

Ferrite HF Compression Drivers put to test by respected industry professional

Among the latest developments from Italian professional loudspeakers maker FaitalPRO, two compression drivers were recently tested by Vance Dickason of The periodical for the industry - Voice Coil- Volume 26, issue 10, August 2012.



Vance writes: "New Ferrite Drivers from FaitalPRO".

FaitalPRO has added several more additions to its new FaitalPRO Ferrite product range: the HF105 compression driver, the HF107 compression driver, and the FD371 bullet horn tweeter.

HF105 COMPRESSION DRIVER

The HF105 compression driver has a 91-mm total diameter, a 37-mm voice coil, a Ketone polymer ring diaphragm, and a radial phase plug.

Its weight, despite the use of a ferrite magnet assembly, is 1.1 kg, while it has an elevated efficiency capable of an average 107 dB from 1.4 to 20 kHz.

The minimum recommended crossover frequency is at 1.7 kHz, with a nominal power rating of 40 W and a maximum of 80 W.

It is suited for medium -and small- sized two-way enclosures and inline arrays, coupled with a 12" or less woofer.

The HF105 represents the ferrite version of the HF104 neodymium driver and it retains the mechanical and acoustic characteristics from the original version with a slightly different tonality through its optimized ferrite magnet assembly.

HF107 COMPRESSION DRIVER

The HF107 is the second new model in the high-frequency range measures 120-mm in diameter and is basically the "big brother" of the FaisalPRO HF105. This model is a ferrite compression driver with a 44-mm voice coil, and a Ketone polymer ring diaphragm structure coupled with an innovative single slot annular phase plug.

The average efficiency level is 109 dB from 800 Hz to 20 kHz.

The recommended minimum crossover frequency is at 1 kHz and the nominal power is 70 W with a maximum power of 140 W.

The HF107 is recommended in two-way applications of a certain "importance," or powerful line arrays with a 12"/15" woofer. It weighs 2.4 kg.

A lot of care was taken in the study of the single-slot annular phase plug to guarantee regularity in the response on the whole bandwidth while keeping an excellent extension toward high frequencies.

FD371 BULLET HORN TWEETER

The FD371 model is a bullet-phase plug pro sound tweeter that incorporates its own aluminum horn. This model also incorporates a ferrite magnet assembly, a 37-mm voice coil, a Ketone-polymer ring diaphragm, a horn loaded with a phase plug, an average efficiency of 107 dB on a frequency range from 2.5 to 20 kHz, and an impressive minimum crossover frequency at 2.5 kHz. Its nominal power rating is 35 W with a maximum power at 70 W, with a nominal directivity of 40° conical.

It boasts a much extended response with greatly controlled directivity at the highest frequencies.

The tweeter can be employed in multiple-way applications, even with very high crossovers (5, 6, and 7 kHz).

However, it can also be used for medium-sized two-way systems as well, given that it can be used down to very low frequencies for this type of product.

This ferrite magnet weighs 1.2 kg, has a squared flange with rounded corners, and is 102 mm.