

- 99,5 dB SPL 1W / 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
- 850 WAES power handling
- Weather protected cone and plates for outdoor usage
- Double Silicon Spider (DSS) for improved excursion control and linearity
- Double Demodulating Rings (DDR) for lower distortion and improved heat dissipation
- Improved heat dissipation via unique basket design

The 18W1300 is a low frequency loudspeaker which sets a new industry standard in 18" (460 mm) high output transducers. It represents a further development of the Eighteen Sound 18LW1400 but with a lighter mass and increased sensitivity.

The 18W1300 can be used as a low bass or subwoofer component, in either a reflex, bandpass or horn loaded configuration, in high power fixed or touring loudspeaker systems. It provides clean, linear, undistorted low frequency reproduction at very high power levels. In its reflex configuration, it can also be used for bass musical instrument applications.

The high excursion capabilities of the surround and suspension system, in conjunction with the Double Silicon Spider (DSS), enable the 18W1300 to achieve high levels of linear travel while maintaining full control over the moving mass.

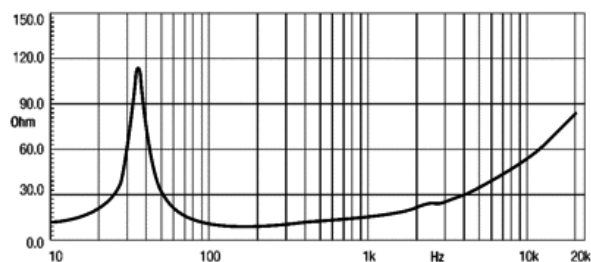
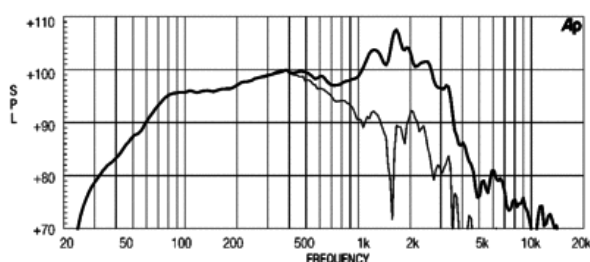
The carbon fiber reinforced curvilinear ribbed cone assures smooth response and exceptional strength with maximum reliability under high mechanical stress.

The state-of-the-art voice coil employs our own Interleaved Sandwich Voice coil (ISV) technology, in which a high strength fiberglass former carries windings on both the outer and inner surfaces. This results in a balanced coil with a uniform distribution of mass and motive energy, creating an extremely linear motor assembly. The already low distortion and unmistakable sound quality of this loudspeaker is improved by Double Demodulating Rings (DDR), designed to dramatically reduce the intermodulation and harmonic distortion while improving the transient response.

Excellent heat dissipation has been achieved by incorporating air channels between the basket and the magnetic top plate.

Maximum flux concentration and force factor in the gap is assured by the unique shape and design of the top and back plates, which have been researched and designed using our in-house magnetic flux FEA CAD resource.

Due to the increasing use of high power audio systems at outdoor events or in marine environments, the 18W1300 has been designed to perform properly under inclement weather conditions. This has been achieved using of an exclusive cone treatment which improves pulp strength and gives water repellent properties to both sides of the cone. In addition, a special treatment is applied to the top and back plates which is far more resistant to the corrosive effects of salts and oxidization than any other treatment in use.





18W1300 8Ω

LF drivers - 18.0 Inches

SPECIFICATIONS

Nominal Diameter	460 mm (in)
Nominal Impedance	8 Ω
Nominal Power Handling ¹	850 W
Continuous Power Handling ²	1200 W
Sensitivity ³	99.5 dB
Frequency Range	38 - 3300 Hz
Voice Coil Diameter	100 mm (4.0 in)
Winding Material	aluminum

PARAMETERS⁴

Resonance Frequency	35 Hz
Re	5.0 Ω
Qes	0.35
Qms	5.0
Qts	0.33
Vas	336.0 dm ³ (11.87 ft ³)
Sd	1225.0 cm ² (189.88 in ²)
Xmax	8.5 mm
Mms	129.0 g
Bl	20.4 Txm
Le	1.48 mH
EBP	100 Hz

DESIGN

Surround Shape	Triple roll
Cone Shape	Curvilinear
Magnet Material	Ferrite
Spider	Double Silicon Spider
Woofer Cone Treatment	Weather protected
Recommended Enclosure	200.0 dm ³ (7.06 ft ³)
Recommended Tuning	38 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	462 mm (18.19 in)
Bolt Circle Diameter	438 mm (17.24 in)
Baffle Cutout Diameter	416.0 mm (16.38 in)
Depth	211 mm (8.31 in)
Flange and Gasket Thickness	26 mm (1.02 in)
Net Weight	13.0 kg (28.66 lb)
Shipping Weight	14.4 kg (31.75 lb)
Shipping Box	482 x 482 x 257 mm (18.98x18.98x10.12 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.