

Model Number: PLS-P830970
Product Line: Peerless Gold

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

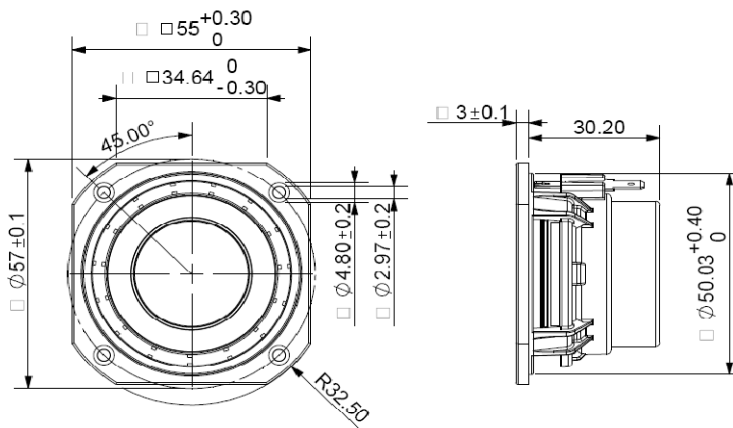


Product Description:

This 2 inch 4 ohm member of the PLS family sets a high standard, for compact full range drivers intended for applications such as television soundbars and compact music systems. Design features in this family include a damped plastic basket with venting under the spider to aid cooling of the motor, a neodymium magnet motor with copper cap to lower coil inductance, providing low distortion at low frequencies and extended high frequency response. A black anodized aluminium cone is employed on the driver, along with a black anodized aluminium dust cap coupled directly to the voice coil. Additionally, the cones come equipped with special-designed large roll rubber surrounds, which allow for a dynamic linear response to high excursion input signals.



Mechanical 2D Drawing:

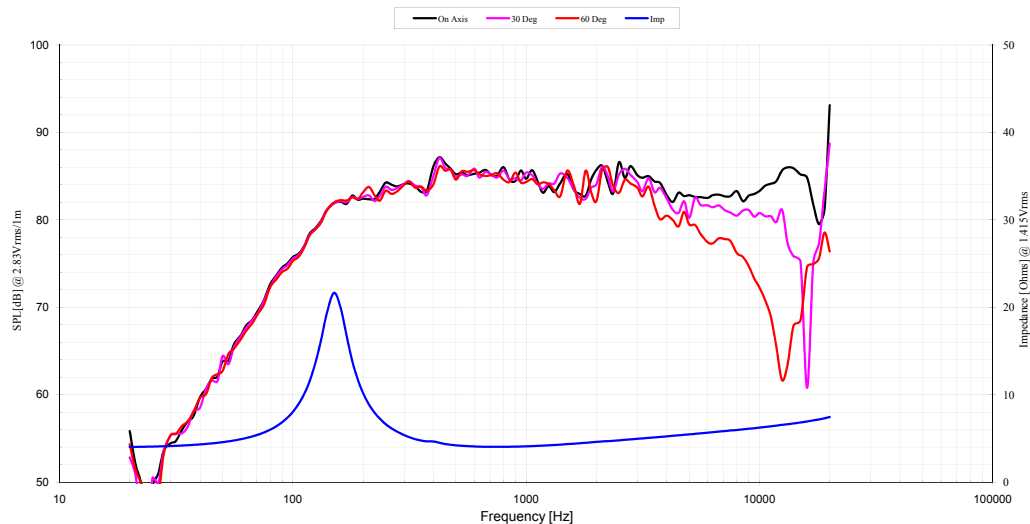


Specifications:

| | | | | | | | | |
|-----------------------------------|---------------|----------------|------|-------------|----------------------------|-----------------|--------------------------|----------|
| DC Resistance | R_{evc} | Ω | 3.6 | 5.0% | Energy Bandwidth Product | EBP | $(1/Q_{es}) \cdot f_s$ | 247 |
| Minimum Impedance | Z_{min} | Ω | 4.0 | 7.5% | Moving Mass | M_{ms} | g | 1.39 |
| Voice Coil Inductance | L_e | mH | 0.03 | | Suspension Compliance | C_{ms} | um/N | 661.1 |
| Resonant Frequency | f_s | Hz | 166 | 15.0% | Effective Cone Diameter | D | cm | 4.2 |
| Mechanical Q Factor | Q_{ms} | - | 3.9 | | Effective Piston Area | S_D | cm ² | 13.9 |
| Electrical Q Factor | Q_{es} | - | 0.67 | | Equivalent Volume | V_{as} | L | 0.18 |
| Total Q Factor | Q_{ts} | - | 0.57 | | Motor Force Factor | BL | T·m | 2.79 |
| Ratio f_s / Q_{ts} | F | f_s / Q_{ts} | 290 | | Motor Efficiency Factor | β | $(T \cdot m^2) / \Omega$ | 2.16 |
| Half Space Sensitivity @ 2.83V | dB@2.83V/1m | dB | 85.3 | $\pm 1.0^1$ | Voice Coil Former Material | VC _m | - | Aluminum |
| Sensitivity @ 1W/1m | 1W/1m | dB | 82.7 | $\pm 1.0^1$ | Voice Coil Inner Diameter | VC _d | mm | 25.7 |
| | | | | | Gap Height | Gh | mm | 3.0 |
| Rated Noise Power (IEC 2685 18.1) | P | W | 7 | | Maximum Linear Excursion | X_{max} | mm | 1.65 |
| Test Spectrum Bandwidth | 150Hz - 20kHz | 12 dB/Oct | | | Ferrofluid Type | FF | N/A | |
| | | | | | Transducer Size | - | inch | 2 |
| | | | | | Transducer Mass | - | kg | 0.14 |

1 - Piston Band Sensitivity Tolerance

Frequency and Impedance Response:



F088-0713A