

15ND730

Low Frequency Neo Transducer

KeyFeatures

- 99 dB SPL 1W / 1m average sensitivity
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
- 600W program power handling
- High force neodymium magnet assembly
- Weather protected cone for outdoor usage
- Ideal for compact reflex subwoofer and reflex multiway systems

Description

The 15ND730 transducer has been designed to meet market demand for high output woofers, capable of providing deep bottom-end in bandpass, horns or small reflex enclosures. The level of distortion is kept very low within its application range.

The 15ND730 is suitable for high loading enclosures, such as subwoofers or 2-way system reflex enclosures when coupled with a 1.4" - 2" compression driver.

The neodymium magnet assembly developed by Eighteen Sound engineers 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. A single demodulating ring, appropriately positioned in the magnetic circuit, allows a further flux modulation reduction, keeping overall distortions at a low level when driven hard.

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.

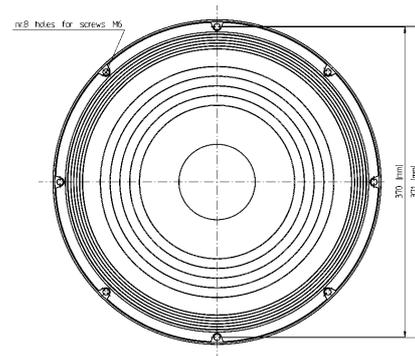
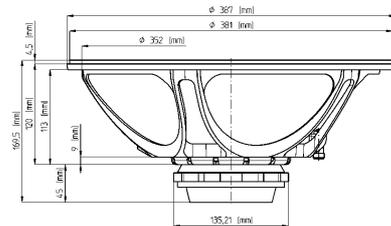
The 75 mm Interleaved Sandwich Voice coil (ISV) assembly is wound on a strong fibreglas former which improves force transmission and thermal power handling.

The four threaded backplate holes allow the final user the possibility to insert an external-customized heatsink if further heat dissipation is required.

A special coating applied to both the top and back plates makes the 15ND730 far more resistant to the corrosive effects of salts and oxidization.

Models

Model	Code	Info
022158N230	022158N230	80hm



General Specifications

Nominal Diameter	380mm (15 in)
Rated Impedance	8 Ohm
AES Power	400W
Program Power	600W
Peak Power	1200W
Sensitivity	99 dB
Frequency Range	44 - 4000 Hz
Power Compression @-10dB	0,7 dB
Power Compression @-3dB	2,2 dB
Power Compression @Full Power	3,3 dB
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	70 - 140 lt. (2,47 - 4,95 cuft)
Minimum Impedance	
Max Peak To Peak Excursion	33 mm (1,3 in)
Voice Coil Diameter	75 mm (2,95 in)
Voice Coil winding material	copper
Suspension	Double roll, treated polycotton
Cone	Curvilinear, treated paper

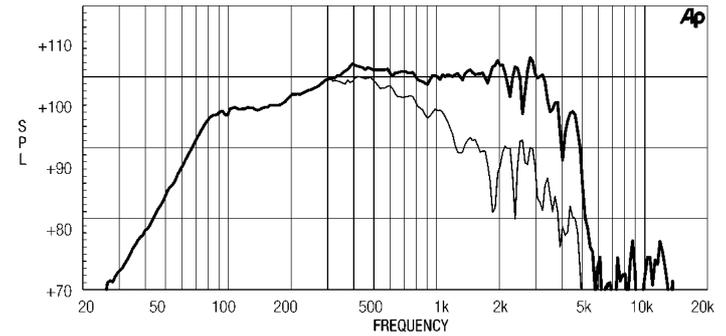
Thiele Small Parameters

Fs	44 Hz
Re	5,5 Ohm
Sd	0,085 sq.mt. (131,75 sq. in.)
Qms	8,1
Qes	0,3
Qts	0,29
Vas	156 lt. (5,51 cuft)
Mms	86 gr. (0,63 lb)
BL	21 Tm
Linear Mathematical Xmax	± 6,5 mm (± 0,26 in)
Le (1kHz)	1,35 mH
Ref. Efficiency 1W@1m (half space)	98,5 dB

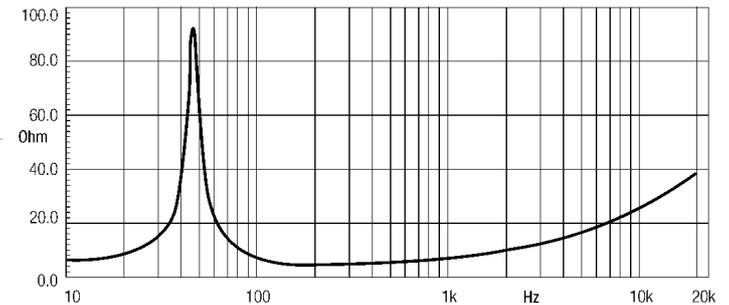
Mounting information

Overall diameter	387 mm (15,2 in)
N. of mounting holes and bolt	8
Mounting holes diameter	7,15 mm (0,3 in)
Bolt circle diameter	370-371 mm (14,57-14,61 in)
Front mount baffle cutout ø	353 mm (13,9 in)
Rear mount baffle cutout ø	357 mm (14,1 in)
Total depth	169,5 mm (6,92 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	3,9 kg (8,6 lb)
Shipping weight	4,8 kg (10,6 lb)
Packaging Dimensions	4,8 kg (10,6 lb)

FREQUENCY RESPONSE CURVE OF 15ND730 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 2,83V 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

- (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) Thiele - Small parameters are measured after the test specimen has been conditioned by 1000 W AES power and represent the expected long term parameters after a short period of use.

- (8) Linear Math. Xmax is calculated as $(Hvc-Hg)/2 + Hg/4$ where Hvc is the coil depth and Hgis the gap depth.
