

**Neodymium Magnet Die-cast Chassis Driver**



**Specifications**

**General Specifications**

|                               |                       |
|-------------------------------|-----------------------|
| Nominal diameter.....         | 305 mm/12 in          |
| Power rating.....             | 1200 W(AES)           |
| Nominal impedance.....        | 8Ω                    |
| Sensitivity.....              | 89 dB                 |
| Frequency range.....          | 55-2000 Hz            |
| Chassis type.....             | Cast aluminum         |
| Magnet type.....              | Neodymium             |
| Magnet weight.....            | 0.45 kg/15.8 oz       |
| Voice coil diameter.....      | 101.6 mm/4.0 in       |
| Coil material.....            | SV-W                  |
| Former material.....          | Glass fiber           |
| Cone material.....            | Paper                 |
| Surround material.....        | Rubber                |
| Suspension.....               | Single                |
| X-max.....                    | 7.5 mm/0.30 in        |
| Gap depth.....                | 15.0 mm/0.59 in       |
| Voice coil winding width..... | 30.0 mm/1.18 in       |
| Net Weight.....               | 6.7 kg/14.8 lb        |
| Packing Dimension WxDxH (mm)  | 355mm x 355mm x 195mm |
| Shipping Weight.....          | 7.6 kg/16.8 lb        |

**Small Signal Parameters**

|                   |                   |
|-------------------|-------------------|
| Re.....           | 6.9Ω              |
| Fs.....           | 43 Hz             |
| Mms.....          | 169.6 g/5.98 oz   |
| Mmd.....          | 162.6 g/5.74 oz   |
| Qms.....          | 6.90              |
| Qes.....          | 0.50              |
| Qts.....          | 0.47              |
| Vas.....          | 31.95 lt/1.13 ft³ |
| Bl.....           | 25.07 Tm          |
| Cms.....          | 8.1e-05 m/N       |
| Rms.....          | 6.67 Ns/m         |
| Le (at 1kHz)..... | 0.855 mH          |

**Features**

- 4" Large Format Voice Coil
- 4800 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**

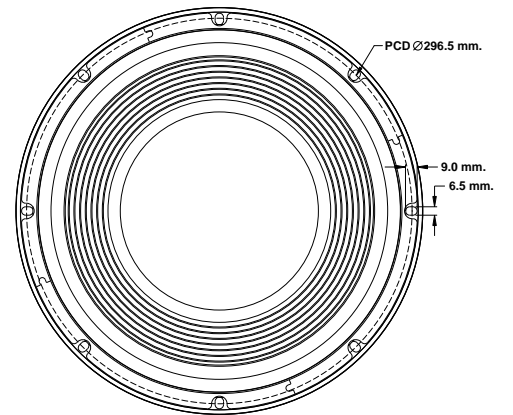
The P Audio SD12R100 is a high output wide bandwidth transducer. The SD12R100 is a highly upgraded design that features many of P Audio's new technologies and performance upgrades. The 12 inch (305mm) dia-meter piston will produce extremely high sound pressure levels at both low and mid band frequencies and is ideal for high level response in both live sound and recorded music venues. The transducer has a rated bandwidth of 55Hz to 2000Hz. The transducer uses high energy neodymium magnetics to achieve a very high acoustic output to weight ratio. The SD12R100 has been optimized for use in two way or three way sound reinforcement systems.

The SD12R100 employs a large format 4 inch (101.6mm) diameter voice-coil that provides an AES rated 1200 watts of continuous power handling and a full 4800 watts of peak rated power handling when sufficient amplifier headroom is available. The SD12R100 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.

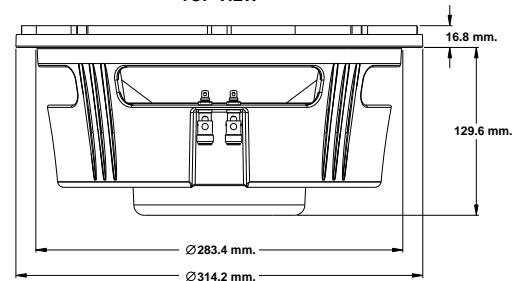
The voice coil design is a bobbin wound geometry with P Audio's precision round wire technology in an inside/outside geometry to insure very high conversion efficiency. The P Audio circular wire technology and inside/outside winding configuration provides a very large cross-sectional area that substantially improves system cooling and reduces power compression.

The system suspension has been designed specifically for high linear displacement and extended low frequency response. The SD12R100 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.



TOP VIEW



SIDE VIEW

**Frequency Response and Impedance Curves**

