

Model Number: HDS-P830883
Product Line: Peerless Gold

Revision: Rev 1_0
Date: 8-Sep-09

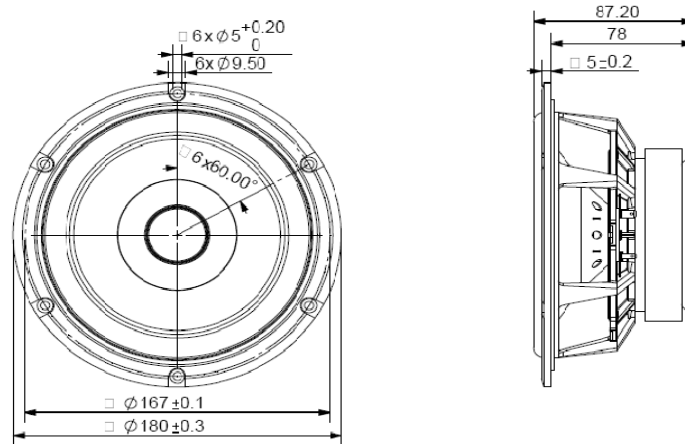


Product Description:

This 6.5 inch 8 ohm driver is a member of the high performance HDS family. A powerful ferrite magnet system is coupled to a finite element analysis designed suspension system, containing both a linear spider design and a rubber surround. The motor contains an aluminium shorting ring, which reduces coil inductance, thus providing both extended frequency response performance and reduced distortion. The long-throw voice coil ensures linear high excursion performance, needed for signal clarity. The driver employs a phase plug for low compression and frequency response shaping without the use of a dust cap. The cast aluminium basket offers structural rigidity, heat sinking capacity for the motor, and additional air venting under the spider so as to again reduce air compression effects. The cone in this model is nomex based, offering a unique visual and acoustic experience.



Mechanical 2D Drawing:

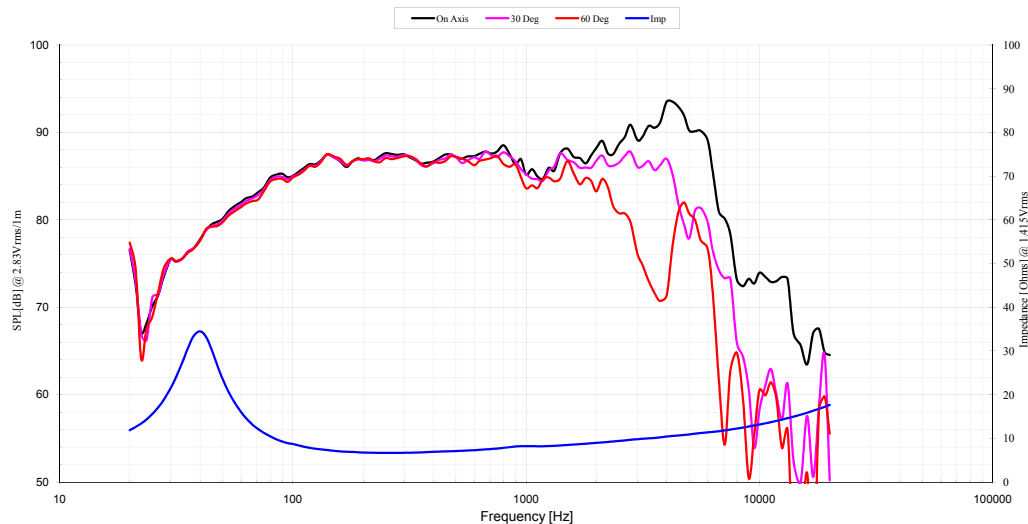


Specifications:

| | | | | | | | | |
|-----------------------------------|------------------|-----------------------|-----------|-------------|----------------------------|------------------|-------------------------------|-------|
| DC Resistance | R_{evc} | Ω | 5.9 | 5.0% | Energy Bandwidth Product | EBP | $(1/Q_{\text{es}}) \cdot f_s$ | 93 |
| Minimum Impedance | Z_{min} | Ω | 6.7 | 7.5% | Moving Mass | M_{ms} | g | 17.34 |
| Voice Coil Inductance | L_e | mH | 0.18 | | Suspension Compliance | C_{ms} | um/N | 795.6 |
| Resonant Frequency | f_s | Hz | 43 | 15.0% | Effective Cone Diameter | D | cm | 13.5 |
| Mechanical Q Factor | Q_{ms} | - | 2.2 | | Effective Piston Area | S_D | cm ² | 143.1 |
| Electrical Q Factor | Q_{es} | - | 0.46 | | Equivalent Volume | V_{as} | L | 22.90 |
| Total Q Factor | Q_{ts} | - | 0.38 | | Motor Force Factor | BL | T·m | 7.70 |
| Ratio f_s / Q_{ts} | F | f_s / Q_{ts} | 113 | | Motor Efficiency Factor | β | $(T \cdot m^2) / \Omega$ | 10.14 |
| Half Space Sensitivity @ 2.83V | dB@2.83V/1m | dB | 87.2 | $\pm 1.0^1$ | Voice Coil Former Material | VC _m | - | Alu |
| Sensitivity @ 1W/1m | 1W/1m | dB | 87.8 | $\pm 1.0^1$ | Voice Coil Inner Diameter | VC _d | mm | 32.4 |
| | | | | | Gap Height | Gh | mm | 6.0 |
| Rated Noise Power (IEC 2685 18.1) | P | W | 70 | | Maximum Linear Excursion | X_{max} | mm | 5.62 |
| Test Spectrum Bandwidth | 40Hz - 3kHz | | 12 dB/Oct | | Ferrofluid Type | FF | | N/A |
| | | | | | Transducer Size | - | inch | 6.5 |
| | | | | | Transducer Mass | - | kg | 1.64 |

1 - Piston Band Sensitivity Tolerance

Frequency and Impedance Response:



F088-0713A