

FEATURES

1. Universal AC input /Full range
2. Withstand 300VAC surge input for 5 second
3. No load power consumption <0.3W
4. Miniature size and 1U Low profile
5. High operating temperature up to 70°C
6. Protections:Short circuit /Over load /Over voltage
7. Cooling by free air convection
8. Operating altitude up to 5000 meters
9. Withstand 5G vibration test
10. High efficiency,long life and high reliability
11. LED indicator for power on
12. 100%full load burn-in test
13. 3 years warranty



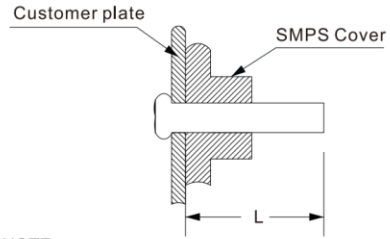
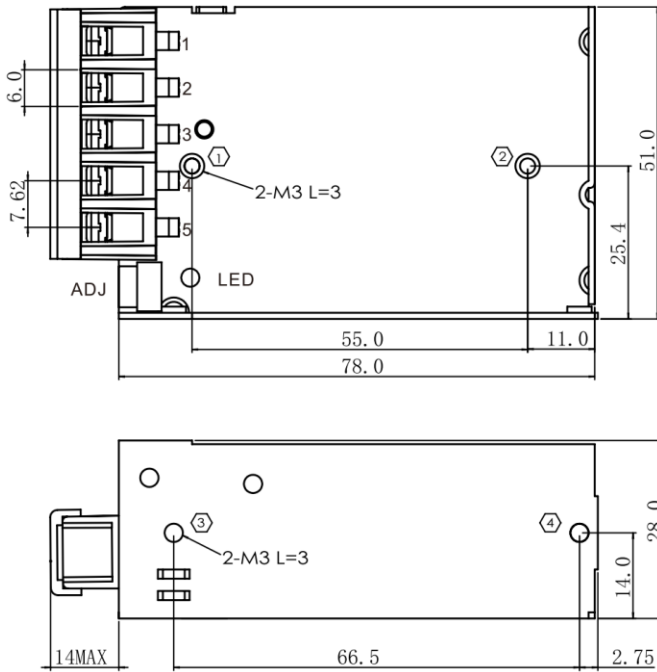
**3 years
Warranty**

Specification

MODEL		RAM20-05	RAM20-12	RAM20-15	RAM20-24	RAM20-48
INPUT	VOLTAGE RANGE	85~264Vac 120~370Vdc(refer to 'static characteristic')				
	FREQUENCY RANGE	47~63Hz				
	EFFICIENCY(Typ.)	83%	86%	86%	88%	89%
	AC CURRENT(Typ.)	0.5A/115Vac 0.3A/230Vac				
	INRUSH CURRENT(Typ.)	50A/230Vac(cold start)				
	LEAKAGE CURRENT	<0.75mA/240Vac				
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	48V
	RATED CURRENT	4A	1.67A	1.34A	0.84A	0.42A
	CURRENT RANGE	0~4A	0~1.67A	0~1.34A	0~0.84A	0~0.42A
	RATED POWER	20W	20W	20.1W	20.16W	20.16W
	RIPPLE&NOISE(max.)	50mVp-p	100mVp-p	120mVp-p	120mVp-p	150mVp-p
	VOLTAGE ADJ.RANGE	4.5~5.5V	10.2~13.8V	13.5~18V	21.6~28.8V	43.2~52.8V
	VOLTAGE TOLERANCE	±2%	±1%	±1%	±1%	±1%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP,RISE TIME	1000ms,30ms/230Vac 2000ms,30ms/115Vac at full load				
	HOLD UP TIME(Typ.)	30ms/230Vac 12ms/115Vac at full load				
PROTECTION	OVER LOAD	110%~170%rated output power Protection type:Hiccup mode,recovers automatically after fault condition is removed				
	OVER VOLTAGE	5.75~6.9V	13.8~16.2V	18.75~21.75V	28.8~33.6V	55.2~64.8V
ENVIRONMENT	WORKING TEMP	-30~+70°C(Refer to 'derating curve')				
	WORKING HUMIDITY	20~90%RH non-condensing				
	STORAGE TEMP,HUMIDITY	-40~+85°C,10~95%RH non-condensing				
	TEMP.COEFFICIENT	±0.03%/°C(0~50°C)				
	VIBRATION	10~500Hz,5G 10min./1 cycle, period for 60 min.each along X、 Y、 Z axes				
Safety standards		Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1				

Safety and electromagnetic compatibility	Withstand voltage and isolation resistance	I/P-O/P:3KVac;100MΩ/500Vdc/25°C/70%RH			
		I/P-FG:2KVac;100MΩ/500Vdc/25°C/70%RH			
		O/P-FG:0.5KVac;100MΩ/500Vdc/25°C/70%RH			
	Electromagnetic	Parameter	Standard	Test Level /Note	
		Conducted emission	BS EN/EN55032(CISPR32),FCC PART 15/CISPR22 ,GB9254.1		Class B
		Radiated emission	BS EN/EN55032(CISPR32),FCC PART 15/CISPR22,GB9254.1		Class B
		Harmonic current	BS EN/EN61000-3-2,GB17625.1		Class A
		Voltage flicker	BS EN/EN61000-3-3		
	Electromagnetic compatibility immunity	BS EN/EN55035			
		Parameter	Standard	Test Level /Note	
		ESD	BS EN/EN61000-4-2		Level 4,8KV air,Level 2,4KV contact,criteria A
		RF field susceptibility	BS EN/EN61000-4-3		Level 3,criteria A
EFT bursts		BS EN/EN61000-4-4		Level 3,criteria A	
Surge susceptibility		BS EN/EN61000-4-5		Level 3,1KV/L-N,2KV/L/N-FG criteria A	
Conducted susceptibility		BS EN/EN61000-4-6		Level 3,criteria A	
Magnetic field immunity		BS EN/EN61000-4-8		Level 4,criteria A	
Voltage dips and interruptions	BS EN/EN61000-4-11		>95% dip 0.5 periods,30% dip 25 periods,>95% interruptions 250 periods		
OTHERS	MTBF	≥760Khrs MIL-HDBK-217F(25°C)			
	DIMENSION	78*51*28mm(L*W*H)			
	PACKING	0.18Kg;60pcs/11.8Kg/0.58 CUFT			
NOTE	<p>1.All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature</p> <p>2.Ripple & noise are measured at 20MHz of bandwidth by using a 12"twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor</p> <p>3.Tolerance:includes set up tolerance,line regulation and load regulation.</p> <p>4.Line regulation is measured from low line to high line at rated load.</p> <p>5.Load regulation is measured from 0% to 100% rated load</p> <p>6.Length of set up time is measured at cold first start,Turning ON/OFF the power supply very quickly may lead to increase of the set up time.</p> <p>7.The ambient temperature derating of 5°C/1000m is needed for operating altitude great than 2000m(6500ft)</p> <p>8.The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness.The final equipment must be re-confirmed that it still meets EMC directives</p>				

Mechanical specification



NOTE:
Unit: mm
ADJ: Output adjustable resistor
Torque: M3, 0.5N · m Max
TOL: ±1.00

Position No.	Screw Size	L max	Torque max
1-2	M3	3mm	0.4N · m
3-4			

Screw Terminal

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT -
2	AC/N	5	DC OUTPUT +
3	FG		

Block diagram

