
Subject: Re: Class A, AB1, B, C Operation/Modes
Posted by [positron](#) on Tue, 09 Jul 2024 01:22:54 GMT
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>> I missed another point that breakneck made that needs correcting.
My apology to everyone for being late.

"Operating class is also independent of output stage topology, whether single ended or push pull",

>> A single ended amplifier (SETriode/tetrode or SEPentode) cannot be operated class B in Audio with any fidelity. Think super super high distortion.

>> If one attempted Class AB in audio applications, one is simply increasing Harmonic Distortion (HD), Intermodulation Distortion (IMD) along with lower output power. But who would want such unless for higher or unique distortions from instruments and/or voices etc.

>> On the other hand, Push Pull (PP) can be operated as Class A, AB1, AB2, Class B.

>> In Class A, each output tube operates over the entire 360 degrees of the signal waveform. Less power output, least efficient, low distortion.

>>Class AB1, AB2, each tube, X and Y are cutoff over a portion of the musical signal waveform. However, Y tube conducts over the portion of the musical signal that X tube is cutoff, and X tube is conducting when Y tube is cutoff over a portion of the musical signal. Low distortion.

>>The overlap of conduction in PP makes for a seamless transition and much more constant damping factor (DF) etc vs an SET/SEP amp.

>> (AB2 designation means a musical signal large enough for control grid current flow. AB1 designation, No grid current flow over any portion of the musical signal.)

>> In Class B operation, crossover, notch distortion is usually prevalent, and both H and IM Distortions are higher; but is the most efficient. This is good for megaphones, RF use etc where efficiency is important.

In conclusion, knowledge is power to make wise choices.

Again my apology for not addressing the comment in a timely manner.

pos