



ETA-USA

HIGH QUALITY SWITCHING POWER SUPPLIES

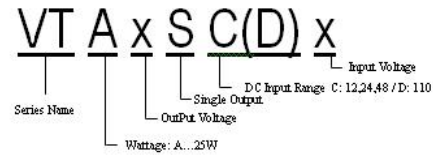
DC/DC SWITCHING POWER SUPPLY
DC INPUT 12,24,48, 110
SINGLE OUTPUT
25WATTS

VTA-SCx/VTA-SD SERIES



Dimension: 85W × 135L × 31H

General Description



Features

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

DC INPUT: 12V

Input Characteristics	Unit	VTA05SC12	VTA12SC12	VTA15SC15	VTA24SC12	VTA48SC12
Input Voltage	Vdc	DC 12V				
Input Voltage Range	Vdc	DC 9.2V-16V				
Input Current (typ)	A	2.9	2.92	2.87	3.0	2.63
Inrush Current *1	A	Not Specified				
Efficiency (typical) *2	%	72	72	74	73	76
MTBF	H	880'000				
Switching Frequency	kHz	60 Fix.	60 Fix.	60 Fix.	60 Fix.	60 Fix.

DC INPUT: 24V

Input Characteristics	Unit	VTA05SC24	VTA12SC24	VTA15SC24	VTA24SC24	VTA48SC24
Input Voltage	Vdc	DC 24V				
Input Voltage Range	Vdc	DC 19-32V				
Input Current (typ)	A	1.34	1.33	1.36	1.34	1.28
Inrush Current *1	A	Not Specified				
Efficiency (typical) *2	%	75	78	79	78	82
MTBF	H	880'000				
Switching Frequency	kHz	60 Fix.	60 Fix.	60 Fix.	60 Fix.	60 Fix.

DC INPUT: 48V

Input Characteristics	Unit	VTA05SC48	VTA12SC48	VTA15SC48	VTA24SC48	VTA48SC48
Input Voltage	Vdc	DC 48V				
Input Voltage Range	Vdc	DC 38-63V				
Input Current (typ)	A	0.68	0.66	0.65	0.67	0.6
Inrush Current *1	A	Not Specified				
Efficiency (typical) *2	%	78	80	82	82	84
MTBF	H	860'000				
Switching Frequency	kHz	60 Fix.	60 Fix.	60 Fix.	60 Fix.	60 Fix.

DC INPUT: 110V

Input Characteristics	Unit	VTA05SD	VTA12SD	VTA15SD	VTA24SD	VTA48SD
Input Voltage	Vdc	DC 110V				
Input Voltage Range	Vdc	DC 85-140V				
Input Current (typ)	A	0.30	0.29	0.30	0.31	0.28
Inrush Current *1	A	Not Specified				
Efficiency (typical) *2	%	76	78	78	78	78
MTBF	H	790'000				
Switching Frequency	kHz	80 Fix.	80 Fix.	80 Fix.	80 Fix.	80 Fix.



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HIGH QUALITY SWITCHING POWER SUPPLIES

VTA-SC / VTA-SD

Output Characteristic	Unit	Models				
		VTA05SCx / SD	VTA12SCx / SD	VTA15SCx / SD	VTA24SCx / SD	VTA48SCx / SD
Output Voltage	V	5	12	15	24	48
Output Current	A	5.0	2.1	1.7	1.1	0.5
Voltage Adjust Range	V	+/-10% of Rated Output Voltage(at no load within input range)				
Ripple Noise(max) *3	mVpp	100	170	200	290	530
Rise up time	mS	100mS(maximum) at 25°C and rated input/output				
Hold up time	mS	10mS				
Regulation						
a. Line Regulation (max)	mV	40	96	120	192	384
b. Load Regulation (max)	mV	45	108	135	216	432
c. Temperature Coefficient *4	°C	0.03%/°C				
d. Drift(maximum) *5	mV	40	75	90	135	255
e. Dynamic Load Regulation (typ.) *6	mV	150	360	450	720	1440
f. Recovery Time *6	mS	0.5mS				

Conditions:

