1080-PP

This special transformer is designed for 8 (2 x 4) EL34 tubes with the screen grids connected to the anode (triode mode) to deliver about 80 Watt of output power. Because of the low effective impedance of the tubes the resulting power bandwidth is extreme large, from 21 Hz to 390 kHz. The primary impedance is 1,2 kOhm, there are UL taps at 40 % and the secondary is at the standard 5 Ohm impedance. See (*) for a detailed description of this special amplifier set up

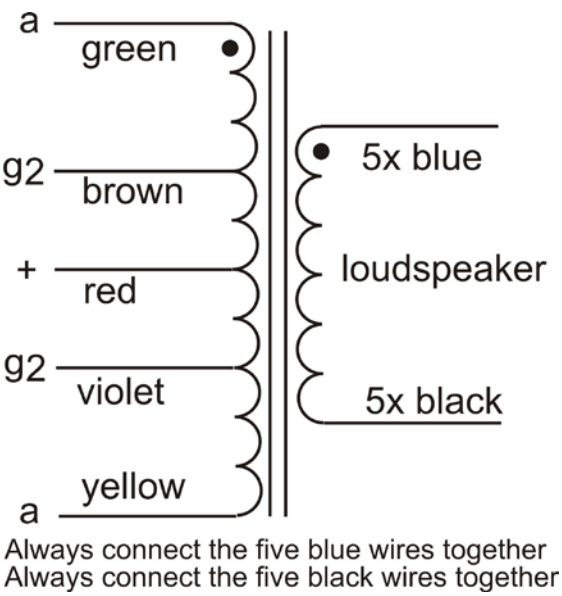
(*) Menno van der Veen: Modern High-end Valve Amplifiers
based on toroidal output transformers; Elektor, ISBN: 978-0-905705-63-7; chapter 11.

dimensions: 125mm x 65mm

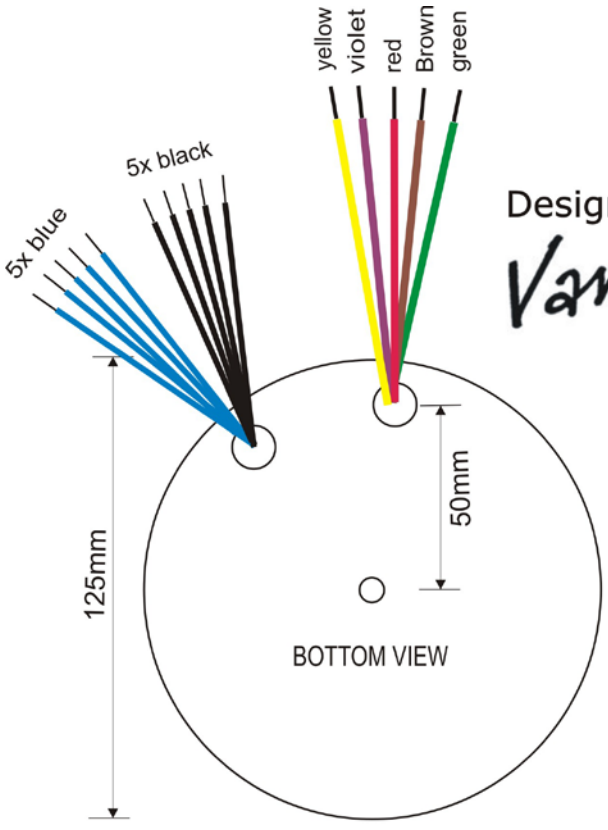
weight: 2,2 Kg.

price: 192€

technical data:



Always connect the five blue wires together
Always connect the five black wires together



