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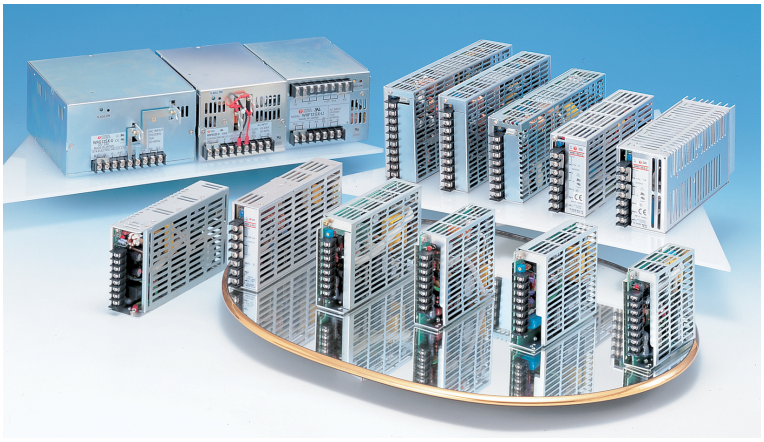
Your power supply experts

15 WATT AC-DC CONVERTER

WRM-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. All models except WRF and WRP are approved to international safety standards. (WRF and WRP to UL1950 and CSA234 only)

RoHS

Features:

1. Universal input 85-264 VAC
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 WRM**SX-U 15WATTS/SINGLE	Model				
	WRM05SX-U	WRM12SX-U	WRM15SX-U	WRM24SX-U	WRM48SX-U
Input Characteristic					
Input Voltage	AC115-230V				
Input Current	0.42	0.41		0.40	
Input Range	AC85-264V(DC110-350V)				
Input Frequency	50/60Hz				
Input Frequency Range	47-440Hz				
Phase	Single				
Inrush Current *1	30A(maximum)at AC115V/60A(maximum) at AC230V				
Efficiency [%] (typical) *2	75	79	79	79	82

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Output Characteristic	Model				
	WRM05SX-U	WRM12SX-U	WRM15SX-U	WRM24SX-U	WRM48SX-U
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	10mS(minimum) at 25°C and rated input/output				
Functions					
Overcurrent Protection >110% of	Current Limiting with automatic recovery				
Rated Output Current[A]	3.3	1.43	1.1	0.77	0.39
Overvoltage Protection >110% of	Zener diode clamping				
Rated Output Voltage[V]	5.75	13.8	17.3	27.6	55.2
Remote Sense	not available				
Remote On/Off	not available				
Power Fail Detection	not available				
Parallel/series Operation	not available				
Environmental					
Operating Temperature *8	-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°C,rated 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)	290g/open frame type:275g				
? MTBF [H]	650,000				
? Switching Frequency[kHz](typical)	30	30	25	25	25

Conditions:

*1 at cold start

*2 at DC130V input and rated output

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

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

*5 for 7hours from 1hour after switch-on at 25°C and rate input/output

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

*7 safety approved at 25°C

*8 variable on input voltage and load condition

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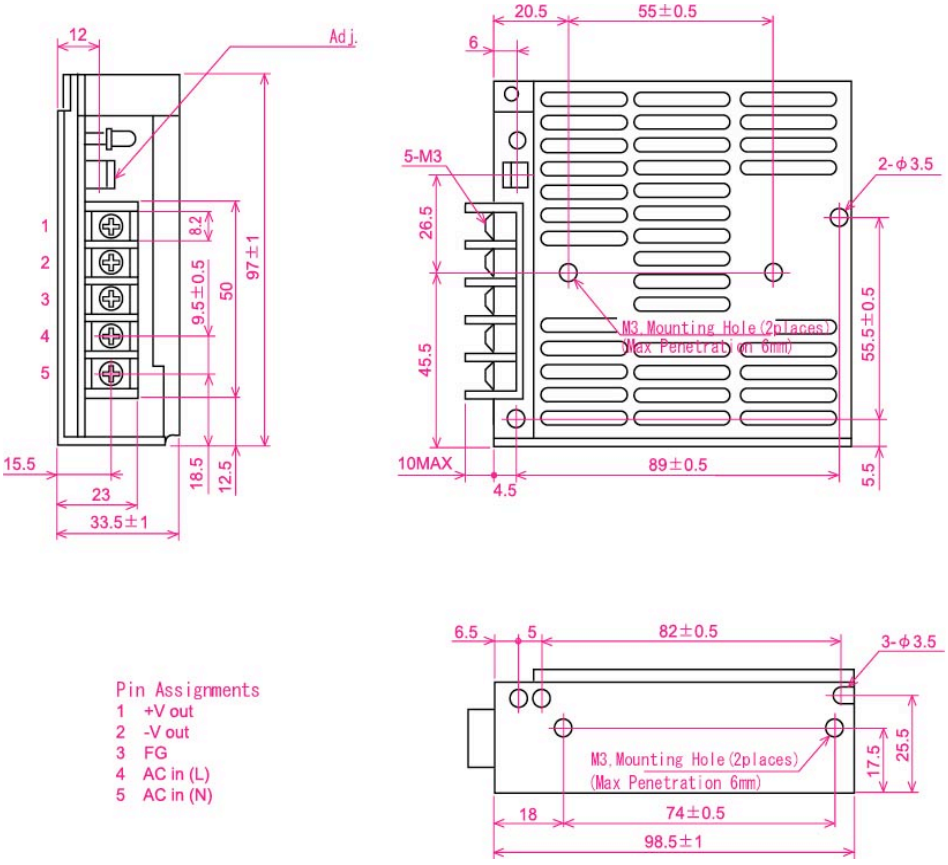
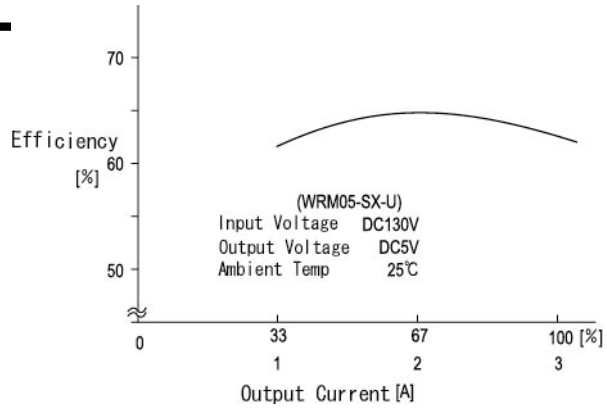
DIMENSION DIAGRAM

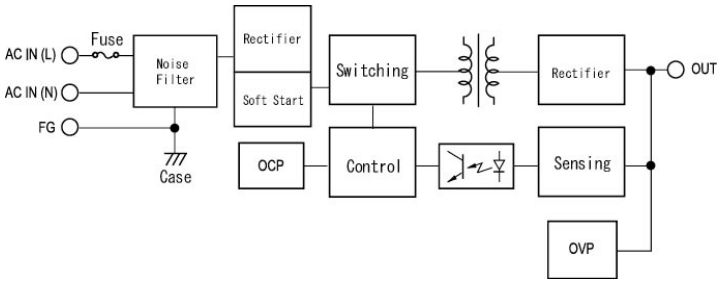


Pin Assignments
1 +V out
2 -V out
3 FG
4 AC in (L)
5 AC in (N)

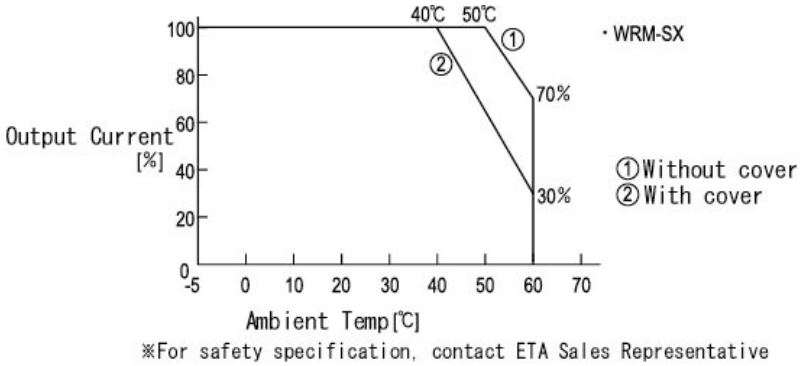
EFFICIENCY CURVE



BLOCK DIAGRAM



DERATING CURVE



※For safety specification, contact ETA Sales Representative

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