

## 4070-SSCR-PP

Torusni širokopojasni puš-pul izlazni transformator ima odvojene Ultra Linear izvode rešetki na 40 %. Ovi namotaji omogućuju niže napone napajanja rešetki, a ujedno drastično smanjuju tipično UL izobličenje. Takodje, veći anodni naponi od standardnih su mogući, bez oštećenja rešetki. Transformator daje 70 W snage a propusni opseg je od 14 Hz do 130 kHz. Sa cevima EL34, 6550 i KT88 postiže se visok kvalitet reprodukcije zvuka sa ekstremno malom distorzijom. Primarna impedansa je 4 kOma a sekundarna impedansa je 4 Oma. Pogledati (\*) za detaljno objašnjenje.

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

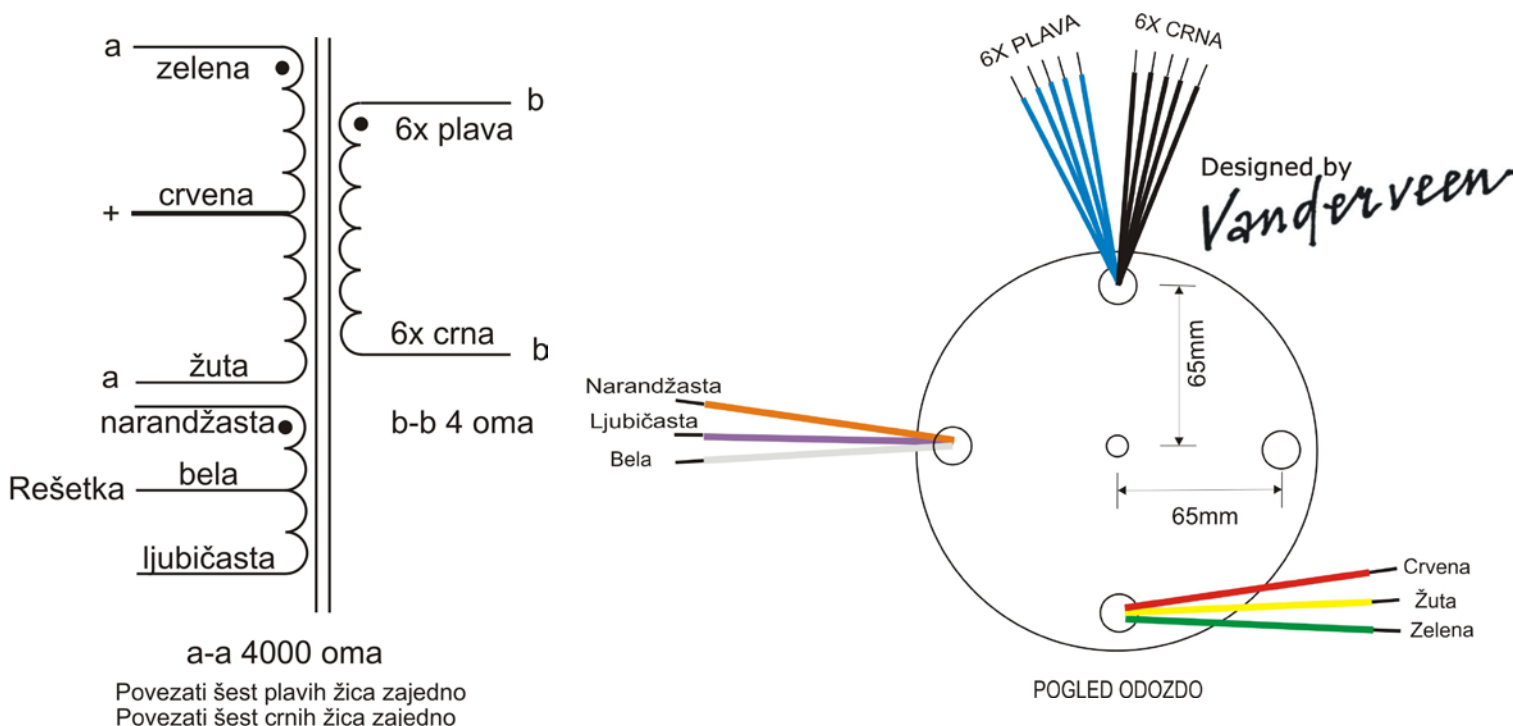
Transformator je zaliven u metalnom kružnom kućištu koje je plastificirano crnom mat bojom.

Dimenzije (prečnik x visina): 105mm x 55mm.

Težina: 4,6 Kg.

Cena: 289€ (Dinarska protivvrednost).

