



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: 33.5Wx98.5Lx97H (400g)



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

**WRM-00X Series
3 CHANNEL**

**15 WATT
AC-DC
CONVERTER**



Options

N/A





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Specifications <AC/DC>	Model		
WRM**X-U	WRM01X	WRM03X	WRM04X
15WATTS/3 OUTPUTS			
Input Characteristic			
Input Voltage	AC115-230V		
Input Current	0.45A		
Input Range	AC85-264V(DC110-350V)		
Input Frequency	50/60Hz		
Input Frequency Range	47-440Hz		
Phase	Single		
Inrush Current *1	30A(maximum) at AC115/60A(maximum) at AC230V		
Efficiency [%] (typical) *2	66	66	66

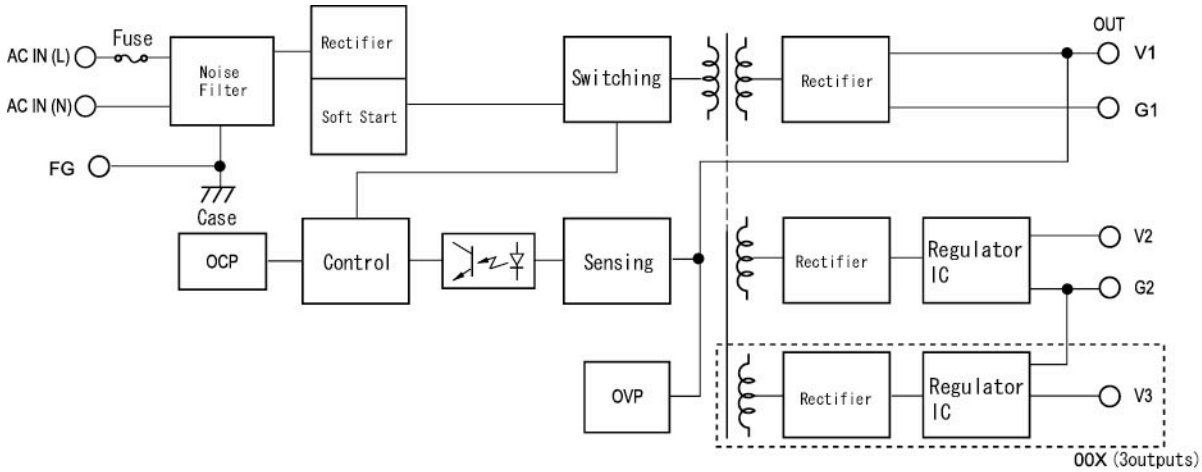


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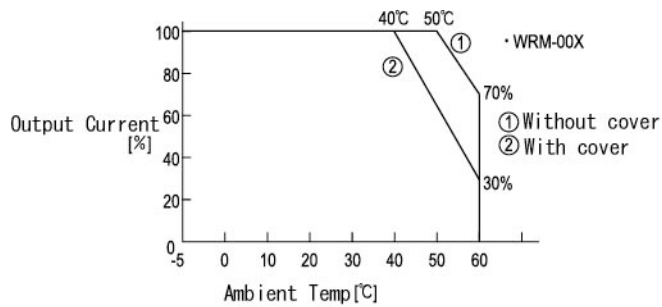
16170 Vineyard Blvd. Suite 180 Morgan Hill, CA 95037 <http://www.eta-usa.com>
Toll-free (US only): 800-ETA-POWR (800-382-7697) Telephone: 408 778-2793 FAX: 408-779-2753



BLOCK DIAGRAM



DERATING CURVE



*For safety specification, contact ETA Sales Representative





Specifications <AC/DC>	Model								
WRM**X-U 15WATTS/3 OUTPUTS	WRM01X			WRM03X			WRM04X		
Output Characteristic									
Output Voltage [V]	5	+12	-12	5	+12	-5	5	+15	-15
Output Current [A]	0.2-2.0	0.3	0.2	0.2-2.0	0.3	0.2	0.2-2.0	0.2	0.2
Voltage Adjust Range	V1: +3%/-0% of Rated Output Voltage (at no load within the input range) V2, V3: fixed with tolerance of +/-4% (at no load within the input range)								
Ripple and Noise [mVp-p](maximum) *3	100	170	170	100	170	100	100	200	200
Regulation									
a. Statistic Line Regulation [mV](maximum)	25	60	60	25	60	25	25	75	75
b. Statistic Load Regulation [mV](maximum)	50	120	120	50	120	50	50	150	150
c. Temperature Coefficient *4	0.03%/°								
d. Drift [mV](maximum) *5	40	75	75	40	75	40	40	90	90
e. Dynamic Load Regulation [mV](typical) *6	not specified								
f. Recovery Time *6	not specified								
Rise up time	200mS(maximum) at 25° and rated input/output								
Hold up time	10mS(minimum) at 25° and rated input/output								
Functions									
Overcurrent Protection ?110% of Rated Output	V1: Current Limiting with automatic recovery V2, V3: by the regulator I.C's characteristics								
	2.2	-	-	2.2	-	-	2.2	-	-
Overvoltage Protection ?115% of Rated Output	V1: Zenner diode clamping V2, V3: not available								
	5.75	-	-	5.75	-	-	5.75	-	-
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°/open frame type: -5 to +50°								
Operating Humidity	30 to 85%RH(non-condensing)								
Storage Temperature	-20 to +85°								
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-Shock)								
Shock	294m/s ²								
Cooling	Convection								
Leakage Current	1mA(maximum) at 25°, rated input/output and rated input frequency								
Line Conducted Noise									
Safety	N/A								
Weight (typical)	310g [unit without cover: 270g]								
? MTBF [H]	600,000								
? Switching Frequency [kHz](typical) *8	20								

