

- High quality foam suspension
- Extra long excursion - 25mm Xvar
- Lightweight construction
- Single demodulating ring
- 52 mm long Interleaved sandwich voice coil
- Suitable for very low tuning applications

The 18NLS4000 is a low frequency loudspeaker which sets a new industry standard in special applications high performance transducers, achieving a remarkable 20 Hz downwards extension with very high power handling capabilities.

The low noise and high excursion capabilities of the double-action roll surround and suspension system, together with the 52mm deep voice coil, enable the 18NLS4000 to achieve very high levels of linear excursion (up to 60mm).

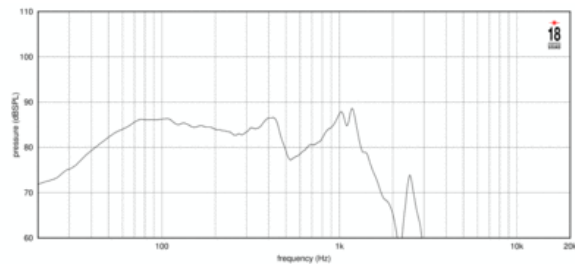
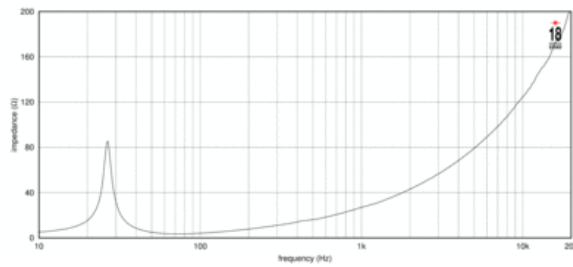
The already low distortion and unmistakable sound quality of this loudspeaker is further improved using a Single Demodulating Ring (SDR), designed to dramatically reduce the intermodulation and harmonic distortion while improving the transient response.

The 100mm CCAW voice coil employs the Interleaved Sandwich Voice coil (ISV) technology, in which a high strength fiberglass former carries windings on both the outer and inner surfaces to achieve a balanced coil with a uniform distribution of mass and motive energy that results in an extremely linear motor assembly.

The reinforced straight ribbed cone assures smooth response and exceptional strength with maximum reliability under high mechanical stress.

Excellent heat dissipation is provided using air vents in the back plate to direct air into the lower part of the voice coil gap.

Due to the increase in use of high power audio systems at outdoor events or in marine environments, the ability to perform properly under inclement weather conditions is a key feature in the Eighteen Sound philosophy. This has been achieved thanks to an exclusive cone treatment improving pulp strength which gives water repellent properties to both sides of the cone.



### SPECIFICATIONS

Nominal Impedance	4 Ω
Minimum Impedance	3.5 Ω
Nominal Power Handling <sup>1</sup>	1200 W
Continuous Power Handling <sup>2</sup>	2400 W
Sensitivity <sup>3</sup>	88.0 dB
Frequency Range	28 - 500 Hz
Voice Coil Diameter	100 mm (4.0 in)
Winding Depth	52.0 mm (2.05 in)
Magnetic Gap Depth	15.0 mm (0.59 in)

### DESIGN

Recommended Enclosure	100.0 dm <sup>3</sup> (3.53 ft <sup>3</sup> )
Recommended Tuning	28 Hz

### PARAMETERS<sup>4</sup>

Resonance Frequency	27 Hz
Re	2.9 Ω
Qes	0.36
Qms	13.7
Qts	0.35
Vas	168.0 dm <sup>3</sup> (5.93 ft <sup>3</sup> )
Sd	1225.0 cm <sup>2</sup> (189.88 in <sup>2</sup> )
η <sub>o</sub>	0.9 %
X <sub>max</sub>	22.3 mm
X <sub>var</sub>	25.0 mm
M <sub>ms</sub>	433.0 g
Bl	24.2 Txm
Le	2.6 mH
EBP	75 Hz

### MOUNTING AND SHIPPING INFO

Overall Diameter	462 mm (18.19 in)
Bolt Circle Diameter	439 mm (17.28 in)
Baffle Cutout Diameter	422.0 mm (16.61 in)
Depth	250 mm (9.84 in)
Flange and Gasket Thickness	24 mm (0.94 in)
Net Weight	12.0 kg (26.46 lb)
Shipping Weight	12.8 kg (28.22 lb)

1. 2 hours test made with continuous pink noise signal within the range Fs-10Fs. Power calculated on rated minimum impedance. Loudspeaker in free air.
2. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.
3. Applied RMS Voltage is set to 2.83 V for 8 ohms Nominal Impedance.
4. Thiele-Small parameters are measured after a high level 20 Hz sine wave preconditioning test.