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Pib: **103892698** MB: **20044462** račun: **205-95548-79** Komercijalna banka.A.D.  
Beograd, Andre Nikolića 3, APR: **BD 28555/2005**, Unet kapital: 25,317.09 Eura

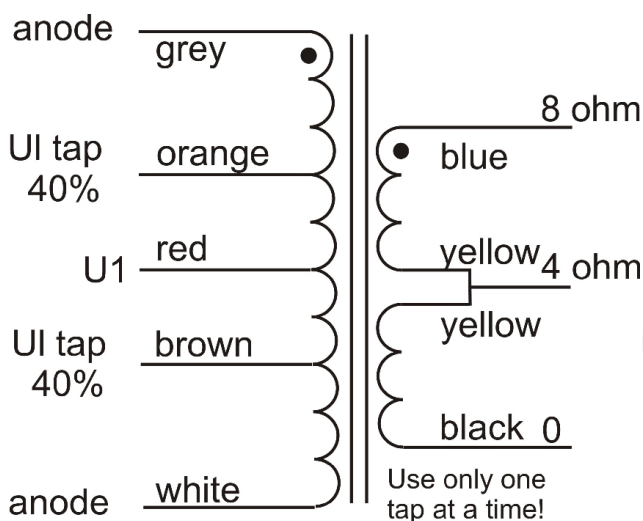
The **3A524-UL** is our entry model for toroidal push-pull output transformers. Intended for 4 x EL84/6V6 or 2 x EL34/6L6/6550 in push-pull circuitry with or without screen grid feedback(UL). The unpotted transformer is small, the height fits into a 1 HU 19" rack case. The applications range from PA to guitar amplifier as well as high-end amplifier. The book of Menno van der Veen (Modern High-end valve Amplifiers) describes in chapter 17 the VDV40 amplifier with 4 x EL84, meant for guitar application, but this amp proofed to be extremely successful as warm sounding high-end amplifier. The transformer can be ordered potted or without case (to fit in 1HU).

dimensions: 91mm x 35mm.

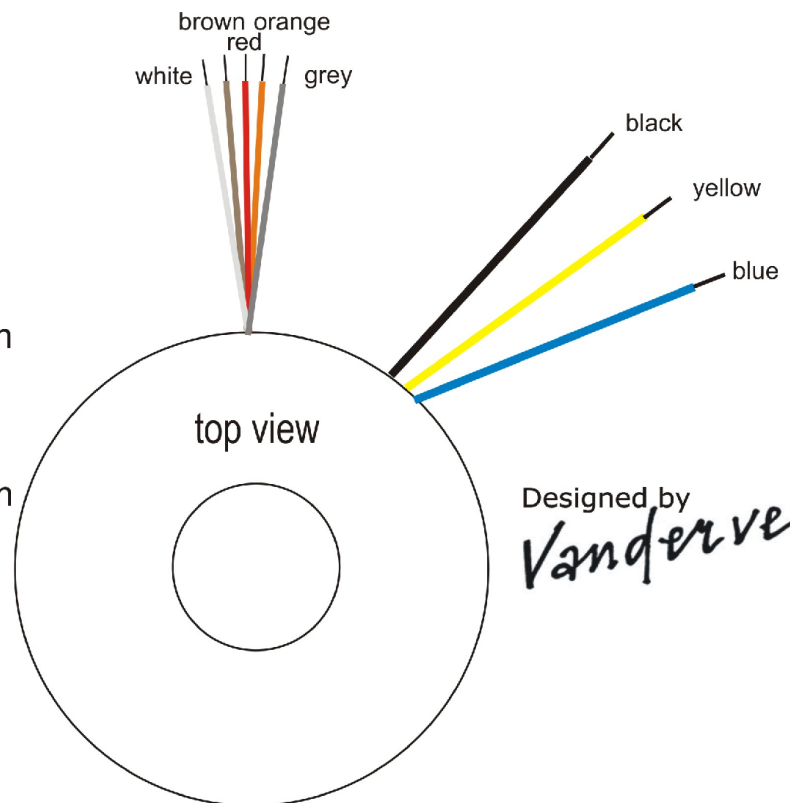
weight: 1,2 Kg.