Conditions:

*1 at cold start

*2 at DC130V input and rated output

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

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

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

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

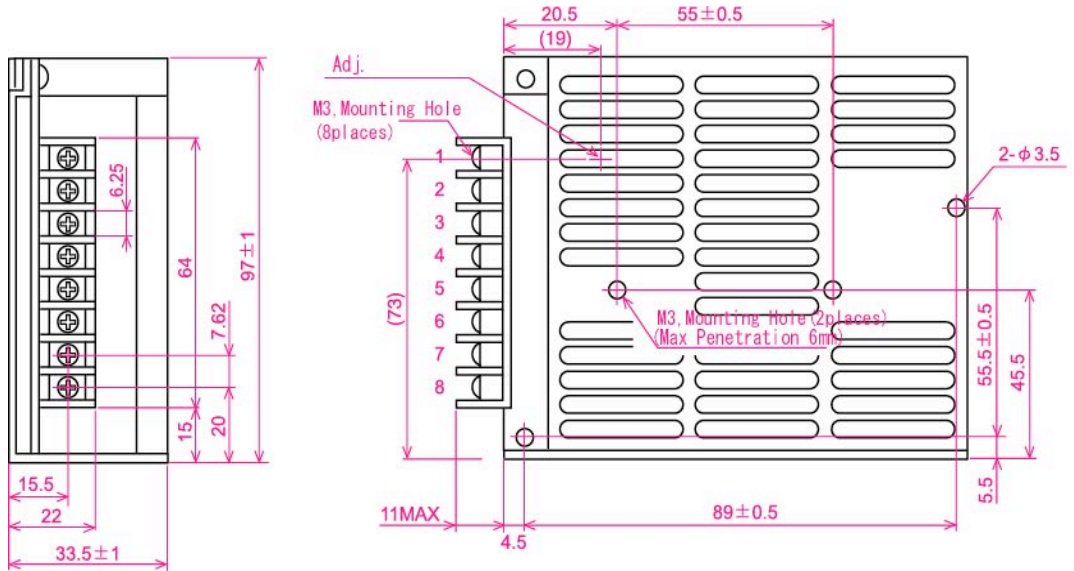
*7 safety approved at 25°

*8 variable on input voltage and load conditions



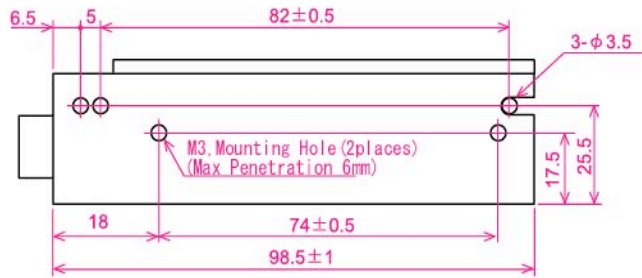


DIMENSION DIAGRAM



Pin Assignments

	2 out	3 out
	-FWX-U	-OOX-U
1	V1	V1
2	G1	G1
3	V2	V2
4	G2	G2
5	N.C.	V3
6	FG	FG
7	AC in (L)	AC in (L)
8	AC in (N)	AC in (N)

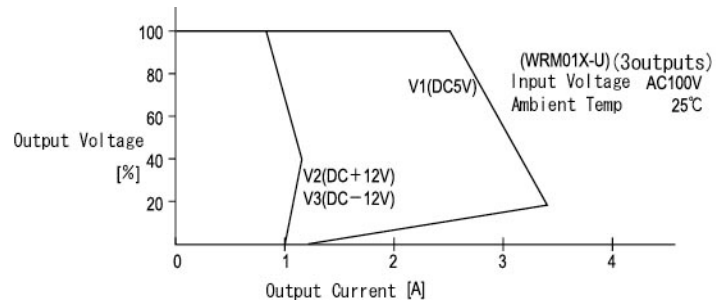


OCP CURVE





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