

# 18NTLW5000 4Ω

LF drivers - 18.0 Inches



- 96 dB SPL 1W / 1m average sensitivity
- Dual 115mm (4,5 in) Tetracoil Aluminum Voice coil
- 4000 W program power handling
- Ultra linear suspension behavior for excellent sound clarity
- Symmetric flux density and inductance behaviour
- Low noise forced air cooling design
- Water repellent cone and epoxy coated plates
- Suitable for vented, horn loaded and bandpass applications

The 18NTLW5000 is a 18 inch diameter next generation high performance subwoofer, specifically designed for high SPL very low frequency applications in either a reflex, bandpass or horn loaded configuration. For optimum results we recommend the usage of power amplifiers able to deliver 4000W program power without clipping.

The 18NTLW5000 uses Eighteen Sound proprietary Tetracoil technology, where two different, axially separated magnetic gaps and two inside-outside 4.5" diameter aluminum voice coils are wound on the same former and suspended evenly in the two magnetic gaps.

The Tetracoil design key advantages are:

1) a symmetric flux density versus displacement behavior, that minimizes the even distortion products;

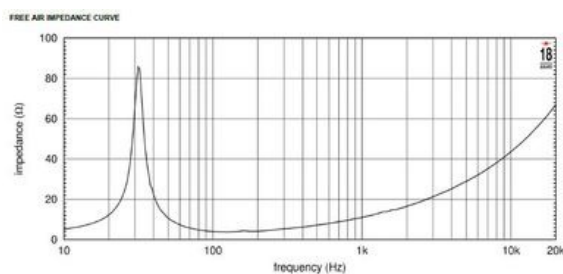
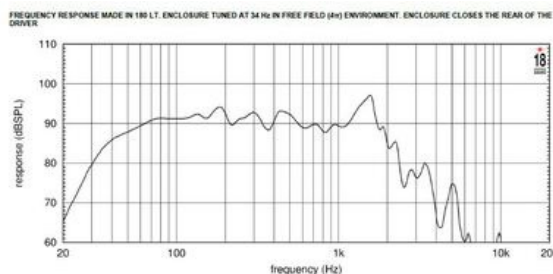
2) a very symmetric and flat inductance curve;

3) the equivalent voice coil diameter of a 4.6" Tetracoil speaker is greater than 6". Consequently heat dissipation occurs over a larger surface area, driving AES power handling up to 1800 W.

18NTLW5000 design features include a large displacement suspension system which, in conjunction with a fiberglass reinforced, straight ribbed cone allows an ultra-linear piston action and provides full mechanical control across the entire working range.

In order to furtherly increase power handling and reduce power compression figure, a low density material air diffractor is placed into the backplate venting hole acting as a cooling system, increasing power handling capability and lowering the power compression figure.

18NTLW5000 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 membrane. In addition, magnetic structure metal plates coating is far more resistant than standard zinc coating to the corrosive effects of salts and oxidization.





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## SPECIFICATIONS

|  |                 |
|--|-----------------|
| Nominal Impedance                      | 4 Ω             |
| Minimum Impedance                      | 3.8 Ω           |
| Nominal Power Handling <sup>1</sup>    | 1800 W          |
| Continuous Power Handling <sup>2</sup> | 4000 W          |
| Sensitivity <sup>3</sup>               | 95.0 dB         |
| Frequency Range                        | 35 - 1000 Hz    |
| Voice Coil Diameter                    | 115 mm (4.5 in) |
| Winding Material                       | aluminum        |

## PARAMETERS<sup>4</sup>

|                     |  |
|---------------------|--|
| Resonance Frequency | 32 Hz  |
| Re                  | 3.1 Ω  |
| Qes                 | 0.31   |
| Qms                 | 9.5  |
| Qts                 | 0.3  |
| Vas                 | 165.0 dm <sup>3</sup> (5.83 ft <sup>3</sup> )    |
| Sd                  | 1225.0 cm <sup>2</sup> (189.88 in <sup>2</sup> ) |
| η <sub>o</sub>      | 1.8 %  |
| Xmax                | 17.5 mm  |
| Mms                 | 306.0 g  |
| Bl                  | 25.0 Txm   |
| Le                  | 1.23 mH  |
| EBP                 | 103 Hz   |

## DESIGN

|                       |   |
|-----------------------|---|
| Surround Shape        | Triple roll                                   |
| Cone Shape            | Straight                                      |
| Magnet Material       | Neo   |
| Woofer Cone Treatment | Water,UV repellent                            |
| Recommended Enclosure | 180.0 dm <sup>3</sup> (6.36 ft <sup>3</sup> ) |
| Recommended Tuning    | 35 Hz   |

## MOUNTING AND SHIPPING INFO

|                             |                     |
|-----------------------------|---------------------|
| Overall Diameter            | 462 mm (18.19 in)   |
| Bolt Circle Diameter        | 440 mm (17.32 in)   |
| Baffle Cutout Diameter      | 416.0 mm (16.38 in) |
| Depth                       | 310 mm (12.2 in)    |
| Flange and Gasket Thickness | 26 mm (1.02 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.