The 12NLW9300 is a high performance low frequency neodymium loudspeaker. It is intended mainly as woofer for two way systems and works extremely well in compact vented enclosures (30 - 70 lit). The neo magnet external assembly assures high flux concentration, low power compression and excellent heat exchange. The external magnet configuration is considerably more efficient than the traditional under-pole magnet topology. This allows to obtain high levels of force factor and power handling with a power to weight ratio at the upper level. The aluminum heatsink has been studied according to F.E.A. simulators, improving the voice coil heat transfer. The direct contact between the heatsink the basket and the magnetic structure is a fundamental improvement in heat dissipation, increasing power handling capabilities and lowering power compression figure. 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. A state-of-the-art Interleaved Sandwich Voice coil (ISV) provides high levels of thermal stability and durability. The ISV technology is based on a high strength fiberglass former with half the coil wound on the outside and half on the inside ensuring uniform thermal dissipation on both sides, bonded together using unique high- temperature resin adhesives achieving a balanced and solid linear motor unit. The 12NLW9300 performances are further improved by the use of Double Demodulation Rings (DDR), designed to reduce dramatically the intermodulation and harmonic distortion whilst improving the transient response. The 12NLW9300 design features a dedicated exclusive Carbon fibre reinforced straight ribbed cone.
12NLW9300 8Ω

LF drivers - 12.0 Inches

SPECIFICATIONS

Nominal Diameter 300 mm (in)
Nominal Impedance 8 Ω
Minimum Impedance 5.7 Ω
Nominal Power Handling1 800 W
Continuous Power Handling2 1200 W
Sensitivity3 97.0 dB
Frequency Range 45 - 3200 Hz
Voice Coil Diameter 100 mm (4.0 in)
Winding Material aluminum

DESIGN

Surround Shape Triple roll
Cone Shape Straight
Magnet Material Neo
Woofe Cone Treatment Water, UV repellent
Recommended Enclosure 50.0 dm³ (1.77 ft³)
Recommended Tuning 42 Hz

PARAMETERS

Resonance Frequency 47 Hz
Re 4.7 Ω
Qes 0.45
Qms 5.5
Qts 0.42
Vas 56.0 dm³ (1.98 ft³)
Sd 531.0 cm² (82.31 in²)
Xmax 8.0 mm
Mms 82.0 g
Bl 17.0 Txm
Le 0.53 mH
EBP 104 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter 315 mm (12.4 in)
Bolt Circle Diameter 296 mm (11.65 in)
Baffle Cutout Diameter 282.0 mm (11.1 in)
Depth 153 mm (6.02 in)
Flange and Gasket Thickness 17 mm (0.67 in)
Net Weight 6.2 kg (13.67 lb)
Shipping Weight 7.0 kg (lb)
Shipping Box 332 x 332 x 184 mm (13.07x13.07x7.24 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.