12MB600

# High Output MB Ferrite Transducer

## Key Features
- 101 dB SPL 1W / 1m average sensitivity
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
- 450 W AES power handling
- Weather protected cone and plates for outdoor usage
- Excellent transient response
- Improved heat dissipation via unique basket design
- Ideal for compact two way and multiway systems

## Description
The 12MB600 is a high sensitivity (101dB 1W/1m) midbass driver with high power handling capabilities. It can be used as either a bass/mid driver in compact 2-way reflex enclosures or as a direct radiating or horn loaded, dedicated midrange driver, in multi-way touring and fixed installation concert and arena systems. The curvilinear paper cone is made with a special high strength wood pulp designed to achieve the best possible linearity within its intended frequency range and to control bell-mode resonances around the cone circumference. The cone is carried by a multiroll suspension formed from a linen-like material which is more resistant to aging and fatigue than traditional materials. The 75 mm aluminum wire voice coil employs the 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. Voice coil cooling has been achieved by incorporating airways between the chassis back plate and the top plate of the magnet which allows heated air from the voice coil and gap to be channeled away and dissipated by the chassis basket. The magnetic structure has been optimized using FEACAD resource which has maximized the flux density in the voice coil gap. The ability to perform properly under inclement weather conditions is a feature in Eighteen Sound’s philosophy. Hence, an exclusive treatment is applied to the cone giving it water repellent properties. In addition, another special treatment is applied to the top and back plates making the transducer far more resistant to the corrosive effects of salts and oxidization.

## Models

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<th>Model</th>
<th>Code</th>
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<tr>
<td>0221285210</td>
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<td>8 Ohm</td>
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General Specifications

- Nominal Diameter: 300 mm (12 in)
- Rated Impedance: 8 Ohm
- AES Power: 450 W
- Program Power: 600 W
- Peak Power: 1200 W
- Sensitivity: 101 dB
- Frequency Range: 58 ÷ 5000 Hz
- Power Compression @-10dB: 0.5 dB
- Power Compression @-3dB: 1.6 dB
- Power Compression @Full Power: 3.0 dB
- Max Recomm. Frequency: 2200 Hz
- Recomm. Enclosure Volume: 30 ÷ 80 lt. (1.06 ÷ 2.83 cuft)
- Minimum Impedance: 6.5 Ohm at 25°C
- Max Peak To Peak Excursion: 22 mm (0.87 in)
- Voice Coil Diameter: 75 mm (3 in)
- Voice Coil Winding Material: aluminum
- Suspension: M-roll, Polycotton
- Cone: Curvilinear, Paper

Thiele Small Parameters

- Fs: 44 Hz
- Re: 5 Ohm
- Sd: 0.0531 sq.mt. (82.31 sq.in.)
- Qms: 3.0
- Qes: 0.19
- Qts: 0.18
- Vas: 115 lt. (4.06 cuft)
- Mms: 43 gr. (0.09 lb)
- BL: 18 Tm
- Linear Mathematical Xmax: ±4.5 mm (±0.18 in)
- Le (1kHz): 1.32 mH
- Ref. Efficiency 1W@1m (half space): 99.2 dB

Mounting information

- Overall diameter: 315 mm (12.4 in)
- N. of mounting holes and bolt: 8
- Mounting holes diameter: 7.15 mm (0.28 in)
- Bolt circle diameter: 296 - 300 mm (11.65 - 11.8 in)
- Front mount baffle cutout ø: 282 mm (11.1 in)
- Rear mount baffle cutout ø: 282 mm (11.1 in)
- Total depth: 147.5 mm (5.82 in)
- Flange and gasket thickness: 16.5 mm (0.65 in)
- Net weight: 8.0 kg (17.66 lb)
- Shipping weight: 8.8 kg (19.43 lb)
- CardBoard Packaging dimensions: 332 x 332 x 184 mm (13.07 x 13.07 x 7.24 in)

Notes

1) AES power is determined according to AES3-1984 (r2003) standard
2) Program power rating is measured in 50 lit enclosure tuned 60Hz using a 60 - 2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 Hours
3) Peak power rating is 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 1 m from the baffle panel, when connected to a 250V sine wave test signal swept between 500Hz and 2500Hz 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.