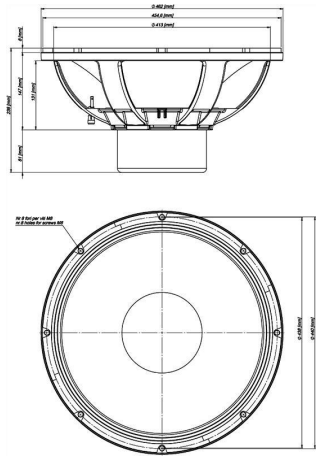
18NLW9601C 8Ω

LF drivers - 18.0 Inches



- 95 dB SPL 1W / 1m average sensitivity
- 135 mm (5.3 in) split winding four layers ISV aluminum voice coil
- 3600 W program power handling
- Carbon fiber cone
- Double Silicon Spider (DSS) for improved excursion control
- Aluminum demodulating ring (SDR) for lower distortion
- High force neodymium magnet assembly
- Weather protected cone and plates for outdoor usage
- Suitable for reflex, bandpass or horn loaded high SPL subwoofer systems

The 18NLW9601C is an extended low frequency 18 inch neodymium high performance transducer. It is the evolution of the industry standard 18NLW9601. The loudspeaker has been designed for use as a subwoofer component, in either a reflex, bandpass or horn loaded high SPL demanding applications. For optimum results recommended amplifier should be able to deliver 3600 Watt program power. At the heart of the transducer stands a double silicon spider based on DSS technology let the 18NLW9601C being able to control the moving mass with high linearity, showing an exceptional stability of mechanical parameter values in the long term. The state-of-the-art 5,3" diameter ISV copper clad aluminum wire CCAW voice coil shows a inside-outside split winding, four layers design, enabling the 18NLW9601C to handle up to 3600W program power. Bl force factor, as well as all other electro-dynamic parameters, are linear within the working range. This, together with the exceptional high excursion behavior - 70mm before damage, ±14mm linear Xmax - makes the 18NLW9601C an extremely low distortion, highly dynamic transducer. The already low distortion and sound quality have been further improved by the aluminum demodulating ring (SDR technology), that flatten impedance and phase versus frequency. The 18NLW9601C has been developed after intense FEA and fluidodynamics simulation and testing, focusing on dissipating the heat generated by the powerful voice coil. Special attention was given to the optimization of air flow into the gap without introducing audible noise. A low-density foam diffractor placed into the vent hole acts as a cooling system, increasing the power handling capability and lowering the power compression figure. The carbon cone shows extreme high strength and water repellent properties. A special coating applied to both the top and back plates makes the transducer far more resistant to the corrosive effects of salts and oxidization.

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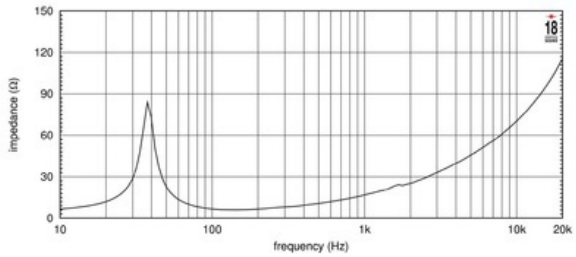

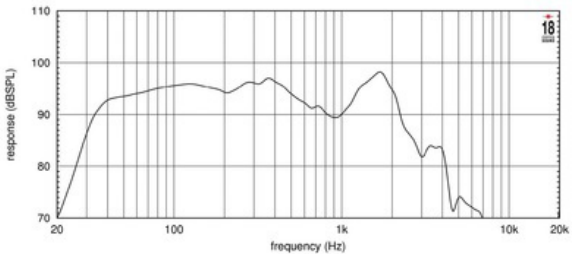

SPECIFICATIONS

Nominal Diameter	462 mm (in)
Nominal Impedance	8 Ω
Minimum Impedance	6.0 Ω
Nominal Power Handling[1]	1800 W
Continuous Power Handling[2]	3600 W
Sensitivity[3]	95.0 dB
Frequency Range	30 - 2300 Hz
Voice Coil Diameter	135 mm (5.3 in)

DESIGN

Magnet Material	Neo

PARAMETERS[4]

Resonance Frequency	38 Hz
Re	4.7 Ω
Qes	0.36
Qms	6.29
Qts	0.34
Vas	99.0 dm^3 (ft^3)
Sd	1130.0 cm^2 (175.15 in^2)
Xmax	14.0 mm
Mms	275.0 g
Bl	31.7 Txm
Le	1.8 mH
EBP	105 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	462 mm (in)
Bolt Circle Diameter	440 mm (in)
Baffle Cutout Diameter	416.0 mm (in)
Depth	236 mm (in)
Flange and Gasket Thickness	26 mm (in)
Net Weight	12.8 kg (lb)
Shipping Weight	14.3 kg (lb)
Shipping Box	482x482x257 mm (19x19x10,1 in) mm (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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