Subject: New Transformer
Posted by Manualblock on Sun, 06 Aug 2006 22:52:01 GMT
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O'kay I got a nice old trans from an EL 84 amp. It reads 130v 160ma on the sec..117/100/0 on the primary.I measure 7.5ohm across the primary and 3 ohm across the secondary.It has a 6v leg on the sec and a 6.3v leg. It also has a 6v leg on the pri tied to the 6v leg on the sec with a wire to both ends. On the pri. there is a tab E also.So source impedance. SI = pri dcr x turns ratio^2 + sec DCR from Damir's formula.7.5 ohm * (Ns/Np) + 3 ohm7.5 ohm * (130/117) +3= 12.26Is that the figure we use on the trans in PSUD?Thanks Guys.

Subject: Re: New Transformer
Posted by Damir on Mon, 07 Aug 2006 11:27:33 GMT
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You forgot to write ^2, but you compute it well Rtr = 7,5*(130/117)^2 + 3 = 12,26 OhmsIt isn`t "mine", but it is well known formula...you have it elsewere, in some tube rectifiers data, for example.The problem is - only 130V of sec. voltage means max. 130*1,4=182V (probably less in practice) - too low...except by using voltage doubler?!Is it 130-0-130V or just 0-130V secondary?And another thing I didn`t quite understand from your description:"It also has a 6v leg on the pri tied to the 6v leg on the sec with a wire to both ends. On the pri. there is a tab E also."Is it some form of "boost/buck" voltage, or...? Any chance that you can post a picture/diagram or a better description?

Subject: Re: New Transformer
Posted by Manualblock on Mon, 07 Aug 2006 13:01:22 GMT
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I had a problem with that voltage also; and the trans weighs about 5 lbs.But this comes out of a Lafayette reciever so it may have used a voltage doubler. Here's a better description. The primary side has 7 tabs.Looking from left to right they are marked E 6V 2.3A(This one is connected across the trans to the other secondary) 6v.6a tab.117v/100v/0v Tabs 4&5&6The last tab is blank; no writing.On the sec side;6 tabs; starting from left to right;6.3v 2.7a Tab 1&26v .6A tab 3 and 4130V DC .16A tabs 5&6

Subject: Re: New Transformer
Posted by Damir on Mon, 07 Aug 2006 17:06:02 GMT

I don`t know - besides paper holder, this PT probably can have other useful functions...like auxiliary PT in big amp, filaments + negative DC voltage (bias and/or neg. supply for CC sink)...

Subject: Re: New Transformer
Posted by Manualblock on Mon, 07 Aug 2006 20:02:51 GMT

It came out of a Lafayette LR 300. I know nothing of this unit except rumor and rumor says the PT was sourced from Thorardsen. The three reviews I could find of this amp were very complimentary; not that that means much. I may send for the service manual; Tannenbuam has it. I know it used 12ax7's in the pre-amp and 6bq5's in the power stage and 6au7 as phase splitter.

Subject: Re: New Transformer
Posted by Aki on Mon, 07 Aug 2006 21:16:35 GMT

Manualblock,Lafayette LA-215 schematic shows PT with a very similar winding to what you mention:6.3V 2.7A6.3V 2.3A6.3V 0.3A130V DC 0.16A130V winding did use doubler and fed 255V DC to EL84 single ended output stage amongst many other things (seems fairly common to Lafayette design). Perhaps LR300 was single ended EL84 also?

Subject: Re: New Transformer
Posted by Manualblock on Mon, 07 Aug 2006 22:06:25 GMT

Much Thanks AKI; that may be the case. There is some mention on the net about that EL 84 SE Lafayette circuits. Let me examine the chassis a little more; thanks.