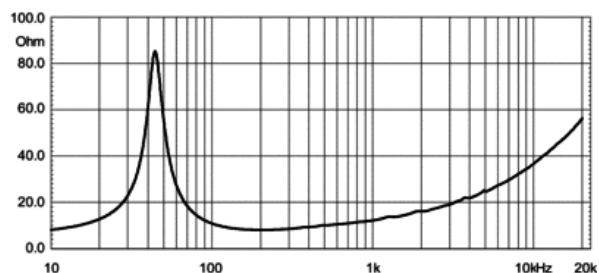
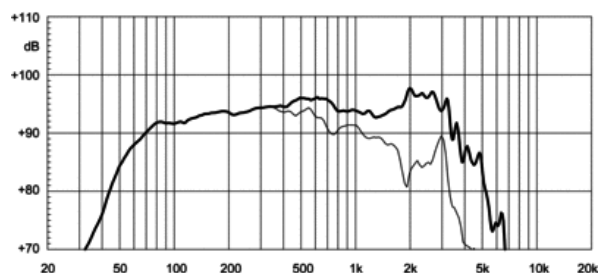


- 96 dB SPL 1W/ 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
- 900 WAES power handling
- Double Silicon Spider (DSS) for improved excursion control and linearity
- Double Demodulating Ring (DDR) for lower distortion
- Improved heat dissipation via unique basket design
- Weather protected cone and plates for outdoor usage
- Specially designed for high loading compact subwoofers

The 12LW1400 is an extended low frequency loudspeaker which sets a new industry standard in 12" (300 mm) 4" voice coil high performance transducers, already accomplished by the 15LW1400 and 18LW1400 respectively. The transducer has been designed for subwoofer or low frequency component usage in multi-way systems where considerable amounts of power and low distortion are needed. 12LW1400 is ideally suited for very high loading cabinets, such as bandpass, horn loaded or compact reflex configurations. In its reflex configuration, 12LW1400 can be used in extremely compact enclosures (30 - 60 lt), making it the ideal choice for touring applications, sound reinforcement or fixed installations, including indoor and outdoor concert reinforcement systems. Maximum strength, smooth response and high displacement piston motion are obtained using Double Silicon Spider technology (DSS) and a large excursion surround. A special formulation cone material has been used to enable it to withstand high loading and high power peaks. The suspension system has been designed to give symmetric large signal behavior across the whole working range, providing low harmonic distortion at different excitation levels. An inside outside aluminum voice coil, based on Interleaved Sandwich Voice coil (ISV) provides high levels of thermal stability and durability. The ISV technology is based on a high strength fiberglass former with half the coil wound on the outside and half on the inside ensuring uniform thermal dissipation on both sides. It is bonded together using unique high temperature resin adhesive to achieve a balanced and solid linear motor unit. Double Demodulation Rings (DDR) technology dramatically reduces the intermodulation and harmonic distortion whilst improving the transient response. The top plate and back plate design have been optimized for cone excursion and maximum symmetric force factor by the use of in-house FEA Magnetic simulation software. Furthermore, excellent heat dissipation has been achieved by the special basket design which incorporates air channels between the basket and magnetic top plate. The 12LW1400 exclusive cone treatment improves pulp strength and gives water repellent properties to both sides of the cone. In addition, the special coating of both the top and back plates makes them far more resistant to the corrosive effects of salts and oxidization than standard zinc-coated treatment.





# 12LW1400 8Ω

LF drivers - 12.0 Inches

## SPECIFICATIONS

Nominal Diameter	300 mm ( in)
Nominal Impedance	8 Ω
Minimum Impedance	6.8 Ω
Nominal Power Handling <sup>1</sup>	900 W
Continuous Power Handling <sup>2</sup>	1400 W
Sensitivity <sup>3</sup>	96.0 dB
Frequency Range	51 - 4000 Hz
Voice Coil Diameter	100 mm (4.0 in)
Winding Material	aluminum

## PARAMETERS<sup>4</sup>

Resonance Frequency	45 Hz
Re	5.2 Ω
Qes	0.32
Qms	5.0
Qts	0.3
Vas	55.0 dm <sup>3</sup> (1.94 ft <sup>3</sup> )
Sd	531.0 cm <sup>2</sup> (82.31 in <sup>2</sup> )
Xmax	8.25 mm
Mms	88.0 g
Bl	20.0 Txm
Le	1.5 mH
EBP	140 Hz

## DESIGN

Surround Shape	Triple roll
Cone Shape	Straight
Magnet Material	Ferrite
Woofers Cone Treatment	Weather protected
Recommended Enclosure	50.0 dm <sup>3</sup> (1.77 ft <sup>3</sup> )
Recommended Tuning	47 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 (11.1 in)
Depth	141 mm (5.55 in)
Flange and Gasket Thickness	17 mm (0.67 in)
Net Weight	10.9 kg (24.03 lb)
Shipping Weight	11.4 kg (25.13 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.