15W930

Extended LF Ferrite Transducer

Key Features

- 98 dB SPL 1W/1m average sensitivity
- 75 mm (3 in) edgewound copper voice coil
- 800 W program power handling
- Aluminum demodulating ring (SDR)
- Long excursion, linear travel suspension design
- Humidity resistant cone and treated plates for outdoor usage
- Ideal for high loading compact subwoofer applications and two way systems

Description

The 15W930 low frequency transducer meets the specific market demand for a ceramic version of our industry standard 15ND930 extended low frequency transducer with 75 mm Ø copper edge wound voice coil. Thanks to its versatility, the 15W930 can be used in 2-way compact reflex enclosures with a 1.4” compression driver, in multiway systems and in high loading sub woofers as small as 70 lt (compact reflex, bandpass and horn loaded configurations). The deep profile curvilinear cone, made with high strength wood pulp, has been designed to achieve the best possible linearity within its frequency range. The cone surround, made from a linen material, is highly resistant to aging and fatigue. The in-house developed cone treatment is humidity repellent and significantly dampens bell mode resonances. The 75mm (3in) copper edge wound voice coil assembly is wound on a strong fiberglas former to improve force transmission and power handling. The already low distortion and high sound quality are further improved by the aluminum demodulating ring (SDR) used to reproduce instantaneous peak on mid frequencies, reducing intermodulation distortion. The magnetic structure has been optimized using our FEA CAD software that has maximized the flux density in the voice coil gap. Excellent heat dissipation has also been achieved by incorporating air channels between the basket and the magnetic top plate. Due to the increase in use of audio systems at outdoor events, the ability of the 15W930 to perform in adverse weather conditions or in areas of high humidity is a great advantage. This has been achieved using exclusive treatments which enable the cone and the magnetic plate to resist corrosion and render the cone water repellent at the same time.

Models

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<th>Model</th>
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<td>0221589310</td>
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Extended LF Ferrite Transducer

General Specifications

Nominal Diameter 380 mm (15 in)
Rated Impedance 8 Ohm
AES Power 500 W
Program Power 800 W
Peak Power 1600 W
Sensitivity 98 dB
Frequency Range 50 ÷ 3600 Hz
Power Compression @-10dB 0,6 dB
Power Compression @-3dB 1,9 dB
Power Compression @Full Power 2,8 dB
Max Comm., Frequency 1700 Hz
Recomm. Enclosure Volume 60 ÷ 140 lt. (2,12 ÷ 4,95 cuft)
Minimum Impedance 7,2 ohm at 25°C
Max Peak To Peak Excursion 33 mm (1,30 in)
Voice Coil Diameter 75 mm (3 in)
Voice Coil Winding Material Edgewound Copper
Suspension M-roll, Polycotton
Cone Curvilinear, humidity repellent

Thiele Small Parameters

Fs 33 Hz
Re 5,5 Ohm
Sd 0,086 sq.mt. (132.53 sq.in.)
Qms 8,76
Qts 0,23
Qts 0,22
Vas 240 lt. (8,46 cuft)
Mms 97 gr. (0,21 lb)
BL 22,1 Tm
Linear Mathematical Xmax ± 7,5 mm (± 0,30 in)
Le (1kHz) 1,47 mH
Ref. Efficiency 1W@1m (half space) 97,9 dB

Mounting information

Overall diameter 393 mm (15,47 in)
N. of mounting holes and bolt 8
Mounting holes diameter 7,15 mm (0,28 in)
Bolt circle diameter 371 mm (14,6 in)
Front mount baffle cutout ø 360 mm (14,17 in)
Rear mount baffle cutout ø 354 mm (13,94 in)
Total depth 185 mm (7,28 in)
Flange and gasket thickness 14 mm (0,55 in)
Net weight 7,6 kg (16,7 lb)
Shipping weight 8,5 kg (18,7 lb)
Cardboard Packaging dimensions 405 x 405 x 252 mm (15,94 x 15,94 x 9.92 in)

Notes

1) AES power is determined according to AES2-1984 (r2003) standard
2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz 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 500Hz with the test specimen mounted in the same enclosure as given for (1) above.
5) Power compression represents the loss of sensitivity for the specified power, measured from 50-500 Hz after a 5 min pink noise preconditioning test at the specified power.
6) Linear Math. Xmax is calculated as (Hvc-Hg)/2 + Hg/4 where Hvc is the coil depth and Hg is the gap depth.