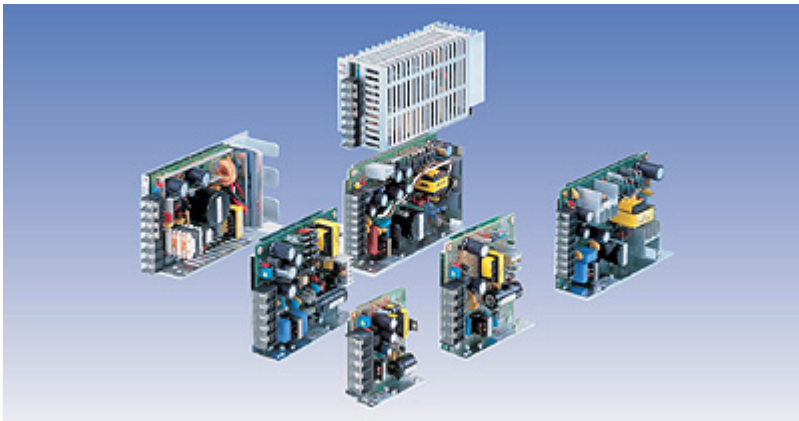


15 WATT AC-DC CONVERTER ERM-SB SERIES

General Description

"ER"-Series AC/DC Switching power supplies are open frame, low cost with high efficiency. 65 different models are available from low to medium power. A low power modules use a simple RCC circuit while high power supplies employ a forward converter.



Features

1. Open Frame
2. Cost Effective
3. High Efficiency
4. No derating without cover and horizontal mounting
5. Input 170-264Vac
6. EMI : complies with FCC/A, FCC/B for ERD & ERE
7. Over voltage protection

Cover(add suffix "-P")

***-P" model dimension is same as "without cover" model



ETA-USA

HIGH QUALITY SWITCHING POWER SUPPLIES

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

Specifications<AC/DC>		Model				
ERM**SB 15WATTS/SINGLE		ERM05SB	ERM12SB	ERM15SB	ERM24SB	ERM48SB
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		25A(maximum)at AC200V				
Efficiency [%] (typical) *2		76	78	83	84	84
Output Characteristic						
Output Voltage [V]		5	12	15	24	48
Output Current [A]		3.0	1.3	1.0	0.7	0.35
Voltage Adjust Range		+/- 5% of Rated Output Voltage(at no load within the input range)				
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%/°C				
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°C and rated input/output				
Hold up time		20mS(minimum) at 25°C and rated input/output				
Functions						
Overcurrent Protection ≥ 105% of Rated		Current Limiting with automatic recovery				
Output Current[A]		3.15	1.37	1.05	0.74	0.37
Overvoltage Protection ≥ 115% of Rated		Zener diode clamping				
Output Voltage[V]		5.75	13.8	17.25	27.6	55.2
Remote Sense		not available				
Remote On/Off		not available				
Environmental						
Operating Temperature		-5 to +50°C				
Operating Humidity		85%RH(non-condensing)				
Storage Temperature		-20 to +85°C				
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,10-55Hz:19.6m/s ² ,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)				
Shock		294m/s ²				
Cooling		Convection				
? Leakage Current		1mA(maximum) at 25°C ,rated input/output and rated input frequency				
? Line Conducted Noise		Built to meet FCC Part15-B Class B				
? Safety						
? Weight (typical)		220g/enclosed type:270g				
? MTBF [H]		950,000				
? Switching Frequency[kHz](typical) *7		30				

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°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 input

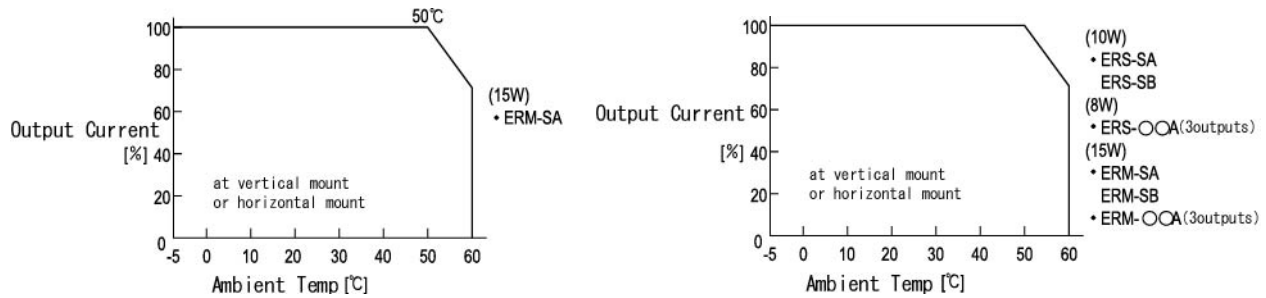
*7 variable on input voltage and load conditions


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Derating Curve



OCP Curve

