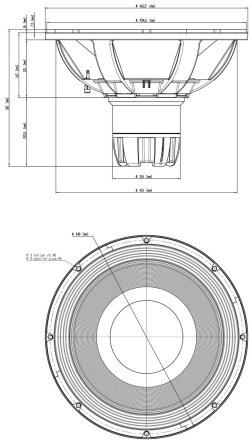
18NTLW5000 8Ω

LF drivers - 18.0 Inches



- 95 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

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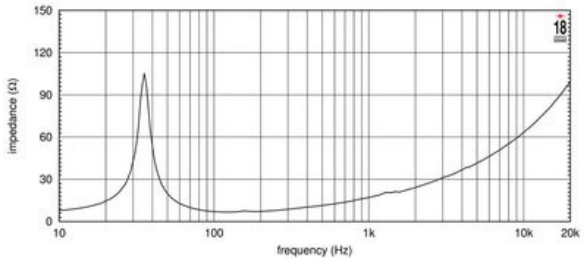
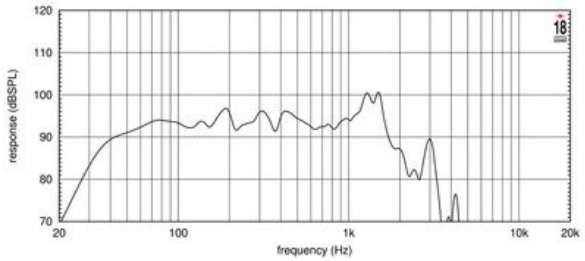
The 18NTLW5000 is a 18 inch diameter next generation high performance subwoofer, specifically designed for high SPL very low frequency applications in either a reflex, bandpass or horn loaded configuration. For optimum results we recommend the usage of power amplifiers able to deliver 4000W program power 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	8 Ω
Minimum Impedance	6.8 Ω
Nominal Power Handling[1]	1800 W
Continuous Power Handling[2]	4000 W
Sensitivity[3]	95.0 dB
Frequency Range	30 - 1800 Hz
Voice Coil Diameter	115 mm (4.5 in)
Winding Material	aluminum

DESIGN

Surround Shape	Triple roll
Cone Shape	Curvilinear
Magnet Material	Neo
Woofer Cone Treatment	Water,UV repellent
Recommended Enclosure	180.0 dm^3 (6.36 ft^3)
Recommended Tuning	35 Hz

PARAMETERS[4]

Resonance Frequency	32 Hz
Re	5.5 Ω
Qes	0.33
Qms	8.52
Qts	0.32
Vas	176.0 dm^3 (6.22 ft^3)
Sd	1156.0 cm^2 (179.18 in^2)
Xmax	17.5 mm
Mms	295.0 g
Bl	31.3 Txm
Le	1.85 mH
EBP	96 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.

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