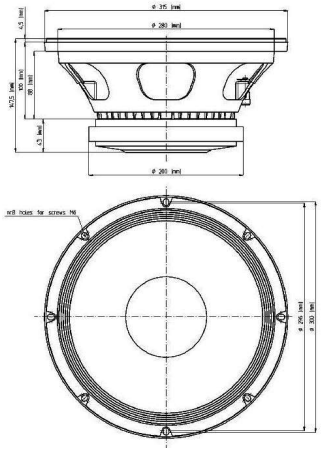
12MB600 8Ω

LF drivers - 12.0 Inches



- 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

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 fiberglas 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 allow 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.

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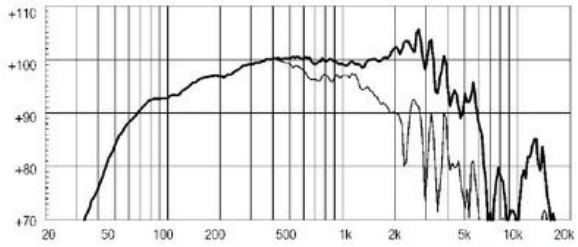
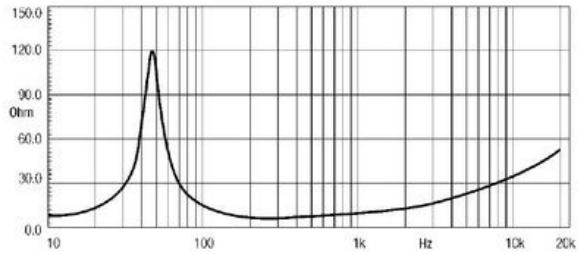


FREQUENCY RESPONSE CURVE OF 12MB600 MADE ON 50 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE

SPECIFICATIONS

Nominal Impedance	8 Ω
Minimum Impedance	6.5 Ω
Nominal Power Handling[1]	450 W
Continuous Power Handling[2]	600 W
Sensitivity[3]	101.0 dB
Frequency Range	58 - 5000 Hz
Voice Coil Diameter	75 mm (3.0 in)

DESIGN

Magnet Material	Ferrite
Recommended Enclosure	50.0 dm^3 (1.77 ft^3)
Recommended Tuning	55 Hz

PARAMETERS[4]

Resonance Frequency	44 Hz
Re	5.0 Ω
Qes	0.19
Qms	3.9
Qts	0.18
Vas	115.0 dm^3 (4.06 ft^3)
Sd	531.0 cm^2 (82.31 in^2)
Xmax	4.5 mm
Mms	43.0 g
Bl	18.0 Txm
Le	1.32 mH
EBP	231 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	315 mm (12.4 in)
Bolt Circle Diameter	298 mm (11.73 in)
Baffle Cutout Diameter	282.0 mm (11.1 in)
Depth	147 mm (5.81 in)
Flange and Gasket Thickness	16 mm (0.65 in)
Net Weight	8.3 kg (18.3 lb)
Shipping Weight	9.0 kg (19.84 lb)
Shipping Box	332 x 332 x 184 mm (13.07x13.07x7.24 in)

1. 2 hours test made with continuous pink noise signal within the range Fs-10Fs. Power calculated on rated minimum impedance. Loudspeaker in free air.
2. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.
3. Applied RMS Voltage is set to 2.83 V for 8 ohms Nominal Impedance.
4. Thiele-Small parameters are measured after a high level 20 Hz sine wave preconditioning test.

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