ETA-USA
Your power supply experts

25 WATT AC-DC CONVERTER

VTA-FWA SERIES



Features

Compact

Isolated outputs

High Performance and Reliability

Excellent for equipment/din rail applications

Inrush-current protection built-in.

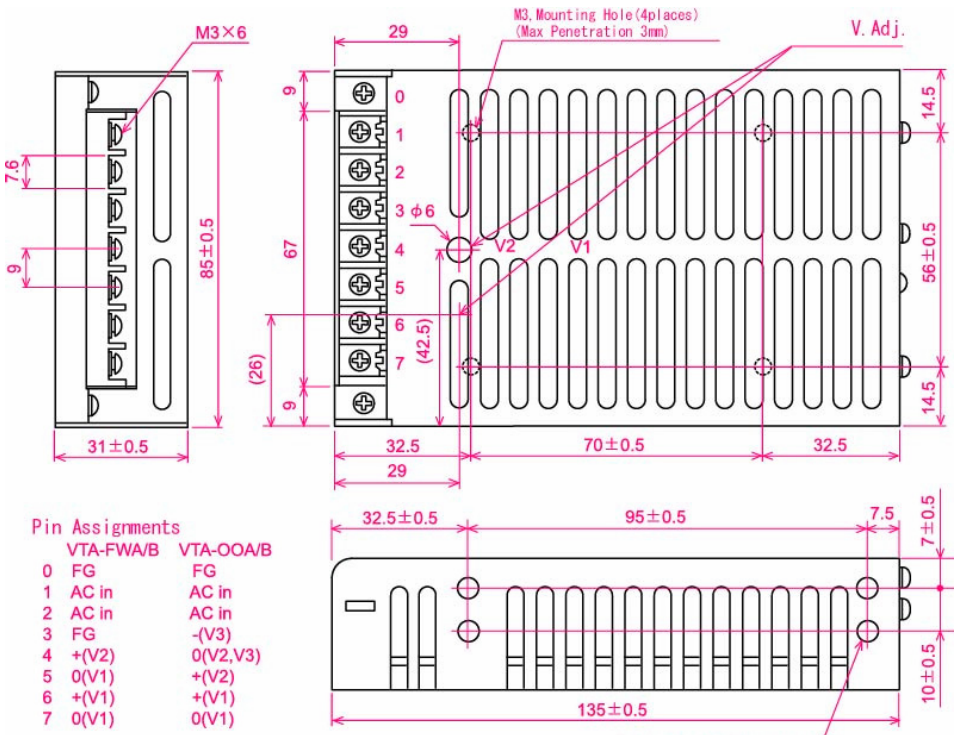
General Description

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.

Specifications<AC/DC>	Model					
VTA**FWA 25,30WATTS /2 OUTPUTS	VTA21FWA	VTA21FWA-B	VTA22FWA	VTA23FWA	VTA24FWA	VTA24FWA-B
Input Characteristic						
Input Vdtage	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	79	78	79	76	78

ETA-USA Tel: 408-778-2793 Fax: 408-779-2753 **e-mail**: sales@eta-usa.com

DIMENSION DIAGRAM



Pin Assignments

	VTA-FWA/B	VTA-OOA/B
0	FG	FG
1	AC in	AC in
2	AC in	AC in
3	FG	-(V3)
4	+(V2)	0(V2,V3)
5	0(V1)	+(V2)
6	+(V1)	+(V1)
7	0(V1)	0(V1)

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VTA**FWA Specification

Specifications<AC/DC>	Model											
VTA**FWA 25,30WATTS /2 OUTPUTS	VTA21FWA		VTA21FWA-B		VTA22FWA		VTA23FWA		VTA24FWA		VTA24FWA-B	
Output Characteristic												
Output Voltage [V]	5	24	24	5	12	12	15	15	5	12	12	5
Output Current [A]												
at horizontal mount 25W	2.8	0.45	0.9	1.0	1.2	0.9	1.0	0.7	2.8	0.9	1.6	1.2
at vertical mount 30W	3.0	0.6	1.0	1.2	1.5	1.0	1.0	1.0	3.0	1.2	2.0	1.5
Voltage Adjust Range	+/-5% of Rated Output Voltage(at no load within input range)											
Ripple and Noise [mVp-p](maximum) *3	100	290	290	100	170	170	200	200	100	170	170	100
Regulation												
a.Statistic Line Regulation [mV](maximum)	35	168	168	35	84	84	105	105	35	84	84	35
b.Statistic Load Regulation [mV](maximum)	50	240	240	50	120	120	150	150	50	120	120	50
c.Temperature Coefficient *4	0.03%/℃											
d.Drift[mV](maximum) *5	40	135	135	40	75	75	90	90	40	75	75	40
e.Dynamic Load Regulation [mV](typical) *6	150	720	720	150	360	360	450	450	150	360	360	150
f.Recovery Time *6	0.5mS(typical)											
Rise up time	200mS(maximum) at 25℃ and rated input/output											
Hold up time	20mS(minimum) at 25W/15mS(minimum) at 30W both at 25℃ 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℃											
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	1.0mA(maximum)											
? Line Conduction Noise	Not specified											
? Safety	-											
? Weight (typical)	380g											
? MTBF [H]	570,000											
? 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℃

*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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