

# THE PROFESSIONAL SERIES SOVEREIGN PRO 10M

MID RANGE DRIVER



**10" / 254 mm**  
CHASSIS DIAMETER

**280 w (A.E.S.)**  
POWER HANDLING

**98.5 dB**  
SENSITIVITY (1w / 1m)

**200 Hz - 3.5 kHz**  
FREQUENCY RESPONSE

**2.5" / 63.5 mm**  
ALUMINIUM - INSIDE / OUTSIDE  
WINDINGS VOICE COIL

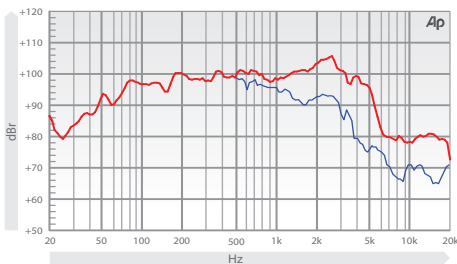
**Suited to sealed, 5-15 litre enclosures**

The Sovereign Pro 10M is designed as a dedicated mid range driver delivering high output, low distortion from 200 Hz to 3.5 kHz. The 2.5" voice coil driver benefits from an average sensitivity of 98.5 dB throughout the units active operating range. This combined with an A.E.S power handling of 280 watts ensures perfect mid range reproduction for the most demanding applications. The large magnet structure and cast aluminium frame ensure efficient heatsinking and gives the Sovereign Pro 10M low power compression and maximum output levels of up to 124 dB. The Sovereign Pro 10M is best suited to sealed enclosures 5 to 15 litres.

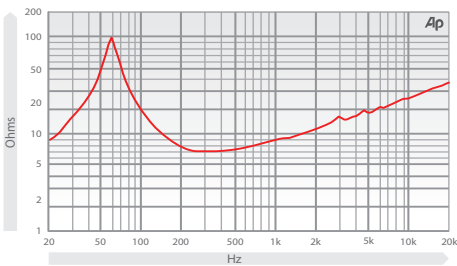
- Smooth midrange response.
- Output levels up to 124dB.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.
- Suitable for line array applications.

THE PROFESSIONAL SERIES

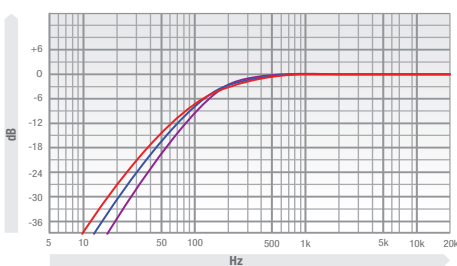
## FREQUENCY RESPONSE DATA\*



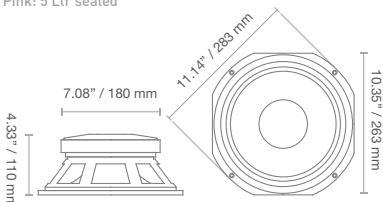
## IMPEDANCE



## PREDICTED BASS RESPONSE



\*\* Red: 20 Ltr sealed / Blue: 10 Ltr sealed / Pink: 5 Ltr sealed



## ELECTRO ACOUSTIC SPECIFICATIONS

|                                     |                   |
|-------------------------------------|-------------------|
| Nominal Chassis Diameter            | 10" / 254 mm      |
| Impedance                           | 4 / 8 / 16 Ω      |
| Power Handling                      | 280 w (A.E.S.)    |
| Peak Power (6dB Crest Factor)       | 1120 w (A.E.S.)   |
| Usable Frequency Range -6dB         | 200 Hz - 3.5 kHz  |
| Sensitivity (1 w - 1 m)             | 98.5 dB           |
| Moving Mass inc. Air Load           | 37 grams          |
| Minimum Impedance Zmin              | 7 Ω               |
| Effective Piston Diameter           | 8.19" / 208.02 mm |
| Peak Displacement Volume of Cone Vd | 0.068 litres      |
| Magnet Weight                       | 78 oz             |
| Magnetic Gap Depth                  | 0.31" / 8 mm      |
| Flux Density                        | 1.24 Tesla        |
| Coil Winding Height                 | 0.47" / 12 mm     |
| Voice Coil Diameter                 | 2.5" / 63.5 mm    |

## MOUNTING / SHIPPING INFORMATION

|                              |   |
|------------------------------|---|
| Overall Diameter             | 11.14" / 283 mm   |
| Width Across Flats           | 10.35" / 263 mm   |
| Flange Height                | 0.305" / 7.8 mm   |
| Baffle Hole Diameter F/M     | 8.97" / 227.83 mm   |
| Baffle Hole Diameter R/M     | N/A   |
| Gasket Supplied              | Rear  |
| Fixing Holes                 | 4x 0.218" diam on 10.625 PCD<br>4x 5.5 mm diam on 270 PCD |
| Depth                        | 4.33" / 110 mm  |
| Weight                       | 13.34 lb / 6.05 kg  |
| Recommended Enclosure Volume | 0.17 - 0.52 cu ft / 5- 15 litres                          |
| Shipping Weight              | 14.77 lb / 6.70 kg  |
| Packing Carton Dimensions    | 288 x 288 x 195 mm  |

## THIELE SMALL PARAMETERS

|              |              |
|--------------|--------------|
| FS Hz        | 56 Hz        |
| RE Ohms      | 5.6 Ω        |
| Qms          | 4.9          |
| Qes          | 0.286        |
| Qts          | 0.27         |
| Vas Ltr      | 37 litres    |
| Vd litres    | 0.068 litres |
| CMS (mm/N)   | 0.231 mm/N   |
| BL T/m       | 15.8 T/m     |
| Mms (grams)  | 35 grams     |
| Xmax (mm)    | 2 mm         |
| Sd (cm²)     | 340 cm²      |
| Efficiency % | 2.46%        |
| Le (1k Hz)   | 1.45 mH      |

## MATERIALS OF CONSTRUCTION

|                             |  |
|-----------------------------|--|
| Former Material             | Glass Fibre  |
| Voice Coil                  | Aluminium - Inside / Outside Windings                          |
| Magnet Material             | Ferrite  |
| Chassis                     | Die-cast Aluminium   |
| Cone                        | Curvilinear Paper  |
| Surround / Edge Termination | Polyvinyl Damped Half Roll Linen                               |
| 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 100 Hz and 1000 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.

SOVEREIGN PRO 10M

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