

COLOSSUS 12MB

MID BASS DRIVER

12" / 304.8 mm CHASSIS DIAMETER	500 W (A.E.S.) AES POWER HANDLING	40 Hz - 3.5 kHz FREQUENCY RESPONSE	3.0" / 76.2 mm ALUMINIUM - INSIDE/ OUTSIDE WINDINGS VOICE COIL	98 dB SENSITIVITY (1W/ 1m)	5.5 mm Xmax MAXIMUM LINEAR EXCURSION
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- High SPL.
- Fast and dynamic driver producing punchy bass.
- Extended frequency range.
- Aluminium demodulation ring.
- Copper shorting ring.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.

The Colossus 12MB is intended for use as a very high output mid bass driver in two-way ported enclosures and also as a bass driver in multi-way systems. The unit features a 3 inch ‘sandwich’ inside and outside windings voice coil driven by a non-inductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane, manufactured from polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at high output levels. The mechanical and electrical properties of the unit have been carefully optimised to allow extended low frequency output up to its rated power handling of 500 Watts (A.E.S) continuous, with peak power handling in excess of 2000 Watts. The driver exhibits an average sensitivity of 98 dB and is best used in ported enclosures of 25 to 80 Litres.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	500 W (A.E.S.)
Peak Power (6dB Crest Factor)	2000 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	98 dB
Moving Mass inc. Air Load	59 grams
Minimum Impedance Zmin	7.5 Ω
Effective Piston Diameter	10.24" / 260.09 mm
Magnet Weight	93 oz
Magnetic Gap Depth	0.35" / 9.00 mm
Flux Density	1.16 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.52 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.218" on 12.5" PCD / 4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.17" / 131.30 mm
Weight	17.10 lb / 7.80 kg
Recommended Enclosure Volume	0.88 - 2.83 cu ft / 25 - 80 Litres
Shipping Weight	20.20 lb / 9.20 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 178 mm

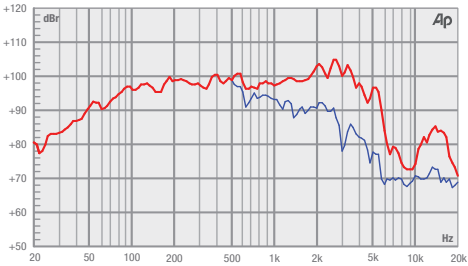
THIELE SMALL PARAMETERS

FS Hz	55 Hz
RE Ohms	5.5 Ω
Qms	2.050
Qes	0.333
Qts	0.286
Vas Ltr	56.00 Litres
Vd Litres	0.290 Litres
CMS (mm/N)	0.142 mm/N
BL T/m	18.3 T/m
Mms (grms)	59 grams
Xmax (mm)	5.5 mm
Sd (cm²)	530 cm²
Efficiency %	2.710%
Le (1k Hz)	1.56 mH
EBP	165.17 Hz

MATERIALS OF CONSTRUCTION

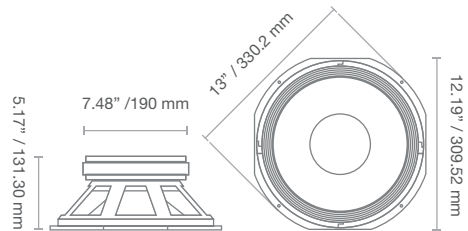
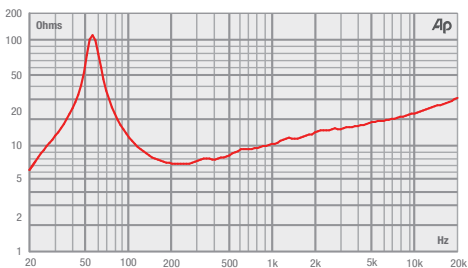
Former Material	Glass Fibre
Voice Coil	Aluminium - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.
* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.
* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.