18NLW9400 8Ω

LF drivers - 18.0 Inches

- 98 dB SPL 1W / 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
- 2400 W program power handling
- Fiberglass reinforced cone
- Double Silicon Spider (DSS) for superior excursion control and linearity
- Improved heat dissipation via multi-cell air diffractor and multiple backplate vents
- Weather protected cone and plates for outdoor usage
- Ideal for high SPL subwoofer designs

The 18NLW9400 is an 18 inch extended low frequency loudspeaker designed for high SPL subwoofer applications in either a reflex, bandpass or horn loaded configuration. For optimum results we recommend amplifiers able to deliver 2400 Watt program power without clipping. Transducer design features include a large displacement suspension system which, in conjunction with a fiberglass reinforced, straight ribbed cone and the Eighteen Sound proprietary Double Silicon Spider (DSS) technology, allows an ultra-linear piston action and provides full mechanical control across the entire working range. The 100 mm (4 in) inside-outside copper voice coil based on Interleaved Sandwich Voice coil (ISV) technology provides high levels of thermal stability and durability. In order to furtherly increase power handling and reduce power compression figure, 18NLW2400 uses the same voice coil ventilation technology developed for our flagship 9000 neodymium transducer series. A special low density material air diffractor has been placed into the backplate acting as a cooling system, increasing power handling capability and lowering the power compression figure. As a final result Eighteen Sound engineers obtained almost 1 dB reduction in full power power compression value if compared to 18LW1400, and an increased program power handling value of 2400 Watt.18NLW9400 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.

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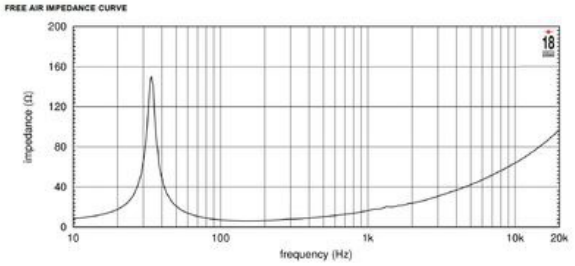

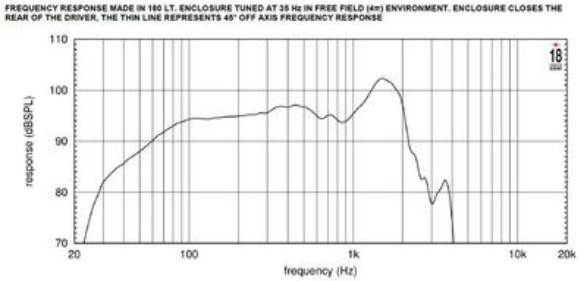

SPECIFICATIONS

Nominal Impedance	8 Ω
Minimum Impedance	6.1 Ω
Nominal Power Handling[1]	1200 W
Continuous Power Handling[2]	2400 W
Sensitivity[3]	98.0 dB
Frequency Range	30 - 2500 Hz
Voice Coil Diameter	100 mm (4.0 in)

DESIGN

Magnet Material	Neo
Recommended Enclosure	220.0 dm^3 (7.77 ft^3)
Recommended Tuning	35 Hz

PARAMETERS[4]

Resonance Frequency	33 Hz
Re	5.0 Ω
Qes	0.28
Qms	6.1
Qts	0.26
Vas	268.0 dm^3 (9.46 ft^3)
Sd	1225.0 cm^2 (189.88 in^2)
Xmax	9.5 mm
Mms	180.0 g
Bl	26.0 Txm
Le	1.9 mH
EBP	117 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	223 mm (8.8 in)
Flange and Gasket Thickness	21 mm (0.83 in)
Net Weight	8.7 kg (19.18 lb)
Shipping Weight	10.0 kg (22.05 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.

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