

# 45 WATT AC-DC CONVERTER VTB-00A 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			
VTB**A 45WATTS /3 OUTPUTS	VTB01A	VTB01A-B	VTB03A	VTB04A
<b>Input Characteristic</b>				
Input Voltage	AC100V(DC130V)			
Input Range	AC90-132V(DC110-175V)			
Input Frequency	50/60Hz			
Input Frequency Range	47 -440Hz			
Phase	Single			
Inrush Current *1	25A(maximum) at rated input/output			
Efficiency [%] (typical) *2	77	80	77	78

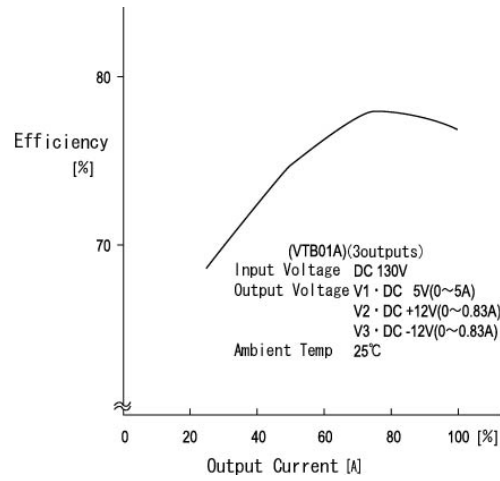


**ETA-USA**

HIGH QUALITY SWITCHING POWER SUPPLIES

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### Efficiency Curve



<b>VTB**A Specification</b>														
Specifications<AC/DC>	Model													
VTB**A 45WATTS /3 OUTPUTS	VTB01A			VTB01A-B			VTB03A			VTB04A				
<b>Output Characteristic</b>														
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 [mV(p-p)](maximum) *3	100	170	170	170	100	170	100	170	100	100	200	200		
<b>Regulation</b>														
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													
<b>Functions</b>														
Overcurrent Protection	Current Limiting with automatic recovery													
Overvoltage Protection	Zener diode clamping													
Remote Sense	not available													
Remote On/Off	not available													
<b>Environmental</b>														
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 AC1,500Vfor 1minute Primary-Frame Ground AC1,500V 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 <sup>2</sup> ,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)													
Shock	294m/s <sup>2</sup>													
Cooling	Convection													
? Leakage Current	1.0mA(maximum)													
? Line Conduction Noise	Not specified													
? Safety	-													
? Weight (typical)	470g													
? MTBF [H]	440,000													
? Switching Frequency[kHz](typical)	43													

Conditions:

\*1 at cold start

\*2 at DC130V 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 at 25°C and rated input/output

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


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**OCP Curve**

