



## 320W Single Output with PFC Function

## RSP-320 series



### Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- High efficiency up to 90%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC Fan with fan speed control function
- U low profile 30mm
- Optional conformal coating models (RSP-320-□ CC)
- LED indicator for power on
- 3 years warranty



### SPECIFICATION

MODEL		RSP-320-2.5	RSP-320-3.3	RSP-320-4	RSP-320-5	RSP-320-7.5	RSP-320-12
OUTPUT	DC VOLTAGE	2.5V	3.3V	4V	5V	7.5V	12V
	RATED CURRENT	60A	60A	60A	60A	40A	26.7A
	CURRENT RANGE	0 ~ 60A	0 ~ 60A	0 ~ 60A	0 ~ 60A	0 ~ 40A	0 ~ 26.7A
	RATED POWER	150W	198W	240W	300W	300W	320.4W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	2.35 ~ 2.85V	2.97 ~ 3.8V	3.7 ~ 4.3V	4.5 ~ 5.5V	6 ~ 9V	10 ~ 13.2V
	VOLTAGE TOLERANCE Note.3	± 2.0%	± 2.0%	± 2.0%	± 2.0%	± 2.0%	± 1.0%
	LINE REGULATION	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.3%
	LOAD REGULATION	± 1.5%	± 1.5%	± 1.0%	± 1.0%	± 1.0%	± 0.5%
	SETUP, RISE TIME	1500ms, 50ms/230VAC      3000ms, 50ms/115VAC at full load					
HOLD UP TIME (Typ.)	8ms at full load    230VAC/115VAC						
INPUT	VOLTAGE RANGE Note.4	88 ~ 264VAC	124 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR (Typ.)	PF>0.95/230VAC		PF>0.98/115VAC at full load			
	EFFICIENCY (Typ.)	75.5%	79.5%	81%	83%	88%	88%
	AC CURRENT (Typ.)	2.7A/115VAC	1.5A/230VAC		4A/115VAC	2A/230VAC	
	INRUSH CURRENT (Typ.)	20A/115VAC	40A/230VAC				
	LEAKAGE CURRENT	<1mA/ 240VAC					
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	2.88 ~ 3.38V	3.8 ~ 4.5V	4.5 ~ 5.3V	5.75 ~ 6.75V	9.4 ~ 10.9V	13.8 ~ 16.2V
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down					
		Protection type : Shut down o/p voltage, re-power on to recover					
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					
	TEMP. COEFFICIENT	± 0.03%/°C (0 ~ 50°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, EAC TP TC 004, CCC GB4943.1 approved					
	WITHSTAND VOLTAGE	I/P-Q/P:3KVAC    I/P-FG:2KVAC    O/P-FG:0.5KVAC					
	ISOLATION RESISTANCE	I/P-Q/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH					
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020, GB9254 Class B, GB17625.1					
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020					
OTHERS	MTBF	206.5K hrs min.    MIL-HDBK-217F (25°C)					
	DIMENSION	215*115*30mm (L*W*H)					
	PACKING	0.9Kg; 15pcs/14.5Kg/0.78CUFT					
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Derating may be needed under low input voltages. Please check the derating curve for more details. 5. 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. For guidance on how to perform these EMC tests, please refer to EMI testing of component power supplies. (As available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) 6. For charging related applications, please consult Mean Well for details. 7. Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSP-320-2.5/-3.3/-4/-5/-7.5/-12/-13.5/-15) 8. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).						



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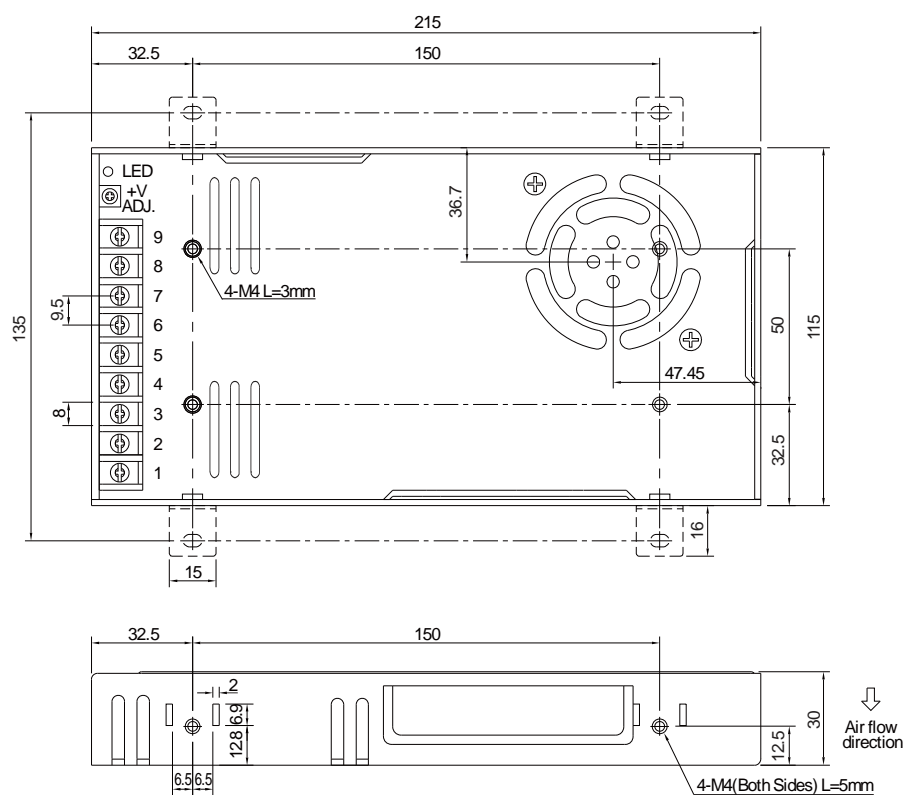
### SPECIFICATION

