

Neodymium Magnet Die-cast Chassis Driver



Specifications

General Specifications

Nominal diameter.....	381 mm/15 in
Power rating.....	600 W(AES)
Nominal impedance.....	8Ω
Sensitivity.....	91 dB
Frequency range.....	40-2000 Hz
Chassis type.....	Cast aluminum
Magnet type.....	Neodymium
Magnet weight.....	0.33 kg/11.7 oz
Voice coil diameter.....	83.5 mm/3.28 in
Coil material.....	SV-W
Former material.....	Glass fiber
Cone material.....	Paper
Surround material.....	Rubber
Suspension.....	Single
X-max.....	4.8 mm/0.19 in
Gap depth.....	10.0 mm/0.39 in
Voice coil winding width.....	19.6 mm/0.77 in
Net Weight.....	5.5 kg/12.1 lb
Packing Dimension WxDxH (mm)	430mm x 430mm x 225mm
Shipping Weight.....	6.6 kg/14.6 lb

Small Signal Parameters

Re.....	5.8Ω
Fs.....	48 Hz
Mms.....	187.7 g/6.62 oz
Mmd.....	173.31 g/6.11 oz
Qms.....	5.95
Qes.....	0.76
Qts.....	0.67
Vas.....	60.95 lt/2.15 ft³
Bl.....	20.81 Tm
Cms.....	6.0e-05 m/N
Rms.....	9.50 Ns/m
Le (at 1kHz).....	0.64 mH

Features

- 3.28" Voice Coil
- 2400 Watts Peak Power Handling
- Active Balanced Cooling
- Neodymium Magnetics
- Precision Circular Wire Inside/Outside Coil Design
- Integrated Demodulation Rings
- High Excursion Half Roll Rubber Surround
- Die Cast Aluminum Chassis

Applications

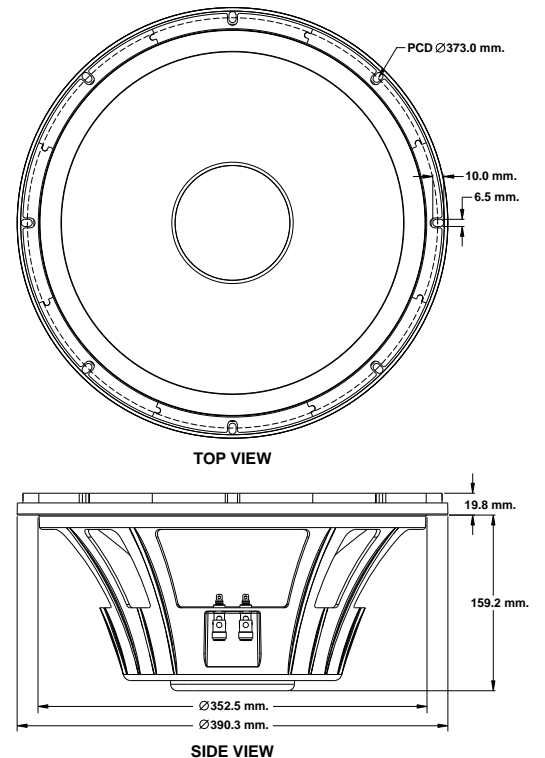
The P Audio SD15R83 is a high output wide bandwidth transducer. The SD15R83 is a highly upgraded design that features many of P Audio's new technologies and performance upgrades. The 15 inch (381mm) diameter piston will produce extremely high sound pressure levels at both low and mid band frequencies and is ideal for high level response in both live sound and recorded music venues. The transducer has a rated bandwidth of 40Hz to 2000Hz. The transducer uses high energy ferrite magnetics to achieve a very high acoustic output to weight ratio. The SD15R83 has been optimized for use in two way or three way sound reinforcement systems.

The SD15R83 employs a large format 3.28 inch (83.5mm) diameter voice coil that provides an AES rated 600 watts of continuous power handling and a full 2400 watts of peak rated power handling when sufficient amplifier headroom is available. The SD15R83 utilizes P Audio'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 a bobbin wound geometry with P Audio's precision circular wire technology in an inside/outside geometry to insure very high conversion efficiency. The P Audio circular wire technology and inside/outside winding configuration provides a very large cross-sectional area that substantially improves system cooling and reduces power compression.

The system suspension has been designed specifically for high linear displacement and extended low frequency response. The SD15R83 also features a single spider configuration that provides system reliability and mechanical control. The cone suspension is a high excursion rubber based design that is ideal for deep bass applications in band pass enclosures and extended bass vented designs.

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



Frequency Response and Impedance Curves

