10NW750

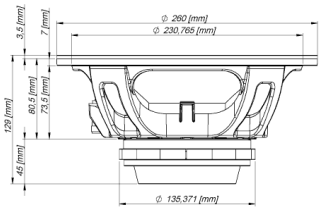
LF Neodymium Transducer

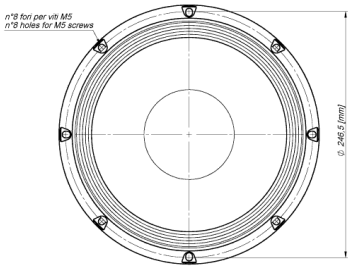
KeyFeatures

94 dB SPL 1W@1m average sensitivity
900 W program power handling
75 mm (3 in) Interleaved Sandwich Aluminum Voice Coil (ISV)
External Neodymium magnet assembly
Single Demodulating Ring (SDR) for lower distortion and maximum sound clarity
Weather protected cone and coated plates
Suitable for high performance line arrays and compact two-way systems

Description

18 Sound's 10NW750 neodymium low frequency transducer is a state-of-the-art 10-inch woofer that combines excellent linearity with high power handling capabilities (900 W) and reduced power compression. The external neodymium magnet assembly assures high flux concentration and excellent heat exchange. The 75mm (3 in) inside outside aluminum voice coil employs Interleaved Sandwich Voice coil (ISV) technology.
A sophisticated distortion reduction system has been implemented using a demodulating ring for flux modulation cancellation related to voice coil excursion, together with a copper ring for the reduction of intermodulation distortion.
The cone is treated against extremely aggressive environment conditions.
The compact size makes the 10NW750 an ideal choice for high performance line arrays and compact two-way systems.





Models

Model	Code	Info
10NW750 8 OHM	022108N750	
10NW750 16 OHM	022106N750	

General Specifications

Nominal Diameter	260 mm (10 in)
Rated Impedance	8 Ohm
AES Power	450 W
Program Power	900 W
Sensitivity	94 dB
Frequency Range	50 ÷ 5000 Hz
Max Recomm. Frequency	1500 Hz
Recomm. Enclosure Volume	10 ÷ 40 lt. (0,35÷1,41cuft)
Minimum Impedance	6,9 Ω
Max Peak To Peak Excursion	35 mm (1,38 in)
Voice Coil Diameter	75 mm (3 in)
Voice Coil winding material	Aluminum
Suspension	Triple roll, Polycotton
Cone	Curvilinear, Treated paper

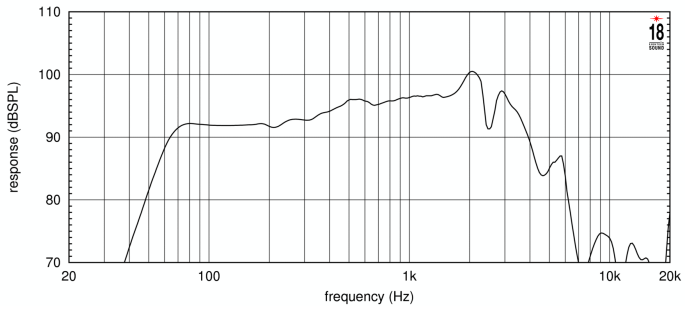
Thiele Small Parameters

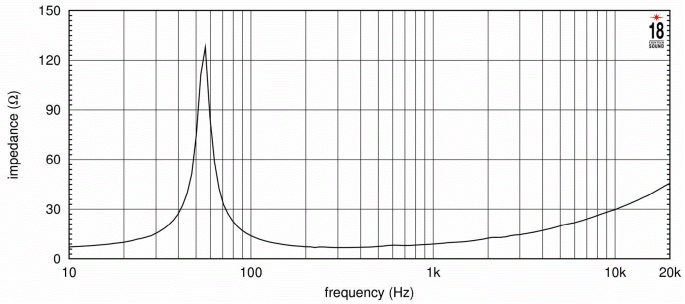
Fs	53 Hz
Re	5,8 Ohm
Sd	0,034 sq.mt (52,70 sq.in.)
Qms	5,74
Qes	0,32
Qts	0,31
Vas	34 lt (1,19 cuft)
Mms	45 gr (0,10 lb)
BL	16,4 Tm
Linear Mathematical Xmax	± 7,5 mm (± 0,30 in)
Le (1kHz)	0,60 mH
Ref. Efficiency 1W@1m (half space)	95,3 dB

Mounting information

Overall diameter	260 mm (10,24 in)
N. of mounting holes and bolt	8
Mounting holes diameter	7 mm (0,28 in)
Bolt circle diameter	244 mm (9,61 in)
Front mount baffle cutout ø	232 mm (9,13 in)
Rear mount baffle cutout ø	232 mm (9,13 in)
Total depth	130 mm (5,12 in)
Flange and gasket thickness	11 mm (0,43 in)
Net weight	4 kg (8,82 lb)
Packaging Dimensions	275x275x164 mm (10,83x10,83x6,46 in)

FREQUENCY RESPONSE MADE IN 30 LT. ENCLOSURE TUNED AT 55 Hz IN FREE FIELD (4π) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER, THE THIN LINE REPRESENTS 45° OFF AXIS FREQUENCY RESPONSE





FREE AIR IMPEDANCE CURVE

Notes

(1) AES standard.
(2) Program power rating is measured in 30 lit. enclosure tuned at 55 Hz using a 60-600 band limited pink noise test signal applied for 2 hours and with 50% duty cycle.
(3) The peak power rating is based on a 6 dB crest factor above the program power rating and represents the maximum permitted instantaneous peak power level over a maximum period of 10ms which will be withstood by the loudspeaker whituout 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 500Hz with the test specimen mounted in the same enclosure as given for 2 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 to 600Hz 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 1 hour 20 Hz sine 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 Hg is gap depth.