

**GM  
SERIES**

# GM12-88F

Low Frequency Ferrite Woofer

## Features

- 1400 W continuous program power capacity
- 88.9 mm (3.5 inch) voice coil
- 60 - 2500 Hz response
- 97 dB sensitivity
- Ferrite magnet



The P. Audio 'Golden Master' GM12-88F is the intersection of advanced design and state of the art manufacturing. The GM12-88F is a 12 inch (305mm) low frequency transducer for high performance professional audio. The 3.5 inch (88.9mm) inside/outside wound voice coil is designed for superior reliability and excursion, featuring low weight, high temperature aluminium wire and extended winding length. The weight-optimized ferrite magnetics maximize the coil's strengths by providing 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 ferrite 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 GM12-88F is rated at 2800 W peak power handling/700 W AES continuous power handling with nominal sensitivity of 97 dB.

Linear and symmetrical stiffness behavior of the suspension compliments linear coil motion. The GM12-88F'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 doubleroll 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, while low moving mass has been optimized for high performance 12" two-way designs.

The ideal application for the GM12-88F is in very high performance sound reinforcement and large format public address systems. It is ideal for use in a well-tuned vented enclosure in a range of configurations – general purpose sound reinforcement systems, mid-bass applications and floor monitors. Performance is optimized when using a high pass 4th order Butterworth filter tuned near the enclosure vent frequency. The GM12-88F offers a 60-2500Hz useable bandwidth, though the actual crossover frequency will be determined by the driver and horn combination in the user's system.

## General Specifications

Nominal Diameter	305 mm (12 in)
Nominal Impedance	8 Ω
Nominal Power Handling	700 W(AES)
Continuous Program Power Capacity	1400 W
Sensitivity	97 dB
Frequency Range	60-2500 Hz
Voice Coil Diameter	88.9 mm (3.5 in)
Voice Coil Material	AL-W
Former Material	Glass fiber
Effective Piston Diameter	260.4 mm (10.3 in)
Flux Density	1.1T

## Physical Information

Magnet Material	Ferrite
Basket Material	Aluminium
Surround Material	Cloth
Cone Material	Paper
Dust Cap Material	Paper
Spider Material	Cotton (Silicone Impregnated Spider)
Gasket	EVA
Pole Design	T-Pole
Woofer Cone Treatment	Waterproof Front Side

## Parameters

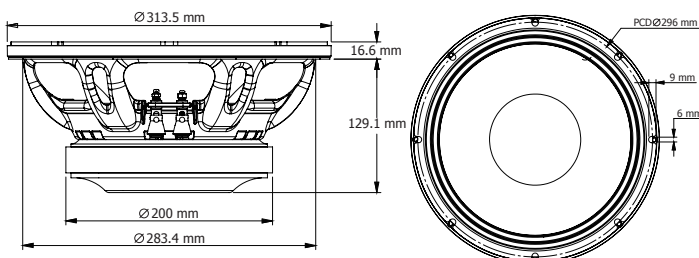
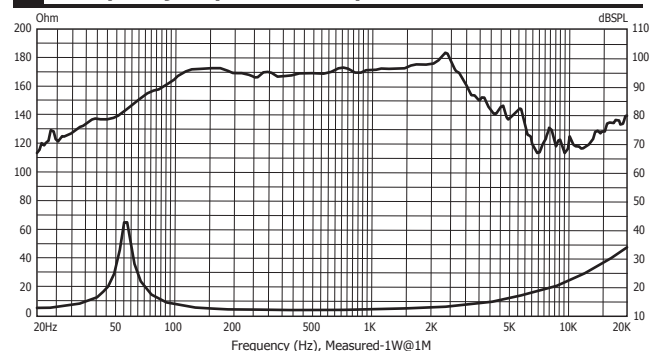
Fs	56 Hz	Vas	45.45 lt
Re	5.7 Ω	Sd	530.9 cm <sup>2</sup>
Qms	7.36	Le	0.58 mH
Qes	0.44	Eff (η <sub>0</sub> )	1.79%
Qts	0.42	Cms	1.2 e-04 m/N
BL	17.75 Tm	Xmax	1.05 mm
Mms	69.33 g	Hag	10.0 mm
Mmd	62.29 g	Hvc	12.1 mm

## Mounting and Shipping Info

Diameter	313.5 mm (12.3 in)
Baffle Cutout Diameter	283.4 mm (11.1 in)
Mounting Hole Diameter	296 mm (11.6 in)
Bolt Circle Diameter	8 x Ø (6.0x9.0) mm
Depth	129.1 mm (5.1 in)
Flange and Gasket Thickness	16.6 mm (0.65 in)
Net Weight	9.2 kg
Shipping Units	1
Shipping Weight	10.1 kg
Shipping Box	355 x 355 x 190 mm

Recone Kit F05031217401PAA

## Frequency response and Impedance curve



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