Tehnički podaci:



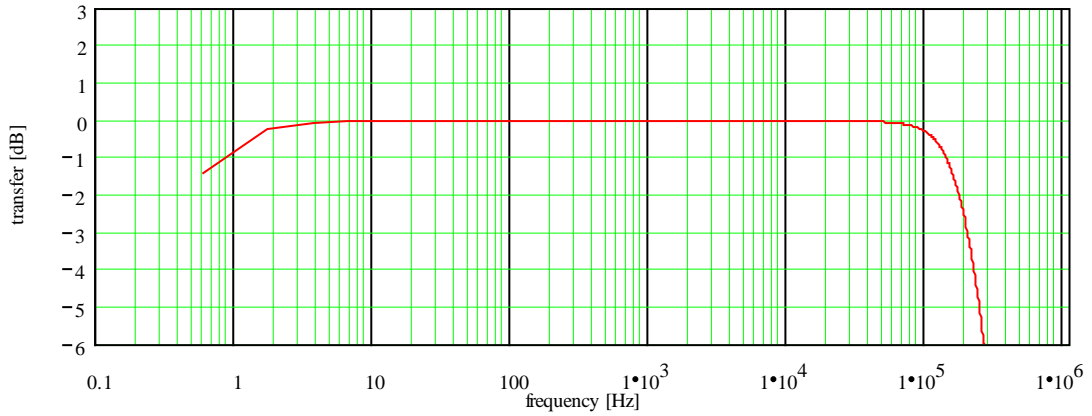
## WIDE BANDWIDTH TOROIDAL PUSH-PULL TUBE OUTPUT TRANSFORMER

Type and Application		VDV-4070-SSCR.	
Primary Impedance	:	$R_{aa} = 3.998$	[k $\Omega$ ]
Secondary Impedance	:	$R_{ls} = 4$	[ $\Omega$ ]
Turns Ratio $N_p/N_s$	:	Ratio = 31.615	[ ]
UL-tap:		tap = 40	[%]
Cathode Feedback Ratio	:	cfb = 0	[%]
-1 dB Frequency Range [Hz to kHz] (3)	:	f <sub>lf</sub> = 1.717	f <sub>hf</sub> = 84.839
-1 dB Frequency Range [Hz to kHz] (3)	:	f <sub>l1</sub> = 0.732	f <sub>h1</sub> = 131.044
-3 dB Frequency Range [Hz to kHz] (3)	:	f <sub>l3</sub> = 0.373	f <sub>h3</sub> = 185.388
Nominal Power (1)	:	$P_n = 70$	[W]
- 3 dB Power Bandwidth starting at	:	$f_u = 14$	[Hz]
Total primary Inductance (2)	:	$L_p = 1.163 \cdot 10^3$	[H]
Primary Leakage Inductance	:	$l_{sp} = 3.2$	[mH]
Effective Primary Capacitance	:	cip = 0.345	[nF]
Total Primary DC Resistance	:	$R_{ip} = 114$	[ $\Omega$ ]
Total Secondary DC Resistance	:	$R_{is} = 0.1$	[ $\Omega$ ]
Tubes Plate Resistance per section	:	$r_i = 4$	[k $\Omega$ ]
Insertion Loss	:	$l_{loss} = 0.226$	[dB]
Q-factor 2nd order HF roll-off (5)	:	$Q = 0.701$	[ ]
HF roll-off Specific Frequency (5)	:	$F_o = 187.148$	[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)	:	$FDF = 5.697$	[ ]

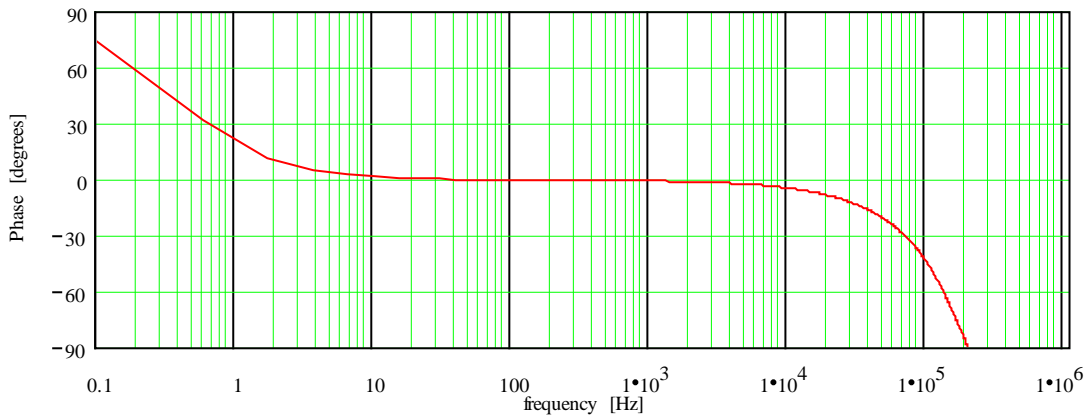
- (1): calculated under the conditions of balancing the DC-currents and the AC-anode voltages of the power tubes driving the transformer
- (2): measured at 230Vrms at 50Hz over total primary
- (3): calculation at 1 Watt in  $R_{ls}$ ;  $r_i$  and  $R_{ls}$  are pure Ohmic
- (4): defined as  $FDF = \log(f_{h3}/f_{l3})$  = 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 2-2-2012.  
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

