

15 WATT AC-DC CONVERTER

2 CHANNEL WRM-FWX SERIES

General Description

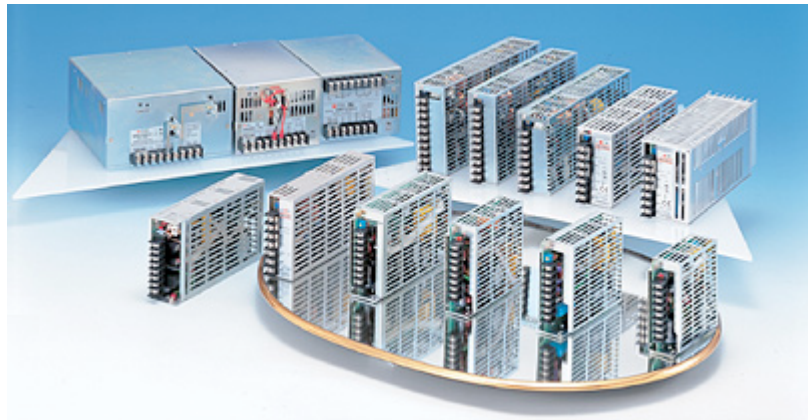
Universal or auto-ranging inputs for world wide use. Output power from 15 to 600 watts. Up to 4 outputs available. Approved to international safety standards.

**Dimensions: 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

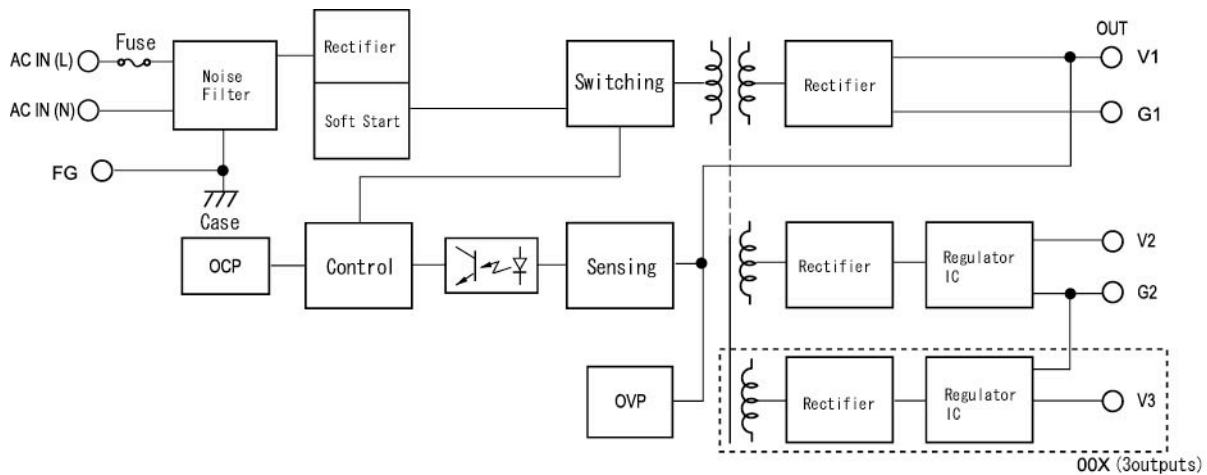


Options

N/A

Specifications WRM**FWX-U 15WATTS/2 OUTPUTS	Model			
	WRM21FWX	WRM22FWX	WRM23FWX	WRM24FWX
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	70	71	66

