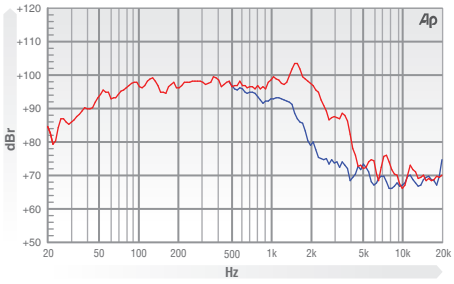
COLOSSUS 18XB

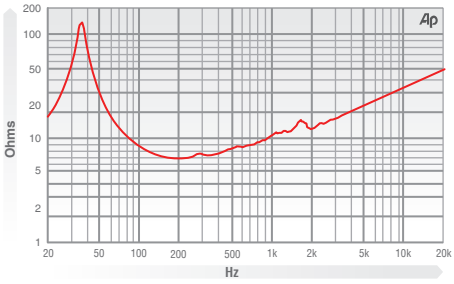
The Colossus 18XB is intended for use as a high-output sub-bass driver either singly or in multi way systems. The unit features a 4 inch 'sandwich' inside and outside windings voice coil, immersed in a symmetric magnetic field and centralized by using two suspensions in a dual arrangement to maintain 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 1000 Watts (A.E.S.) continuous and can cope with peaks in excess of 4000 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 18XB is designed for use in 100 to 250 litre ported enclosures.

FREQUENCY RESPONSE DATA*

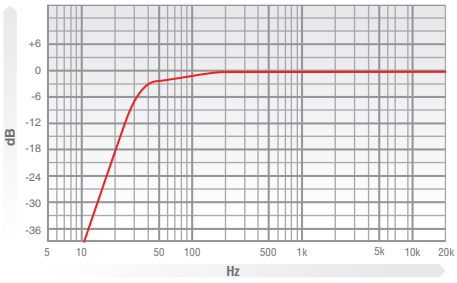


* Half space response measured in a 975 litre sealed box

IMPEDANCE



PREDICTED BASS RESPONSE



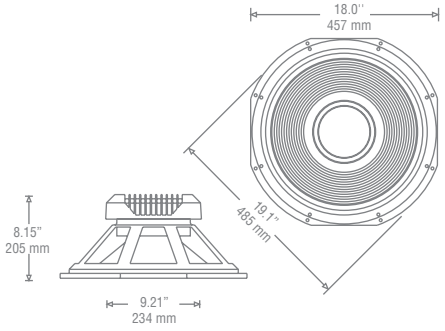
** Normalized bass response in 175 litre tuned to 33Hz

ELECTRO ACOUSTIC SPECIFICATIONS	
Nominal Chassis Diameter	18"
Impedance	8 Ω
Power Handling	1000 w (A.E.S.)
Peak Power (6dB Crest Factor)	4000 w (A.E.S.)
Usable Frequency Range -6dB	35 Hz - 1.0 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	173 grams
Minimum Impedance Zmin	6.5 Ω
Effective Piston Diameter	15.03" / 382 mm
Peak Displacement Volume of Cone Vd	1131 litres
Magnet Weight	120 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	1.2 Tesla
Coil Winding Height	0.90" / 23 mm
Voice Coil Diameter	4.0" / 101.6 mm

THIELE SMALL PARAMETERS	
FS Hz	33 Hz
RE Ohms	6.5 Ω
Qms	5.77
Qes	0.358
Qts	0.337
Vas Ltr	236
Vd litres	0.803
CMS (mm/N)	0.13
BL T/m	25.9
Mms (grms)	173
Xmax (mm)	7.5
Sd (cm^2)	1131
Efficiency %	2.3
Le (1k Hz)	1.99 mH

MATERIALS OF CONSTRUCTION	
Former Material	Glass Fibre
Voice Coil	Copper 'sandwich' inside outside windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Dust Dome	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	8.07" / 205 mm
Weight	31.29 lb / 14.2 kg
Recommended Enclosure Volume	4.41 - 14.12 cu ft / 125 - 400 litres
Shipping Weight	35.26 lb / 16 kg
Packing Carton Dimensions	250 x 520 x 520 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 30 Hz and 300 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.