*1 at cold start

*2 at rated input/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 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	Output shutdown
Remote Sense	not available
Remote On/Off	not available
Reverse Voltage Protection	by internal fuse
Line Conduction Noise	Not specified
Weight [g](typical)	380 G
Dimension [mm]	85W × 135L × 31H



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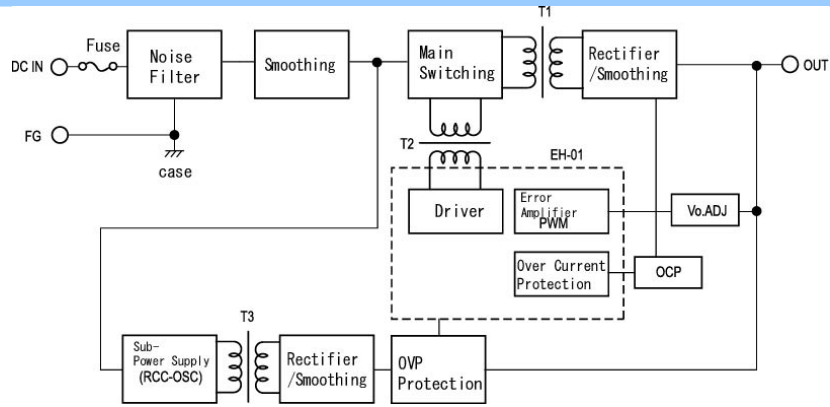
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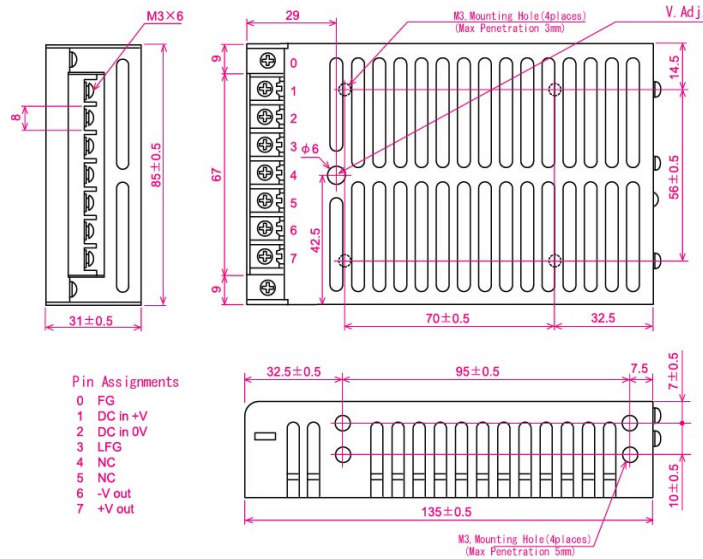
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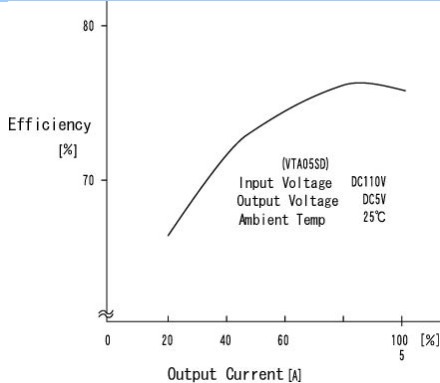
BLOCK DIAGRAM



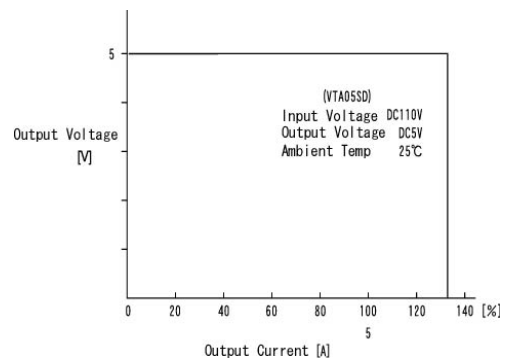
DIMENSION DIAGRAM (mm)



EFFICIENCY CURVE



OCP CURVE



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