price: 65€

technical data:



mounting kit supplied



Designed by  
*Vanderveen*

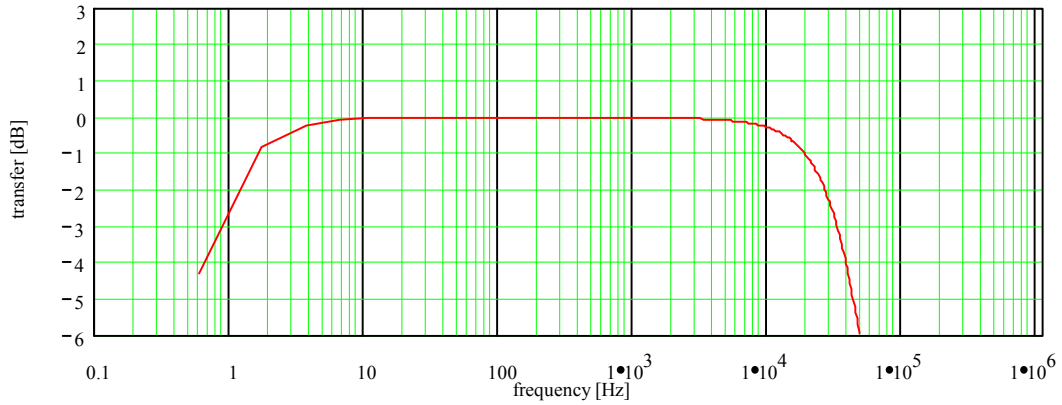
## WIDE BANDWIDTH TOROIDAL PUSH-PULL TUBE OUTPUT TRANSFORMER

Type and Application		VDV-3A524-UL.	
Primary Impedance	:	Raa = 3.945	[kΩ]
Secondary Impedance	:	Rls = 4	[Ω]
Turns Ratio Np/Ns	:	Ratio = 31.405	[ ]
UL-tap:		tap = 40	[%]
Cathode Feedback Ratio	:	cfb = 0	[%]
-1 dB Frequency Range [Hz to kHz] (3)	:	flf = 3.603	fhf = 8.371
-1 dB Frequency Range [Hz to kHz] (3)	:	fl1 = 1.537	fh1 = 17.827
-3 dB Frequency Range [Hz to kHz] (3)	:	fl3 = 0.782	fh3 = 30.605
Nominal Power (1)	:	Pn = 40	[W]
- 3 dB Power Bandwidth starting at	:	fu = 27	[Hz]
Total primary Inductance (2)	:	Lp = 764	[H]
Primary Leakage Inductance	:	lsp = 10	[mH]
Effective Primary Capacitance	:	cip = 1.79	[nF]
Total Primary DC Resistance	:	Rip = 73	[Ω]
Total Secondary DC Resistance	:	Ris = 0.2	[Ω]
Tubes Plate Resistance per section	:	ri = 20	[kΩ]
Insertion Loss	:	lloss = 0.288	[dB]
Q-factor 2nd order HF roll-off (5)	:	Q = 0.571	[ ]
HF roll-off Specific Frequency (5)	:	Fo = 39.55	[kHz]
Quality Factor (5)	:	QF = 7.64 <sup>4</sup>	[ ]
Quality Decade Factor = log(QF) (5)	:	QDF = 4.883	[ ]
Tuning Factor (5)	:	TF = 0.512	[ ]
Tuning Decade Factor = log(TF) (5)	:	TDF = -0.291	[ ]
Frequency Decade Factor (4,5)	:	FDF = 4.593	[ ]

