

## Electro Mechanical Specifications

Nominal Chassis Diameter	18 inch/457 mm
Impedance	4,8 or 16 $\Omega$ <sup>1</sup>
Power Handling	600 (A.E.S.) <sup>2</sup>
Maximum Output Continuous/Peak	122/128 dB
Power Compression at Rated Power	3.3 dB
Usable Frequency Range (-6 dB)	27 Hz-1 kHz
Average Sensitivity (in above range) 1 W/1 m	97.5 dB <sup>3</sup>
Resonance	30 Hz
Moving Mass inc. Air Load	161 grams
BL Product (Newtons/amp)	24.6
Minimum Impedance (Zmin)	7.3 $\Omega$
Effective Piston Diameter	14.84 inch/377 mm
Flux Density	1.0 Tesla
Magnetic Gap Depth	0.39 inch/10 mm
Coil Winding Height	0.87 inch/22 mm
Voice Coil Length	115 feet/35 m
Magnet Weight	120 oz/3.4 kg
Maximum Cone Displacement	0.70 inch/18 mm
Peak Displacement Volume of Cone, Vd	1.61 litres
Voice Coil Diameter	4.0 inch/101.6 mm

## Thiele & Small Parameters

Resonant Frequency fs	33 Hz
D.C Resistance Re	6 $\Omega$
Qts	0.323
Qes	0.34
Qms	6.58
Mms (grams)	161
Cms (microns per Newton)	141
BL Product	24.59 Tesla metres
Vas	246 litres
Reference Efficiency no	2.61 %
Piston Area Sd	0.112 m <sup>2</sup>
Xmax	7.2 mm

## Mounting Information

Overall Diameter	19.1"/485 mm
Width Across Flats	18"/457 mm
Flange Thickness	0.465"/11.8 mm
Baffle Hole Diameter, Front Mount	16.53"/420 mm
Baffle Hole Diameter, Rear Mount	16.33"/414 mm
Gasket Supplied	Front & Rear
Fixing Holes	8 x 7 diam on 468 PCD 8 x 7 diam on 438.15 PCD
Depth	8.5"/205 mm
Weight	31.24 lb/14.2 kg
Recommended Enclosure Volume	3.5-8.8 cu ft/100-250 litres
Volume Displaced by Driver	0.269 cu ft/7.6 litres
Shipping Weight	35.64 lb/16.2 kg
Packing Carton Dimensions	485 x 485 x 276 mm

# Colossus 18XB

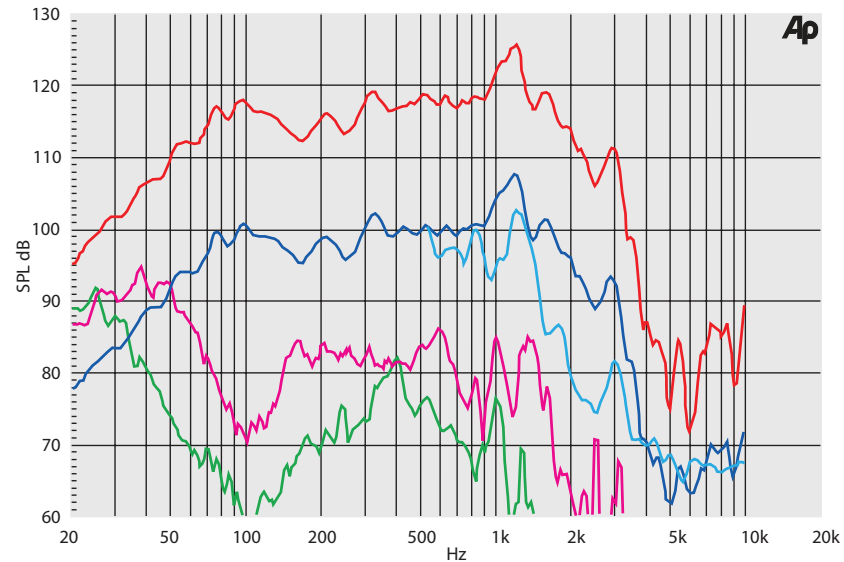
The Colossus 18XB is intended for use as a high-output sub-bass driver either singly or in multiway systems. The unit features a 4-inch voice coil immersed in a symmetric magnetic field and centralized by using two suspensions in a dual arrangement to maintain ultra linearity and stability at high excursions. The heavily ribbed straight-sided paper cone membrane is reinforced with high-strength composite fibres to resist deformation under extreme loads. The driver handles 600 Watts (A.E.S.) continuous and can cope with peaks in excess of 2400 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.



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## Frequency Response Data



Data measured using swept sine wave input on an open baffle of dimensions 2.5 x 3.7 metres with a microphone distance of 1 metre.

