ETA-USA
Your power supply experts

15 WATT AC-DC CONVERTER

VTM-WA/WB 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**WA/VTM**WB 15WATTS/2 OUTPUTS	VTM22WA	VTM23WA	VTM24WA	VTM22WB	VTM23WB	VTM24WB
Input Characteristic						
Input Voltage	AC100V(DC130V)			AC200V(DC260V)		
Input Range	AC90-132V(DC110-175V)			AC180-264V(DC220-350V)		
Input Frequency	50/60Hz					
Input Frequency Range	47 -440Hz					
Phase	Single					
Inrush Current *1	20A(maximum) at rated input/output					
Efficiency [%] (typical) *2	70	70	70	70	70	70

ETA-USA
HIGH QUALITY SWITCHING POWER SUPPLIES
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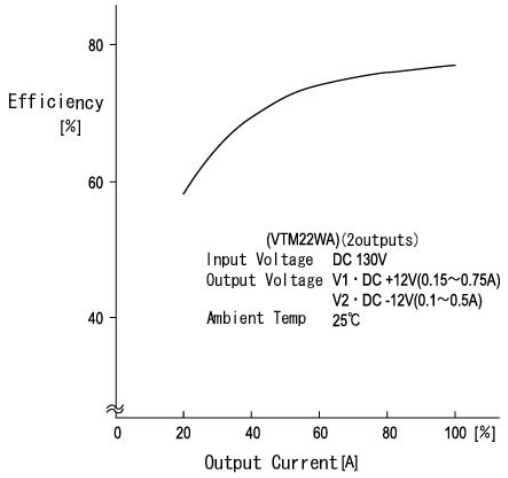
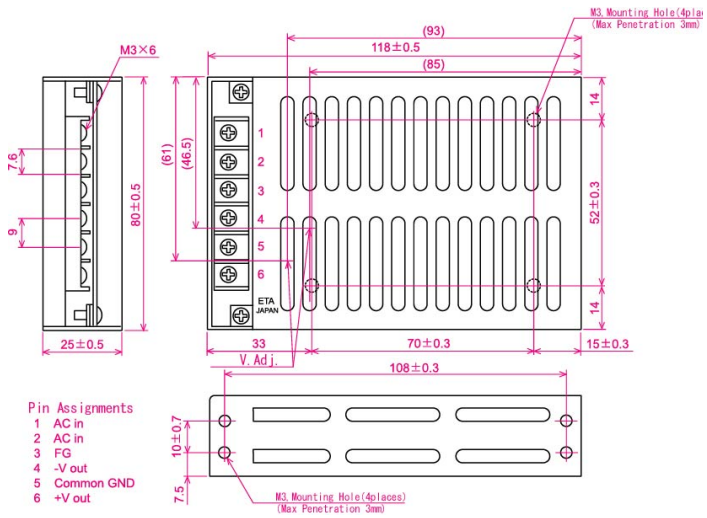
Efficiency Curve



Dimension Diagram (mm)



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VTM**WA/VTM**WB Specification

Specifications<AC/DC>	Model											
VTM**WA/VTM**WB 15WATTS/2 OUTPUTS	VTM22WA		VTM23WA		VTM24WA		VTM22WB		VTM23WB		VTM24WB	
Output Characteristic												
Output Voltage [V]	+12	-12	+15	-15	+12	-5	+12	-12	+15	-15	+12	-5
Output Current [A]	0.75	0.5	0.5	0.5	0.8	0.8	0.75	0.5	0.5	0.5	0.8	0.8
Voltage Adjust Range	+/-5% of Rated Output Voltage(at no load within input range)											
Ripple and Noise [mVp-p](maximum) *3	110	110	125	125	110	75	110	110	125	125	110	75
Regulation												
a.Statistic Line Regulation [mV](maximum)	96	96	120	120	96	40	96	96	120	120	96	40
b.Statistic Load Regulation [mV](maximum)	108	108	135	135	108	45	108	108	135	135	108	45
c.Temperature Coefficient *4	0.03%/°C											
d.Drift[mV](maximum) *5	75	75	90	90	75	40	75	75	90	90	75	40
e.Dynamic Load Regulation [mV](typical) *6	360	360	450	450	360	150	360	360	450	450	360	150
f.Recovery Time *6	0.5mS(typical)											
Rise up time	200mS(maximum) at 25°C and rated input/output											
Hold up time	10mS(minimum) 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 AC1,500Vfor 1minute						Primary-Secondary AC2,500Vfor 1minute					
	Primary-Frame Ground AC1,500V for 1minute						Primary-Frame Ground AC2,500V for 1minute					
	Secondary-Frame Ground AC500V 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]	580,000											
? Switching Frequency[kHz](typical)	43											

Conditions:

*1 at cold start

*2 WA:DC130V / WB:DC260V both at 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 rated input

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OCP Curve (VTM**WA)