4070-SSCR-PP

The wide bandwidth toroidal push-pull output transformer 4070-SSCR has separate windings for 40 % screen grid Ultra Linear feedback. These windings enable lower supply voltages at the screen grids, thus largely reducing the typical UL distortions. Also higher than standard anode supply voltages are allowed now, without damaging the screen grids. The transformer has a 70 Watt power bandwidth from 14 Hz up to 130 kHz. With EL34 and 6550 and KT88 tubes high quality with extreme low distortion sound reproduction is achieved. The primary impedance is 4 kOhm with a 4 Ohm secondary. See (*) for a description of a special amplifier with this transformer.

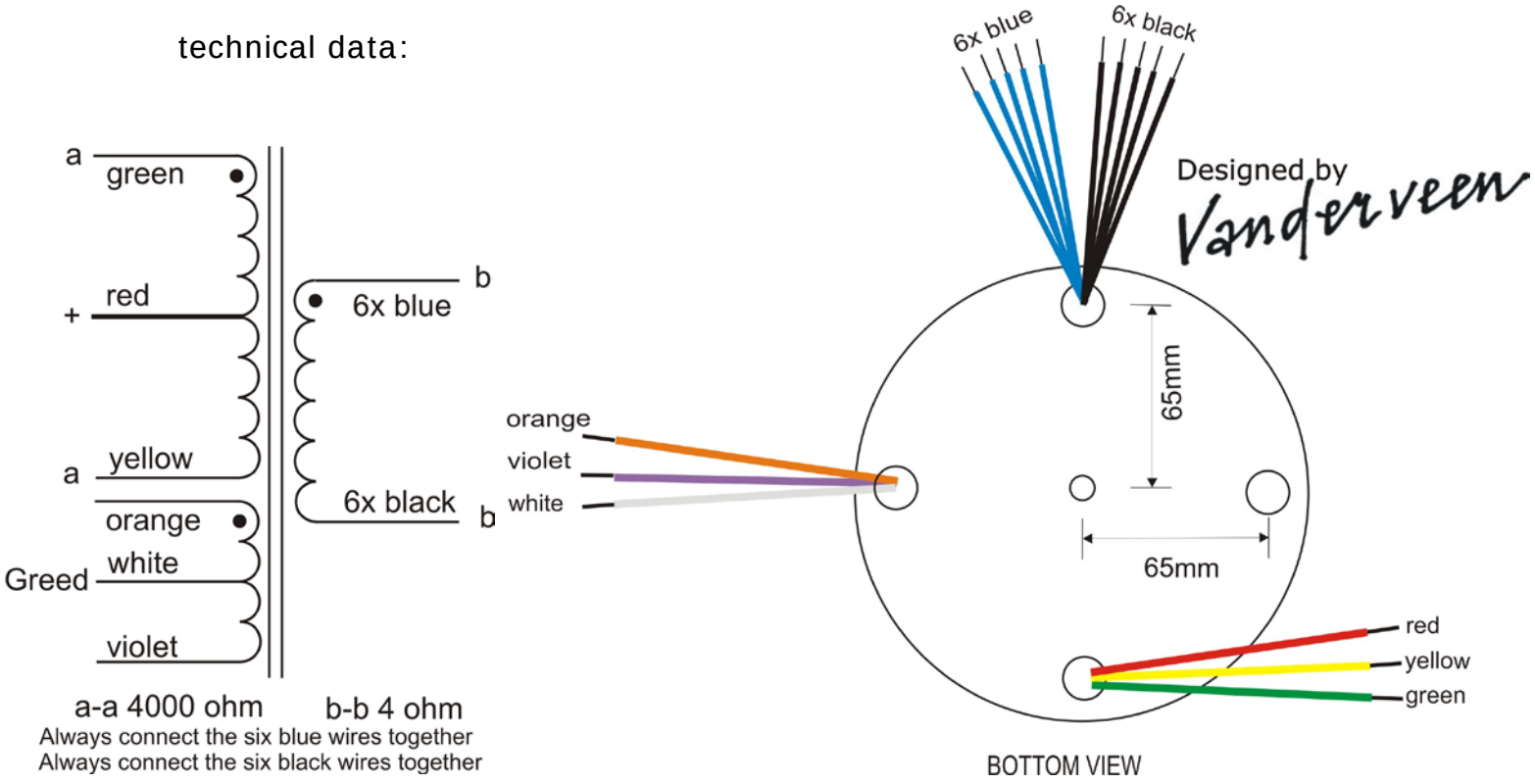
(*) Menno van der Veen: High-end Valve Amplifiers 2, New models and applications; Elektor; ISBN: 978-0-905705-90-3; chapter 8

dimensions: 105mm x 55mm.

weight: 4,6 Kg.

price: 289€

technical data:



