

# 21NLW9400

## Extended Low Frequency Neo Transducer

### Key Features

- 97,5 dB SPL 1W / 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
- 2400 Watt program power handling
- High grade neodymium magnet assembly
- Double surround controls cone edge excursion
- Unlimited life lead wire construction
- Weather protected treated membrane and plates for outdoor usage
- Lightweight optimized construction
- Recommended for subwoofer usage in compact vented enclosures



### General Description

The 21NLW9400 is a 21" (540 mm) extended low frequency loudspeaker, designed for use as a subwoofer component in vented configuration. The loudspeaker design provides clean and undistorted LF reproduction at a very high SPL and enables the transducer to withstand high power levels without damage. For optimum results we recommend amplifiers able to deliver 2400 Watt program power.

The high grade neodymium magnet assembly is able to resist to the most demanding environmental operative conditions.

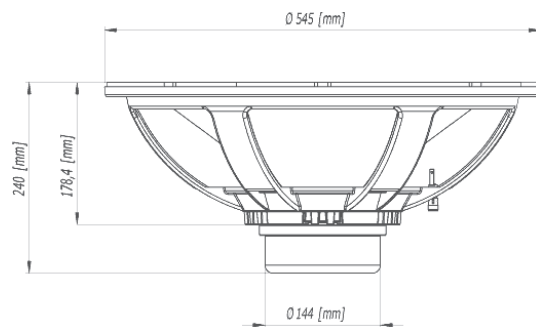
21NLW9400 features include a unique Double Surround designed for control and support cone edge travel and resist against mechanical deformation in compact enclosure high pressure conditions. The whole suspension system offers extremely controlled transient response.

The 100mm (4 in) copper round wire voice coil, based on 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. This is realised through a high strength fibreglas former with half the coil wound half on the outside and half on the inside and bonded together using unique high-temperature resin adhesives.

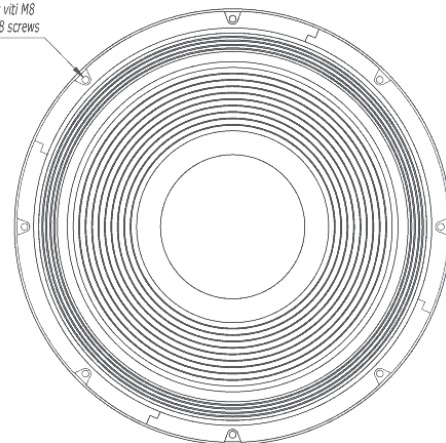
21NLW9400 is able to perform properly under inclement weather conditions: the exclusive cone treatment improves pulp strength and gives water repellent properties to both sides of the cone. In addition, the special treatment applied to top and back plates of the magnetic structure is far more resistant to the corrosive effects of salts and oxidization.

022214N940 4 Ohm  
022218N940 8 Ohm

027214N940 R-Kit 4ohm  
027218N940 R-Kit 8ohm



N°8 fori per viti M8  
N°8 holes for M8 screws



NEODYMIUM LF-MB-MF TRANSDUCERS

# 21NLW9400

Extended Low Frequency Neo Transducer

## GENERAL SPECIFICATIONS

NOMINAL DIAMETER	533 mm (21 in)
RATED IMPEDANCE	4 ohm
AES POWER	1200W
PROGRAM POWER (1)	2400W
PEAK POWER (2)	7000W
SENSITIVITY (3)	97.5 dB
FREQUENCY RANGE (4)	30 - 1500 Hz
POWER COMPRESSION @ -10 DB (5)	0,7 dB
POWER COMPRESSION @ -3 DB	1,4 dB
POWER COMPRESSION @ FULL POWER	2,1 dB
MAX RECOMM. FREQUENCY	250 Hz
RECOMM. ENCLOSURE VOLUME	120 ÷ 500 lt. (4.24 ÷ 17.66 cuft)
MINIMUM IMPEDANCE	4.1 ohm at 25°C
MAX PEAK TO PEAK EXCURSION	40 mm (1.57 in)
VOICE COIL DIAMETER	100 mm (4 in)
VOICE COIL WINDING MATERIAL	Copper round wire
SUSPENSION	Triple roll, Treated Polycotton
CONE	Curved ribbed, Fiberglass reinforced water repellent treated cellulose

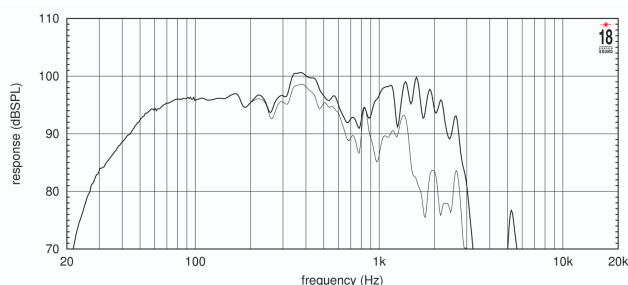
## THIELE SMALL PARAMETERS (6)

Fs	33 Hz
Re	3.5 ohm
Sd	0,1662 sq.mt. (257.6 sq.in.)
Qms	8,85
Qes	0,36
Qts	0,35
Vas	340 lt. (12 cuft)
Mms	248 gr. (0.54 lb)
BL	23 Tm
Linear Mathematical Xmax (7)	±9,5 mm (±0.37 in)
Le (1kHz)	1,51 mH
Ref. Efficiency 1W@1m (half space)	97,8 dB

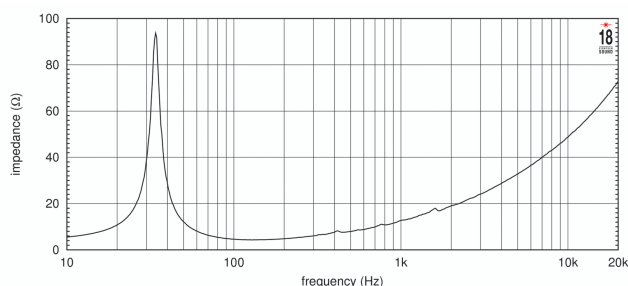
## MOUNTING INFORMATION

Overall diameter	545 mm (21,46 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	520 mm (20.47 in)
Front mount baffle cutout diameter	492 mm (19.37 in)
Rear mount baffle cutout diameter	490 mm (19.3 in)
Total depth	240 mm (9.45 in)
Flange and gasket thickness	19,5 mm (0.77 in)
Net weight	9,45 kg (20.8 lb)
Shipping weight	10,8 kg (23.8 lb)
CardBoard Packaging dimensions	570 x 570 x 290 mm (19 x 19 x 10,1 in)

FREQUENCY RESPONSE CURVE OF 21NLW9400 MADE ON 250 LIT. ENCLOSURE TUNED AT 28HZ 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) Program power rating is measured in 250 lit enclosure tuned 28 Hz using a 40-400Hz band limited pink noise test signal 50% duty cycle applied continuously for 2 hours.
- (2) 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.
- (3) 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.
- (4) 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.
- (5) Power compression represents the loss of sensitivity for the specified power, measured from 40-400 Hz, after a 5 min pink noise preconditioning test at the specified power.
- (6) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.
- (7) Linear Math. Xmax is calculated as  $(Hvc-Hg)/2 + Hg/4$  where Hvc is the coil depth and Hg is the gap depth.

Eighteen Sound engages in research and product improvement. New materials and design refinements can be introduced into existing products without notice.

