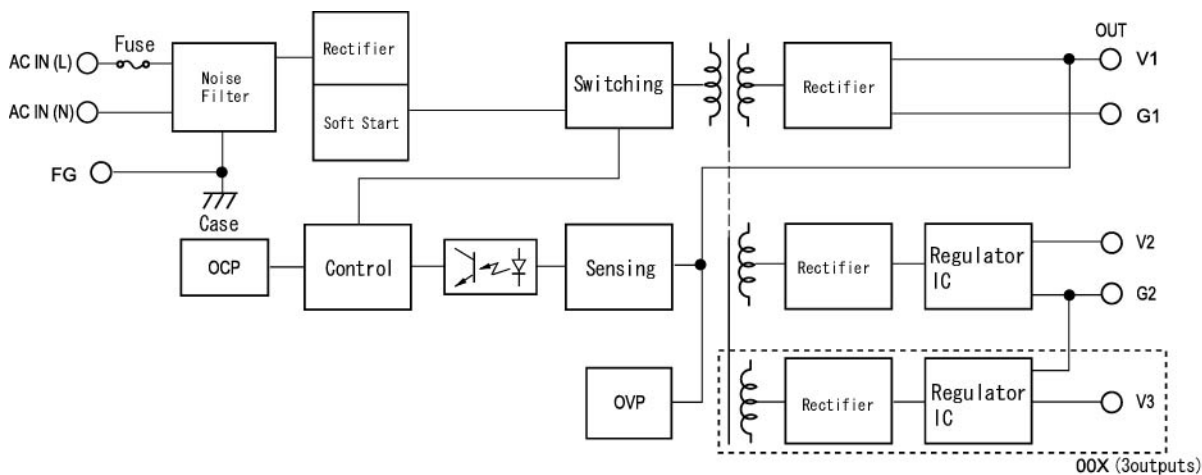


15 WATT AC-DC CONVERTER

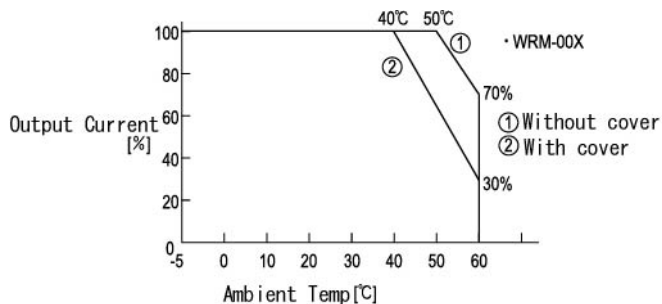
WRM-00X Series 3 CHANNEL

Specifications<AC/DC>	Model		
WRM**X-U 15WATTS/3 OUTPUTS	WRM01X-U	WRM03X-U	WRM04X-U
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

BLOCK DIAGRAM



DERATING CURVE



*For safety specification, contact ETA Sales Representative

Specifications<AC/DC>	Model								
WRM**X-U 15WATTS/3 OUTPUTS	WRM01X-U			WRM03X-U			WRM04X-U		
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%/°C								
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°Cand rated input/output								
Hold up time	10mS(minimum) at 25°Cand rated input/output								
Functions									
Overcurrent Protection ≥ 10% of Rated Output Current[A]	V1:Current Limiting with automatic recovery V2,V3:by the regulator I.C's characteristics								
	2.2	-	-	2.2	-	-	2.2	-	-
Overvoltage Protection ≥ 15% of Rated Output Voltage[V]	V1:Zener 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°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								
	C-UL: CSA C22.2 No.234(Level 3)								
	VDE EN60950, IEC950, VDE0805								
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°C

*5 for 7hour period after 1hour warm-up at 25°Cand 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

