



Features

Heavy-duty cast aluminum chassis for increased rigidity.
Power compression only 1.6dB at rated power.
A/B/L in excess of 30 T/m.
Double suspension.
Appropriate for applications as diverse as scoop bins, conventional reflex cabinets and horn loaded systems.

Applications

The SD-18EL is an very high output low frequency transducer. The 18 inch (460mm) diameter piston will produce extremely high sound pressure levels at very low frequencies and is ideal for high level deep bass and sub woofer response in both live sound and recorded music venues. The operating range is 30Hz to 200Hz. The transducer uses high energy neodymium magnetics to achieve a very high acoustic output to weight ratio.

The SD-18EL employs a large 5 inch (127mm) diameter voice coil that provides an AES rated 1800 watts of continuous power handling and a full 6800 watts of peak rated power handling when sufficient amplifier headroom is available. It is recommended that the transducer be loaded into a properly designed vented enclosure and suitable active high pass filtering be employed if extremely high power levels are expected at low frequencies. The SD-18EL uses Dynatech's Auto Balanced Cooling (ABC) technology to not only improve transducer power handling and reliability but to also increase power compression performance by carefully balancing and directing airflow to critical areas.

The voice coil design is inside/outside geometry with Dynatech's square wire technology to improve conversion efficiency and provide a very large cross-sectional area for superior QSystem linearity is achieved by employing magnetic flux demodulation devices in the structure to increase fidelity and sonic accuracy. The system suspension has been designed specifically for high linear displacement and extended low frequency response. The double spider design insures very high displacement and linear response while maintaining excellent control. The cone has been treated with a conformal coating designed to provide additional mechanical damping and moisture resistance.

The transducer chassis is a die cast aluminum design that insures a very high degree of structural integrity.

Specifications

General Specifications

Nominal diameter.....	460mm/18in
Voice Coil Diameter.....	127mm/5.0"
Available Impedances.....	4 Ohms/8 Ohms/16 Ohms
Power Rating.....	1800w (A.E.S.)
Peak Power (6 dB Crest Factor).....	3200w (A.E.S.)
Sensitivity (1w-1m).....	98dB
Frequency Range.....	30-200 Hz
Recommended Enclosure Volume.....	90-220 Litres
Resonance.....	33.15Hz
Voice Coil Winding Depth.....	28mm/1.1"
Magnet Gap Depth.....	12mm/0.47"
Flux Density.....	1.18 Tesla
Magnet Material.....	Ceramic
Voice Coil Material.....	Copper
Formal Material.....	Glass Fibre
Dust Dome Material.....	Paper
Suspension Material.....	Fabric
Cone/Surround Material.....	Paper/Fabric

Thiele Small Parameters

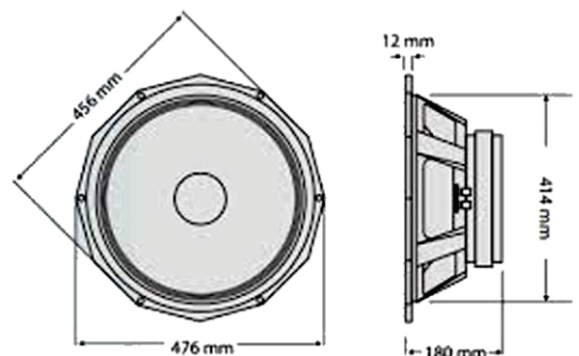
FS.....	33.15 Hz	Vas.....	203.84 litres
Re.....	5.22Ω	Mms.....	215.24g
Qms.....	15.42	Sd.....	1164.16cm ²
Qes.....	0.24	Cms.....	107 μm/N
Qts.....	0.24	BL.....	30.99 T/m
Le.....	1.33mH	Xmax.....	11.05 mm
L2.....	2.45mH	Vd.....	1.28 Litres
R2.....	5.3Ω	Ref. Efficiency.....	2.88%

Dimensions

Overall Diameter.....	474mm
Width Across Flats.....	459mm
Flange Height.....	14.5mm
Depth (Excl. Flange).....	175mm
Magnet Diameter.....	280mm

Weight

Net Weight.....	18.5 kg / 40.78 lb
Shipping Weight.....	19.0 kg / 41.88 lb



Frequency Response & Impedance Curve

