ETA-USA
Your power supply experts

50 WATT AC-DC CONVERTER

ERB-SB Series

General Description

ER-series is an open frame, low cost switcher with high efficiency. 65 different models are available from low to medium power. Low power modules use a simple RCC circuit while higher power supplies employ a forward converter.

Options

Case cover (add suffix "-P")
"-P" model dimension is same as "without cover" model

Features

1. Cost effective
2. High efficiency
3. No derating without cover and horizontal mounting
4. Over voltage protection

ETA-USA
HIGH QUALITY SWITCHING POWER SUPPLIES
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ERB-SB SERIES

Specifications<AC/DC>	Model				
ERB**SB 50WATTS/SINGLE	ERB05SB	ERB12SB	ERB15SB	ERB24SB	ERB48SB
Input Characteristic					
Input Voltage	AC200V(DC260V)				
Input Range	AC170-264V(DC220-350V)				
Input Frequency	50/60Hz				
Input Frequency Range	47-440Hz				
Phase	Single				
Inrush Current *1	30A(maximum)at AC200V				
Efficiency [%] (typical) *2	77	82	83	85	87
Output Characteristic					
Output Voltage [V]	5	12	15	24	48
Output Current [A]	10.0	4.2	3.4	2.1	1.0
Voltage Adjust Range	- 10% of Rated Output Voltage(at no load within the input rang				
Ripple and Noise [mVp-p](maximum) *3	100	170	200	290	530
Regulation					
a.Statistic Line Regulation [mV](maximum)	25	60	75	120	240
b.Statistic Load Regulation [mV](maximum)	50	120	150	240	480
c.Temperature Coefficient *4	0.03%/℃				
d.Drift[mV](maximum) *5	40	75	90	135	255
e.Dynamic Load Regulation [mV](typical) *6	not specified				
f.Recovery Time *6	not specified				
Rise up time	200mS(maximum) at 25℃ and rated input/output				
Hold up time	20mS(minimum) at 25℃ and rated input/output				
Functions					
Overcurrent Protection ≧110% of	Current Limiting with automatic recovery				
Rated Output Current[A]	11.0	4.62	3.74	2.31	1.10
Overvoltage Protection ≧115% of	output shutdown(to reset,leave 30seconds after shut-off)				
Rated Output Voltage[V]	5.75	13.8	17.3	27.6	55.2
Remote Sense	not available				
Remote On/Off	not available				
Environmental					
Operating Temperature	[enclosed type:-5 to 50℃ at vertical mount/-5 to 40℃ at horizo				
Operating Humidity	85%RH(non-condensing)				
Storage Temperature	-20 to +85℃				
Storage Humidity	85%RH(non-condensing)				
Withstanding Voltage	Primary-Secondary AC2,500V for 1minute				
	Primary-Frame Ground AC2,500V 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-				
Shock	294m/s^2				
Cooling	Convection				
? Leakage Current	1mA(maximum) at 25℃,rated input/output and rated input frequency				
? Line Conducted Noise	Built to meet FCC Part15-B Class B				
? Safety					
? Weight (typical)	370g/enclosed type:410g				
? MTBF [H]	570,000				
? Switching Frequency[kHz](typical) *7	35	30	30	35	40

Conditions:
*1 at cold start
*2 at DC260V input and rated output
*3 measured by a bayonet probe at output connector at 0 to 100MHz bandwidth
*4 at -5 to +50℃/enclosed type: at -5 to 40℃
*5 for 7hour 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 AC200V input
*7 variable on input voltage and load conditions

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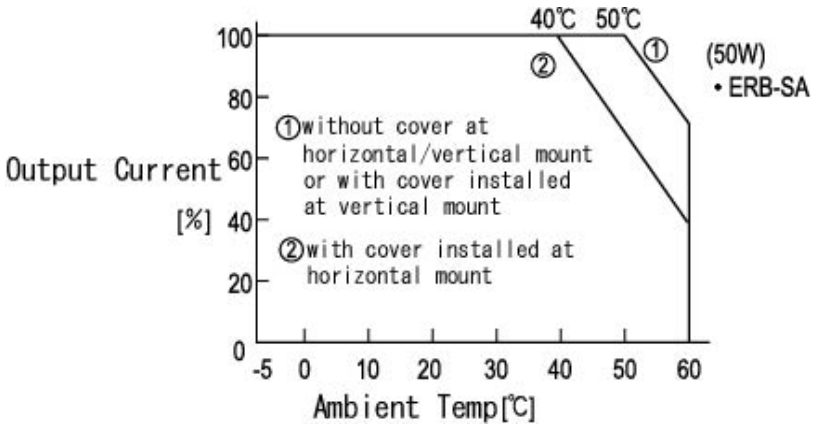
Derating Curve



Dimension Diagram(mm)