MODEL		RSP-320-13.5	RSP-320-15	RSP-320-24	RSP-320-27	RSP-320-36	RSP-320-48
OUTPUT	DC VOLTAGE	13.5V	15V	24V	27V	36V	48V
	RATED CURRENT	23.8A	21.4A	13.4A	11.9A	8.9A	6.7A
	CURRENT RANGE	0 ~ 23.8A	0 ~ 21.4A	0 ~ 13.4A	0 ~ 11.9A	0 ~ 8.9A	0 ~ 6.7A
	RATED POWER	321.3W	321W	321.6W	321.3W	320.4W	321.6W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	200mVp-p	220mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	12 ~ 15V	13.5 ~ 18V	20 ~ 26.4V	26 ~ 31.5V	32.4 ~ 39.6V	41 ~ 56V
	VOLTAGE TOLERANCE Note.3	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	LINE REGULATION	± 0.3%	± 0.3%	± 0.2%	± 0.2%	± 0.2%	± 0.2%
	LOAD REGULATION	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%
INPUT	SETUP, RISE TIME	1500ms, 50ms/230VAC    3000ms, 50ms/115VAC at full load					
	HOLD UP TIME (Typ.)	8ms at full load    230VAC/115VAC					
	VOLTAGE RANGE Note.4	88 ~ 264VAC	124 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR (Typ.)	PF>0.95/230VAC    PF>0.98/115VAC at full load					
	EFFICIENCY (Typ.)	88%	88.5%	89%	89%	89.5%	90%
	AC CURRENT (Typ.)	4A/115VAC	2A/230VAC				
PROTECTION	INRUSH CURRENT (Typ.)	20A/115VAC	40A/230VAC				
	LEAKAGE CURRENT	<1mA / 240VAC					
	OVERLOAD	105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	OVER VOLTAGE	15.7 ~ 18.4V	18.8 ~ 21.8V	27.6 ~ 32.4V	32.9 ~ 38.3V	41.4 ~ 48.6V	58.4 ~ 68V
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down Protection type : Shut down o/p voltage, re-power on to recover					
	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")					
SAFETY & EMC (Note 5)	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH					
	TEMP. COEFFICIENT	± 0.03%/°C (0 ~ 50°C)					
OTHERS	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, EAC TP TC 004, CCC GB4943.1 approved					
	WITHSTAND VOLTAGE	I/P-Q/P:3KVAC    I/P-FG:2KVAC    O/P-FG:0.5KVAC					
NOTE	ISOLATION RESISTANCE	I/P-Q/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH					
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020, GB9254 Class B, GB17625.1					
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020					
MTBF	MTBF	206.5K hrs min.    MIL-HDBK-217F (25°C)					
	DIMENSION	215*115*30mm (L*W*H)					
	PACKING	0.9Kg, 15pcs/14.5Kg/0.78CUFT					

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8. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).

## ■ Mechanical Specification

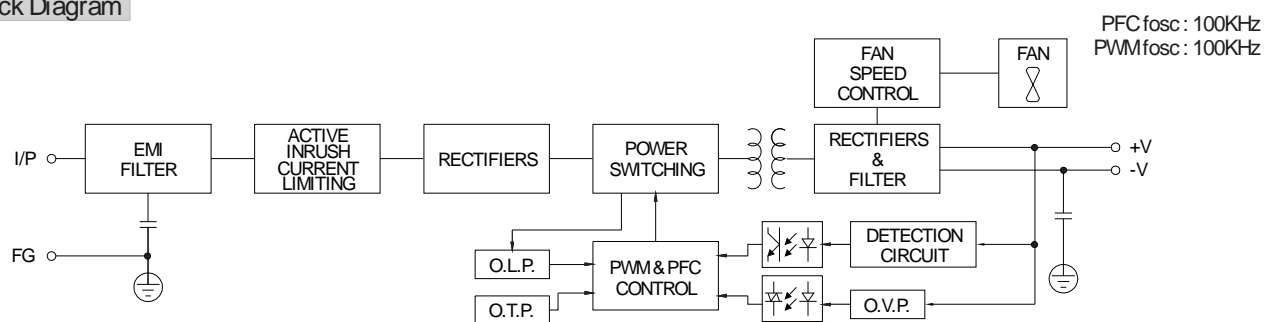
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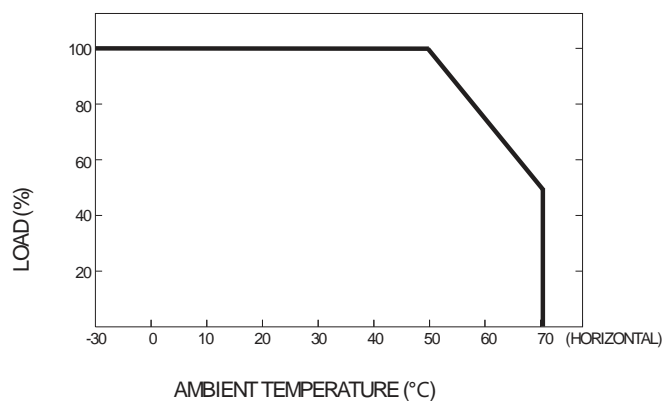
Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4-6	DC OUTPUT -V
2	AC/N	7-9	DC OUTPUT +V
3	FG $\perp$		

■ Block Diagram



### Derating Curve



## ■ Static Characteristics

