

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

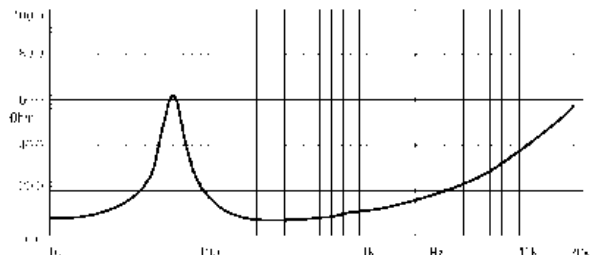
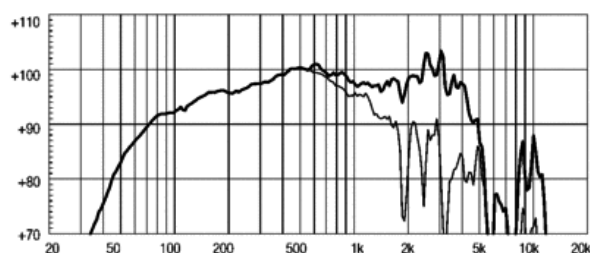
The 12W700 meets the specific market requirement for a loudspeaker which combines the excellent linearity, good efficiency and high power handling of the 15W700 model but in a 12 inch (300mm) chassis for use in more compact systems. It is primarily intended for application in compact reflex and band-pass enclosures but can also be used for horn loaded configurations.

The ribbed curvilinear paper cone has been made from a special high strength woodpulp 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, triple roll suspension made from a polycotton material which is more resistant to aging and fatigue than traditional cotton-based ones.

The 75 mm (3 inch) diameter voice coil employs the Interleaved Sandwich Voice coil (ISV) technology, in which a high strength fibreglas 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 FEACAD resource to maximize the flux density in the voice coil gap. Voice coil cooling has been achieved by incorporating airways between the chassis back plate and the top plate of the magnet, allowing heated air from the voice coil and gap to be channeled away and dissipated by the chassis basket.

Due to the increasing use of audio systems at outdoor events, the ability to perform in adverse weather conditions or in high-humidity areas is an essential feature of the 12W700. This has been achieved using an exclusive cone and magnet plate treatment process which increases resistance to corrosion and renders the cone water repellent.



SPECIFICATIONS

Nominal Diameter	300 mm (in)
Nominal Impedance	8 Ω
Minimum Impedance	7.0 Ω
Nominal Power Handling ¹	450 W
Continuous Power Handling ²	700 W
Sensitivity ³	98.0 dB
Frequency Range	55 - 4200 Hz
Voice Coil Diameter	75 mm (3.0 in)
Winding Material	aluminum

DESIGN

Surround Shape	Triple roll
Cone Shape	Curvilinear
Magnet Material	Ferrite
Woofer Cone Treatment	Weather protected
Recommended Enclosure	70.0 dm ³ (2.47 ft ³)
Recommended Tuning	60 Hz

PARAMETERS⁴

Resonance Frequency	58 Hz
Re	5.7 Ω
Qes	0.37
Qms	3.93
Qts	0.36
Vas	55.0 dm ³ (1.94 ft ³)
Sd	531.0 cm ² (82.31 in ²)
Xmax	6.5 mm
Mms	51.0 g
Bl	17.7 Txm
Le	1.48 mH
EBP	156 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	147 mm (5.79 in)
Flange and Gasket Thickness	16 mm (0.63 in)
Net Weight	8.2 kg (18.08 lb)
Shipping Weight	9.0 kg (19.84 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.