



ETA-USA

HIGH QUALITY SWITCHING POWER SUPPLIES

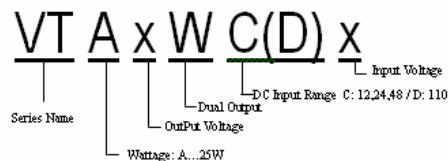
DC/DC SWITCHING POWER SUPPLY
DC INPUT 12,24,48, 110
DUAL OUTPUT
25WATTS

VTA-FWCx/VTA-FWD SERIES



Dimension: 85W × 135L × 31H mm

General Description



Features

1. Variety of Models
2. Chassis mount type
3. Compact and High Efficiency

DC INPUT: 12V

Input Characteristics	Unit	VTA21FWC12	VTA21FWC12B	VTA22FWC12	VTA23FWC12	VTA24FWC12	VTA24FWC12B
Input Voltage	Vdc	DC 12V					
Input Voltage Range	Vdc	DC 9.2V-16V					
Inrush Current	A	Not Specified					
Efficiency (typical) *1	%	77	80	79	81	76	77
MTBF	H	600,000					
Switching Frequency	kHz	40 Fix	40 Fix	40 Fix	40 Fix	40 Fix	40 Fix

DC INPUT: 24V

Input Characteristics	Unit	VTA21FWC24	VTA21FWC24B	VTA22FWC24	VTA23FWC24	VTA24FWC24	VTA24FWC24B
Input Voltage	Vdc	DC 24V					
Input Voltage Range	Vdc	DC 19-32V					
Inrush Current	A	Not Specified					
Efficiency (typical) *1	%	77	80	79	81	76	77
MTBF	H	600,000					
Switching Frequency	kHz	40 Fix	40 Fix	40 Fix	40 Fix	40 Fix	40 Fix

DC INPUT: 48V

Input Characteristics	Unit	VTA21FWC48	VTA21FWC48B	VTA22FWC48	VTA23FWC48	VTA24FWC48	VTA24FWC48B
Input Voltage	Vdc	DC 48V					
Input Voltage Range	Vdc	DC 38-63V					
Inrush Current	A	Not Specified					
Efficiency (typical) *1	%	75	77	78	79	76	78
MTBF	H	600,000					
Switching Frequency	kHz	40 Fix	40 Fix	40 Fix	40 Fix	40 Fix	40 Fix

DC INPUT: 110V

Input Characteristics	Unit	VTA21FWD	VTA21FWD	VTA22FWD	VTA23FWD	VTA24FWD	VTA24FWD
Input Voltage	Vdc	DC 110V					
Input Voltage Range	Vdc	DC 85-140V					
Inrush Current	A	20A (maximum)					
Efficiency (typical) *1	%	76	77	79	82	76	78
MTBF	H	550,000					
Switching Frequency	kHz	40 Fix	43 Fix.	43 Fix.	43 Fix.	43 Fix.	43 Fix.



ETA USA

16170 Vineyard Blvd. Suite 180, Morgan Hill, CA 95037
Phone: 1-800-ETA-POWER, (408) 778-2793 Fax: (408) 779-2753

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email at: sales@eta-usa.com



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VTA-WC / VTA-WD

Output Characteristic	Unit	Models											
		VTA21FWCx / FWD		VTA21FWCx(B) / FWD		VTA22FWCx / FWD		VTA23FWCx/ FWD		VTA24FWCx / FWD		VTA24FWCx(B) / FWD	
Output Voltage	V	5	24	24	5	12	12	15	15	5	12	12	5
Output Current 25W at horizontal mount 30W at vertical mount without cover	A	2.8	0.45	0.83 (Vin=110 0.7)	1.0	1.2	0.9	1.0	0.7	3.0	0.9	1.6	1.2
		3.0	0.6	1.0	1.2	1.5	1.0	1.0	1.0	3.0	1.2	2.0	1.5 (Vin=48, 110 1.5)
Voltage Adjust Range	V	+/-5% of Rated Output Voltage(at no load within input											
Ripple Noise(max)*2	mVpp	100	290	290	100	170	170	200	200	100	170	170	100
Rise up time	mS	200mS(maximum) at 25°C and rated input/output											
Hold up time	mS	Not specified (Vin=110 10mS(maximum) at 25°C and rated input/output)											
Regulation													
a. Line Regulation (max)	mV	40	192	192	40	96	96	120	120	40	96	96	40
b. Load Regulation (max)	mV	50	240	240	50	120	120	150	150	50	120	120	50
c. Temperature Coefficient *3	°C	0.03%/°C											
d. Drift(maximum) *4	mV	40	135	135	40	75	75	90	90	40	75	75	40
e. Dynamic Load Regulation (typ.) *5	mV	150	720	720	50	360	360	450	450	150	360	360	150
f. Recovery Time *5	mS	0.5mS(typical)											

Conditions:

*1 at rated input/output

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

*3 at 0 to +50°C

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

*5 when output current changed between 25% and 75% of rated output current rapidly at rated input

Environmental Specification

Operating Temperature	0 to +50°C
Operating Humidity	85%RH(non-condensing)
Storage Temperature	-20 to +85°C
Storage Humidity	-
Withstanding Voltage	Primary-Secondary AC1,500Vfor 1minute (Vin=110 2000) Primary-Frame Ground AC1,500V for 1minute (Vin=110 2000) 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

Functions

Over current Protection	Current Limiting with automatic recovery
Over voltage Protection	zener diode clamping
Remote Sense	not available
Remote On/Off	not available
Reverse Voltage Protection	by internal fuse (Vin=110 by internal bridge diode)
Line Conduction Noise	Not specified
Weight [g] (typical)	390 G
Dimension [mm]	85W × 135L × 31H



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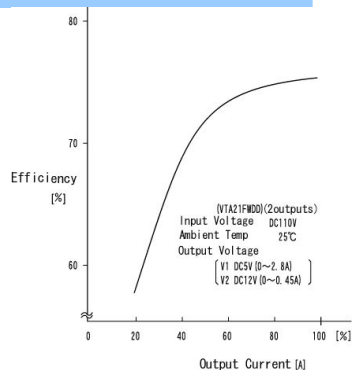
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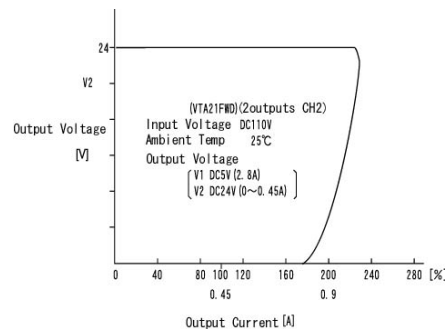
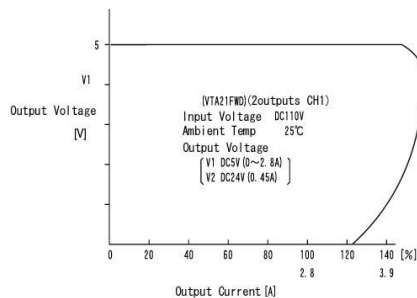
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HIGH QUALITY SWITCHING POWER SUPPLIES

EFFICIENCY CURVE



OCP CURVE



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