18TLW3000 4Ω

LF drivers - 18.0 Inches

- 94 dB SPL 1W / 1m average sensitivity
- 3600 W program power handling
- 100 mm (4 in) Tetracoil dual voice coil, equivalent to a single coil diameter larger than 152 mm (> 6 in)
- 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 for outdoor use
- Suitable for vented, horn loaded and bandpass subwoofer design

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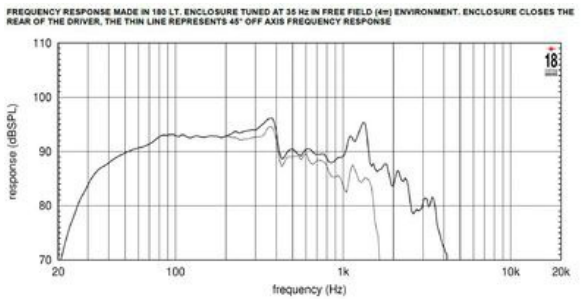
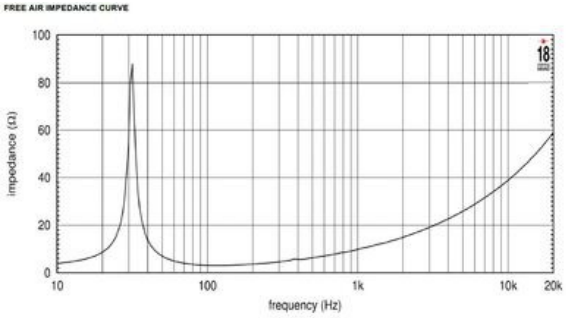
The 18TLW3000 is an 18 inch diameter high performance subwoofer, specifically designed for high SPL subwoofer applications in either a reflex, bandpass or horn loaded configuration. For optimum results we recommend the usage of power amplifiers able to deliver 3600W program power without clipping
18TLW3000 uses Eighteen Sound proprietary Tetracoil technology, where two different, axially separated magnetic gaps and two inside-outside 4" diameter 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" Tetracoil speaker is greater than 6". Consequently heat dissipation occurs over a larger surface area, driving AES power handling up to 1800 W.
18TLW3000 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.
18TLW3000 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 Diameter	460 mm (in)
Nominal Impedance	4 Ω
Minimum Impedance	3.0 Ω
Nominal Power Handling[1]	1800 W
Continuous Power Handling[2]	3600 W
Sensitivity[3]	94.0 dB
Frequency Range	30 - 2000 Hz
Voice Coil Diameter	100 mm (4.0 in)
Winding Material	copper

DESIGN

Magnet Material	Ferrite
Recommended Enclosure	180.0 dm^3 (6.36 ft^3)
Recommended Tuning	35 Hz

PARAMETERS[4]

Resonance Frequency	32 Hz
Re	2.4 Ω
Qes	0.36
Qms	13.8
Qts	0.35
Vas	185.0 dm^3 (6.53 ft^3)
Sd	1225.0 cm^2 (189.88 in^2)
Xmax	12.0 mm
Mms	280.0 g
Bl	20.0 Txm
Le	1.2 mH
EBP	88 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	462 mm (18.19 in)
Bolt Circle Diameter	438 mm (17.24 in)
Baffle Cutout Diameter	416.0 mm (16.38 in)
Depth	275 mm (10.83 in)
Flange and Gasket Thickness	24 mm (0.94 in)
Net Weight	13.2 kg (29.1 lb)
Shipping Weight	14.6 kg (32.19 lb)
Shipping Box	482 x 482 x 257 mm (18.98x18.98x10.12 in)

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.