



GM SERIES

GM15-100N

Low Frequency Neodymium Woofer



Features

- 4" Large Format Voice Coil
- 4000 Watts Peak Power Handling
- 98 dB Sensitivity
- FEM Designed Neodymium Magnetics
- Precision Round Wire Inside/Outside Coil Design
- Triple Aluminium Demodulation Rings

Applications

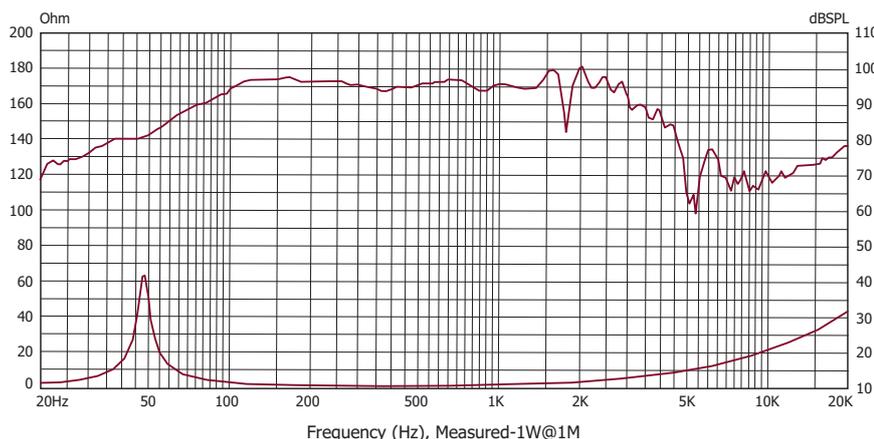
The P. Audio 'Golden Master' GM15-100N is the intersection of advanced design and state of the art manufacturing. The GM15-100N is a 15 inch (381mm) low frequency transducer for high performance professional audio. The 4 inch (101.6mm) inside/outside wound voice coil is designed for superior reliability and excursion, featuring ultra-high temperature wire and extended winding length. The low-weight neodymium magnetics maximize the coil's strengths by providing extra strong magnetic flux across its whole range of movement. This keeps coil motion faithful to the audio signal without distorting. Aluminium 'demodulation' rings negate inductance effects in the motor, further improving the fidelity of coil movement.

The neodymium magnet structure cooperates with a carefully optimized venting system on the bottom of the sleek Golden Master chassis to control airflow around the voice coil. This cools the durable design to further levels of reliability without losing sensitivity – the GM15-100N is rated at 4000 W peak power handling/ 1000 W AES continuous power handling with nominal sensitivity of 98 dB.

Linear and symmetrical stiffness behavior of the suspension compliments linear coil motion. The GM15-100N's large diameter spider is a durable silicone laminate design that provides symmetrical displacement and reliable voice coil positioning even after hours at high power levels. The cone features a proprietary double-roll cloth surround. The perfect match of material and geometry mean ultra-low distortion of cone movement and ultra-low distortion of sound. Coating keeps the cone rigid and waterproof during operation.

The ideal application for the GM15-100N is in very high performance sound reinforcement and large format public address systems. It is ideal for use in a well-tuned vented enclosure - both two-way full range and double 15" sub-woofer designs. Performance is optimized when using a high pass 4th order Butterworth filter tuned near the enclosure vent frequency. The GM15-100N offers a 50-2000Hz useable bandwidth, though the actual crossover frequency will be determined by the driver and horn combination in the user's system.

Frequency response and Impedance curve

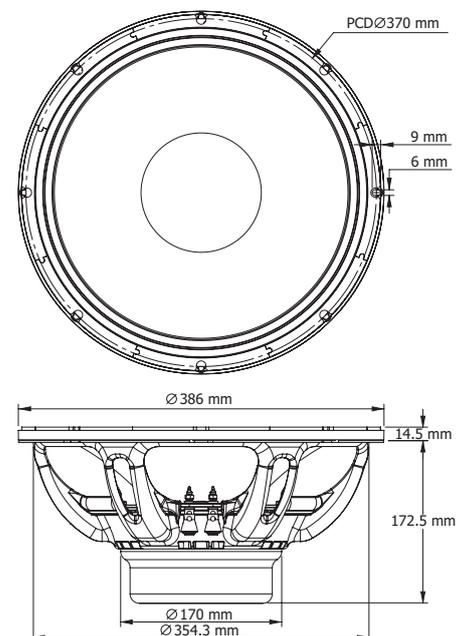


General Specification

Nominal diameter	381 mm / 15 in
Peak Power	4000 W
AES Power	1000 W
Nominal impedance	8 Ohm
Sensitivity (1W/1m)	98 dB
Frequency range	50 - 2000 Hz
Chassis type	Cast Aluminium
Magnet type	Neodymium
Magnet weight	0.54 kg / 19 oz
Voice coil diameter	101.6 mm / 4 in
Coil material	Round Copper Wire
Former material	Glass fiber
Cone material	Paper
Surround material	Cloth
Suspension	Silicone Impregnated Spider
Xmax	0.5 mm / 0.02 in
Gap depth	19 mm / 0.75 in
Voice coil winding width	20 mm / 0.79 in
Unit weight	8.1 kg / 17.9 lb
Shipping weight	9.0 kg / 19.8 lb
Packaging dimension WxDxH	415x415x230 mm 16.3x16.3x9.1 in

Thiele Small Parameters

Fs	48 Hz
Re	5.6 Ohm
Qms	10.69
Qes	0.37
Qts	0.35
Bl	24.32 Tm
Mms	129.38 g / 4.57 oz
Mmd	114.99 g / 4.06 oz
Vas	87.07 lt / 3.07 cu.ft ³
Sd	855 cm ²
Le	0.87 mH
Cms	8.5e - 05 m/N
Rms	3.7 Ns/m



P.AUDIO SYSTEM CO.,LTD.