
Subject: Four pi power rating!!!
Posted by [Wayne-o](#) on Wed, 21 May 2008 03:52:50 GMT
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Will this speaker with the standard crossover handle a Phase Linear 750b at party volume, no clipping of course ??? Thanks!!! PS I will be several feet behind them .

Subject: Re: Four pi power rating!!!
Posted by [Wayne Parham](#) on Wed, 21 May 2008 17:10:32 GMT
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Power handling is 600Wrms.

Subject: Re: Four pi power rating!!!
Posted by [Chris R](#) on Wed, 21 May 2008 17:57:11 GMT
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> Power handling is 600Wrms. Given that this is mostly the power rating of the bass driver, does that translate to safe power for the high freq. driver? Reason I ask is that when I crank mine to clipping slightly on the amp (~450W), the protection lights are on a significant amount. Is that protection light usable as a power warning light, or can this go on all night safely? Next adventure is biamping the PSD2002. How can you tell when you've reached the power limits in this situation (no passive crossover w/power limiter lights)? Thx, Chris

Subject: Re: Four pi power rating!!!
Posted by [Wayne Parham](#) on Wed, 21 May 2008 18:27:57 GMT
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Of course, if you ran a 600 watt sine wave into a 100 watt compression tweeter, you would damage it. But the crossover reduces it 10x, so the tweeter never receives that much power. Resistors R1 and R2 would be the weak link if you sent a full power sine wave at 2kHz or so. In practice, the frequency distribution and crest factor of normal music material makes the resistor bank sized right, even oversized. I've run these speakers with this crossover for years and years on a Crown 2400 watt amplifier, pushing them hard for hours at a time and never had a failure. Not that I couldn't make a failure happen with a sine at 2kHz, but I certainly haven't babied them. I push them hard sometimes, and I've done it often enough that I feel confident in those resistor values and the numbers used. If I didn't, I'd change the design to use more of them.

Subject: Re: Four pi power rating!!!
Posted by [Chris R](#) on Wed, 21 May 2008 22:57:42 GMT
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Wayne, To be more clear with my question: When running regular music at high power levels, would you recommend 600W (or close) for extended periods? In my estimation, the protection lamps light at a somewhat lower power level, and is that level a better place to quit twisting the volume knob to the right? I realize the difference between 300W and 600W isn't much (3dB), but in any case the question was about gross indicators of "enough", not questioning your designs. Chris

Subject: Re: Four pi power rating!!!
Posted by [Wayne Parham](#) on Thu, 22 May 2008 03:44:36 GMT
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Those lights come on pretty early, really. They limit current more when glowing because resistance goes up when the filament is hot. But the things they're protecting are sure to be safe that way. The lamps would protect a driver without padding. The compensation components actually shift the point where protection is needed. So in this circuit, a pair of 211 bulbs make for very conservative protection, limiting more than is really necessary.
