



THE NEODYMIUM SERIES COLOSSUS 15XBN

SUB BASS DRIVER

15" / 381 mm
CHASSIS DIAMETER

800 w (A.E.S.)
POWER HANDLING

99 dB
SENSITIVITY (1w / 1m)

40 Hz - 1 kHz
FREQUENCY RESPONSE

4.0" / 101.6 mm
COPPER - INSIDE / OUTSIDE
WINDINGS VOICE COIL

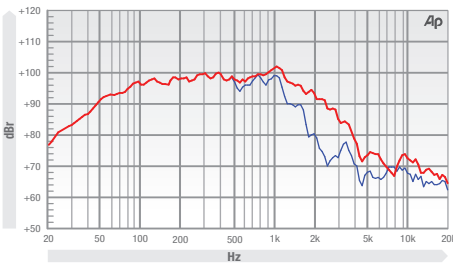
Designed for 70-150 litre
ported enclosures

The Colossus 15XBN is intended for use as a high-output sub-bass driver either singly or in multi way systems. The unit features a 4 inch 'sandwich' inside and outside windings voice coil immersed in a symmetric magnetic field and centralized by using two suspensions in a dual arrangement to maintain ultra linearity and stability at high excursions. The heavily ribbed straight-sided paper cone membrane is reinforced with high-strength composite fibres to resist deformation under extreme loads. The driver handles 800 Watts (A.E.S.) continuous and can cope with peaks in excess of 3200 Watts. This is due to advanced thermal management in the form of a vented die-cast chassis and motor system using an internal heatsink coupled to a large vaned heatsink mounted on the rear of the unit. These measures effectively remove heat from the voice coil resulting in extremely low-power compression. The Colossus 15XBN is designed for use in 70 to 150 litre ported enclosures.

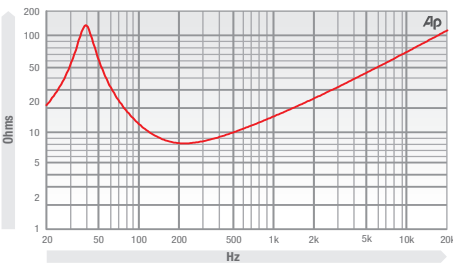
- **Lightweight neodymium magnet assembly.**
- **Weighs only 6.85 kg.**
- **Ribbed, fibre loaded, UK manufactured cone offering increased strength, durability and performance.**
- **New advanced suspension materials offering superior mechanical and acoustic performance.**

THE NEODYMIUM SERIES

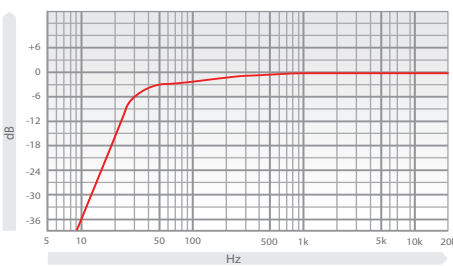
FREQUENCY RESPONSE DATA*



IMPEDANCE



PREDICTED BASS RESPONSE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	4 / 8 / 16 Ω
Power Handling	800 w (A.E.S.)
Peak Power (6dB Crest Factor)	3200 w (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 1 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	108 grams
Minimum Impedance Zmin	7.9 Ω
Effective Piston Diameter	13.03" / 330.96 mm
Peak Displacement Volume of Cone Vd	0.641 litres
Magnetic Gap Depth	0.39" / 9.90 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.90" / 22.86 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.4 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	14" / 355.6 mm
Gasket Supplied	Front & Rear
Fixing Holes	4x 0.281" diam on 15.5 PCD / 8 x 0.281 diam on 14.56 PCD 4x 7.1 mm diam on 393.7 PCD / 8x 7.1 diam on 370 PCD
Depth	6.85" / 174 mm
Weight	15.10 lb / 6.85 kg
Recommended Enclosure Volume	2.47 - 5.29 cu ft / 70 - 150 litres
Shipping Weight	17.52 lb / 7.95 kg
Packing Carton Dimensions	415 x 415 x 250 mm

THIELE SMALL PARAMETERS

FS Hz	38 Hz
RE Ohms	6.2 Ω
Qms	7.48
Qes	0.29
Qts	0.28
Vas Ltr	168 litres
Vd litres	0.641 litres
CMS (mm/N)	0.162 mm/N
BL T/m	23.6 T/m
Mms (grams)	108 grams
Xmax (mm)	7.5 mm
Sd (cm²)	855.3 cm²
Efficiency %	3.10%
Le (1k Hz)	2.3 mH

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper - Inside / Outside Windings
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Straight Polycellulose Ribbed Cone
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

- Please enquire about alternative impedances.
- A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 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.

COLLOSSUS 15XBN

FANE

