

# THE PROFESSIONAL SERIES SOVEREIGN PRO 12-500

BASS DRIVER

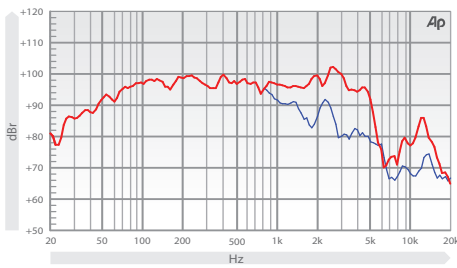


<b>12" / 304.8 mm</b> CHASSIS DIAMETER	<b>500 w (A.E.S.)</b> POWER HANDLING	<b>97.5 dB</b> SENSITIVITY (1w / 1m)
<b>45 Hz - 4.5 kHz</b> FREQUENCY RESPONSE	<b>3.0" / 76.2 mm</b> CCAW - INSIDE / OUTSIDE WINDINGS VOICE COIL	Designed for use in 35-75 litre enclosures

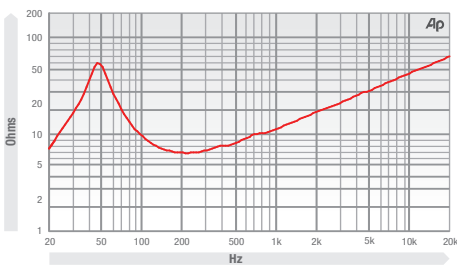
The Sovereign Pro 12-500 is intended for use in two-way ported enclosures. The driver features a rugged die cast chassis combined with long throw motor system and high linearity suspension allowing solid bass reproduction at high power levels. The driver exhibits a smooth frequency response that delivers a balanced tonal characteristic when properly matched with the appropriate high-frequency device. The Sovereign Pro 12-500 is intended for use in ported enclosures with volumes of 35 to 75 litres and features a 3 inch 'sandwich' inside and outside windings voice coil capable of delivering 500 watts power. The driver has an average sensitivity of 97.5 dB across its working band width.

- Deep bass, good midrange with extended frequency range.
- High linearity suspension.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.

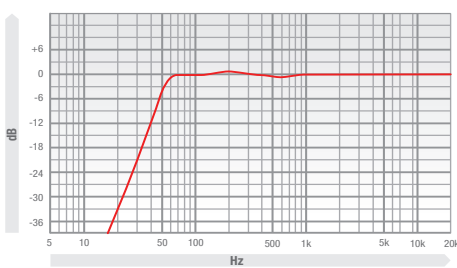
## FREQUENCY RESPONSE DATA\*



## IMPEDANCE



## PREDICTED BASS RESPONSE



## ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ω
Power Handling	500 w (A.E.S.)
Peak Power (6dB Crest Factor)	2000 w (A.E.S.)
Usable Frequency Range -6dB	45 Hz - 4.5 kHz
Sensitivity (1 w - 1 m)	97.5 dB
Moving Mass inc. Air Load	43 grams
Minimum Impedance Zmin	6.84 Ω
Effective Piston Diameter	10.31" / 261.87 mm
Peak Displacement Volume of Cone Vd	0.339 litres
Magnet Weight	80 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.70" / 18 mm
Voice Coil Diameter	3.0" / 76.2 mm

## MOUNTING / SHIPPING INFORMATION

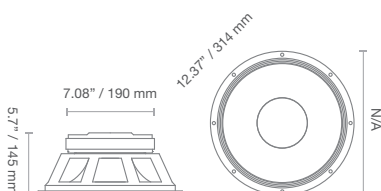
Overall Diameter	12.37" / 314 mm
Width Across Flats	N/A
Flange Height	0.339" / 8.61 mm
Baffle Hole Diameter F/M	11.13" / 282.70 mm
Baffle Hole Diameter R/M	N/A
Gasket Supplied	Front & Rear
Fixing Holes	8x 7.0 mm on 11.5" / 294 mm PCD
Depth	5.7" / 145 mm
Weight	16.5 lb / 7.5 kg
Recommended Enclosure Volume	1.23 - 2.64 cu ft / 35 - 75 litres
Shipping Weight	17.63 lb / 8.0 kg
Packing Carton Dimensions	165 x 330 x 330 mm

## THIELE SMALL PARAMETERS

FS Hz	43 Hz
RE Ohms	5.6 Ω
Qms	3.04
Qes	0.35
Qts	0.314
Vas Ltr	107 litres
Vd litres	0.339 litres
CMS (mm/N)	0.236 mm/N
BL T/m	16 T/m
Mms (grms)	58 grams
Xmax (mm)	6 mm
Sd (cm²)	565 cm²
Efficiency %	2.34%
Le (1k Hz)	1.6 mH

## MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	CCAW - Inside / Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
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 45 Hz and 450 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.