— Fundamental 10 % Power  
 — Fundamental on-axis 1 W  
 — Fundamental 45° off-axis 1 W  
 — 2nd Harmonic 10 % Power  
 — 3rd Harmonic 10 % Power

1 Please inquire about alternative impedances.

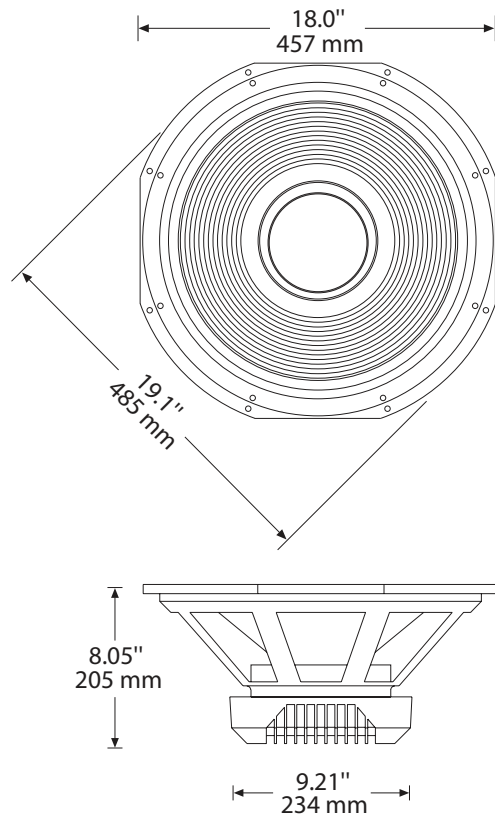
2 A.E.S. power handling test. Pink noise bandpass filtered at 12 db per octave with cutoff frequencies of 30 Hz and 300 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

3 The average output across the usable frequency range when applying 1 W/1 m into the nominal impedance. ie: 2.83 V/8 ohms, 4 V/16 ohms.

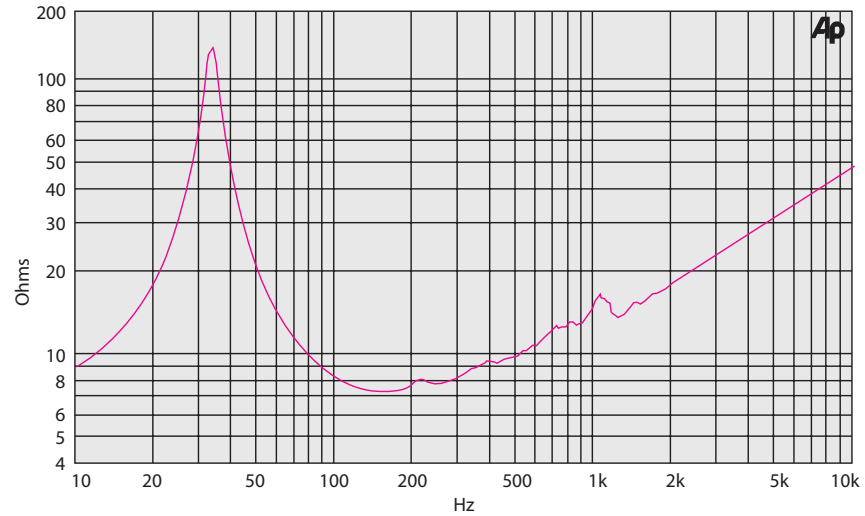
Fane response curves are measured under the following conditions: All speakers are tested at 1 W/1 m using a variety of test set-ups for the appropriate impedance | LMS using 0.25" supplied microphone (software calibrated) mounted 1 m from wall/baffle | 2 ft. X 2 ft. baffle is built into the wall with the speaker mounted flush against a steel ring for minimum diffraction | Hafler P1500 Trans-Nova amplifier | 2700 cu.ft. chamber with fiberglass on all six surfaces (three with custom-made wedges).

# Materials of Construction

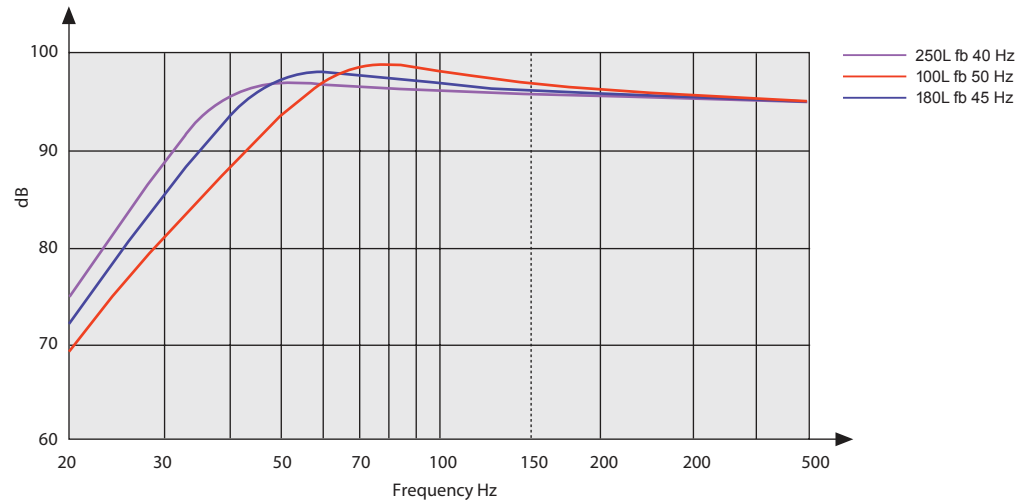
- Coil Former
- Voice Coil
- Magnet Material
- Chassis
- Cone
- Surround/Edge Termination
- Dust Dome
- Connectors
- Polarity
- Fibreglass
- Copper
- Ferrite
- Die-cast Aluminium
- Paper
- Polyvinyl Damped Fabric
- Paper
- Push-button Spring Terminals
- Positive Voltage at Red Terminal Causes Forward Motion of Cone



## Impedance



## Computer Predicted Bass Response



# Colossus 18XB

Fane International Ltd. operates a policy of continuous product development and reserves the right to change specifications without notice.