

## 1070-UC

Ovaj transformator je namenjen za 2 EL34 cevi u poznatoj Unity Coupled vezi. Efektivna primarna impedansa 4 k $\Omega$  a izlazna impedansa je standardna 5  $\Omega$ . Daje 70W snage sa propusnim opsegom od 14 Hz pa sve do 440 kHz. Posebni namotaj povratne sprege omogućava naprednu topologiju povratne sprege. Pogledati (\*) za objašnjenje ovog transformatora.

(\*) Knjiga Menno van der Veen: Menno van der Veen: High-end Valve Amplifiers 2, New models and applications; Elektor; ISBN: 978-0-905705-90-3; poglavlje 3.13

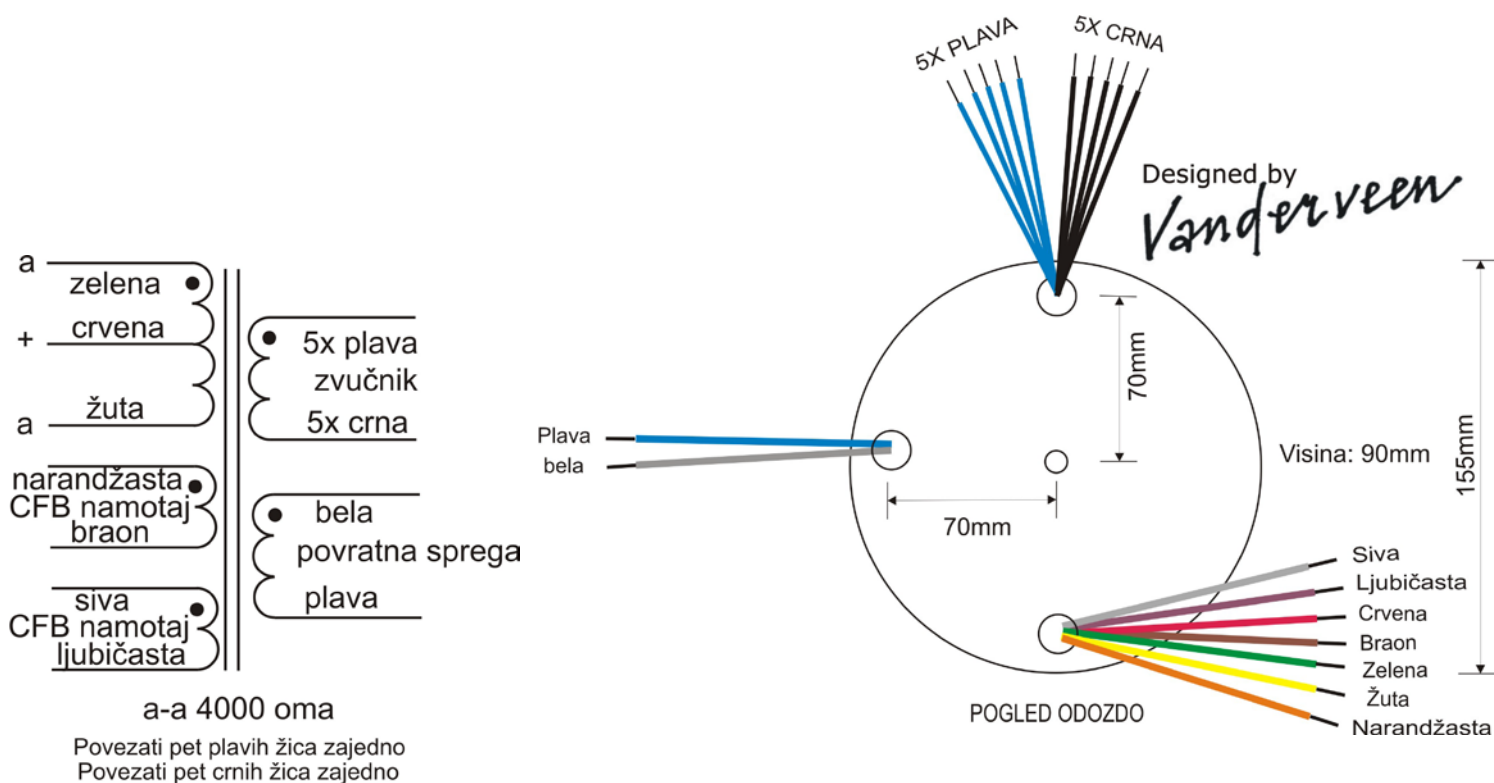
Transformator je zaliven u metalnom kružnom kućištu koje je plastificirano crnom mat bojom.

Dimenzije (prečnik x visina): 155mm x 90mm

Težina: 4,6 Kg.

Cena: 235€ (Dinarska protivvrednost).

