15MB700

Very High Output MB Ferrite Transducer

Key Features

- 103 dB SPL 1W / 1m average sensitivity
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
- 400 W AES power handling
- Excellent transient response
- Additional cone damping treatment
- Improved heat dissipation via unique basket design
- Suitable for compact two way, multiway and horn loaded midbass applications

Description

The 15MB700 very high output mid-bass transducer shows exceptional efficiency and is primarily intended for 2-way very compact reflex systems (75 lt.), 3-way systems and horn loaded applications. It combines high sensitivity (103 dB 1W/m) with a high power handling capability. The smooth textured curvilinear paper cone, in conjunction with the viscose dampened multiroll suspension, provides excellent cone dampening and excursion control. The 75 mm diameter aluminum voice coil features the same technology fitted to our top-of-the-range 4" voice-coil models. It employs Interleaved Sandwich Voice coil (ISV) technology, in which a high strength fiberglass former carries windings on both the outer and inner surfaces to achieve a mass balanced coil. This results in an extremely linear motor assembly with a reduced tendency for eccentric behavior when driven hard. The low coil inductance results in an improved transient response. Excellent heat dissipation has been achieved by incorporating air channels into the basket design, between the basket and the top plate. Maximum flux concentration and force factor in the gap are assured by the unique shape and design of the top and back plates which have been designed using our in-house Magnetic Flux FEA-CAD resource. Due to the increasing use of audio systems at outdoor events, the ability to perform in adverse weather conditions or in high-humidity areas is a key feature of the 15MB700. This has been achieved using exclusive cone and magnetic plate treatment processes which allows the speaker to resist corrosion and render the cone water repellent.

Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Code</th>
<th>Information</th>
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<td>0221585220</td>
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<td>8 Ohm</td>
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</table>
**15MB700**

**Very High Output MB Ferrite Transducer**

**General Specifications**

- Nominal Diameter: 380 mm (15 in)
- Rated Impedance: 8 Ohm
- AES Power: 400 W
- Program Power: 600 W
- Peak Power: 1200 W
- Sensitivity: 103 dB
- Frequency Range: 45 ÷ 4300 Hz
- Power Compression @-10dB: 0,6 dB
- Power Compression @-3dB: 2,0 dB
- Power Compression @Full Power: 3,3 dB
- Max Recomm. Frequency: 3000 Hz
- Recomm. Enclosure Volume: 75 ÷ 130 lt. (2,65 ÷ 4,6 cuft)
- Minimum Impedance: 5,9 Ohm at 25°C
- Max Peak To Peak Excursion: 23 mm (0,88 in)
- Voice Coil Diameter: 75 mm (3 in)
- Voice Coil Winding Material: aluminum
- Suspension: Multiroll, Polycotton
- Cone: Curvilinear ribbed, Treated paper

**Thiele Small Parameters**

- Fs: 42 Hz
- Re: 5 Ohm
- Sd: 0,085 sq.mt. (131,75 sq.in.)
- Qms: 4,6
- Qts: 0,31
- Vas: 202 lit. (7,14 cuft)
- Mms: 73 gr. (0,16 lb)
- BL: 17,6 Tm
- Linear Mathematical Xmax: ± 5,5 mm (± 0,22 in)
- Le (1kHz): 1,2 mH
- Ref. Efficiency 1W@1m (half space): 98,9 dB

**Mounting information**

- Overall diameter: 387 mm (15,23 in)
- N. of mounting holes and bolt: 8
- Mounting holes diameter: 7,15 mm (0,28 in)
- Bolt circle diameter: 370 - 371 mm (14,55 - 14,6 in)
- Front mount baffle cutout ø: 353 mm (13,90 in)
- Rear mount baffle cutout ø: 357 mm (14,06 in)
- Total depth: 167,5 mm (6,59 in)
- Flange and gasket thickness: 19,5 mm (0,76 in)
- Net weight: 8,3 kg (18,3 lb)
- Shipping weight: 9,4 kg (20,75 lb)
- CardBoard Packaging dimensions: 405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

**Notes**

1) AES power is determined according to AES2-1984 (r2003) standard
2) Program power rating is measured in 125 lt enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.
3) The peak power rating represents the maximum permitted instantaneous peak power level over a maximum period of 10ms which will be withstood by the loudspeaker without damage.
4) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.
5) Frequency range is given as the band of frequencies delineated by the lower and upper limits where the output level drops by 10 dB below the rated sensitivity in half space environment.
6) Power compression represents the loss of sensitivity for the specified power, measured from 50-500 Hz, after a 5 min pink noise preconditioning test at the specified power.
7) Linear Math. Xmax is calculated as (Hvc-Hg)/2 + Hg/4 where Hvc is the coil depth and Hg is the gap depth.