BLOCK DIAGRAM



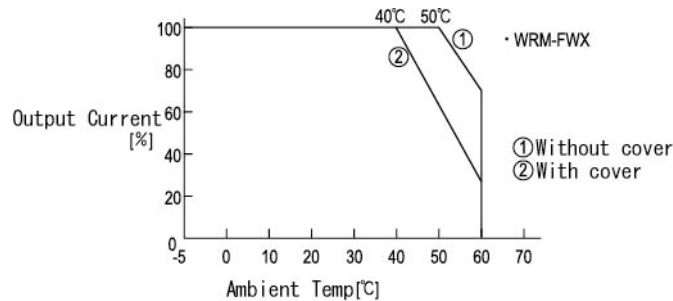
Output	Model								
	WRM21FWX		WRM22FWX		WRM23FWX		WRM24FWX		
WRM**FWX-U (15WATTS/2 OUTPUTS)									
Output Voltage [V]	5	24	12	12	15	15	5	12	
Output Current [A]	0.2-1.2	0.4	0.2-0.8	0.5	0.2-0.5	0.5	0.2-1.8	0.5	
Voltage Adjust Range	V1:+3%-0% of Rated Output Voltage(at no load within the input range) V2:fixed with tolerance of +/-4% (at no load within the input range)								
Ripple and Noise [mVp-p](maximum) *3	100	290	170	170	200	200	100	170	
Regulation									
a.Statistic Line Regulation [mV](maximum)	25	120	60	60	75	75	25	60	
b.Statistic Load Regulation [mV](maximum)	50	240	120	120	150	150	50	120	
c.Temperature Coefficient *4	0.03%/°C								
d.Drift[mV](maximum) *5	40	135	75	75	90	90	40	75	
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	V1:Zenner diode clamping V2:by the regulator I.C's characteristics							
Rated Output Current[A]		1.32	-	0.88	-	0.55	-	1.98	-
Overvoltage Protection	≥110% of]	V1:Output shutdown(to reset,leave 1minute after shut-off)V2:not available							
Rated Output Voltage[V]		5.75	-	13.8	-	17.3	-	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°C [unit without cover:-5 to +50□]								
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
Shock	294m/s ²
Cooling	Convection
Leakage Current	1mA(maximum) at 2°C rated input/output and rated input frequency
Line Conducted Noise	
Safety	N/A
<input type="checkbox"/> Weight (typical)	310g/open frame type:270g
<input type="checkbox"/> MTBF [H]	640,000
<input type="checkbox"/> Switching Frequency[kHz](typical)	90

Conditions:

- *1 at cold start
- *2 at DC130V input, rated output and 25°C
- *3 measured by a bayonet probe at output connector at a 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
- *8 variable on input voltage and load conditions

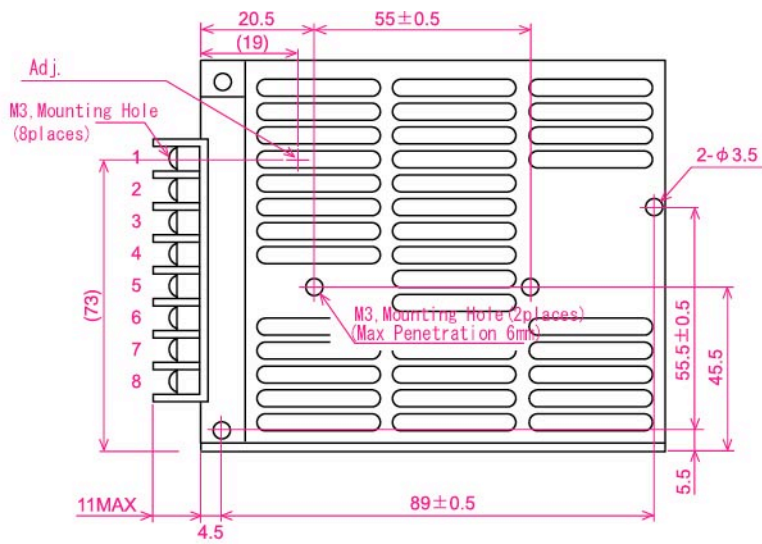
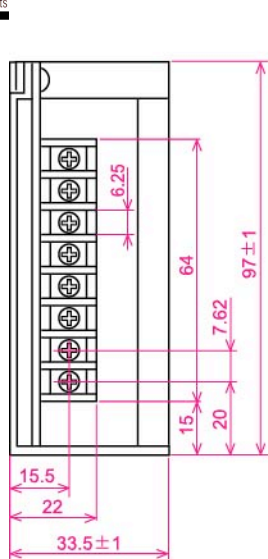
DERATING CURVE



※ For safety specification, contact ETA Sales Representative

DIMENSION DIAGRAM





Pin Assignments

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

