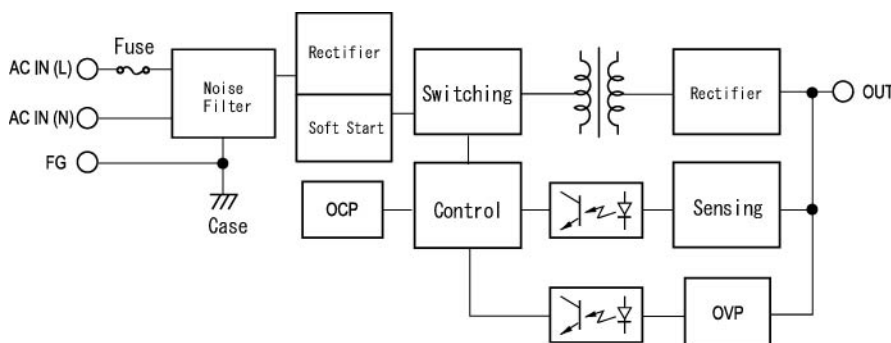


25 WATT AC-DC CONVERTER

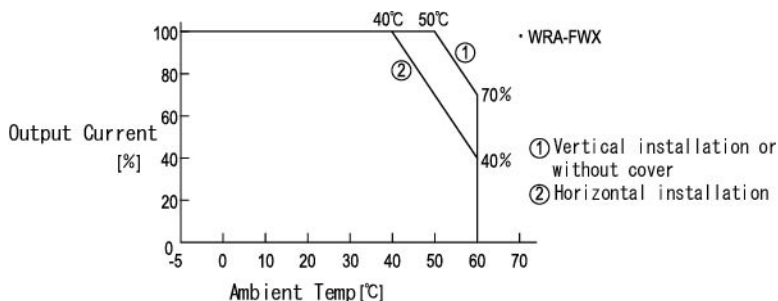
WRA-00X Series 3 CHANNEL

Specifications<AC/DC>	Model		
WRA**X-U 25WATTS/3 OUTPUTS	WRA01X-U	WRA03X-U	WRA04X-U
Input Characteristic			
Input Voltage	AC100-240V		
Input Current	0.77-0.36A	0.75-0.32A	0.75-0.35A
Input Range	AC85-264V(DC110-350V)		
Input Frequency	50/60Hz		
Input Frequency Range	47-440Hz		
Phase	Single		
Inrush Current *1	35A(maximum) at AC115/70A(maximum) at AC230V		
Efficiency [%] (typical) *2	66	66	67

BLOCK DIAGRAM



DERATING CURVE



※For safety specification, contact ETA Sales Representative

Specifications<AC/DC>	Model								
WRA**X-U 25WATTS/3 OUTPUTS	WRA01X-U			WRA03X-U			WRA04X-U		
Output Characteristic									
Output Voltage [V]	5	+12	-12	5	+12	-5	5	+15	-15
Output Current [A]	0.2-3.0	0.5	0.35	0.2-3.0	0.5	0.35	0.2-3.0	0.35	0.35
Voltage Adjust Range	V1:+3%/-0% of Rated Output Voltage(at no load within the input range) V2,V3:fixed with tolerance of +/-5%(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	100	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	V1:Current Limiting with automatic recovery V2,V3:by the regulator I.C's characteristics								
≥05% of Rated Output Current[A]	3.2	-	-	3.2	-	-	3.2	-	-
Overvoltage Protection	V1:Zener diode clamping V2,V3:not available								
≥ 15% of Rated Output Voltage[V]	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	vertical mount:-5 to +50°Chorizontal 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 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(≥50kHz)								
	Built to meet FCC Part15-B Class B								
Safety	UL: UL1950 C-UL:CSA C22.2 No.234(Level 3)								
	TUV: EN60950								
Weight (typical)	400g								
MTBF [H]	510,000								
Switching Frequency[kHz](typical) *8	25			25			25		

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 +50°C

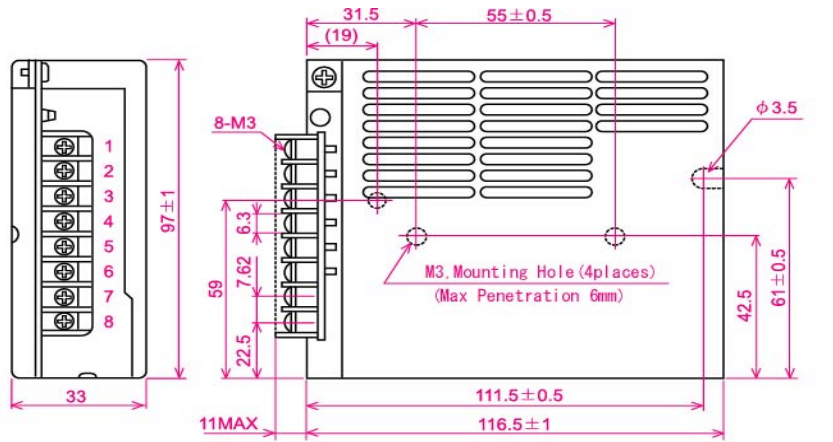
*5 for 7hour period after 1hour warm-up at 25°Cand rated input/output

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

*7 safety approved at 25°C

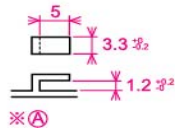
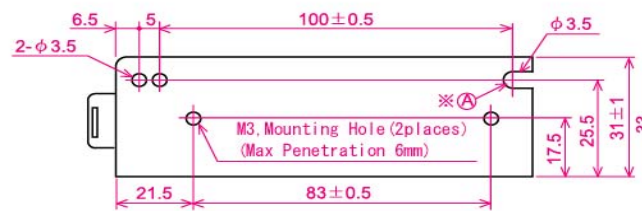
*8 variable on input voltage and load conditions

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 NC	V3
6 FG	FG
7 AC in (L)	AC in (L)
8 AC in (N)	AC in (N)



OCP CURVE

