12NLW9300

LF Neodymium Transducer

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

GENERAL SPECIFICATIONS

Nominal Diameter	300mm (12 in)
Rated Impedance	8 Ohm
AES Power	800W
Program Power	1200W
Peak Power	2400W
Sensitivity	97dB
Frequency Range	45 - 3200 Hz
Power Compression @-10dB	0,8 dB
Power Compression @-3dB	2,5 dB
Power Compression @@Full Power	3,1 dB
Max Recomm. Frequency	1500 Hz
Recomm. Enclosure Volume	30 - 70 lt. (1,06 - 2,47 cuft)
Minimum Impedance	6,2 Ohm at 25°C
Max Peak To Peak Excursion	37 mm (1,46 in)
Voice Coil Diameter	100 mm (3,94 in)
Voice Coil winding material	aluminum
Suspension	Triple roll, polycotton
Cone	Straight ribbed, paper

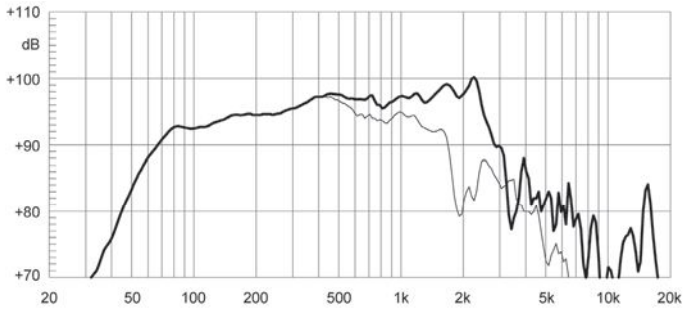
THIELE SMALL PARAMETERS

Fs	40 Hz
Re	4,7 Ohm
Sd	0,053 sq.mt. (82,15 sq.in.)
Qms	4,67
Qes	0,25
Qts	0,24
Vas	87 lt. (3,07 cuft)
Mms	72 gr. (0,16 lb)
Bl	18 Tm
Linear Mathematical Xmax	±8mm (±0,31 in)
Le (1kHz)	0,49 mH
Ref. Efficiency 1W@1m (half space)	95,4 dB

MOUNTING INFORMATION

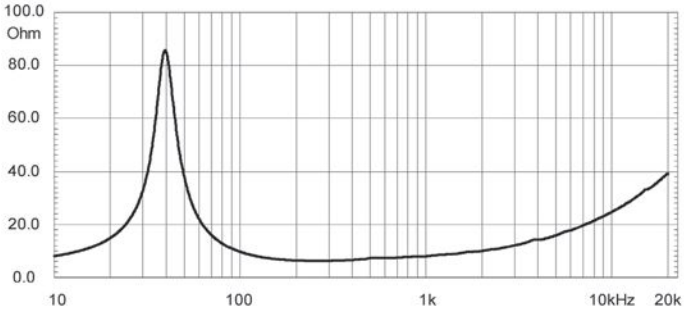
Overall diameter	315 mm (12,4 in)
N.of mounting holes and bolt	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296-300 mm (11,65-11,8 in)
Front mount baffle cutout diameter	282 mm (11,1 in)
Rear mount baffle cutout diameter	282 mm (11,1 in)
Total depth	153 mm (6,02 in)
Flange and gasket thickness	17 mm (0,67 in)
Net weight	6,2 kg (13,69 lb)
Shipping weight	7 kg (15,45 lb)
CardBoard Packaging dimensions	332 x 332 x 184mm (13,07 x 13,07 x 7,24 in)

FREQUENCY RESPONSE CURVE



FREQUENCY RESPONSE CURVE OF 12NLW9300 MADE ON 50 LIT. ENCLOSURE TUNED AT 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE

FREE AIR IMPEDANCE MAGNITUDE CURVE



NOTES

1) AES power is determined according to AES2-1984 (r2003) standard
2) Program power rating is measured in 50 lit enclosure tuned at 60Hz using a 60-600Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.
3) The peak power rating represents the maximum permitted instantaneous peak power level over a maximum period of 10ms which will be withstood by the loudspeaker without damage.
4) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 1000Hz with the test specimen mounted in the same enclosure as given for (1) above.
5) Frequency range is given as the band of frequencies delineated by the lower and upper limits where the output level drops by 10 dB below the rated sensitivity in half space environment.
6) Power compression represents the loss of sensitivity for the specified power, measured from 60 up to 600 Hz, after a 5 min pink noise preconditioning test at the specified power.
7) Thiele - Small parameters are measured after the test specimen has been conditioned by 800W AES power and represent the expected long term parameters after a short period of use.
8) Linear Mat. Xmax is calculated as (Hvc-Hg)/2 + Hg/4 where Hvc is the coil depth and Hgis the gap depth.