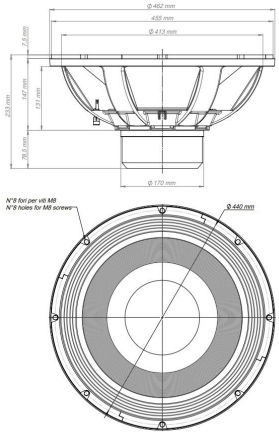
18NLW4500 4Ω

LF drivers - 18.0 Inches



- 115mm (4.5in) Interleaved Sandwich Voice coil (ISV)
- Weather protected cone and plates
- Great heat dissipation capability
- Ultra linear suspension system
- Neo motor for high power and very efficient thermal
- exchange
- Single demodulating ring (SDR) for distortion reduction and maximum SPL

The 18NLW4500 is a 18" (466 mm) extended low frequency loudspeaker, designed for use in vented, bandpass or even horn loaded ì enclosures. The loudspeaker is designed to withstand high power levels without damage while providing clean and undistorted LF reproduction at a very high SPL. For optimum results we recommend amplifiers able to deliver 3600 Watt program power. The 18NLW4500 features a unique motor featuring a high grade Neo magnet assembly in a structure optimized for thermal and magnetic efficiency. 18NLW4500 features include a large displacement suspension system which, in conjunction with a composite reinforced, straight ribbed cone and the Eighteen Sound proprietary SDR technology, allows an undiostorted ultra-linear piston action and provides full mechanical control across the entire working range. The 115mm (4.5 in) state-of-the-art voice-coil utilizing Interleaved Sandwich Voice coil (ISV) technology, provides high levels of thermal stability and durability. The ISV technology achieves a balanced linear motor unit exerting an exceptionally high force factor.

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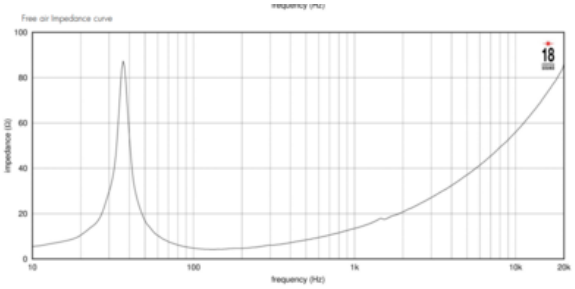

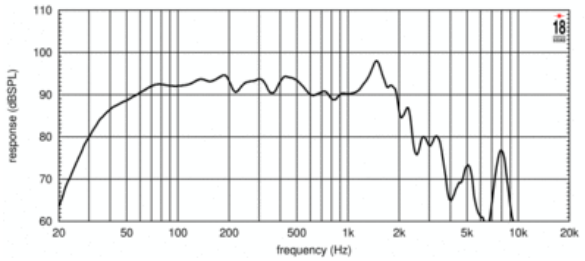

SPECIFICATIONS

Nominal Impedance	4 Ω
Minimum Impedance	4.2 Ω
Nominal Power Handling[1]	1800 W
Continuous Power Handling[2]	3600 W
Sensitivity[3]	96.5 dB
Frequency Range	30 - 1000 Hz
Voice Coil Diameter	115 mm (4.5 in)
Winding Material	copper
Winding Depth	36.0 mm (1.42 in)
Magnetic Gap Depth	13.0 mm (0.51 in)

DESIGN

Surround Shape	Triple roll
Magnet Material	Neo
Woofer Cone Treatment	Weather protected
Recommended Enclosure	200.0 dm^3 (7.06 ft^3)
Recommended Tuning	40 Hz

PARAMETERS[4]

Resonance Frequency	37 Hz
Re	3.3 Ω
Qes	0.32
Qms	10.8
Qts	0.31
Vas	127.0 dm^3 (4.48 ft^3)
Sd	1225.0 cm^2 (189.88 in^2)
η_0	2.0 %
Xmax	14.75 mm
Xvar	12.0 mm
Mms	296.0 g
Bl	26.7 Txm
Le	1.59 mH
EBP	115 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	462 mm (18.19 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	422.0 mm (16.61 in)
Depth	233 mm (9.17 in)
Flange and Gasket Thickness	23 mm (0.93 in)
Net Weight	12.0 kg (26.46 lb)
Shipping Weight	13.5 kg (29.76 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.

Eighteen Sound Srl
Via Botticelli 8 - 42124 Mancasale (RE) - ITALY - Ph. +39 0522 1861800 - Fax +39 0522 1861801 - info@eighteensound.it