

FEATURES

1. Universal AC input 90~264VAC
2. Built-in active PFC function
3. Protections: Short circuit / Overload / Over voltage / Over temperature
4. Cooling by free air convection
5. 1U low profile 30mm
6. 100% full load burn-in test
7. LED indicator for power on
8. High reliability
9. 3 years warranty
10. Compliance to IEC/EN/UL 62368-1



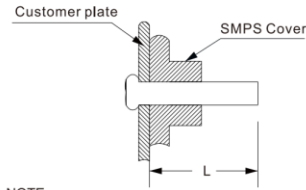
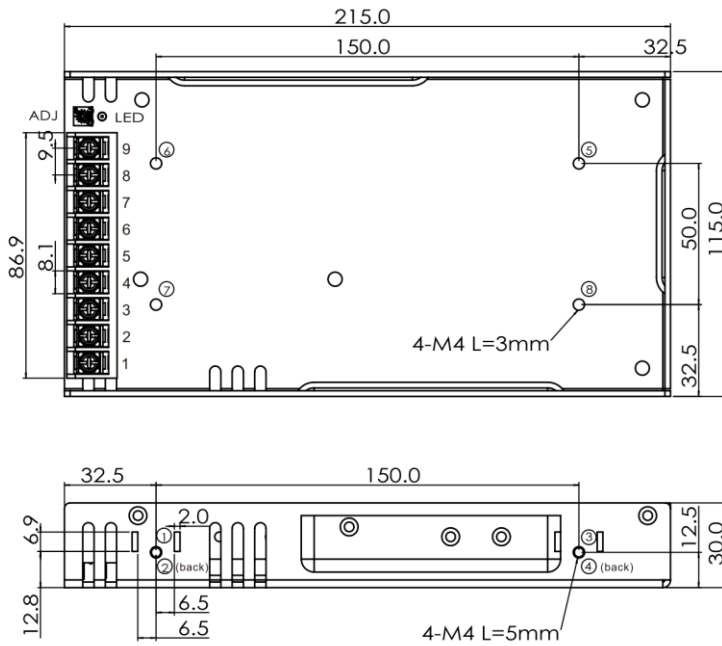
3 years
Warranty

Specification

MODEL		RAMF250-05	RAMF250-7.5	RAMF250-12	RAMF250-15	RAMF250-24	RAMF250-36	RAMF250-48
INPUT	VOLTAGE RANGE	90~264VAC 127~370VDC (refer to 'static characteristic')						
	FREQUENCY RANGE	47~63Hz						
	POWER FACTOR(Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load						
	EFFICIENCY(Typ.)	87%	89%	89%	89%	90%	90%	90.5%
	AC CURRENT(Typ.)	3A/115VAC 1.5A/230VAC						
	INRUSH CURRENT(Typ.)	20A/115VAC 40A/230VAC (cold start)						
	LEAKAGE CURRENT	<1mA/240VAC						
OUTPUT	DC VOLTAGE	5V	7.5V	12V	15V	24V	36V	48V
	RATED CURRENT	40A	26.7A	21A	16.7A	10.5A	7A	5.3A
	CURRENT RANGE	0~40A	0~26.7A	0~21A	0~16.7A	0~10.5A	0~7A	0~5.3A
	RATED POWER	200W	200.25W	252W	250.5W	252W	252W	254.4W
	RIPPLE&NOISE (max.)	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ.RANGE	4.5~5.5V	6~9V	10.2~13.8V	13.5~18V	21.6~28.8V	32.4~39.6V	43.2~52.8V
	VOLTAGE TOLERANCE	±3%	±2%	±1.5%	±1%	±1%	±1%	±1%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±2%	±1%	±1%	±1%	±0.5%	±0.5%	±0.5%
	SETUP,RISE TIME	1500ms,50ms/230VAC 3000ms,50ms/115VAC						
	HOLD UP TIME(Typ.)	8ms/230VAC 8ms/115VAC						
PROTECTION	OVER LOAD	110%~140% rated output power Protection type: Constant current limiting >3s, then hiccup, recovers automatically after fault condition is removed						
	OVER VOLTAGE	5.75~6.75V	9.4~10.9V	13.8~16.2V	18.8~21.8V	28.8~33.6V	41.4~48.6V	55.2~64.8V
	OVER TEMPERATURE	Protection type: Hiccup mode, recovers automatically after fault condition is removed						
ENVIRONMENT	WORKING TEMP, HUMIDITY	-30~+70°C (Refer to "Derating curve"), 20~90%RH non-condensing						
	STORAGE TEMP, HUMIDITY	-40~+85°C, 10~95%RH						
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)						
	VIBRATION	10~500Hz, 2G 10min./1 cycle, each along X、Y、Z axes						