Designed by Vanderveen

height: 65mm

WIDE BANDWIDTH TOROIDAL PUSH-PULL TUBE OUTPUT TRANSFORMER

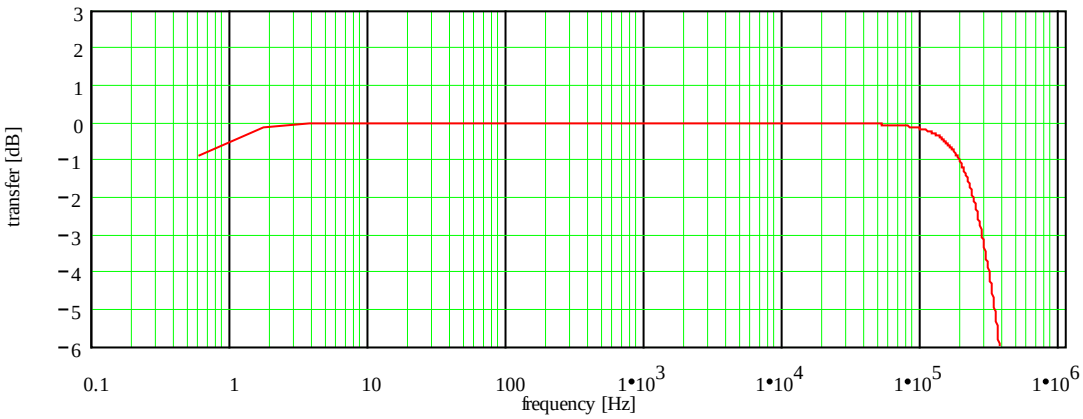
Type and Application		VDV-1080.	
Primary Impedance	:	$Raa = 1.239$	[kΩ]
Secondary Impedance	:	$Rls = 5$	[Ω]
Turns Ratio Np/Ns	:	$Ratio = 15.742$	[ ]
UL-tap:		$tap = 40$	[%]
Cathode Feedback Ratio	:	$cfb = 0$	[%]
-.1 dB Frequency Range [Hz to kHz] (3)	:	$flf = 1.281$	$fhf = 104.519$
-1 dB Frequency Range [Hz to kHz] (3)	:	$fl1 = 0.546$	$fh1 = 172.985$
-3 dB Requency Range [Hz to kHz] (3)	:	$fl3 = 0.278$	$fh3 = 251.531$
Nominal Power (1)	:	$Pn = 80$	[W]
- 3 dB Power Bandwidth starting at	:	$fu = 21$	[Hz]
Total primary Inductance (2)	:	$Lp = 360$	[H]
Primary Leakage Inductance	:	$lsp = 1.312$	[mH]
Effective Primary Capacitance	:	$cip = 0.593$	[nF]
Total Primary DC Resistance	:	$Rip = 37.8$	[Ω]
Total Secondary DC Resistance	:	$Ris = 0.16$	[Ω]
Tubes Plate Resistance per section	:	$ri = 0.6$	[kΩ]
Insertion Loss	:	$Iloss = 0.263$	[dB]
Q-factor 2nd order HF roll-off (5)	:	$Q = 0.682$	[ ]
HF roll-off Specific Frequency (5)	:	$Fo = 261.296$	[kHz]
Quality Factor (5)	:	$QF = 2.744 \cdot 10^5$	[ ]
Quality Decade Factor = log(QF) (5)	:	$QDF = 5.438$	[ ]
Tuning Factor (5)	:	$TF = 3.297$	[ ]
Tuning Decade Factor = log(TF) (5)	:	$TDF = 0.518$	[ ]
Frequency Decade Factor (4,5)	:	$FDF = 5.956$	[ ]

(1): calculated under the conditions of balancing the DC-currents and the AC-anode voltages of the powertubes driving the transformer
(2): measured at 230Vrms at 50Hz over total 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 transfered
(5): ir. Menno van der Veen; Theory and Practise of Wide Bandwidth Toroidal Output Transformers; preprint 3887, 97th AES Convention San Francisco

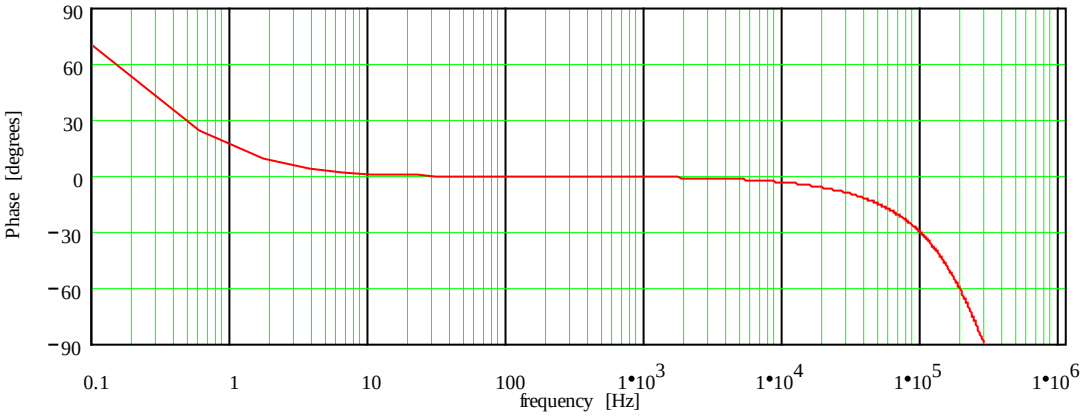
Final specs can deviate 15% or improve without notice

TRAFCO TOROIDAL PUSH-PULL TRANSFORMER ; VDV-1080

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