion (mathematical) <sup>5</sup>	Xmax	7,3	mm
Voice - coil inductance @ 1KHz	Le1K	1,2	mH
Half-space efficiency	Eff	3,31	%

## MOUNTING INFORMATION

Overall Diameter	320 / 12,6	mm/inch
Bolt Circle Diameter	293-304 / 11,5-12	mm/inch
Bolt Hole Diameter	6,5 / 0,25	mm/inch
Front Mount Baffle Cut-out	282 / 11,1	mm/inch
Rear Mount Baffle Cut-out	284 / 11,4	mm/inch
Depth	118 / 4,64	mm/inch
Volume occupied by the driver <sup>6</sup>	2,9 / 0,098	liters/ft3

## SHIPPING INFORMATION

Net Weight	7,7 / 16,9	Kg/Lbs
Shipping Weight	8,7 / 19,1	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.