

15ND830

LF Neodymium Transducer

KeyFeatures

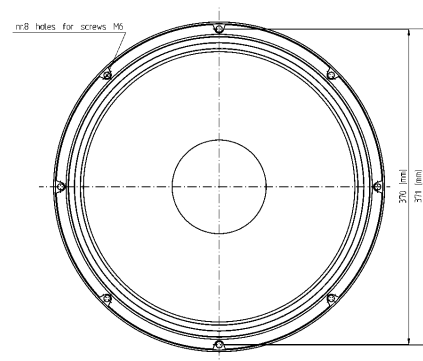
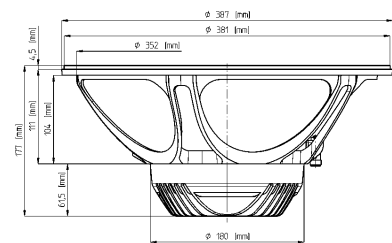
- 98 dB SPL 1W / 1m average sensitivity
- 75 mm (3 in) edgewound voice coil (ISV)
- 450 W AES power handling
- Neodymium magnet assembly
- Weather protected cone for outdoor usage
- Ideal for compact reflex subwoofer and reflex multiway systems

Description

The 15ND830 is a high power, high output, low frequency woofer meeting the most stringent requirements in high quality professional transducers. Thanks to its versatility, the 15ND830 can be used in 2-way compact reflex enclosures and reflex / band pass subwoofers. 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 heat sink and basket, together with the magnetic structure, represents 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 fully water repellent and also gives a significant degree of rigidity to the cone. The 75mm Interleaved Sandwich Voice coil (ISV) assembly is wound on a strong fibreglas former which improves force transmission and thermal power handling. A special coating applied to both the top and back plates makes the 15ND830 far more resistant to the corrosive effects of salts and oxidization.

Models

| Model | Code | Information |
|------------|------------|-------------|
| 022158N210 | 022158N210 | 8 Ohm |
| 022154N210 | 022154N210 | 4 Ohm |



General Specifications

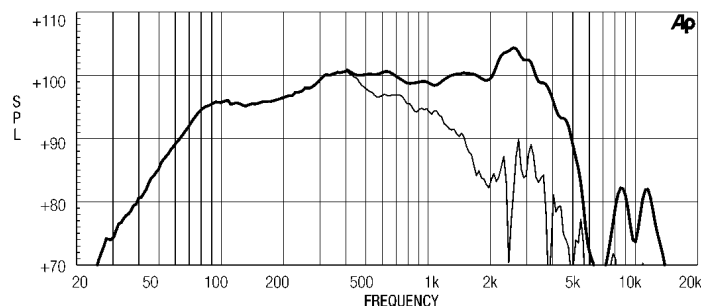
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|-------------------------------|---------------------------------|
| Nominal Diameter | 380mm (15 in) |
| Rated Impedance | 8 Ohm |
| AES Power | 450W |
| Program Power | 700W |
| Peak Power | 1500W |
| Sensitivity | 98dB |
| Frequency Range | 38 ÷ 5000 Hz |
| Power Compression @-10dB | 0,5 dB |
| Power Compression @-3dB | 2,0 dB |
| Power Compression @Full Power | 3,0 dB |
| Max Recomm. Frequency | 2000 Hz |
| Recomm. Enclosure Volume | 80 ÷ 140 lt. (2,83 ÷ 4,95 cuft) |
| Minimum Impedance | 6,7 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 | aluminum |
| Suspension | M-roll, Polycotton |
| Cone | Curvilinear, Paper |

Thiele Small Parameters

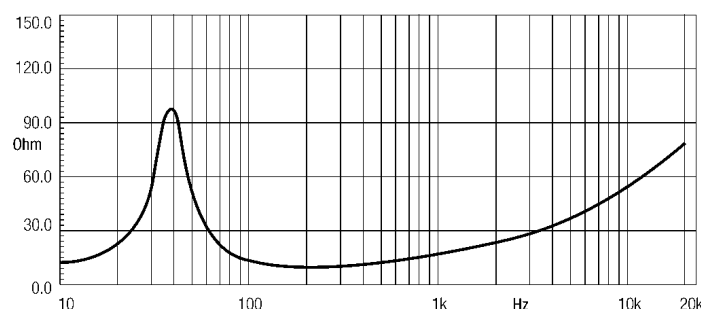
| | |
|------------------------------------|-------------------------------|
| Fs | 39 Hz |
| Re | 5,7 Ohm |
| Sd | 0,085 sq.mt. (131,75 sq. in.) |
| Qms | 3,9 |
| Qes | 0,35 |
| Qts | 0,32 |
| Vas | 213 lt. (7,5 cuft) |
| Mms | 80 gr. (0,18 lb) |
| BL | 18 Tm |
| Linear Mathematical Xmax | ± 6,5 mm (± 0,26 in) |
| Le (1kHz) | 1,54 mH |
| Ref. Efficiency 1W@1m (half space) | 97,5 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 (7,01 in) |
| Flange and gasket thickness | 11,5 mm (0,45 in) |
| Net weight | 4,1 kg (8,05 lb) |
| Shipping weight | 4,8 kg (10,6 lb) |
| CardBoard Packaging dimensions | 405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in) |



FREQUENCY RESPONSE CURVE OF 15ND830 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 $(H_{vc} \cdot H_g) / 2 + H_g / 4$ where H_{vc} is the coil depth and H_g is the gap depth.