

THE PROFESSIONAL SERIES COLOSSUS PRIME 18XS

SUB BASS DRIVER

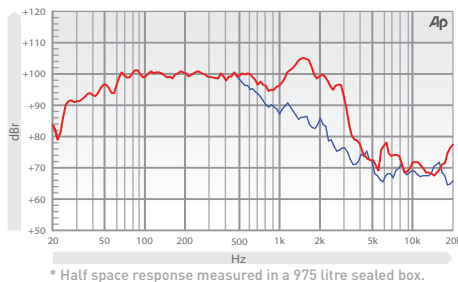


18" / 457.2 mm CHASSIS DIAMETER	1200 W (A.E.S.) POWER HANDLING	100 dB SENSITIVITY (1w / 1m)
35 Hz - 500 Hz FREQUENCY RESPONSE	4.0" / 101.6 mm COPPER - INSIDE / OUTSIDE WINDINGS VOICE COIL	12 mm Xmax

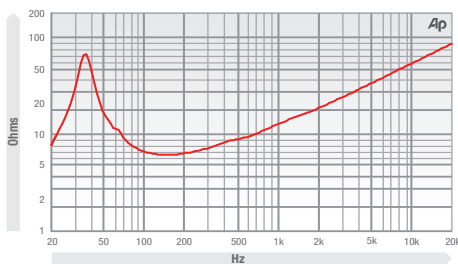
The Prime 18XS is intended for use as a high-output bass driver in multi way systems and features a 4 inch 'sandwich' (inside and outside windings) voice coil, immersed in a symmetric magnetic field yielding increased linearity and lower distortion. This, coupled with laminated silicone suspensions, a large Xmax of 12mm with peak to peak travel of 60mm, ensures fast accurate 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 1200 Watts (A.E.S.) continuous and can cope with peaks in excess of 4800 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 Prime 18XS exhibits 100 dB sensitivity and can deliver bass down to 29 Hz (-6 dB) in a 200 litre ported enclosure.

- Highest grade Y35 ferrite magnet structure.
- Low interference flux path.
- Aluminium demodulation ring.
- Fibre loaded, UK manufactured cone offering increased strength, durability and performance.
- 64 mm peak to peak maximum linear excursion.

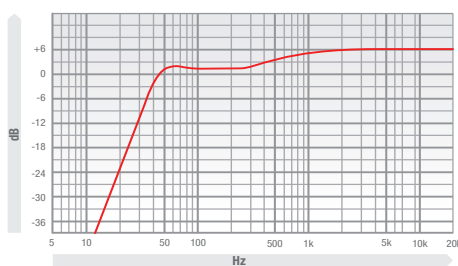
FREQUENCY RESPONSE DATA*



IMPEDANCE



PREDICTED BASS RESPONSE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Impedance	4 / 8 / 16 Ω
Power Handling	1200 w (A.E.S.)
Peak Power (6dB Crest Factor)	4800 w (A.E.S.)
Usable Frequency Range -6dB	35 Hz - 500 Hz
Sensitivity (1 w - 1 m)	100 dB
Moving Mass inc. Air Load	177 grams
Minimum Impedance Zmin	6.5 Ω
Effective Piston Diameter	15.43" / 391.92 mm
Peak Displacement Volume of Cone Vd	1.45 litres
Magnet Weight	145 oz
Magnetic Gap Depth	0.43" / 11 mm
Flux Density	1.1 Tesla
Coil Winding Height	1.18" / 30 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

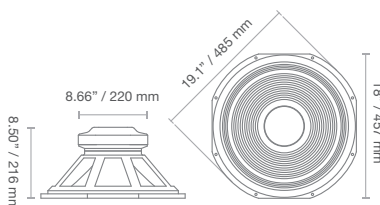
Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 419.86 mm
Baffle Hole Diameter R/M	16.33" / 414.78 mm
Gasket Supplied	Front & Rear
Fixing Holes	8x 0.275" diam on 18.425 PCD / 8x 0.275 diam on 17.25 PCD / 8x 7 mm diam on 438.15 PCD
Depth	8.50" / 216 mm
Weight	33.75 lb / 15.3 kg
Recommended Enclosure Volume	4.41 - 14.12 cu ft / 125 - 400 litres
Shipping Weight	37.45 lb / 17 kg
Packing Carton Dimensions	250 x 520 x 520 mm

THIELE SMALL PARAMETERS

FS Hz	33 Hz
RE Ohms	5.2 Ω
Qms	8.2
Qes	0.404
Qts	0.385
Vas Ltr	257 litres
Vd litres	1.45 litres
CMS (mm/N)	0.124 mm/N
BL T/m	22.4 T/m
Mms (grms)	188 grams
Xmax (mm)	12 mm
Sd (cm²)	1210 cm²
Efficiency %	2.20%
Le (1k Hz)	1.5 mH

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper - Inside / Outside Windings
Magnet Material	Ferrite Y35
Chassis	Die-cast Aluminium
Cone	Straight Fibre Loaded Polycellulose Ribbed Cone
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Solid Paper (Inverted)
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 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.