Tehnički podaci:



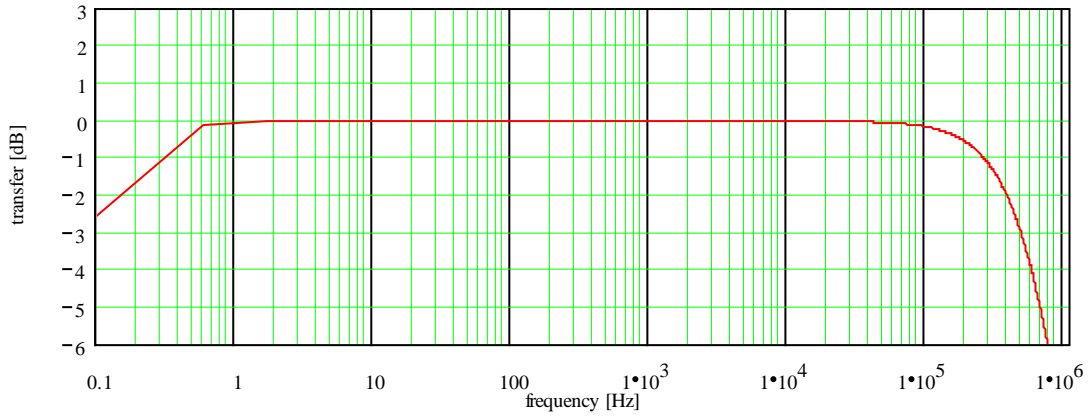
## WIDE BANDWIDTH TOROIDAL PUSH-PULL TUBE OUTPUT TRANSFORMER

|                                       |   |                            |               |
|---------------------------------------|---|----------------------------|---------------|
| Type and Application                  |   | VDV-1070-UC.               |               |
| Primary Impedance                     | : | Raa = 4                    | [kΩ]          |
| Secondary Impedance                   | : | Rls = 5                    | [Ω]           |
| Turns Ratio Np/Ns                     | : | Ratio = 28.284             | [ ]           |
| UL-tap:                               |   | tap = -100                 | [%]           |
| Cathode Feedback Ratio                | : | cfb = 100                  | [%]           |
| -1 dB Frequency Range [Hz to kHz] (3) | : | flf = 0.416                | fhf = 110.074 |
| -1 dB Frequency Range [Hz to kHz] (3) | : | fl1 = 0.177                | fh1 = 244.565 |
| -3 dB Frequency Range [Hz to kHz] (3) | : | fl3 = 0.09                 | fh3 = 450.161 |
| Nominal Power (1)                     | : | Pn = 70                    | [W]           |
| - 3 dB Power Bandwidth starting at    | : | fu = 14                    | [Hz]          |
| Total primary Inductance (2)          | : | Lp = 1.574•10 <sup>3</sup> | [H]           |
| Primary Leakage Inductance            | : | lsp = 0.67                 | [mH]          |
| Effective Primary Capacitance         | : | cip = 0.388                | [nF]          |
| Total Primary DC Resistance           | : | Rip = 78.4                 | [Ω]           |
| Total Secondary DC Resistance         | : | Ris = 0.18                 | [Ω]           |
| Tubes Plate Resistance per section    | : | ri = 0.53                  | [kΩ]          |
| Insertion Loss                        | : | lloss = 0.235              | [dB]          |
| Q-factor 2nd order HF roll-off (5)    | : | Q = 0.501                  | [ ]           |
| HF roll-off Specific Frequency (5)    | : | Fo = 696.834               | [kHz]         |
| Quality Factor (5)                    | : | QF = 2.349•10 <sup>6</sup> | [ ]           |
| Quality Decade Factor = log(QF) (5)   | : | QDF = 6.371                | [ ]           |
| Tuning Factor (5)                     | : | TF = 2.122                 | [ ]           |
| Tuning Decade Factor = log(TF) (5)    | : | TDF = 0.327                | [ ]           |
| Frequency Decade Factor (4,5)         | : | FDF = 6.698                | [ ]           |

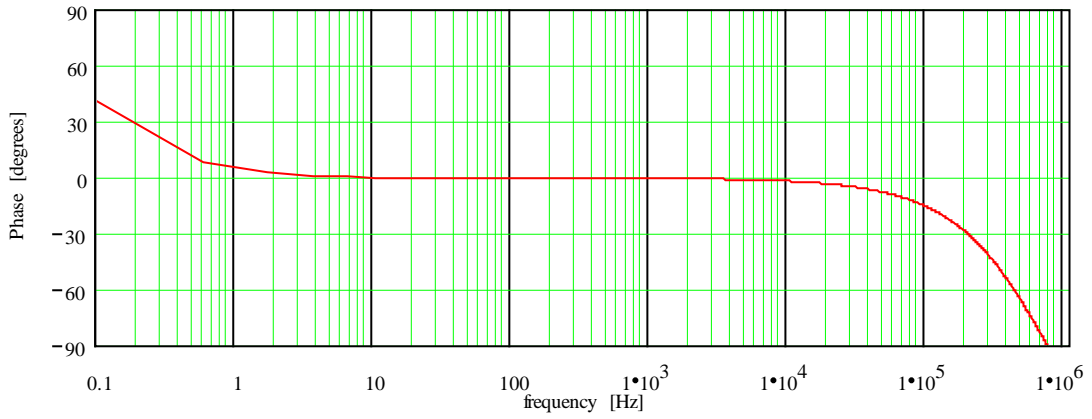
- (1): calculated under the conditions of balancing the DC-currents and the AC-anode voltages of the powertubes driving the transformer
- (2): measured at 230Vrms at 50Hz over total primary
- (3): calculation at 1 Watt in Rls: ri and Rls are pure Ohmic
- (4): defined as FDF = log(fh3/fl3) = number of frequency decades 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-1070-UC

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

