21NLW4000

Extended LF Neo Transducer

KeyFeatures

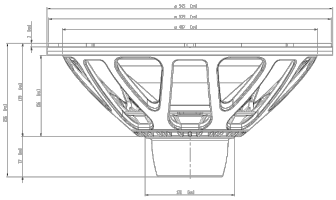
- 94 dB SPL 1W / 1m average sensitivity
- 100 mm (4") Interleaved Sandwich Voice coil (ISV)
- 3200 Watt program power handling
- Composite reinforced straight ribbed cone
- Optimized high grade neodymium magnet assembly
- Recommended for subwoofer usage in compact vented or bandpass enclosures

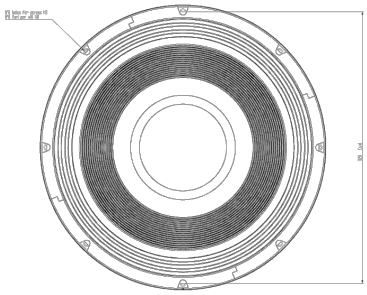
Description

The 21NLW4000 is a 21" (533 mm) extended low frequency loudspeaker, designed for use in vented or bandpass enclosure. The loudspeaker is designed to withstand high power levels without damage while providing clean and undistorted LF reproduction at a very high SPL. For optimum results we recommend amplifiers able to deliver 3200 Watt program power. The 21NLW4000 features a unique motor featuring a high grade neodymium magnet assembly in a structure optimized for thermal and magnetic efficiency. 21NLW4000 features include a large displacement suspension system which, in conjunction with a composite reinforced, straight ribbed cone, allows an ultra-linear piston action and provides full mechanical control across the entire working range. The 100mm (4 in) state-of-the-art voice-coil utilizing Interleaved Sandwich Voice coil (ISV) technology, provides high levels of thermal stability and durability. The ISV technology achieves a balanced linear motor unit exerting an exceptionally high force factor.

Models

Model	Code	Information
21NLW4000		8 Ohm





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General Specifications

Nominal Diameter	533mm (21 in)
Rated Impedance	8 Ohm
AES Power	1500W
Program Power	3200 W
Sensitivity	94 dB
Frequency Range	30-1800Hz
Power Compression @-10dB	0,62 dB
Power Compression @-3dB	2,18 dB
Power Compression @Full Power	3,57 dB
Max Recomm. Frequency	120 Hz
Recomm. Enclosure Volume	120-300 lt (4.24 - 10.60 cuft)
Minimum Impedance	6 Ohm at 25°C
Max Peak To Peak Excursion	70 mm (2.76 in)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	Copper wire
Suspension	Triple-roll, Polycotton
Cone	Complex Composite

Thiele Small Parameters

Fs	29 Hz
Re	4,9 Ohm
Sd	0,166 sq. mt. (257,30 sq. in.)
Qms	22,0
Qes	0,38
Qts	0,37
Vas	315 lt. (11,13 cuft)
Mms	376 gr. (0,83 lb)
BL	30,0 Tm
Linear Mathematical Xmax	± 15 mm (± 0,59 in)
Le (1kHz)	2,80 mH
Ref. Efficiency 1W@1m (half space)	2%

Mounting information

Overall diameter	545 mm (21,46 in)
N. of mounting holes and bolt	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	520 mm (20.47 in)
Front mount baffle cutout ø	492 mm (19,37 in)
Rear mount baffle cutout ø	490 mm (19,29 in)
Total depth	245 mm (9,64 in)
Flange and gasket thickness	18 mm (0,7 in)
Net weight	11,6 kg (25.5 lb)
Shipping weight	13,1 Kg (28,8 lb)
CardBoard Packaging dimensions	570x570x290 mm (22,4x22,4x11,4 in)

FREE AIR IMPEDANCE MAGNITUDE CURVE

Notes

1) AES power is determined according to AES2-1984 (r2003) standard
(2) Program power rating is measured in 250 lit. enclosure tuned at 28 Hz using a 30-300 band limited pink noise test signal applied for 2 hours and with 50% duty cycle.
(3) The peak power rating is based on a 4,5 dB crest factor above the program power rating and represents the maximum permitted instantaneous peak power level over a maximum period of 10ms which will be withstood by the loudspeaker whituout 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
(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 30 to 300Hz 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 1 hour 20 Hz sine and represent the expected long term parameters after a short period of use.
(9) Linear Mat. Xmax is calculated as; (Hvc-Hg)/2 + Hg/4 where Hvc is the coil depth and Hg is gap depth.