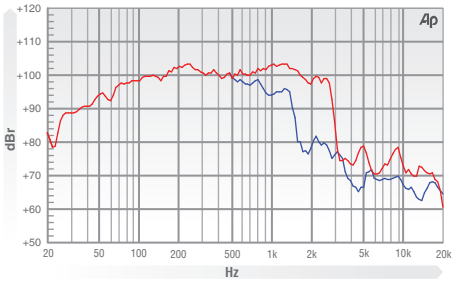
COLOSSUS 18-800N

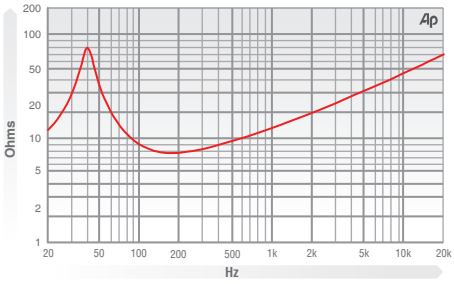
The Colossus 18-800N is intended for use as a high-output bass driver in multi way systems. It features a 4 inch 'sandwich' inside and outside windings voice coil immersed in a symmetric magnetic field yielding increased linearity and lower distortion. This, coupled with a large Xmax of 8 mm and laminated silicone suspensions, ensures tight, punchy bass at high levels of excursion. 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 extreme sound pressure levels. 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 vented die-cast chassis and increased motor system venting. These measures effectively remove heat from the voice coil, resulting in extremely low-power compression. The Colossus 18-800N exhibits 101 dB sensitivity and can deliver bass down to 35 Hz (-6 dB) in a 200 litre ported enclosure.

FREQUENCY RESPONSE DATA*

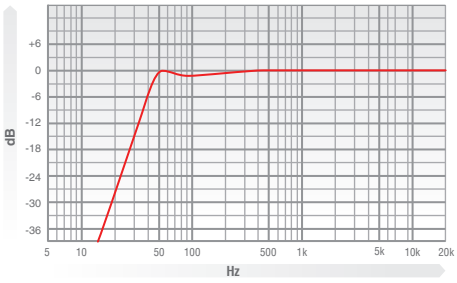


* Half space response measured in a 975 litre sealed box

IMPEDANCE



PREDICTED BASS RESPONSE



** Normalized bass response in 175 litre tuned to 42Hz

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18"
Impedance	8 Ω
Power Handling	800 w (A.E.S.)
Peak Power (6dB Crest Factor)	3200 w (A.E.S.)
Usable Frequency Range -6dB	36 Hz - 2 kHz
Sensitivity (1 w - 1 m)	101 dB
Moving Mass inc. Air Load	148 grams
Minimum Impedance Zmin	6.5 Ω
Effective Piston Diameter	14.84" / 377 mm
Peak Displacement Volume of Cone Vd	0.907 litres
Magnetic Gap Depth	0.43" / 11 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.87" / 22 mm
Voice Coil Diameter	4.0" / 101.6 mm

THIELE SMALL PARAMETERS

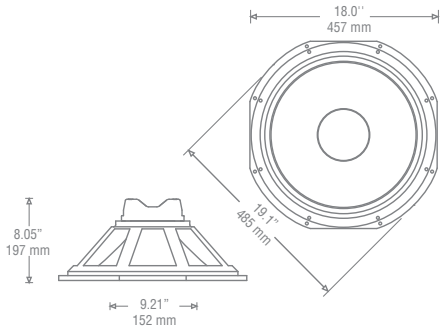
FS Hz	38 Hz
RE Ohms	5.2 Ω
Qms	5.27
Qes	0.325
Qts	0.306
Vas Ltr	217
Vd litres	0.95
CMS (mm/N)	0.12
BL T/m	24
Mms (grms)	148
Xmax (mm)	8
Sd (cm^2)	1133
Efficiency %	3.5
Le (1k Hz)	1.96 mH

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Aluminium 'sandwich' inside and outside windings
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Curvilinear polycellulose
Surround / Edge Termination	Polyvinyl Damped Dbl Half Roll Linen
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive Voltage at Red Terminal Causes Forward Motion of Cone

MOUNTING / SHIPPING INFORMATION

Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 420 mm
Baffle Hole Diameter R/M	16.33" / 414 mm
Gasket Supplied	Front & Rear
Fixing Holes	8x 0.275" diam on 18.425 PCD / 8x 0.275 diam on 17.25 PCD 8x 7 mm diam on 468 PCD / 8x 7 diam on 438.15 PCD
Depth	7.75" / 197 mm
Weight	16.10 lb / 7.55 kg
Recommended Enclosure Volume	4.41 - 14.12 cu ft / 125 - 400 litres
Shipping Weight	21.00 lb / 9.55 kg
Packing Carton Dimensions	520 x 520 x 250 mm



- 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.