ETA-USA
Your power supply experts

12.5 WATT AC-DC CONVERTER

VTM-00A SERIES

General Description

VT is the basic series of switching power supplies manufactured by ETA Electric Industry Co., Ltd. 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

1. High reliability
2. High efficiency
3. Inrush current protection built-in

Options

1. Terminal Cover (ordered separately)

Specifications<AC/DC>	Model		
VTM**A 12.5WATTS /3 OUTPUTS	VTM01A	VTM03A	VTM04A
Input Characteristic			
Input Voltage	AC100V		
Input Range	AC90-132V		
Input Frequency	50/60Hz		
Input Frequency Range	47 -440Hz		
Phase	Single		
Inrush Current *1	30A(maximum) at rated input/output		
Efficiency [%] (typical) *2	62		

ETA-USA
HIGH QUALITY SWITCHING POWER SUPPLIES
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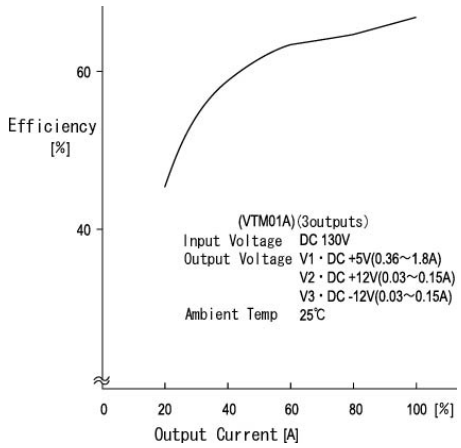
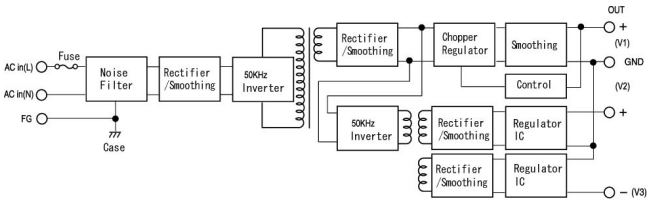
Efficiency Curve



Block Diagram



VTM**A Specification

Specifications<AC/DC>	Model								
VTMA 12.5WATTS /3 OUTPUTS**	VTM01A			VTM03A			VTM04A		
Output Characteristic									
Output Voltage [V]	+5	+12	-12	+5	+12	-5	+5	+15	-15
Output Current [A]	1.8	0.15	0.15	1.8	0.15	0.15	1.8	0.12	0.12
Voltage Adjust Range	V1:+/-3% of Rated Output Voltage(at no load within input range)								
	V2,V3:+/-3.5% Rate Output Voltage(at no load within input range)								
Ripple and Noise [mVp-p](maximum) *3	100	25	25	100	25	25	100	25	25
Regulation									
a.Statistic Line Regulation [mV](maximum)	20	6	6	20	6	2.5	20	7.5	7.5
b.Statistic Load Regulation [mV](maximum)	40	60	60	40	60	25	40	75	75
c.Temperature Coefficient *4	0.02%/℃								
d.Drift[mV](maximum) *5	40	75	75	40	75	40	40	90	90
e.Dynamic Load Regulation [mV](typical) *6	Not specified								
f.Recovery Time *6	Not specified								
Rise up time	200mS(maximum) at 25℃ and rated input/output								
Hold up time	10mS(minimum) at 25℃ and rated input/output								
Functions									
Overcurrent Protection	only V1:Current Limiting with automatic recovery								
Overvoltage Protection	not available								
Remote Sense	not available								
Remote On/Off	not available								
Environmental									
Operating Temperature	0 to +50℃								
Operating Humidity	85%RH(non-condensing)								
Storage Temperature	-20 to +85℃								
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^2,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)								
Shock	294m/s^2								
Cooling	Convection								
? Leakage Current	0.25mA(maximum)								
? Line Conduction Noise	Not specified								
? Safety	-								
? Weight (typical)	250g								
? MTBF [H]	690,000								
? Switching Frequency[kHz](typical)	42								

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℃

*5 for 7hour period after 1hour warm-up at 25℃ 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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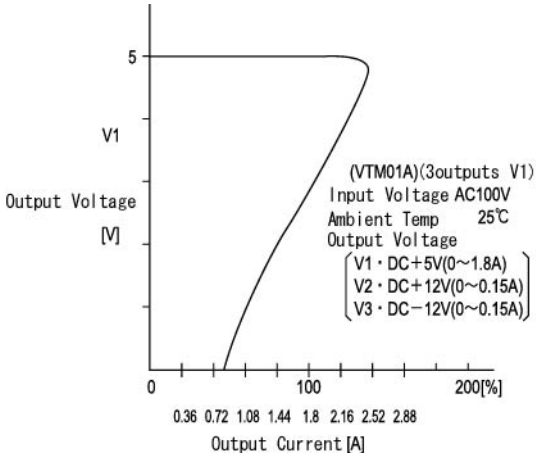
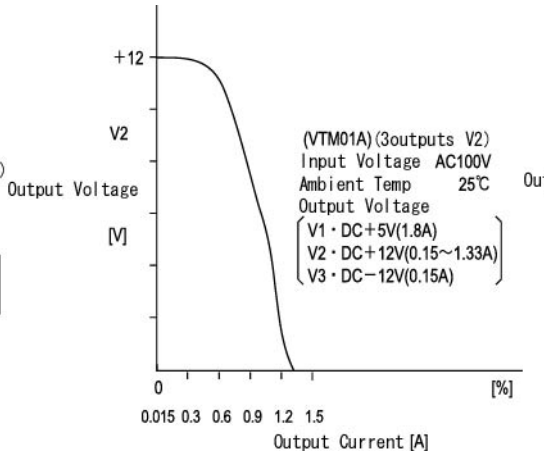
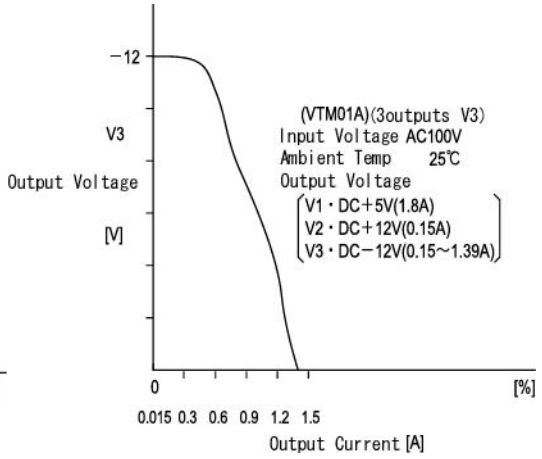
OCP Curve







Dimension Diagram (mm)