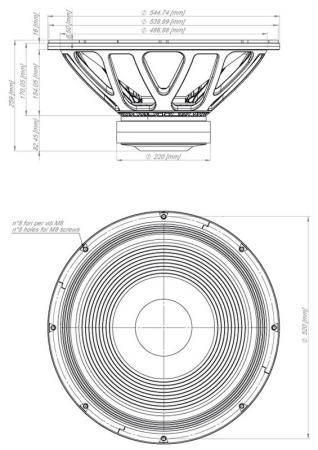
21LW1400 8Ω

LF drivers - 21.0 Inches



- 99 dB SPL 1W / 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
- 1000W AES power handling
- Carbon fiber reinforced straight-ribbed cone
- Double Silicon Spider (DSS) for improved excursion control and linearity
- Double Demodulating Rings (DDR) for lower distortion
- Improved heat dissipation via unique basket design
- Weather protected cone and plates for outdoor usage
- Suitable for ultra low frequency systems

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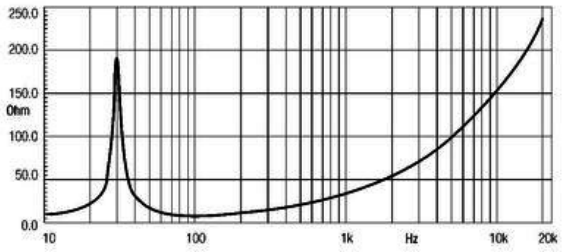
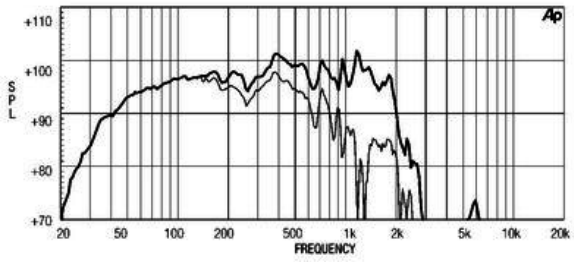
The 21LW1400 is a 21 inch high performance extended low frequency loudspeaker. The transducer can be used as a subwoofer component, in either a reflex, band-pass or horn-loaded configuration, in high power auditorium or arena loudspeaker systems. It provides clean and undistorted LF reproduction at very high SPL and enables the speaker to withstand high power levels without damage. The 21LW1400 design features include an exceptional displacement suspension system which, in conjunction with a carbon fiber reinforced straight-ribbed cone and the Double Silicon Spider (DSS), produces an ultra-linear piston action, providing full control across the entire working range. The 100mm inside outside copper voice coil, based on our Interleaved Sandwich Voice-coil (ISV) technology, reaches high levels of thermal stability and durability. ISV technology is based on a high strength fiberglas former with half the coil wound on the outside and half on the inside and bonded together using unique high temperature resin adhesives. This results in a balanced linear motor unit which can exert an exceptionally high force factor. The low distortion and unmatched sound quality of the 21LW1400 has been significantly improved by the Double Demodulating Rings (DDR) embedded in the pole piece of the magnetic structure. These have been designed to dramatically reduce the intermodulation and harmonic distortion while improving transient response at the same time. Excellent heat dissipation has been achieved using the special basket design which incorporates air channels between the basket and the magnetic top plate. In addition, 8 air vents incorporated into the back plate are aligned with the voice coil to force air into the lower part of the gap. 21LW1400 is ready to perform properly under inclement weather conditions. This has been achieved using of an exclusive treatment which improves pulp strength and gives water repellent properties to both sides of the cone. Moreover, a special treatment is applied to the top and back plate of the magnetic structure which is far more resistant to the corrosive effects of salts and oxidization than any other treatment in use.





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SPECIFICATIONS

Nominal Diameter	533 mm (in)
Nominal Impedance	8 Ω
Minimum Impedance	6.4 Ω
Nominal Power Handling[1]	1000 W
Continuous Power Handling[2]	1600 W
Sensitivity[3]	99.0 dB
Frequency Range	24 - 2000 Hz
Voice Coil Diameter	100 mm (4.0 in)
Winding Material	copper

DESIGN

Surround Shape	Triple roll
Cone Shape	Straight
Magnet Material	Ferrite
Woofer Cone Treatment	Weather protected
Recommended Enclosure	300.0 dm^3 (10.59 ft^3)
Recommended Tuning	30 Hz

PARAMETERS[4]

Resonance Frequency	28 Hz
Re	5.0 Ω
Qes	0.24
Qms	9.32
Qts	0.24
Vas	385.0 dm^3 (13.6 ft^3)
Sd	1660.0 cm^2 (257.3 in^2)
Xmax	9.5 mm
Mms	296.0 g
Bl	33.5 Txm
Le	2.85 mH
EBP	116 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	545 mm (21.46 in)
Bolt Circle Diameter	520 mm (20.47 in)
Baffle Cutout Diameter	492.0 mm (19.37 in)
Depth	259 mm (10.2 in)
Flange and Gasket Thickness	14 mm (0.55 in)
Net Weight	17.0 kg (37.48 lb)
Shipping Weight	19.1 kg (42.11 lb)
Shipping Box	550 x 550 x 300 mm (21.65x21.65x11.81 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.

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