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1P75 - Multi-pulse performance of amorphous metal magnetic cores at high magnetization rates

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Amorphous metal magnetic cores are essential in developing multi-pulse solid state systems due to their high magnetic saturation value. In order to operate in multi-pulse mode, the magnetic core must provide enough volt-seconds before reaching saturation. They must prove to be reliable and maintain little to no load loss during the high rate pulses. This paper presents the efforts to characterize the performance of various MetGlas cores at high magnetization rates and use this data to develop models for simulation. Results of the test are used to match the magnetic cores and to assemble cells with identical volt-second ratings.

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