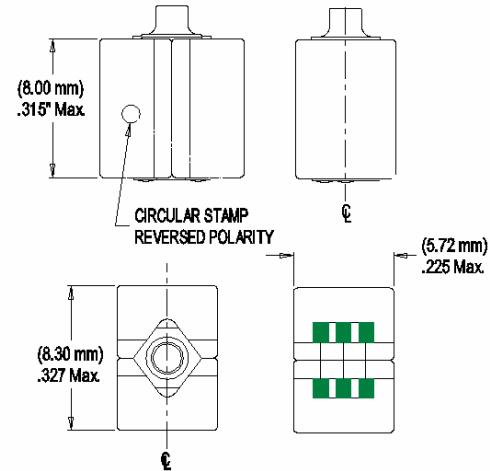


Description

A unique twin magnetic receiver which features virtual cancellation of mechanical vibration and achieves high sound pressure levels without excessive distortion. The 163-13 is designed for use in high gain hearing instruments and other high acoustic output devices requiring reliability, high sensitivity, small size, and minimal feed- back potential.

- Very low vibration generation
- 133 dB SPL (HFA) with less than 20% THD at 500Hz and above
- Low magnetic radiation
- Unequaled shock resistance
- Licensed under the Victoreen plural transducer patent, U.S. 4,109,116

Physical Dimensions



Model Numbers

Model numbers designate electrical and physical characteristics. These are the three models available. The Electrical Specifier replaces the xxx in the following example: 163-13A-xxx.

3 TERMINAL CENTER- TAPPED MODELS

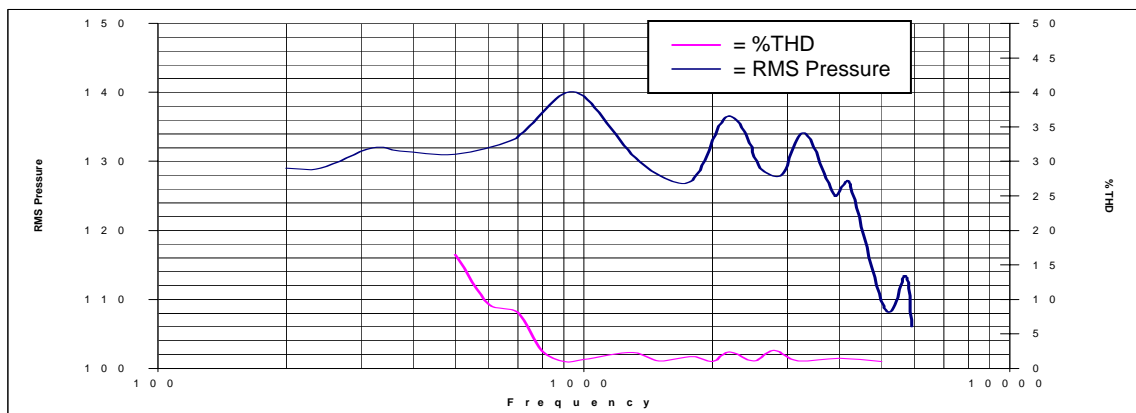
Electrical Specifier	Z Rated	Z 1kHz	DC Res 20°	Bias MA
-041	108	68	25	0.00
-042	490	295	108	0.00
-044	433	272	90	0.00

Resistance Tolerance, $\pm 20\%$ Impedance (Z rated) Tolerance, $\pm 20\%$ Z rated is specified and measured as the geometric means of the Impedance at 300 Hz and the maximum impedance below 5000 Hz

