

# SOVEREIGN 12-250TC

### FULL RANGE DRIVER

|   |   |   |   |                                       |                     |
|---|---|---|---|---------------------------------------|---------------------|
| <b>12" / 304.8 mm</b><br>CHASSIS DIAMETER | <b>250 W (A.E.S.)</b><br>AES POWER HANDLING | <b>45 Hz - 17 kHz</b><br>FREQUENCY RESPONSE | <b>2.0" / 50.8 mm</b><br>COPPER CLAD ALUMINIUM<br>WIRE VOICE COIL | <b>100 dB</b><br>SENSITIVITY (1W/ 1m) | <b>5.25 mm Xmax</b> |
|---|---|---|---|---------------------------------------|---------------------|

- Medium power 12" twin cone model.
- Suited for full range output in compact PA systems.
- Unrivalled extended frequency range, working up to 17 kHz.
- Ideal for house of worship installations.
- Optimised cone pulp offering increased strength, durability and performance.

### ELECTRO ACOUSTIC SPECIFICATIONS

|                               |                    |
|-------------------------------|--------------------|
| Nominal Chassis Diameter      | 12" / 304.8 mm     |
| Impedance                     | 8 Ohm              |
| Power Handling                | 250 W (A.E.S.)     |
| Peak Power (6dB Crest Factor) | 1000 W (A.E.S.)    |
| Usable Frequency Range -6dB   | 45 Hz - 17 kHz     |
| Sensitivity (1 w - 1 m)       | 100 dB             |
| Moving Mass inc. Air Load     | 52 grams           |
| Minimum Impedance Zmin        | 7.4 Ω              |
| Effective Piston Diameter     | 10.31" / 261.87 mm |
| Magnet Weight                 | 56 oz              |
| Magnetic Gap Depth            | 0.31" / 7.87 mm    |
| Flux Density                  | 1.1 Tesla          |
| Coil Winding Height           | 0.43" / 10.92 mm   |
| Voice Coil Diameter           | 2.0" / 50.8 mm     |

### MOUNTING / SHIPPING INFORMATION

|                              |                                    |
|------------------------------|------------------------------------|
| Overall Diameter             | 12" / 304.8 mm                     |
| Width Across Flats           | N/A                                |
| Flange Height                | 0.27" / 6.9 mm                     |
| Baffle Hole Diameter F/M     | 11.25" / 285.75 mm                 |
| Baffle Hole Diameter R/M     | 11.25" / 285.75 mm                 |
| Gasket Supplied              | Front & Rear                       |
| Outer Fixing Holes           | 8x Ø 7.0 mm on 11.75" / 298 mm PCD |
| Inner Fixing Holes           | N/A                                |
| Depth                        | 5.43" / 137.92 mm                  |
| Weight                       | 9.47 lb / 4.30 kg                  |
| Recommended Enclosure Volume | 1.05 - 2.64 cu ft / 30 - 75 Litres |
| Shipping Weight              | 11.35 lb / 5.15 kg                 |
| Packing Carton Dimensions    | (W) 330 (D) 330 (H) 170 mm         |

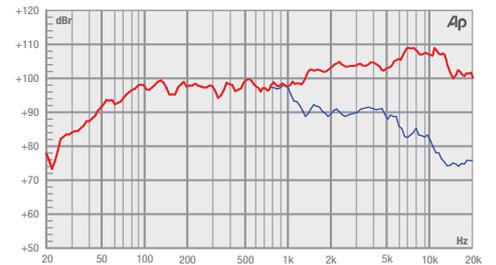
### THIELE SMALL PARAMETERS

|              |              |
|--------------|--------------|
| FS Hz        | 50 Hz        |
| RE Ohms      | 7.2 Ω        |
| Qms          | 7.600        |
| Qes          | 0.720        |
| Qts          | 0.640        |
| Vas Ltr      | 78.06 Litres |
| Vd Litres    | 0.165 Litres |
| CMS (mm/N)   | 0.195 mm/N   |
| BL T/m       | 13 T/m       |
| Mms (grms)   | 52 grams     |
| Xmax (mm)    | 5.25 mm      |
| Sd (cm²)     | 530.9 cm²    |
| Efficiency % | 1.300%       |
| Le (1k Hz)   | 1.56 mH      |
| EBP          | 69.44 Hz     |

### MATERIALS OF CONSTRUCTION

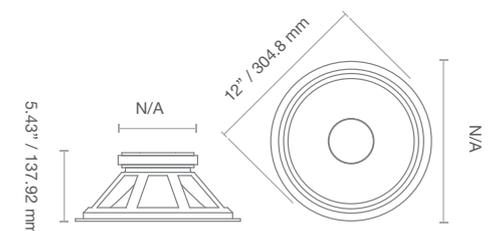
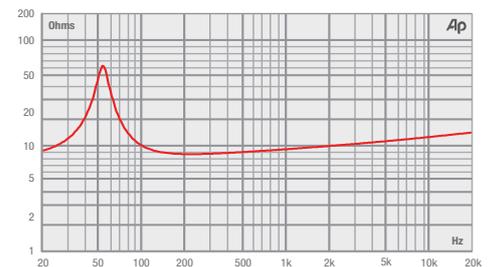
|                             |  |
|-----------------------------|--|
| Former Material             | Glass Fibre  |
| Voice Coil                  | Copper Clad Aluminium Wire                                     |
| Magnet Material             | Ferrite  |
| Chassis                     | Pressed Steel  |
| Cone                        | Paper  |
| Surround / Edge Termination | Polyvinyl Damped Dbl. Half Roll Linen                          |
| Dust Dome                   | Paper  |
| Connectors                  | Solder Tag   |
| Polarity                    | Positive voltage at red terminal causes forward motion of cone |

### FREQUENCY RESPONSE DATA\*



† Half space response measured in a 975 Litre sealed box.

### IMPEDANCE



\* Please enquire about alternative impedances.

\* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 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.