

- 96 dB SPL 1W/ 1m average sensitivity
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
- 500 WAES power handling
- Double Silicon Spider (DSS) for improved control and linearity
- Improved heat dissipation via unique basket design
- Weather protected cone and plates for outdoor usage Ideal for compact reflex subwo

The 12LW800 is a low frequency loudspeaker which sets a new industry standard in 12" (300mm) Ø high performance transducers, achieving a remarkable 42Hz downwards extension with 96dB average sensitivity, handling peak power levels of 4000W with remarkably low distortion and excellent transient response.

The 12LW800 is intended as the low bass or sub-woofer component, either in highly compact reflex, bandpass or horn loaded configurations, to provide clean, linear frequency reproduction at high power levels, or as part of a compact high power fullrange system. In its reflex configuration it can be used in extremely compact enclosures (40 - 70lt) making it ideally suited to portable applications such as road shows and bass musical instruments, for "wedge" stage monitors, etc.

The high excursion capabilities of the double-action roll surround and suspension system, in conjunction with the Eighteen Sound Double Silicon Spider (DSS), has enabled the 12LW800 to achieve very high levels of linear travel for a 12" unit.

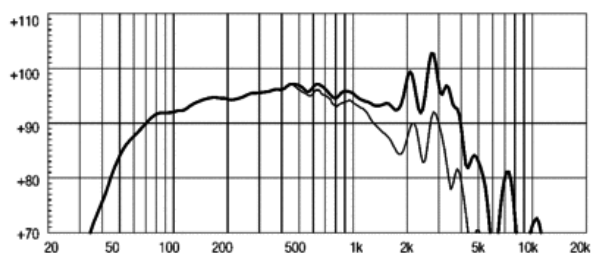
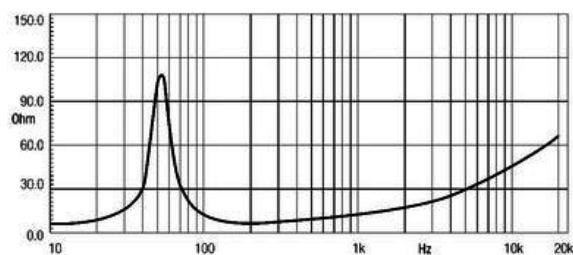
The carbon fibre reinforced curvilinear ribbed cone, with its custom design surround, assures smooth response and exceptional strength with maximum reliability under high mechanical stress.

The 75mm Ø state-of-the-art voice coil is similar to that fitted to our 18LW1400 top-of-the-range model. It employs our Interleaved Sandwich Voice coil (ISV) in which a high strength fibreglas former carries windings on both the outer and inner surfaces to achieve a mass balanced coil and providing a uniform motive drive. This, in conjunction with the use of unique high temperature resin adhesives, results in an extremely linear motor assembly with reduced tendency to break-up under high drive conditions.

Excellent heat dissipation is achieved by the incorporation of air channels between the basket and top plate.

Maximum flux concentration and force factor in the gap is assured by the unique shape and design of the face and back plates, these having been researched and designed using our in-house Magnetic Flux FEA CAD resource.

With the increasing use of high power audio systems at outdoor events or in a marine environment, the ability to perform properly under inclement weather conditions is another part of the Eighteen Sound philosophy. This is achieved by means of an exclusive cone treatment improving pulp strength and giving water repellent properties to the cone. In addition, special treatment of both the face and back plates results in a product which is far more resistant to the corrosive effects of salts and oxidation than any other treatment in use.





# 12LW800 8Ω

LF drivers - 12.0 Inches

## SPECIFICATIONS

|  |                |
|--|----------------|
| Nominal Diameter                       | 300 mm ( in)   |
| Nominal Impedance                      | 8 Ω            |
| Nominal Power Handling <sup>1</sup>    | 500 W          |
| Continuous Power Handling <sup>2</sup> | 800 W          |
| Sensitivity <sup>3</sup>               | 96.0 dB        |
| Frequency Range                        | 46 - 4200 Hz   |
| Voice Coil Diameter                    | 75 mm (3.0 in) |
| Winding Material                       | copper         |

## PARAMETERS<sup>4</sup>

|                     |  |
|---------------------|--|
| Resonance Frequency | 52 Hz  |
| Re                  | 5.6 Ω  |
| Qes                 | 0.3  |
| Qms                 | 7.6  |
| Qts                 | 0.29   |
| Vas                 | 48.0 dm <sup>3</sup> (1.7 ft <sup>3</sup> )    |
| Sd                  | 531.0 cm <sup>2</sup> (82.31 in <sup>2</sup> ) |
| Xmax                | 6.5 mm   |
| Mms                 | 76.5 g   |
| Bl                  | 21.3 Txm                                       |
| Le                  | 1.72 mH  |
| EBP                 | 173 Hz   |

## DESIGN

|                        |  |
|------------------------|--|
| Surround Shape         | Single roll - Rubber                         |
| Cone Shape             | Curvilinear                                  |
| Magnet Material        | Ferrite                                      |
| Woofers Cone Treatment | Weather protected                            |
| Recommended Enclosure  | 70.0 dm <sup>3</sup> (2.47 ft <sup>3</sup> ) |
| Recommended Tuning     | 55 Hz  |

## MOUNTING AND SHIPPING INFO

|                             |  |
|-----------------------------|--|
| Overall Diameter            | 315 mm (12.4 in)                         |
| Bolt Circle Diameter        | 296 mm (11.65 in)                        |
| Baffle Cutout Diameter      | 282.0 mm ( in)                           |
| Depth                       | 151 mm (5.94 in)                         |
| Flange and Gasket Thickness | 20 mm (0.79 in)                          |
| Net Weight                  | 8.1 kg (17.86 lb)                        |
| Shipping Weight             | 8.9 kg (19.62 lb)                        |
| Shipping Box                | 332 x 332 x 184 mm (13.07x13.07x7.24 in) |

1. 2 hours test made with continuous pink noise signal within the range Fs-10Fs. Power calculated on rated minimum impedance. Loudspeaker in free air.
2. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.
3. Applied RMS Voltage is set to 2.83 V for 8 ohms Nominal Impedance.
4. Thiele-Small parameters are measured after a high level 20 Hz sine wave preconditioning test.