Acoustic Response

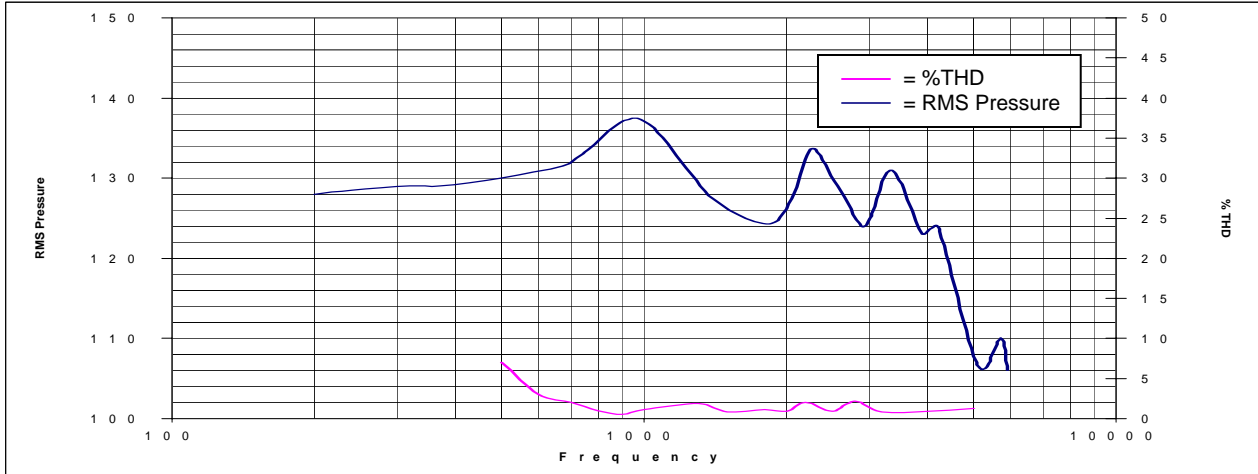
Acoustic Response and Total Harmonic Distortion @ 20 mVa*

ELECTRICAL INPUT: Constant voltage source $(.02Z_R)^{1/2}$ volts rms (20 mVa into the rated impedance)



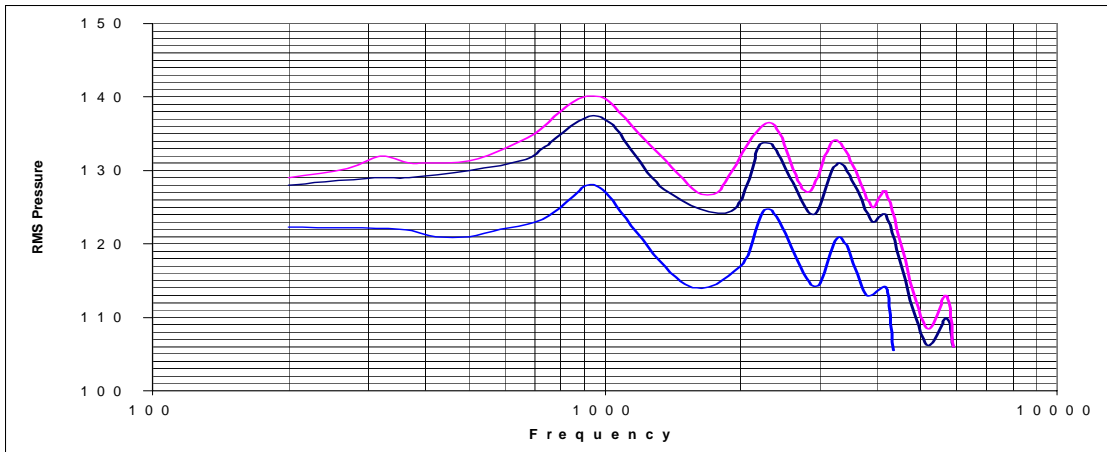
Acoustic Response and Total Harmonic Distortion @ 10 mVA*

ELECTRICAL INPUT: Constant voltage source $(.01Z_R)^{1/2}$ volts rms (10 mVA into the rated impedance)



Acoustic Response vs Input Level*

ELECTRICAL INPUT: Constant voltage source $(.001Z_R)^{1/2}$, $(.01Z_R)^{1/2}$, $(.02Z_R)^{1/2}$ volts rms (1 mVA, 10 mVA and 20 mVA into the rated impedance)

