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Subject: C1, 4.7uF cap

Posted by [colinhester](#) on Sun, 23 Jan 2005 00:49:45 GMT

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Is there a minimum voltage rating? Can someone please make a little friendly suggestion as to what might possibly sound best?

<http://audioroundtable.com/GroupBuild/messages/179.html>

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Subject: Re: C1, 4.7uF cap

Posted by [PakProtector](#) on Sun, 23 Jan 2005 01:46:17 GMT

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No problem! I like the ASC motor run. 440VAC/7.5 uF at ~\$8 each from Allied Electronics. Slight preference to the lower voltage versions, but at a slight size penalty. It is what I have been running since Rev. 2 and I have tried a bunch of things. The ASC keep going back in. regards, Douglas

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Subject: Re: C1, 4.7uF cap

Posted by [Manualblock](#) on Sun, 23 Jan 2005 01:58:37 GMT

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I have good luck with Allied. Julia is very helpfull. That cap is the output coupling cap; is that correct? If so would it be possible you might walk us through the Ohm's law math required to find that value? I understand if it is too much but I am attempting to access the Radiotron theory and struggling due to lack of math skills. I also happen to have the NEETS program I ordered a while ago. Anything pertinent in there. I see you have used it twice now. Thanks Douglas. We are very hyped about the 807 amp project to pair with the pre. I have traded my EAR el 859 in order to do PP and this is right up the alley.

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Subject: C1, 7.5 uF/440VAC

Posted by [PakProtector](#) on Sun, 23 Jan 2005 02:21:51 GMT

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it is indeed the output coupling cap. Since the impedance of a cap is  $1/j\omega C$ , we want the cap as large as is sonically reasonable. Forget about  $j$  and root negative 1. It is the real part of this we will look at. At 20 cps,  $\omega$  is  $2\pi \cdot 20$  radians per second and  $C$  is  $7.5 \cdot 10^{-6}$ . this yeilds 1061.03295 Ohms. At 40 cps, it is half that, and at 80 cps, half of that. This is close enough to the 10:1 ratio of input impedance to output impedance which keeps us from rolling off too early, even

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with a 10kOhm SS amp. For a 100kOhm Valve amp and several tens of pF of cabling capacitance, we're still good.regards,Douglas

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Subject: Re: C1, 7.5 uF/440VAC  
Posted by [Manualblock](#) on Sun, 23 Jan 2005 12:59:36 GMT  
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Excellent; thanks again!

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Subject: How's this cap?  
Posted by [colinhester](#) on Mon, 24 Jan 2005 20:24:07 GMT  
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It's rated at 370V, not 440V? Price is right....Colin  
<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3869528616&fromMakeTrack=true>

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Subject: That is a \*FINE\* cap...  
Posted by [PakProtector](#) on Mon, 24 Jan 2005 21:29:49 GMT  
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rock on me old Mate, that'll do just fine.regards,Douglas

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