

50 WATT AC-DC CONVERTER WRB-SX SERIES

General Description

Universal or auto-ranging inputs for world wide use. Output power from 15 to 600 watts. Up to 4 outputs available. Approved to international safety standards.

Dimensions: 35Wx159Lx97H (450g)



Options

N/A

Features

1. Universal input 85-264VAC
2. EMI: meets EN 55022/B, FCC/B
3. Compact size
4. High efficiency and reliability
5. Output voltage adjustable
6. Over voltage protection

Specifications	Model				
	WRB05SX-U	WRB12SX-U	WRB15SX-U	WRB24SX-U	WRB48SX-U
WRB**SX-U					
50WATTS/SINGLE					
Input Characteristic					
Input Voltage	AC115-230V				
Input Current	1.2A				
Input Range	AC85-264V(DC110-350V)				
Input Frequency	50/60Hz				
Input Frequency Range	47-440Hz				
Phase	Single				
Inrush Current *1	35A(maximum)at AC115V/70A(maximum) at AC230V				
Efficiency [%] (typical) *2	73	79	80	81	83

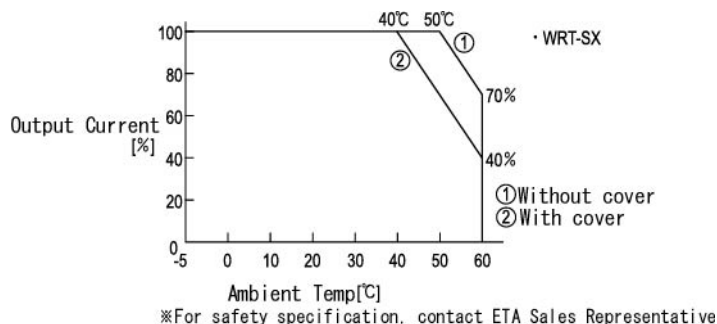


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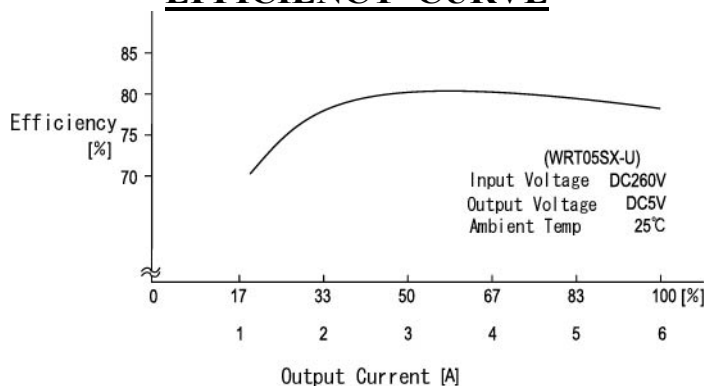
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DERATING CURVE



EFFICIENCY CURVE



Output Characteristic WRB**SX-U(50WATTS/SINGLE)	Model				
	WRB05SX-U	WRB12SX-U	WRB15SX-U	WRB24SX-U	WRB48SX-U
Output Voltage [V]	5	12	15	24	48
Output Current [A]	10.0	4.2	3.4	2.1	1.0
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	10mS(minimum) at 25°C and rated input/output				
Functions					
Over current Protection ≥110% of]	Current Limiting with automatic recovery				
Rated Output Current[A	11.0	4.62	3.74	2.31	1.1



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Over voltage Protection of Rated Output Voltage[V]	≥110%]	Output shutdown(to reset, leave 1minute after shut-off)				
		5.5	13.2	16.5	26.4	52.8
Remote Sense		not available				
Remote On/Off		not available				
Power Fail Detection		not available				
Parallel/series Operation		not available				
Environmental						
Operating Temperature *7		-5 to +40°C /open frame type: -5 to +50°C				
Operating Humidity		30 to 85%RH(non-condensing)				
Storage Temperature		-20 to +85°C				
Storage Humidity		10 to 85%RH(non-condensing)				
Withstanding Voltage		Primary-Secondary AC3,000V 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°Crated input/output and rated input frequency				
Line Conducted Noise		Built to meet VDE0871 Class B				
		Built to meet FCC Part15-B Class B				
Safety		UL: UL1950				
		CUL: CSA C22.2 No234(Level 3)				
		VDE: EN60950,IEC950,VDE0805				
□ Weight (typical)		450g/open frame type:400g				
□ MTBF [H]		550,000				
□ Switching Frequency[kHz](typical)		100				