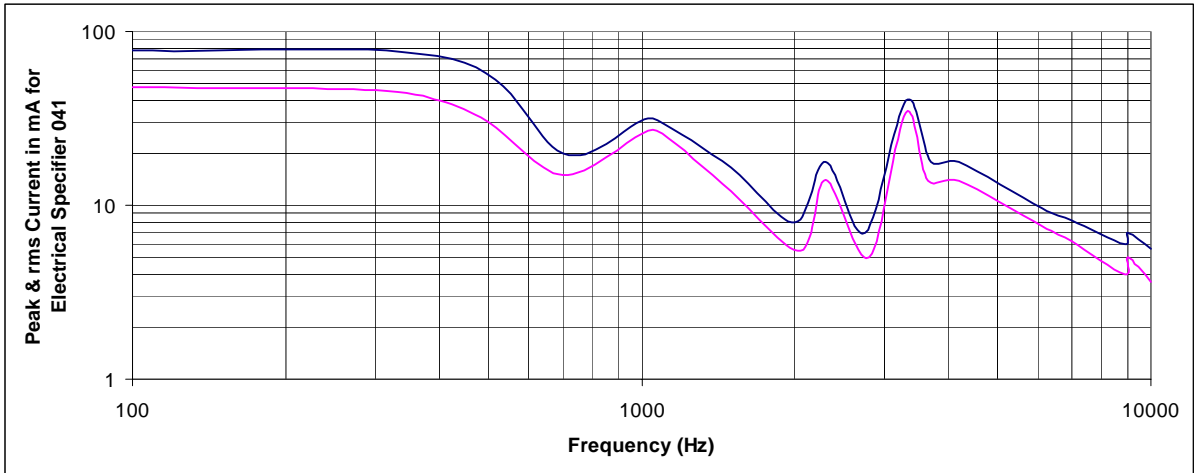


163-13 Series

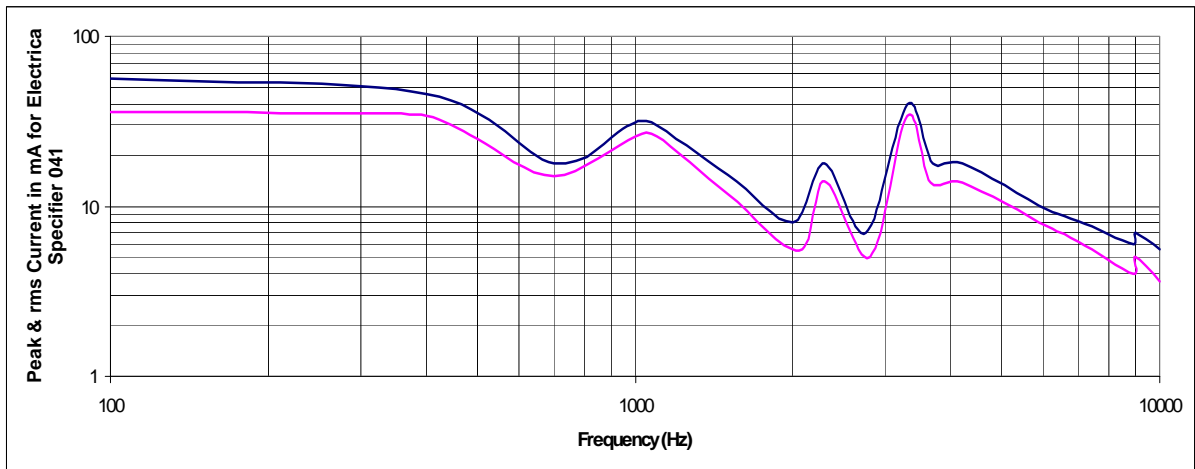
Technical Data Sheet (cont.)

Input Current Under Constant Voltage Drive Conditions*

ELECTRICAL INPUT: Constant voltage source $(.02Z_R)^{1/2}$, volts rms (20 mVa into the rated impedance)



ELECTRICAL INPUT: Constant voltage source $(.01Z_R)^{1/2}$, volts rms (10 mVa into the rated impedance)



The input current for the rated impedances other than 108 ohms can be approximated by multiplying the current scale by $(108/Z_R)^{1/2}$

* Acoustic Termination for all Measurements: 8mm of 1mm plus 28mm of 1.5mm plus 25mm of 2mm plus 18mm of 3mm tubing into a 2cc coupler (ANSI S3.7-1973 Fig. 12).