

### 3035 SE

The **3025/3035/3050** Single Ended toroidal output transformers only differ in primary impedance, ranging from 2k5 to 3k5 to 5kOhms. The major applications can be found with the famous 300B triode or two 2A3 triodes in parallel. Also pentodes like the EL34/6L6/KT88 (2k5) and EL84 (5k) can be applied in SE operation. The transformers excel in wide frequency range without any resonances and overshoot and extremely precise reproduction of micro details in the sound stage (see AES papers 7125 and 8360, <[www.mennovanderveen.nl](http://www.mennovanderveen.nl)> section Publications). The maximum output power is rated at 13 W, however maximum power applications up to 17 W are possible while maintaining low distortion. These three transformers are extremely clean sounding, to get the best out of your SE-amplifier.

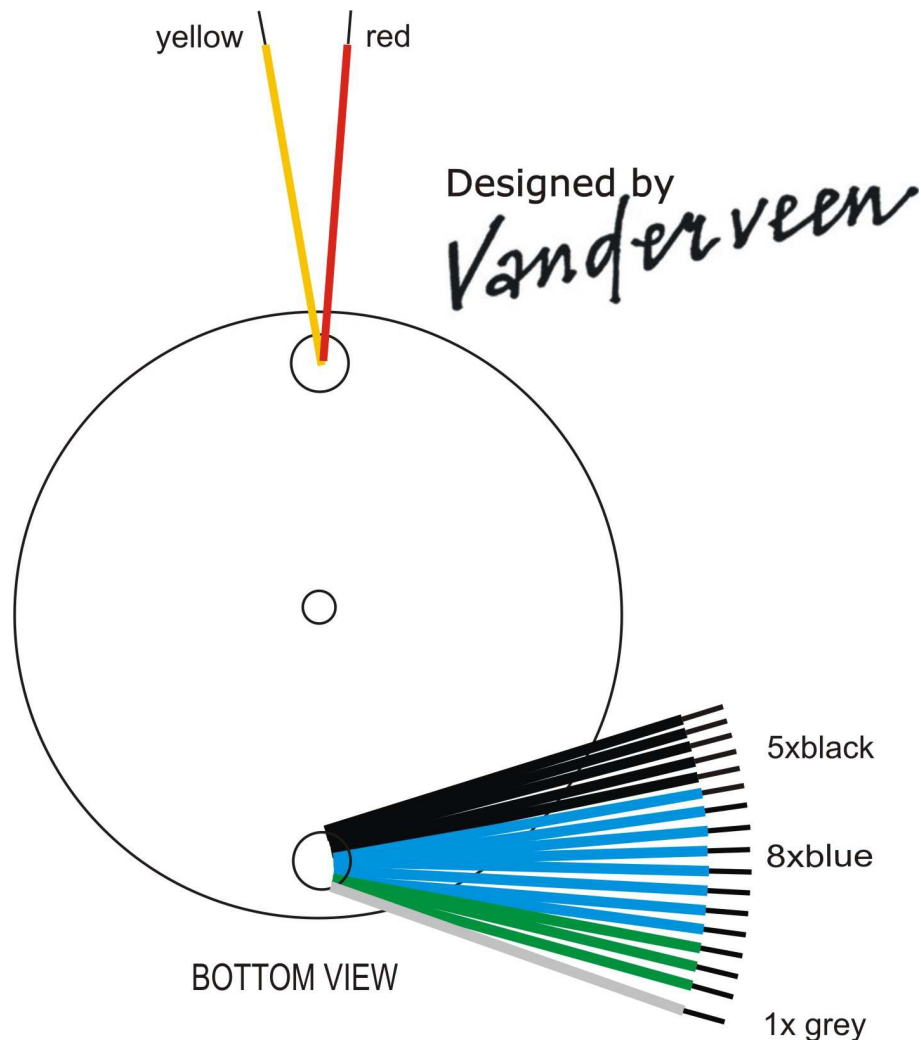
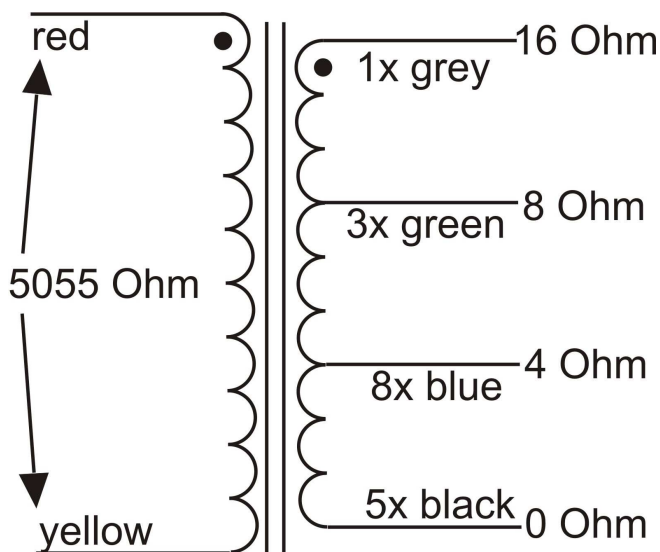
Transformer is potted in aluminium black shell.

dimensions: 145mm x 70mm.

weight: 4,6 Kg.

price: 272€

technical data:



