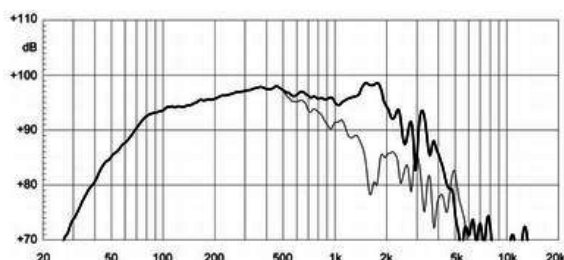
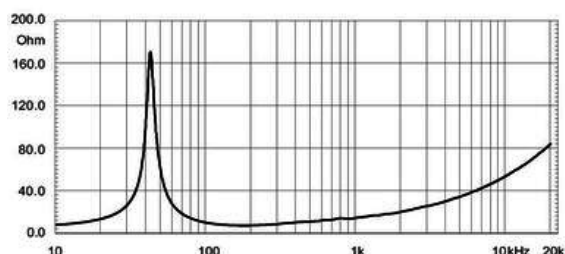


- 97 dB SPL 1W/ 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich ISV copper clad voice coil
- 800W AES power handling
- Carbon fiber reinforced cone
- Double Demodulating Rings (DDR) for lower distortion
- Improved dissipation via onboard aluminum heatsink and multi-cell air diffractor
- External Neodymium magnet assembly
- Weather protected cone and plates for outdoor usage
- Recommended for line array and wedge monitor applications

The 15NLW9300 is a low frequency loudspeaker which sets a new industry standard in 15" (380mm) neodymium 4" voice coil high performance transducers. The design has evolved from an extensive R&D program carried out at Eighteen Sound, providing clean, undistorted LF reproduction at very high SPL without damages. The transducer is mainly intended as woofer in compact vented enclosures (65 - 130 lit). The external neo magnet assembly assures high flux concentration, low power compression and excellent heat exchange, resulting in high levels of force factor and power handling with an optimum power to weight ratio. The aluminum heatsink has been specifically studied using F.E.A. simulators and the necessary heat transfer to the dissipative structure has been improved. The direct contact between the heatsink and the basket represents a fundamental improvement in voice coil heat dissipation. A special low density multi-cell material air diffractor has been also placed into the backplate venting hole, acting as a cooling system, furtherly increasing power handling capability and lowering the power compression figure. The suspension system has been designed to provide symmetric large signal behaviour throughout the whole working range, providing low harmonic distortion at different excitation levels. The 15NLW9300 features a dedicated exclusive carbon fibre reinforced straight ribbed cone, with a specific pulp formulation containing damping fibres. The membrane is impregnated with a proprietary resin mix in order to increase the cone bend performances - up to 6 times better if compared with traditional celluloses pulp, twice than glass fibre added pulps. The result is a very linear piston action across the entire working range reducing breaking modes, and makes the 15NLW9300 suitable for outdoor application. The performances are further improved by the proprietary Double Demodulating Rings technology (DDR), designed to reduce dramatically the intermodulation and harmonic distortion whilst improving the transient response. The 100mm (4in) copper clad aluminum wire Interleaved Sandwich Voice coil (ISV) provides high levels of thermal stability and durability.





# 15NLW9300 8Ω

LF drivers - 15.0 Inches

## SPECIFICATIONS

Nominal Diameter	380 mm ( in)
Nominal Impedance	8 Ω
Minimum Impedance	8.0 Ω
Nominal Power Handling <sup>1</sup>	800 W
Continuous Power Handling <sup>2</sup>	1200 W
Sensitivity <sup>3</sup>	97.0 dB
Frequency Range	50 - 3000 Hz
Voice Coil Diameter	100 mm (100.0 in)
Winding Material	aluminum

## PARAMETERS<sup>4</sup>

Resonance Frequency	39 Hz
Re	6.0 Ω
Qes	0.27
Qms	6.7
Qts	0.26
Vas	170.0 dm <sup>3</sup> (6.0 ft <sup>3</sup> )
Sd	850.0 cm <sup>2</sup> (131.75 in <sup>2</sup> )
Xmax	8.0 mm
Mms	107.0 g
Bl	24.4 Txm
Le	0.95 mH
EBP	144 Hz

## DESIGN

Surround Shape	Triple roll
Cone Shape	Straight
Magnet Material	Neo
Woofers Cone Treatment	Weather protected
Recommended Enclosure	100.0 dm <sup>3</sup> (3.53 ft <sup>3</sup> )
Recommended Tuning	44 Hz

## MOUNTING AND SHIPPING INFO

Overall Diameter	387 mm (15.24 in)
Bolt Circle Diameter	370 mm (14.57 in)
Baffle Cutout Diameter	353.0 mm (13.9 in)
Depth	174 mm (6.85 in)
Flange and Gasket Thickness	19 mm (0.75 in)
Net Weight	6.8 kg (14.99 lb)
Shipping Weight	7.9 kg (17.42 lb)
Shipping Box	405x405x214 mm (15.94x15.94x8.43 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.