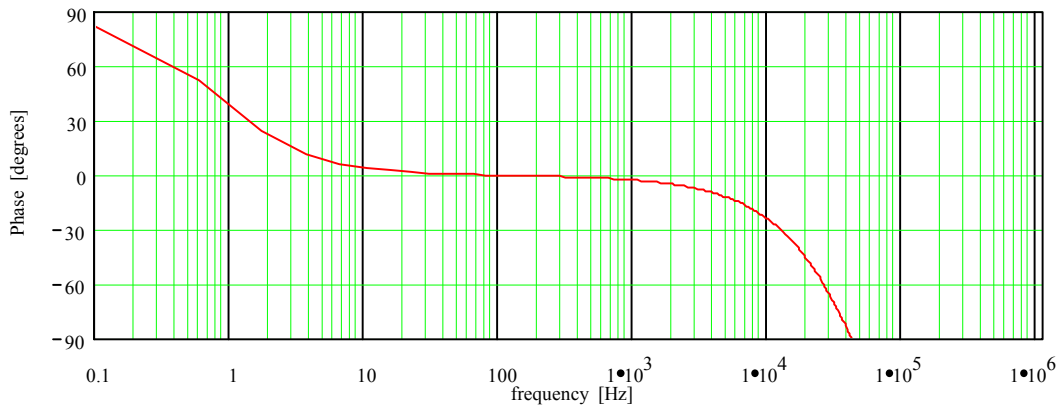
- (1): calculated under the conditions of balancing the DC-currents and the AC-anode voltages of the powertubes driving the transformer
- (2): maximum value, measured over secondary, transferred to primary
- (3): calculation at 1 Watt in Rls; ri and Rls are pure Ohmic
- (4): defined as FDF = log(fh3/fl3) = number of frequency decades transferred
- (5): ir. Menno van der Veen; Theory and Practise of Wide Bandwidth Toroidal Output Transformers; preprint 3887, 97th AES Convention San Francisco
- (C): Copyright 1994 Vanderveen; Version 1.7; results date 07-03-2012.  
Final specs can deviate 15% or improve without notice

TRAFCO TOROIDAL PUSH-PULL TRANSFORMER ; VDV-3A524-UL

Frequency Response; Vertical 1 dB/div; Horizontal .1 Hz to 1 MHz (3)

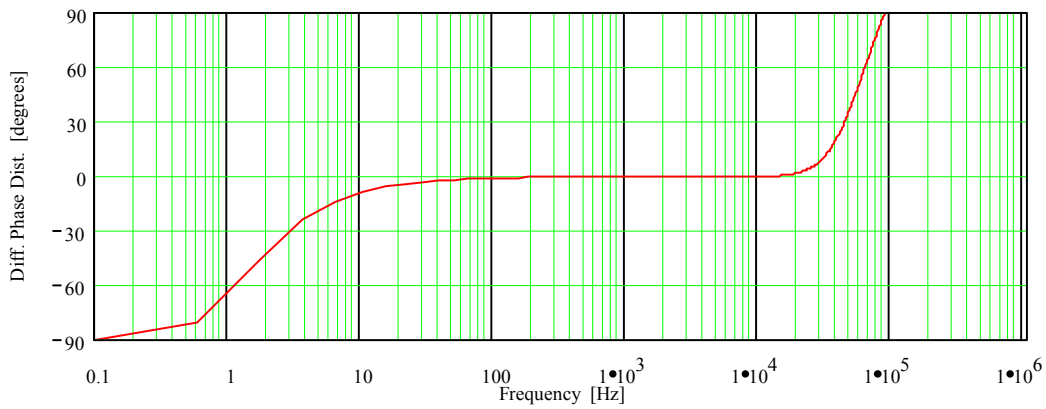


Phase Response; Vertical 30 deg./div; Horizontal .1 Hz to 1 MHz



Differential Phase Distortion; vert. 30 deg./div; hor. .1 Hz to 1 MHz

See: W.M.Leach, Differential Time Delay..; JAES sept.89 pp.709-715



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