Conditions:

*1 at cold start

*2 at DC130V input and rated output

*3 measured by a bayonet probe at output connector at 0 to 100MHz bandwidth

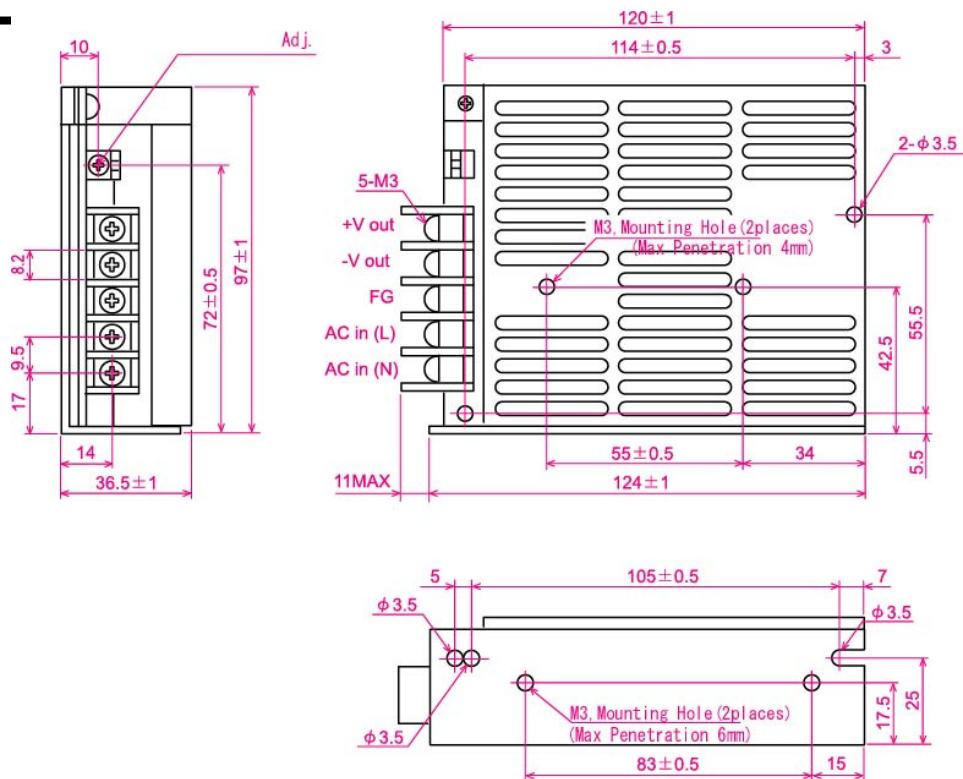
*4 at -5 to +40°C/open frame type:-5 to +50°C

*5 for 7hour period after 1hour warm-up at 25°C and rated input/output

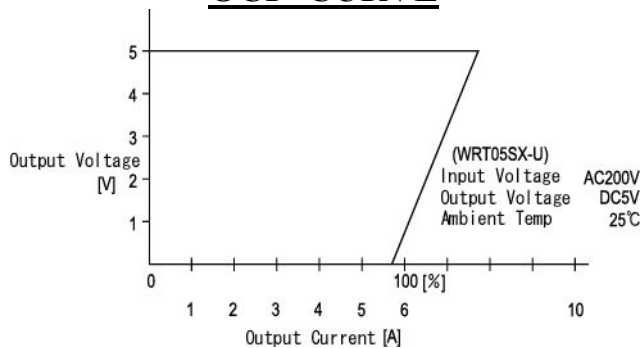
*6 when output current changed from 25% to 75% of rated output current rapidly at AC115/230V input

*7 safety approved at 25°C

DIMENSION DIAGRAM



OCP CURVE



Mouser Electronics

Authorized Distributor

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