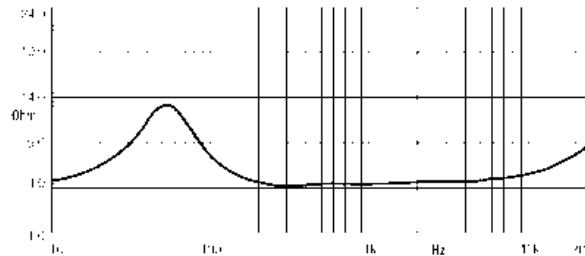


- 100,5 dB SPL 1W/ 1m average sensitivity
- 65 mm (2,52 in) Interleaved Sandwich Voice coil (ISV)
- 300W AES power handling
- Neodymium magnet assembly
- AIC (Active Impedance Control) secondary voice coil for superior intelligibility, very low distortion and inductance linearization
- Suitable for two way high quality applications

The 12NDA520 is a 12" mid-low transducer created for compact reflex 2-way enclosures and designed to be coupled with typical 1" and 1.4" compression drivers. It can also be used in mid-low applications on modern line-array systems. Its features and design characteristics make it extremely defined in mid-range frequencies and offer a significant and consistent bottom-end, making the product also suitable for monitoring applications. The 12NDA520 incorporates our proprietary Active Impedance Control technology (AIC), consisting of an additional coil fixed on the pole piece and connected in parallel to the moving coil. The magnetic field generated by this coil has the following effects: 1) Impedance linearization 2) Acoustic and electric phase linearization 3) Significant increase of sensitivity and total SPL 4) Total harmonic distortion reduction 5) Constant power transfer By not absorbing the moving coil's electromagnetic energy, AIC offers substantial advantages relating to the quality of sound. The neodymium magnet assembly developed by Eighteen Sound engineers assures high flux concentration, low power compression and excellent heat exchange since the external magnet configuration is considerably more efficient than traditional under-pole magnet topology. This results in high levels of force factor and power handling with an optimum power to weight ratio. The curvilinear cone, created from a high damping wood pulp, has been designed to achieve the best possible linearity within its intended frequency range. The 12NDA520 employs our 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. The final result is an extremely linear motor assembly with a reduced tendency for eccentric behavior when driven hard. A proprietary humidity-block cone treatment makes the transducer suitable for outdoor use in adverse weather conditions. In addition, a special coating applied to both the top and back plates makes the 12NDA520 far more resistant to the corrosive effects of salts and oxidization.



### SPECIFICATIONS

Nominal Diameter	300 mm ( in)
Nominal Impedance	8 Ω
Minimum Impedance	6.5 Ω
Nominal Power Handling <sup>1</sup>	300 W
Continuous Power Handling <sup>2</sup>	450 W
Sensitivity <sup>3</sup>	100.5 dB
Frequency Range	55 - 6000 Hz
Voice Coil Diameter	65 mm (2.5 in)
Winding Material	aluminum

### DESIGN

Surround Shape	Triple roll
Cone Shape	Curvilinear
Magnet Material	Neo
Woofer Cone Treatment	Weather protected
Recommended Enclosure	45.0 dm <sup>3</sup> (1.59 ft <sup>3</sup> )
Recommended Tuning	55 Hz

### PARAMETERS<sup>4</sup>

Resonance Frequency	50 Hz
Re	5.2 Ω
Qes	0.28
Qms	5.5
Qts	0.27
Vas	111.0 dm <sup>3</sup> (3.92 ft <sup>3</sup> )
Sd	531.0 cm <sup>2</sup> (82.31 in <sup>2</sup> )
Xmax	4.0 mm
Mms	36.0 g
Bl	14.4 Txm
Le	0.03 mH
EBP	178 Hz

### MOUNTING AND SHIPPING INFO

Overall Diameter	3154 mm (124.17 in)
Bolt Circle Diameter	2964 mm (116.69 in)
Baffle Cutout Diameter	282.0 mm (11.1 in)
Depth	125 mm (4.92 in)
Flange and Gasket Thickness	11 mm (0.43 in)
Net Weight	3.0 kg (6.61 lb)
Shipping Weight	3.65 kg (8.05 lb)
Shipping Box	332 x 332 x 184mm 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.