THE NEODYMIUM SERIES
COLOSSUS 12BMN

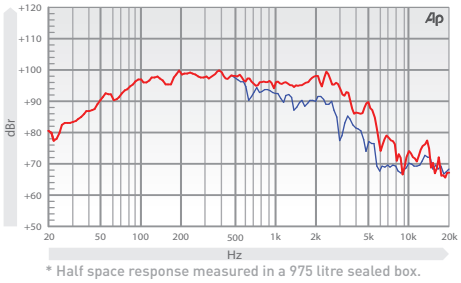
BASS / MID RANGE DRIVER

12" / 304.8 mm CHASSIS DIAMETER	**450 w (A.E.S.)** POWER HANDLING	**99 dB** SENSITIVITY (1w / 1m)
40 Hz - 3.5 kHz FREQUENCY RESPONSE	**3.0" / 76.2 mm** COPPER VOICE COIL	**Suited for Ported enclosures of 25-80 litres**

The Colossus 12BMN 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 voice coil driven by a non-inductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane, manufactured from bespoke paper pulp 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 450 Watts (A.E.S) continuous, with peak power handling in excess of 1800 Watts. The driver exhibits an average sensitivity of 99 dB and is best used in ported enclosures of 25 to 80 litres.

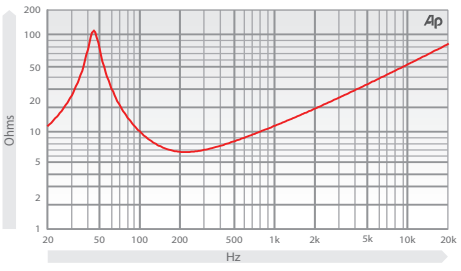
- **Lightweight neodymium magnet assembly.**
- **Weighs only 4.2 kg.**
- **Fast dynamic response combined with superior suspension material.**
- **Suited for line array applications.**
- **Non inductive motor system reduces distortion.**
- **High BL, 20 T/m.**
- **UK manufactured cone with optimised pulp offering increased strength, durability and performance.**

FREQUENCY RESPONSE DATA*

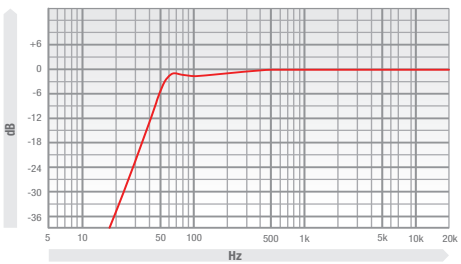


* Half space response measured in a 975 litre sealed box.

IMPEDANCE



PREDICTED BASS RESPONSE



** Normalised bass response in 55 litre tuned to 55 Hz

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	4 /8 /16 Ω
Power Handling	450 w (A.E.S.)
Peak Power (6dB Crest Factor)	1800 w (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	65 grams
Minimum Impedance Zmin	7.5 Ω
Effective Piston Diameter	10.24" / 260.09 mm
Peak Displacement Volume of Cone Vd	0.33 litres
Magnetic Gap Depth	0.31" / 8 mm
Flux Density	1.16 Tesla
Coil Winding Height	0.78" / 20 mm
Voice Coil Diameter	3.0" / 76.2 mm

THIELE SMALL PARAMETERS

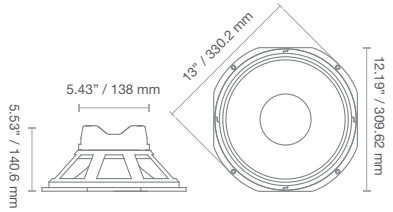
FS Hz	43 Hz
RE Ohms	5.4 Ω
Qms	5.3
Qes	0.24
Qts	0.23
Vas Ltr	89 litres
Vd litres	0.33 litres
CMS (mm/N)	0.208 mm/N
BL T/m	20 T/m
Mms (grms)	65 grams
Xmax (mm)	6 mm
Sd (cm²)	550 cm²
Efficiency %	3.10%
Le (1k Hz)	2.1 mH

MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 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
Fixing Holes	4x 0.218" diam on 12.5 PCD 4x 5.5 mm diam on 317.5 PCD
Depth	5.53" / 140.6 mm
Weight	9.25 lb / 4.2 kg
Recommended Enclosure Volume	0.88 - 2.83 cu ft / 25 - 80 litres
Shipping Weight	11.02 lb / 5 kg
Packing Carton Dimensions	340 x 340 x 222 mm

MATERIALS OF CONSTRUCTION

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



- 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.