15W700 4Ω

LF drivers - 15.0 Inches

- 97 dB SPL 1W / 1m average sensitivity
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
- 450 W AES power handling
- Weather protected cone and plates for outdoor usage
- Excellent transient response
- Improved heat dissipation via unique basket design
- Ideal for compact reflex subwoofers and multiway systems

The 15W700 low frequency transducer meets the specific market demand for a loudspeaker which combines good linearity and efficiency with high power handling capabilities, containing a 75 mm Ø aluminum voice coil. Although primarily intended for use in tuned reflex enclosures, the versatile characteristics of the 15W700 render it suitable for a wide variety of enclosure types, particularly as a subwoofer or as a LF driver in 2 or 3-way systems. When used in a 2-way system, we recommend a 1.4" or 2" exit compression driver in order to obtain the best sound quality. The deep profile curvilinear paper cone has been made using a special high strength wood pulp and designed to achieve the best possible linearity within its intended frequency range and to control bell-mode resonances around the cone circumference. The cone is carried by an unusually deep profile, double half-roll suspension formed of a linen-like material which is more resistant to aging and fatigue than the traditional cotton-based materials used in conventional surrounds. The 75 mm Ø aluminum voice coil employs the Interleaved Sandwich Voice coil (ISV) technology, in which a high strength fiberglas former carries windings on both the outer and inner surfaces to achieve a mass balanced coil. This results in an extremely linear motor assembly with a reduced tendency for eccentric behavior when driven hard. The magnetic structure has been optimized using our in-house FEA CAD resource 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 15W700 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.

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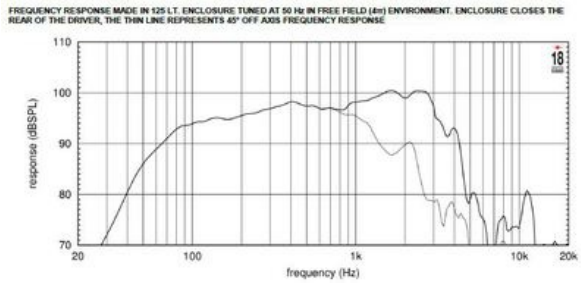

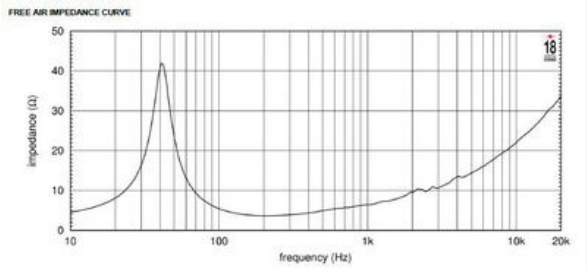

SPECIFICATIONS

Nominal Diameter	380 mm (in)
Nominal Impedance	4 Ω
Minimum Impedance	3.7 Ω
Nominal Power Handling[1]	450 W
Continuous Power Handling[2]	700 W
Sensitivity[3]	97.0 dB
Frequency Range	38 - 5000 Hz
Voice Coil Diameter	75 mm (3.0 in)

DESIGN

Surround Shape	M-roll
Magnet Material	Ferrite
Woofer Cone Treatment	Weather protected
Recommended Enclosure	110.0 dm^3 (3.88 ft^3)
Recommended Tuning	48 Hz

PARAMETERS[4]

Resonance Frequency	41 Hz
Re	2.8 Ω
Qes	0.29
Qms	4.03
Qts	0.27
Vas	180.0 dm^3 (6.36 ft^3)
Sd	850.0 cm^2 (131.75 in^2)
Xmax	6.5 mm
Mms	86.0 g
Bl	14.7 Txm
Le	0.54 mH
EBP	141 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	387 mm (15.24 in)
Bolt Circle Diameter	370 mm (14.57 in)
Baffle Cutout Diameter	353.0 mm (13.9 in)
Depth	168 mm (6.61 in)
Flange and Gasket Thickness	19 mm (0.75 in)
Net Weight	8.5 kg (18.74 lb)
Shipping Weight	9.5 kg (20.94 lb)
Shipping Box	405 x 405 x 214 mm (15.94x15.94x8.43 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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