

45 WATT AC-DC CONVERTER VTB-00B SERIES

General Description

VT is the basic series of switching power supplies manufactured by ETA Electric Industry. 188 different models are available. Output power ranges from 10W to 600W. 50 models have dual outputs; 33 models are designed with triple outputs. Input selectable ("SZ") models conform to local power conditions.

Features

Compact

Isolated outputs

High Performance and Reliability

Excellent for equipment/din rail applications



Specifications<AC/DC>	Model											
	VTB01B			VTB01B-B			VTB03B			VTB04B		
VTB**B 45WATTS /3 OUTPUTS												
Input Characteristic												
Input Voltage	AC200V(DC260V)											
Input Range	AC180-264V(DC220-350V)											
Input Frequency	50/60Hz											
Input Frequency Range	47 -440Hz											
Phase	Single											
Inrush Current *1	25A(maximum) at rated input/output											
Efficiency [%] (typical) *2	78			81			78			79		
Output Characteristic												
Output Voltage [V]	5	+12	-12	+12	+5	-12	5	+12	-5	5	+15	-15
Output Current [A]												
at horizontal mount 25W	5.0	0.83	0.83	3.0	1.0	0.4	5.0	0.83	0.83	5.0	0.65	0.65
at vertical mount 30W	5.0	1.0	0.5	3.0	1.0	0.4	5.0	1.0	0.83	5.0	0.65	0.65
peak current	-	-	-	4.0	-	-	-	-	-	-	-	-
Voltage Adjust Range	V1:+5% of Rated Output Voltage(at no load within input range) V2,V3:fixed with tolerance of +/-3.5% Rate Output Voltage(at no load within input range)											
Ripple and Noise [mVp-p](maximum) *3	100	170	170	170	100	170	100	170	100	100	200	200
Regulation												
a.Statistic Line Regulation [mV](maximum)	35	84	84	84	35	84	35	84	35	35	105	105
b.Statistic Load Regulation [mV](maximum)	50	120	120	120	50	120	50	120	50	50	150	150
c.Temperature Coefficient *4	0.03%/°C											
d.Drift[mV](maximum) *5	40	75	75	75	40	75	40	75	40	40	90	90
e.Dynamic Load Regulation [mV](typical) *6	150	360	360	360	150	360	150	360	150	150	450	450
f.Recovery Time *6	0.5mS(typical)											
Rise up time	200mS(maximum) at 25°C and rated input/output											
Hold up time	18mS(minimum) at 45W at 25°C and rated input/output											
Functions												
Overcurrent Protection	Current Limiting with automatic recovery											
Overvoltage Protection	Zener diode clamping											
Remote Sense	not available											
Remote On/Off	not available											
Environmental												
Operating Temperature	0 to +50°C											
Operating Humidity	85%RH(non-condensing)											
Storage Temperature	-20 to +85°C											
Storage Humidity	30 to 85%RH(non-condensing)											
Withstanding Voltage	Primary-Secondary AC2,500Vfor 1minute Primary-Frame Ground AC2,500V for 1minute Secondary-Frame Ground AC500V for 1minute											
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester											
Vibration	5-10Hz:10mm double amplitude,10-55Hz:19.6m/s ² ,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)											
Shock	294m/s ²											
Cooling	Convection											
? Leakage Current	1.0mA(maximum)											
? Line Conduction Noise	Not specified											
? Safety	-											
? Weight (typical)	470g											
? MTBF [H]	420,000											
? Switching Frequency[kHz](typical)	43											

Conditions:

*1 at cold start

*2 at DC260V and rated output

*3 measured by a bayonet probe at the output connector at a 0 to 100MHz bandwidth

*4 at 0 to +50°C

*5 for 7hour period after 1hour warm-up at 25°C and rated input/output

*6 when output current changed from 25% to 75% of rated output current rapidly at AC100V input