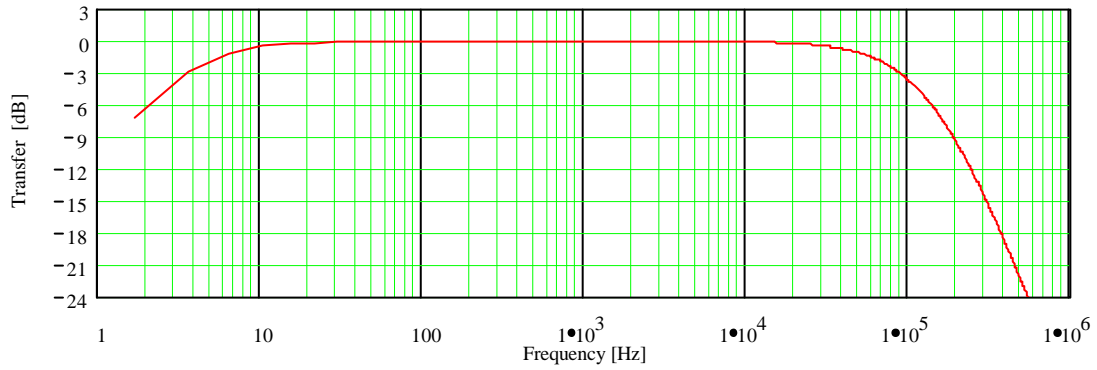
## VDV3035-SE SINGLE ENDED OUTPUT TRANSFORMER

TYPE & APPLICATION	:	VDV3035-SE	
Primary Impedance	:	$R_{aa} = 3.486$	[k $\Omega$ ]
Secondary Impedance	:	$R_{ls} = 4$	[ $\Omega$ ]
Turns Ratio $N_p/N_s$	:	Ratio = 29.522	[ ]
-1 dB Frequency Range [Hz] - [kHz]	:	$f_{lf} = 16.233$	$f_{hf} = 21.806$
-1 dB Frequency Range [Hz] - [kHz]	:	$f_{l1} = 6.924$	$f_{h1} = 48.579$
-3 dB Frequency Range [Hz] - [kHz]	:	$f_{l3} = 3.524$	$f_{h3} = 89.948$
Nominal Power (1)	:	$P_n = 13$	[W]
Full Power Bandwidth Starting at	:	$f_{Pnom} = 20$	[Hz]
Total Primary Inductance (2)	:	$L_p = 28$	[H]
Primary Leakage Inductance to sec.	:	$l_{sp} = 7$	[mH]
Effective Primary Capacitance	:	$C_{ip} = 1.1$	[nF]
Saturation Primary Current	:	$2 \cdot I_{dc} = 172.721$	[mA]
Total Primary DC Resistance	:	$R_{ip} = 50$	[ $\Omega$ ]
Total Secondary DC Resistance	:	$R_{is} = 0.1$	[ $\Omega$ ]
Tubes Plate Resistance	:	$r_p = 0.7$	[k $\Omega$ ]
Insertion Loss	:	$I_{loss} = 0.168$	[dB]
Q-factor 2-nd order HF roll-of (5)	:	$Q = 0.493$	[ ]
HF roll-off Specific Frequency (5)	:	$F_o = 142.539$	[kHz]
Quality Factor = $L_p/L_{sp}$ (5)	:	$QF = 4 \cdot 10^3$	[ ]
Quality Decade Factor (5)	:	$QDF = 3.602$	[ ]
Tuning Factor (5)	:	$TF = 6.382$	[ ]
Tuning Decade Factor (5)	:	$TDF = 0.805$	[ ]
Frequency Decade Factor (4,5)	:	$FDF = 4.407$	[ ]

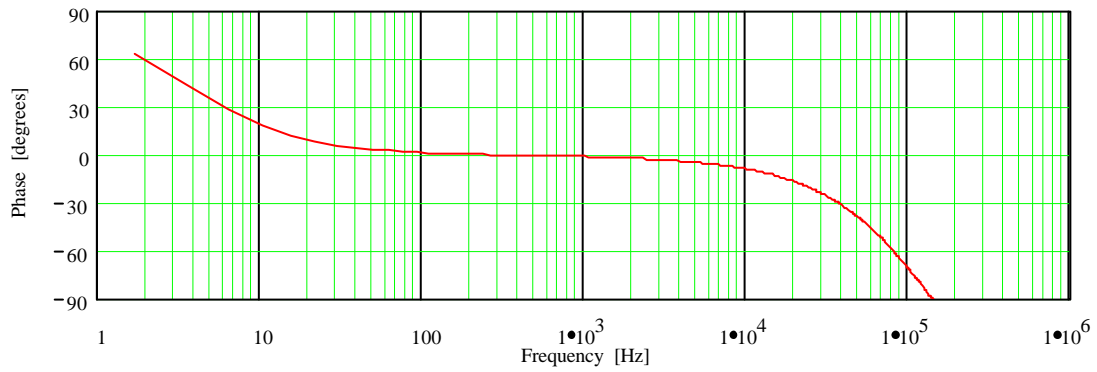
- (1): calculated and measured under the conditions of applying  $0.5 \cdot I_{dc-sat}$ .  
(2): 230 Volt 50 Hz measurement over the total primary winding  
(3): calculated and measured at 1 Watt in  $R_{ls}$ ;  $r_i$  and  $R_{ls}$  are pure Ohmic  
(4): defined as  $FDF = \log(f_{h3}/f_{l3})$  = number of frequency decades transferred  
(5): ir. Menno van der Veen; Theory and Practise of Wide Bandwidth Toroidal Output Transformers, 97-th AES Convention San Francisco, preprint  
(C): copyright Vanderveen 1997, Version 1.3; design date 7-11-1997

VDV3035-SE SINGLE ENDED OUTPUT TRANSFORMER

[dB] Frequency Response; Vertical: 3 dB/div; Horizontal: 1 Hz to 1 MHz (3)



[degrees] Phase Response; Vertical: 30 deg./div; Horizontal: 1 Hz to 1 MHz



[degrees] Differential Phase Response; vert. 30 deg./div; hor. 1 Hz to 1 MHz  
See: W.M.Leach, Differential Time Delay.; JAES sept.89 pp.709-715