Safety and electromagnetic compatibility	Safety standards	Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1			
	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	
	Electromagnetic compatibility emission	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%dip25 periods,>95%interruptions 250 periods		
OTHERS	MTBF	≥300Khrs MIL-HDBK-217F(25°C)			
	DIMENSION	215*115*30mm(L*W*H)			
	PACKING	0.8Kg;15pcs/13Kg/0.77CUFT			
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



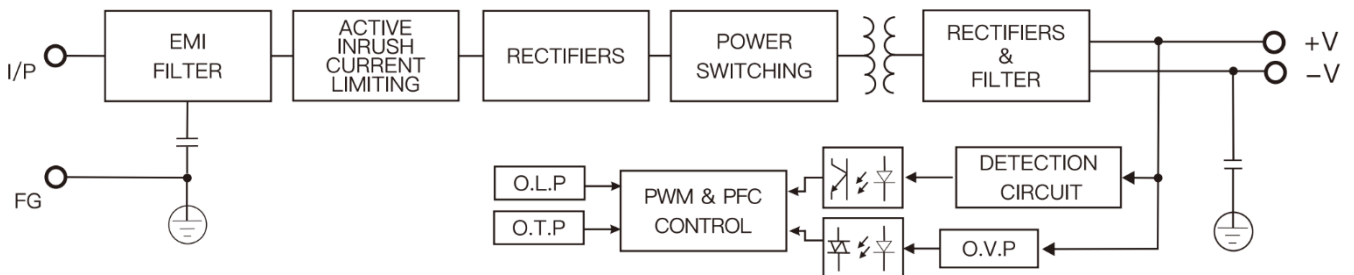
NOTE:
Unit: mm
ADJ: Output adjustable resistor
Torque: M3.5, 0.8N · m Max
TOL: ±1.00

Position No.	Screw Size	L max	Torque max
⑤ - ⑧	M4	3mm	0.9N · m
① - ④	M4	5mm	0.9N · m

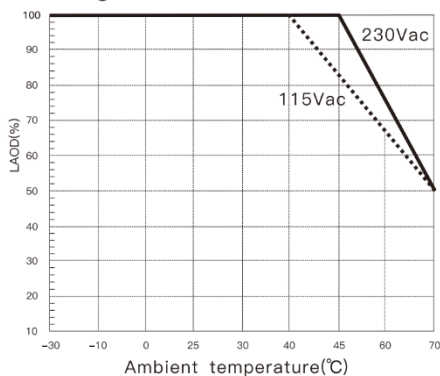
Screw Terminal

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5,6	DC OUTPUT -
2	AC/N	7,8,9	DC OUTPUT +
3	FG		

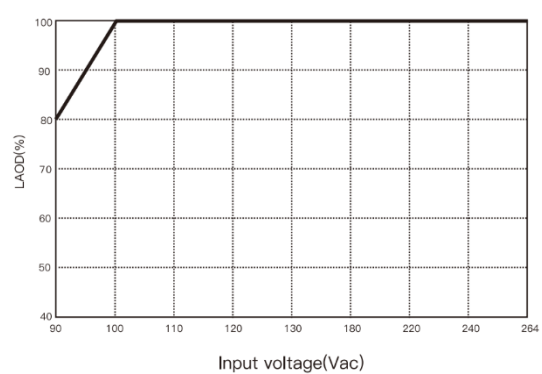
Block diagram



Derating curve



Static characteristics



NORPAS-POWER TECHNOLOGY CO., LTD.

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Specifications can be changed without notice! Make sure you are using the latest documentation, downloadable at www.norpas-power.com

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