

MID-BASS

# MB12X351

Professional Low Frequency Transducer

The MB12X351 is designed to provide an excellent frequency response linearity with very low distortion. A very strong ceramic magnetic structure guarantee dynamic and precision, a new and unique 3,5" voice coil design provides a very high power handling, especially recommended in comparison to a standard 3" voice coil. The new dual forced hyper-venting system guarantee a very efficient voice coil ventilation for minimum power compression and incredible power handling.

PART NUMBER **11100100**

- 3.5 - inch, fibreglass inside-outside copper voice coil
- 1400 Watt continuous program power handling
- 98.5 dB Sensitivity
- 45 Hz – 2.5 kHz Frequency range
- 22.5 T/m BL
- 40 mm peak-to-peak excursion
- Dual-forced hyper-venting and 10mm top plate for minimum power compression
- Dual spider design with silicon based dampening control
- M-roll surround and curved cone geometry

## APPLICATIONS

The MB12X351 is ideal for use in applications where is required a very high efficiency and linearity with high power handling. It's especially recommended for high powered two-way or multi-way system.



45

2500

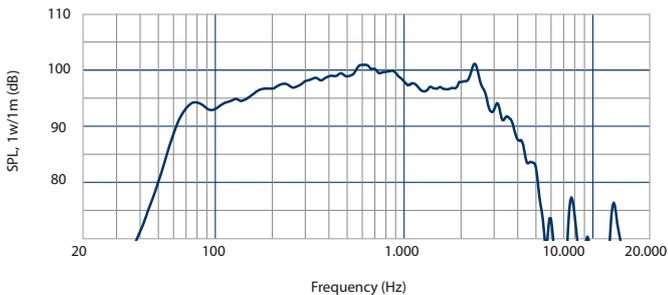
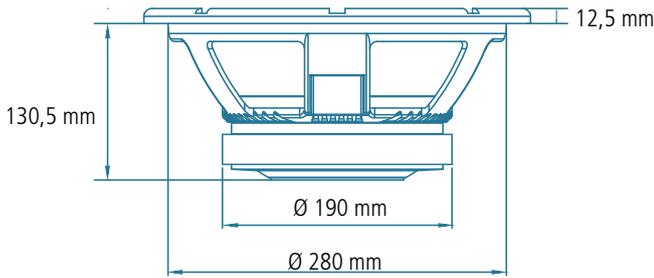
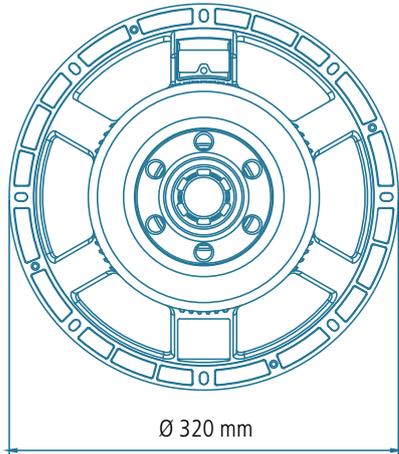
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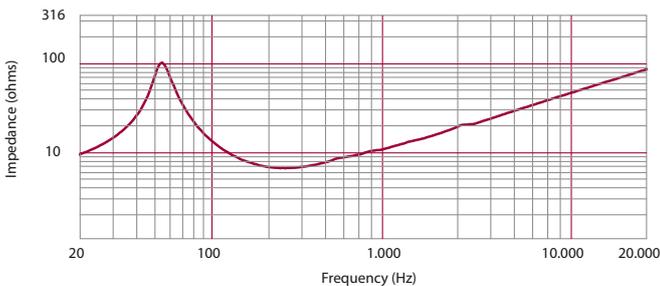
1.000

10.000

20.000



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 50 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>	1400	Watts
Power handling capacity <sup>2</sup>	700	Watts
Sensitivity <sup>3</sup>	98,5	dB
Frequency Range	45-2500	Hz
Effective Piston Diameter	260 / 10,2	mm/inch
Max Excursion Before Damage (peak to peak)	40 / 1,57	mm/inch
Minimum Impedance	7,1	ohm
Voice Coil Diameter	87 / 3,4	mm/inch
Voice Coil Material	Copper	
Voice Coil Winding Depth	19 / 0,74	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	M-roll	

## THIELE - SMALL PARAMETERS <sup>4</sup>

Resonance frequency	Fs	55	Hz
DC resistance	Re	5,4	ohm
Mechanical factor	Qms	5,9	
Electrical factor	Qes	0,27	
Total factor	Qts	0,26	
BL Factor	BL	22,5	T · m
Effective Moving Mass	Mms	72	gr
Equivalent Cas air load	Vas	46	liters
Effettive piston area	Sd	0,053	m <sup>2</sup>
Max. linear excursion (mathematical) <sup>5</sup>	Xmax	7,0	mm
Voice - coil inductance @ 1KHz	Le	0,9	mH
Half-space efficiency	Eff	3,00	%

## 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 / 11,2	mm/inch
Depth	130,5 / 5.13	mm/inch
Volume occupied by the driver <sup>6</sup>	2,2 / 0,077	liters/ft3

## SHIPPING INFORMATION

Net Weight	7,6 / 16,7	Kg/Lbs
Shipping Weight	8,4 / 18,4	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.