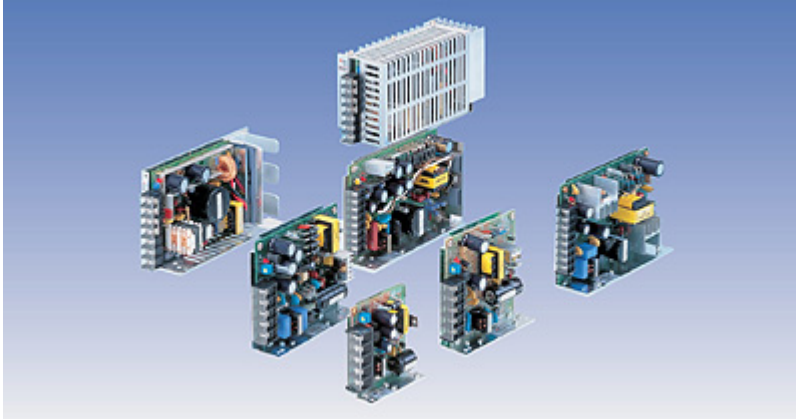


15 WATT AC-DC CONVERTER ERM-SB SERIES

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")

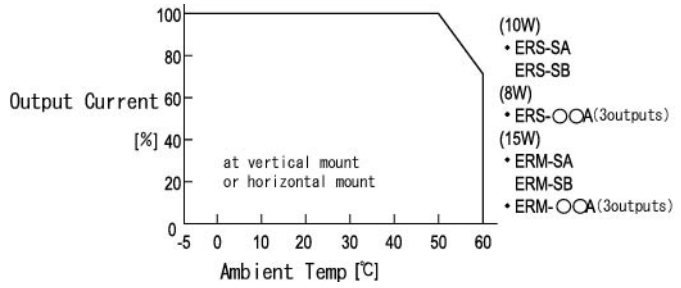
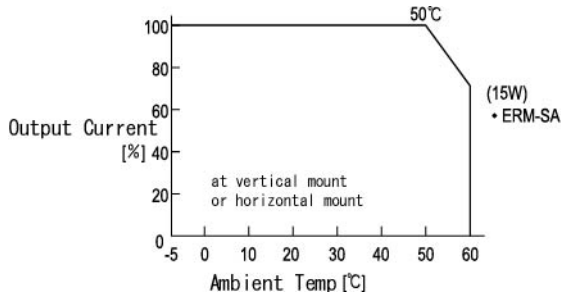
**".P" model dimension is same as "without cover" model

Specifications<AC/DC>	Model				
	ERM**SB 15WATTS/SINGLE	ERM05SB	ERM12SB	ERM15SB	ERM24SB
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 $\geq 105\%$ of Rated Output Current[A]	Current Limiting with automatic recovery				
	3.15	1.37	1.05	0.74	0.37
Overvoltage Protection $\geq 115\%$ of Rated Output Voltage[V]	Zener diode clamping				
	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

Derating Curve



OCP Curve

