

VDV3050-SE SINGLE ENDED OUTPUT TRANSFORMER

TYPE & APPLICATION	:	VDV3050-SE	
Primary Impedance	:	R _{aa} = 4.981	[kΩ]
Secondary Impedance	:	R _{ls} = 4	[Ω]
Turns Ratio N _p /N _s	:	Ratio = 35.29	[]
-1 dB Frequency Range [Hz] - [kHz]	:	f _{lf} = 12.403	f _{hf} = 20.124
-1 dB Frequency Range [Hz] - [kHz]	:	f _{l1} = 5.29	f _{h1} = 44.877
-3 dB Frequency Range [Hz] - [kHz]	:	f _{l3} = 2.692	f _{h3} = 83.279
Nominal Power (1)	:	P _n = 13	[W]
Full Power Bandwidth Starting at	:	f _{Pnom} = 20	[Hz]
Total Primary Inductance (2)	:	L _p = 40	[H]
Primary Leakage Inductance to sec.	:	l _{sp} = 10	[mH]
Effective Primary Capacitance	:	C _{ip} = 1.2	[nF]
Saturation Primary Current	:	2·I _{dc} = 144.49	[mA]
Total Primary DC Resistance	:	R _{ip} = 80	[Ω]
Total Secondary DC Resistance	:	R _{is} = 0.1	[Ω]
Tubes Plate Resistance	:	r _p = 0.7	[kΩ]
Insertion Loss	:	l _{loss} = 0.175	[dB]
Q-factor 2-nd order HF roll-of (5)	:	Q = 0.49	[]
HF roll-off Specific Frequency (5)	:	F _o = 133.227	[kHz]
Quality Factor = L _p /L _{sp} (5)	:	QF = 4 × 10 ³	[]
Quality Decade Factor (5)	:	QDF = 3.602	[]
Tuning Factor (5)	:	TF = 7.733	[]
Tuning Decade Factor (5)	:	TDF = 0.888	[]
Frequency Decade Factor (4,5)	:	FDF = 4.49	[]

- (1): calculated and measured under the conditions of applying 0.5·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
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 (C):



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 Specifications can deviate 15 % or improve without notice.