

# 25 WATT AC-DC CONVERTER WRA-SX SERIES

## 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

## 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: 33Wx116.5Lx97H (mm)**  
(400g)

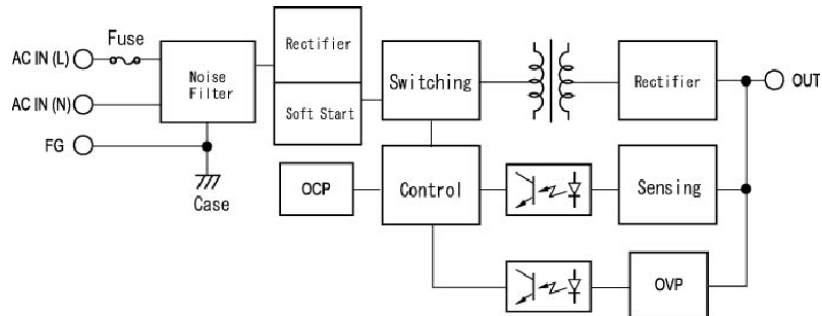


## Options

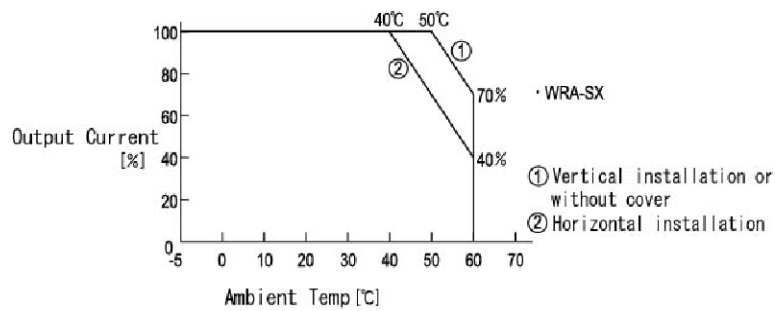
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Specifications	Model				
	WRA05SX-U	WRA12SX-U	WRA15SX-U	WRA24SX-U	WRA48SX-U
<b>WRA**SX-U</b> <b>25WATTS/SINGLE</b>					
<b>Input Characteristic</b>					
Input Voltage	AC100-240V				
Input Current	0.68-0.34A	0.68-0.33A	0.68-0.32A		
Input Range	AC85-264V(DC110-350V)				
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	77	80	80	84

### BLOCK DIAGRAM



### DERATING DIAGRAM



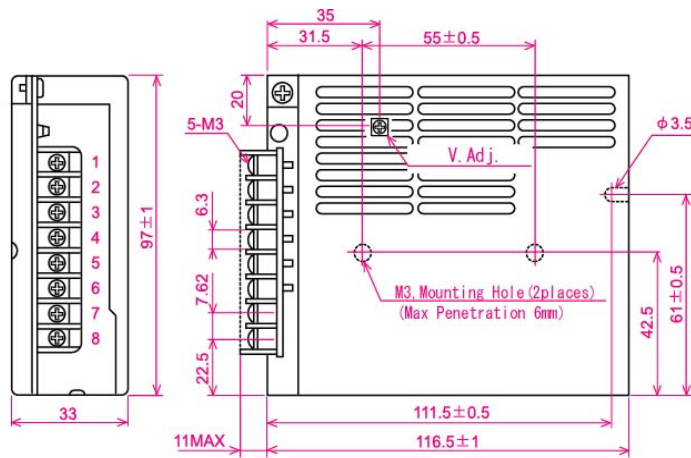
※ For safety specification, contact ETA Sales Representative

Specifications	Model				
	WRA05SX-U	WRA12SX-U	WRA15SX-U	WRA24SX-U	WRA48SX-U
<b>Output Characteristic</b>					
Output Voltage [V]	5	12	15	24	48
Output Current [A]	5.0	2.1	1.7	1.1	0.55
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
<b>Regulation</b>					
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				
<b>Functions</b>					
Over current Protection ≥105% of Rated Output Current[A]	Current Limiting with automatic recovery				
	5.25	2.21	1.79	1.16	0.58
Over voltage Protection ≥110% of Rated Output Voltage[V]	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				
<b>Environmental</b>					
Operating Temperature *7	vertical mount:-5 to +50°C /horizontal mount:-5 to +40°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 <sup>2</sup> ,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)				
Shock	294m/s <sup>2</sup>				
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(150KHz)				
	Built to meet FCC Part15-B Class B				
Safety	UL: UL1950				
	CUL: CSA C22.2 No234(Level 3)				
	TUV: EN60950				
□ Weight (typical)	400g				
□ MTBF [H]	550,000				
□ Switching Frequency[kHz](typical) *8	30				

Conditions:

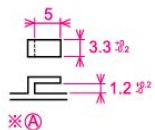
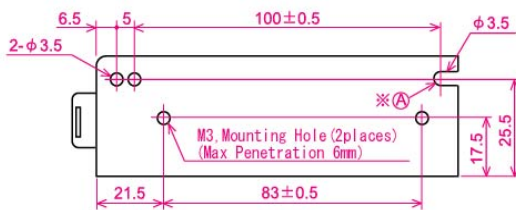
- \*1 at cold start
- \*2 at DC130V input and rated output
- \*3 measured by a bayonet probe at output connector at 0 to 100MHz bandwidth
- \*4 at -5 to +50°C
- \*5 for 7hour period after 1hour warm-up at 25°C and rated input/output
- \*6 when output current changed from 25% and 75% of rated output current rapidly at AC100/240V input
- \*7 safety approved at 25°C at UL/C-UL and 50□ at TUV
- \*8 variable on input voltage and load conditions

## DIMENSION DIAGRAM



### Pin Assignments

- 1 +V out
- 2 -V out
- 3 NC
- 4 NC
- 5 NC
- 6 FG
- 7 AC in(L)
- 8 AC in(N)



## EFIECENCY CURVE

