

# 15MB700

## Very High Output Midbass Ferrite Transducer

### Key Features

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



### General Description

The 15MB700 high output mid bass demonstrates 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/1m) with a high power handling capability.

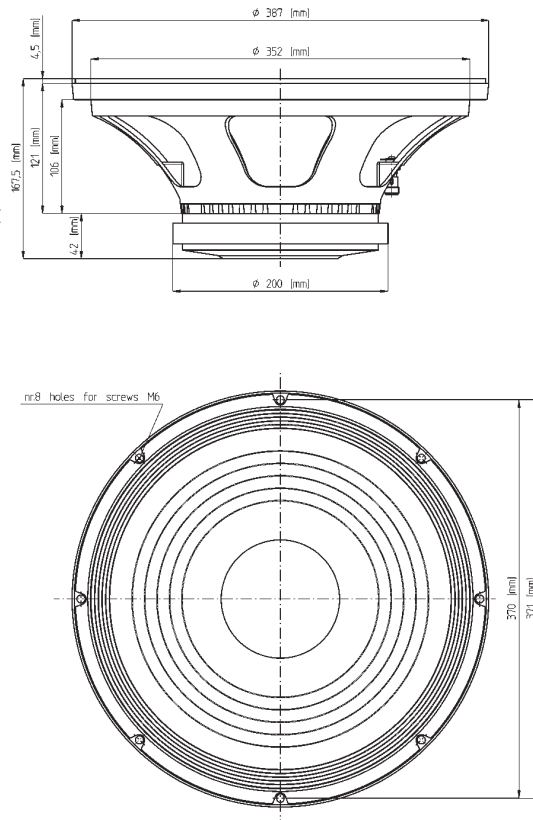
The smooth textured curvilinear paper cone, in conjunction with the viscose dampened multiroll suspension, provides excellent cone dampening and excursion control.

The 75 mm Ø state-of-the-art voice coil features the same technology fitted to our top-of-the-range 4" voice-coil models. It employs our Interleaved Sandwich Voice coil (ISV), 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 allow the speaker to resist corrosion and render the cone water repellent.

0221585220 8 Ohm



FERRITE LF-MB-MF TRANSDUCERS

# 15MB700

Very High Output Midbass Ferrite Transducer

## GENERAL SPECIFICATIONS

NOMINAL DIAMETER	380 mm (15 in)
RATED IMPEDANCE	8 Ohm
CONTINUOUS PINK NOISE (1)	400 W
CONTINUOUS POWER (2)	300 W
PROGRAM POWER (3)	600 W
PEAK POWER (4)	1200 W
SENSITIVITY (5)	103 dB
FREQUENCY RANGE (6)	45 ÷ 4300 Hz
POWER COMPRESSION @-10DB (7)	(30 W) 0,6 dB
POWER COMPRESSION @-3DB	(150 W) 2,0 dB
POWER COMPRESSION @FULL POWER	(300 W) 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 (2,95 in)
VOICE COIL WINDING MATERIAL	aluminum
POLARITY	positive voltage on red terminal gives forward cone motion

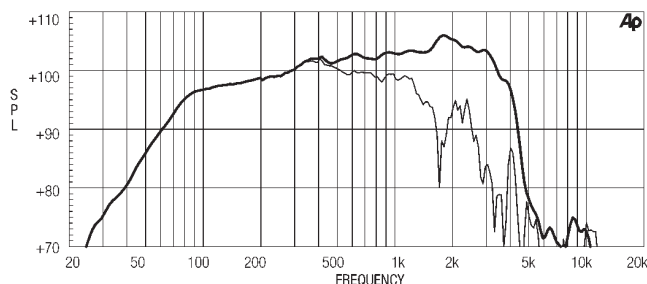
## THIELE SMALL PARAMETERS (8)

Fs	42 Hz
Re	5 Ohm
Sd	0,085 sq.mt. (131,75 sq.in.)
Qms	4,6
Qes	0,31
Qts	0,29
Vas	202 lt. (7,14 cuft)
Mms	73 gr. (0,16 lb)
BL	17,6 Tm
Linear Mathematical Xmax (9)	± 5,5 mm (± 0,22 in)
Le (1kHz)	1,2 mH
Ref. Efficiency 1W@1m (half space)	98,9 dB

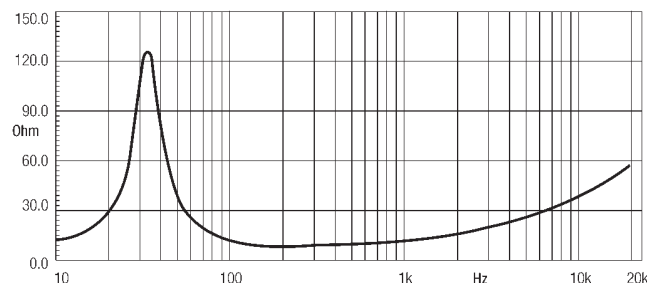
## MOUNTING INFORMATIONS

Overall diameter	387 mm (15,23 in)
N. of mounting holes	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)

FREQUENCY RESPONSE CURVE OF 15MB700 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ 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



### NOTES

- (1) AES standard
- (2) Continuous power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal applied continuously for 2 hours.
- (3) Program power rating is measured as for 2 above but 50% duty cycle.
- (4) The peak power rating is based on a 6dB crest factor above the continuous power rating and represents the maximum permitted instantaneous peak power level over a maximum period of 10ms which will be withstood by the loudspeaker without damage.
- (5) 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 2 above.
- (6) 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.
- (7) 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.
- (8) Thiele - Small parameters are measured after the test specimen has been conditioned by 1000 W AES power and represent the expected long term parameters after a short period of use.
- (9) Linear Mat. Xmax is calculated as;  $(Hvc-Hg)/2 + Hg/4$  where Hvc is the coil depth and Hg is the gap depth.

Eighteen Sound engages in research and product improvement. New materials and design refinements can be introduced into existing products without notice.

