

15ND930

Extended LF Neodymium Transducer

KeyFeatures

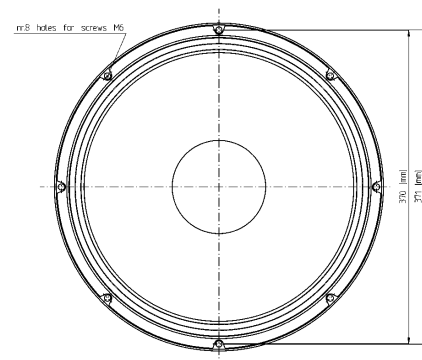
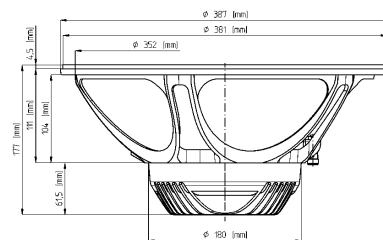
- 98 dB SPL 1W / 1m average sensitivity
- 75 mm (3 in) edgewound voice coil
- 500W AES power handling
- Neodymium magnet assembly
- Double Demodulating Rings (DDR) for lower distortion
- Humidity resistant cone
- Ideal for two way systems and for high loading compact subwoofer applications
- External neodymium magnet assembly
- Weather protected cone and plates for outdoor usage
- Recommended for multiway systems and studio monitoring applications

Description

The 15ND930 is a high power, high output, extended low frequency neodymium transducer which meets the most stringent requirements in high quality professional transducers. The high level of performance and sound quality have been achieved by exploiting the most advanced technologies available today. Thanks to its versatility, the 15ND930 can be used in 2-way compact reflex enclosures with a 1.4" compression driver, in multiway systems and in high loading sub woofers as small as 70 lt (compact reflex, bandpass and horn loaded configurations). The neodymium magnet assembly assures high flux concentration, low power compression and excellent heat exchange, since the external magnet configuration is considerably more efficient than traditional under-pole magnet topology. This results in high levels of force factor and power handling with an optimum power to weight ratio. The direct contact between the large heat sink and basket, together with the magnetic structure, represent a fundamental improvement in thermal connection and heat dissipation. Hence, power handling capabilities are increased and power compression lowered. The deep profile curvilinear cone, created from a special high strength wood pulp, has been designed to achieve the best possible linearity within its frequency range. The cone surround, made from a linen material is highly resistant to aging and fatigue. The in-house developed cone treatment is a humidity repellent and significantly dampens bell mode resonances. The 75mm (3in) copper edge-wound voice coil assembly is wound on a strong fibreglas former to improve force transmission and power handling. The already low distortion and sound quality are further improved by Double Demodulating Rings (DDR) that flatten impedance and phase with a constant power transfer. A special coating applied to both the top and back plates makes the 15ND930 far more resistant to the corrosive effects of salts and oxidization.

Models

Model	Code	Information
022156N220	022156N220	16 Ohm
022158N220	022158N220	8 Ohm
022154N220	022154N220	4 Ohm



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General Specifications

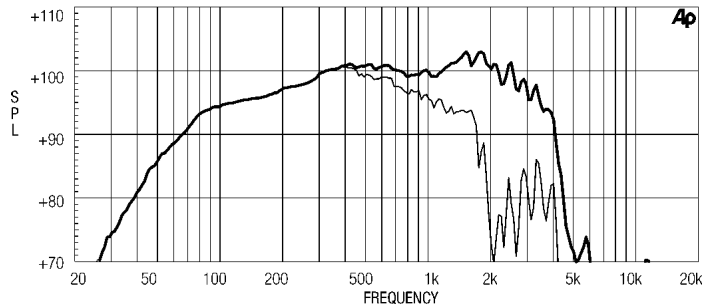
Nominal Diameter	380mm (15 in)
Rated Impedance	8 Ohm
AES Power	500W
Program Power	800W
Peak Power	1600W
Sensitivity	98 dB
Frequency Range	40 - 4100 Hz
Power Compression @-10dB	0,6 dB
Power Compression @-3dB	1,9 dB
Power Compression @Full Power	2,8 dB
Max Recomm. Frequency	1700 Hz
Recomm. Enclosure Volume	60 ÷ 140 lt. (2,12 ÷ 4,95 cuft)
Minimum Impedance	6,8 Ohm at 25°C
Max Peak To Peak Excursion	33 mm (1,3 in)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	copper
Suspension	M-roll, Polycotton
Cone	Curvilinear, Treated paper

Thiele Small Parameters

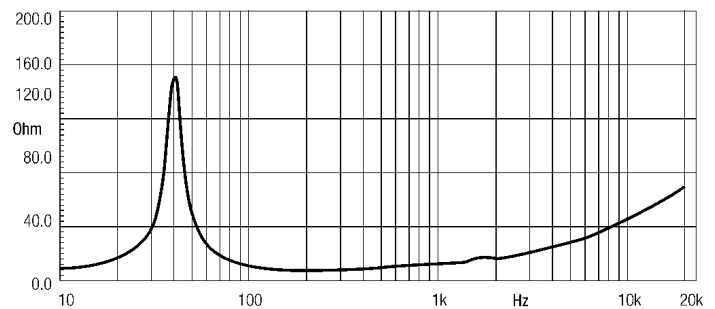
Fs	36 Hz
Re	5,5 Ohm
Sd	0,085 sq.mt. (131,75 sq. in.)
Qms	5,3
Qes	0,23
Qts	0,22
Vas	206 lt. (7,28 cuft)
Mms	101 gr. (0,22 lb)
BL	23,8 Tm
Linear Mathematical Xmax	± 7,5 mm (± 0,30 in)
Le (1kHz)	1,61 mH
Ref. Efficiency 1W@1m (half space)	98,2 dB

Mounting information

Overall diameter	387 mm (15,24 in)
N. of mounting holes and bolt	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370-371 mm (14,55-14,6 in)
Front mount baffle cutout ø	353 mm (13,9 in)
Rear mount baffle cutout ø	357 mm (14,06 in)
Total depth	177 mm (7 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	4,1 kg (9 lb)
Shipping weight	5,7 kg (12,56 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)



FREQUENCY RESPONSE CURVE OF 15ND930 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE

Notes

- 1) AES power is determined according to AES2-1984 (r2003) standard
- 2) Program power rating is measured in 125 lt enclosure tuned at 50Hz using a 40-400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.
- 3) The peak power rating represents the maximum permitted instantaneous peak power level over a maximum period of 10ms which will be withstood by the loudspeaker without damage.
- 4) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83 V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.
- 5) Frequency range is given as the band of frequencies delineated by the lower and upper limits where the output level drops by 10 dB below the rated sensitivity in half space environment.
- 6) Power compression represents the loss of sensitivity for the specified power, measured from 50-500 Hz, after a 5 min pink noise preconditioning test at the specified power.
- 7) Linear Math. Xmax is calculated as $(Hvc \cdot Hg) / 2 + Hg / 4$ where Hvc is the coil depth and Hg is the gap depth.