WIDE BANDWIDTH TOROIDAL PUSH-PULL TUBE OUTPUT TRANSFORMER

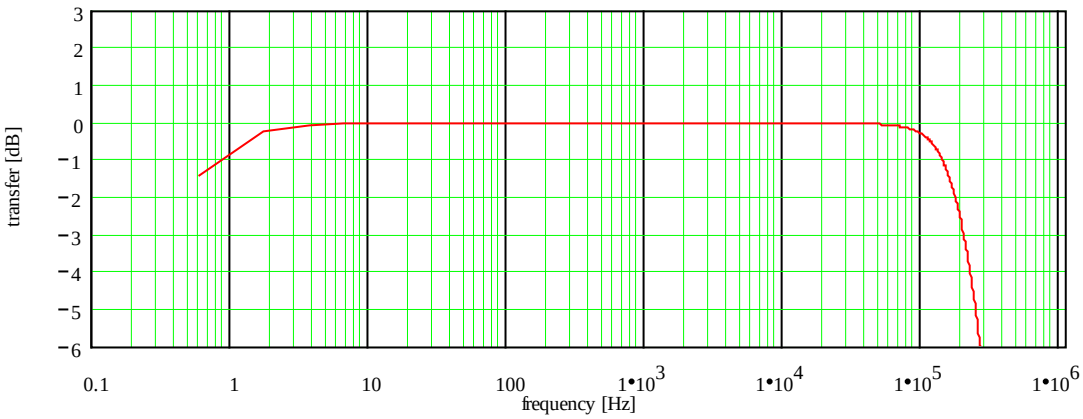
Type and Application		VDV-4070-SSCR.	
Primary Impedance	:	$Raa = 3.998$	[kΩ]
Secondary Impedance	:	$Rls = 4$	[Ω]
Turns Ratio Np/Ns	:	$Ratio = 31.615$	[ ]
UL-tap:		$tap = 40$	[%]
Cathode Feedback Ratio	:	$cfb = 0$	[%]
-.1 dB Frequency Range [Hz to kHz] (3)	:	$flf = 1.717$	$fhf = 84.839$
-1 dB Frequency Range [Hz to kHz] (3)	:	$fl1 = 0.732$	$fh1 = 131.044$
-3 dB Requency Range [Hz to kHz] (3)	:	$fl3 = 0.373$	$fh3 = 185.388$
Nominal Power (1)	:	$Pn = 70$	[W]
- 3 dB Power Bandwidth starting at	:	$fu = 14$	[Hz]
Total primary Inductance (2)	:	$Lp = 1.163 \cdot 10^{3}$	[H]
Primary Leakage Inductance	:	$lsp = 3.2$	[mH]
Effective Primary Capacitance	:	$cip = 0.345$	[nF]
Total Primary DC Resistance	:	$Rip = 114$	[Ω]
Total Secondary DC Resistance	:	$Ris = 0.1$	[Ω]
Tubes Plate Resistance per section	:	$ri = 4$	[kΩ]
Insertion Loss	:	$Iloss = 0.226$	[dB]
Q-factor 2nd order HF roll-off (5)	:	$Q = 0.701$	[ ]
HF roll-off Specific Frequency (5)	:	$Fo = 187.148$	[kHz]
Quality Factor (5)	:	$QF = 3.634 \cdot 10^{5}$	[ ]
Quality Decade Factor = log(QF) (5)	:	$QDF = 5.56$	[ ]
Tuning Factor (5)	:	$TF = 1.369$	[ ]
Tuning Decade Factor = log(TF) (5)	:	$TDF = 0.136$	[ ]
Frequency Decade Factor (4,5)	:	$FDF = 5.697$	[ ]

(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

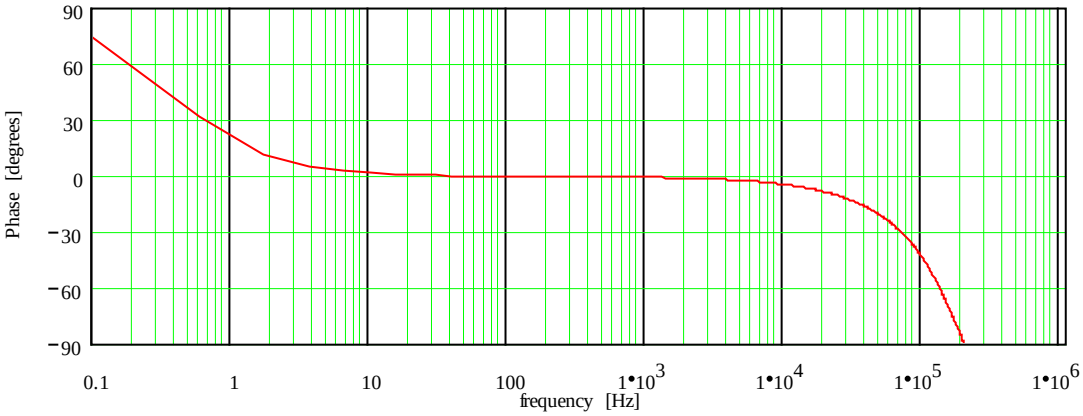
Final specs can deviate 15% or improve without notice

TRAFCO TOROIDAL PUSH-PULL TRANSFORMER ; VDV-4070-SSCR

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