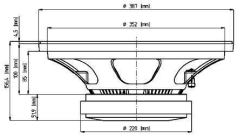
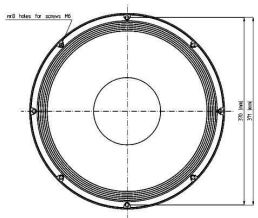
15MB1000 8Ω

LF drivers - 15.0 Inches





- 98 dB SPL 1W / 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
- 850 W AES power handling
- Carbon fiber reinforced cellulose cone
- Copper shorting ring for linear impedance and reduced distortion figure
- Double Demodulating Ring (DDR) for lower distortion
- Improved heat dissipation via unique basket design
- Weather protected cone and plates for outdoor usage
- Ideal for compact reflex enclosures, two-way systems and stage monitoring applications

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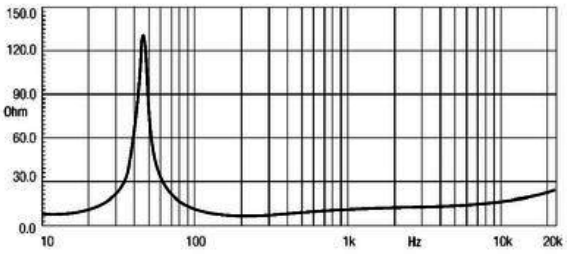
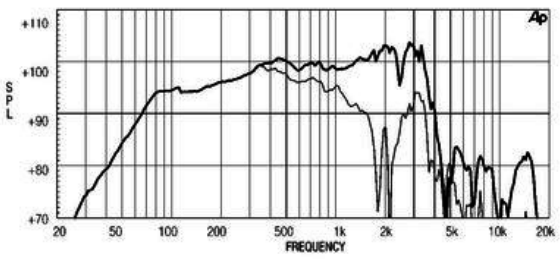
The 15MB1000 is a 100mm (4 in) voice coil 380mm (15 in) diameter mid-low frequency transducer which has been created to meet requirements for low bass applications where a significant extension in mid frequency is needed. It has been designed for use in compact reflex enclosures, in two-way systems with 1.4" - 2" compression drivers and stage monitoring applications. 15MB1000 is also suitable for horn loaded applications in multiway systems. The low profile, carbon fiber reinforced, smooth curvilinear cone provides smooth response within its intended frequency range and exceptional strength with maximum reliability under high mechanical stress. The copper shorting ring on the plates has been adopted to reduce inductance and improve transient response. Intermodulation distortion has also been significantly improved. The low distortion and unmatched sound quality of the 15MB1000 has been significantly improved by the Double Demodulating Rings (DDR) embedded in the pole piece of the magnetic structure. These have been designed to dramatically reduce the intermodulation and harmonic distortion while improving the transient response. The 100mm aluminum 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 balanced coil with a uniform distribution of mass and motive energy. This results in an extremely linear motor assembly. Excellent heat dissipation has been achieved by incorporating air channels between the basket and the magnetic top plate. Further ventilation is provided using air vents in the back plate that direct air into the lower part of the voice coil gap. Considerable attention has also been given to the design of the magnetic structure in order to maximize flux concentration and force factor in the gap. Due to the increasing use of high power audio systems at outdoor events, the ability to perform in adverse weather conditions is a key feature of the 15MB1000. This has been achieved using an exclusive treatments which allows the cone and the magnetic plate to resist corrosion whilst also rendering the cone water repellent.





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SPECIFICATIONS

Nominal Diameter	380 mm (in)
Nominal Impedance	8 Ω
Minimum Impedance	6.0 Ω
Nominal Power Handling[1]	850 W
Continuous Power Handling[2]	1200 W
Sensitivity[3]	98.0 dB
Frequency Range	45 - 5100 Hz
Voice Coil Diameter	100 mm (4.0 in)
Winding Material	aluminum

DESIGN

Surround Shape	Triple roll
Cone Shape	Curvilinear
Magnet Material	Ferrite
Woofer Cone Treatment	Weather protected
Recommended Enclosure	100.0 dm^3 (3.53 ft^3)
Recommended Tuning	55 Hz

PARAMETERS[4]

Resonance Frequency	48 Hz
Re	5.5 Ω
Qes	0.32
Qms	6.0
Qts	0.31
Vas	132.5 dm^3 (4.68 ft^3)
Sd	850.0 cm^2 (131.75 in^2)
Xmax	6.0 mm
Mms	85.0 g
Bl	21.0 Txm
Le	1.5 mH
EBP	150 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	387 mm (15.24 in)
Bolt Circle Diameter	370 mm (14.57 in)
Baffle Cutout Diameter	353.0 mm (13.9 in)
Depth	156 mm (6.14 in)
Flange and Gasket Thickness	19 mm (0.75 in)
Net Weight	11.4 kg (25.13 lb)
Shipping Weight	12.4 kg (27.34 lb)
Shipping Box	405 x 405 x 214 mm (15.94x15.94x8.43 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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