

25 WATT AC-DC CONVERTER VTA-SB SERIES



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.

Features

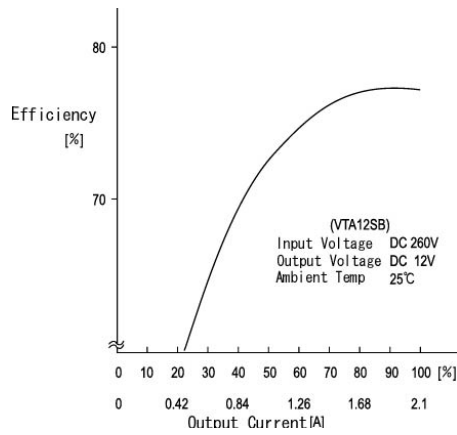
1. High reliability
2. High efficiency
3. Inrush-current protection built in

Options

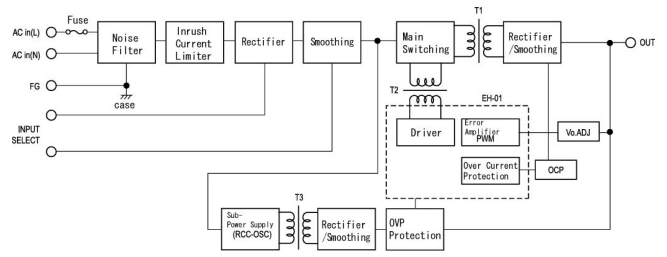
Terminal cover (ordered separately)

Specifications<AC/DC>	Model				
	VTA05SB	VTA12SB	VTA15SB	VTA24SB	VTA48SB
VTA**SB 25WATTS/SINGLE OUTPUT					
Input Characteristic					
Input Voltage	AC200V(DC260V)				
Input Range	AC180-264V(DC220-350V)				AC170-264V
Input Frequency	50/60Hz				
Input Frequency Range	47-440Hz				
Phase	Single				
Inrush Current *1	20A(maximum) at rated input/output				
Efficiency [%] (typical) *2	76	78	80	80	80

Efficiency Curve



Block Diagram Curve



SVBSB Specification**

Specifications<AC/DC>	Model				
VTA**SB 25WATTS/SINGLE OUTPUT	VTA05SB	VTA12SB	VTA15SB	VTA24SB	VTA48SB
Output Characteristic					
Output Voltage [V]	5	12	15	24	48
Output Current [A]	5.0	2.1	1.7	1.10	0.5
Voltage Adjust Range	+/-10% of Rated Output Voltage(at no load within input range)				
Ripple and Noise [mVp-p](maximum) *3	100	170	200	290	530
Regulation					
a.Statistic Line Regulation [mV](maximum)	40	96	120	192	384
b.Statistic Load Regulation [mV](maximum)	45	108	135	216	432
c.Temperature Coefficient	0.03%/°C				
d.Drift[mV](maximum) *5	40	75	90	135	255
e.Dynamic Load Regulation [mV](typical) *6	150	360	450	720	1440
f.Recovery Time *6	0.5mS(typical)				
Rise up time	100mS(maximum) at 25°C and rated input/output				mS(maximum)
Hold up time	20mS(minimum) at 25°C and rated input/output				
Functions					
Overcurrent Protection	Current Limiting with automatic recovery				
Overvoltage Protection	output shutdown				
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 AC2,500Vfor 1minute				
	Primary-Frame Ground AC2,500V for 1minute				
	Secondary-Frame Ground AC500V for 1minute				
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V				
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)	350g				
? MTBF [H]	820,000				
? Switching Frequency[kHz](typical)	63				

Conditions:

- *1 at cold start
- *2 at DC260V and 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 AC200V in