



- Universal AC input
- Protections: Short circuit/Over load/Over voltage/Over temperature
- Built-in active PFC function, PF >0.95
- Forced air cooling by built-in DC Fan
- Built-in fan speed control
- Fixed switching frequency at 100KHz



Model Number	Output Volts	Output Amps	OVP	Min Load	DC Volt Adjust	Load Reg	Efficiency
<b>SINGLE OUTPUT</b>							
SP320-3.3	3.3 Volts(DC)	55 Amps	3.8 ~ 4.5Volt(DC)	0~60Amps	3.14~3.63Volt(DC)	±1.5%	74%
SP320-5	5 Volts(DC)	55 Amps	5.75 ~ 6.75Volt(DC)	0~55Amps	4.5~5.5Volt(DC)	±1.0%	79%
SP320-7.5	7.5 Volts(DC)	40 Amps	9.4 ~ 10.9Volt(DC)	0~40Amps	6.0~9.0Volt(DC)	±1.0%	83%
SP320-12	12 Volts(DC)	25 Amps	13.8 ~ 16.2Volt(DC)	0~25Amps	10~13.2Volt(DC)	±0.5%	86%
SP320-13.5	13.5 Volts(DC)	22 Amps	15.5 ~ 18.2Volt(DC)	0~22Amps	12~15Volt(DC)	±0.5%	86%
SP320-15	15 Volts(DC)	20 Amps	18 ~ 21Volt(DC)	0~20Amps	13.5~18Volt(DC)	±0.5%	86%
SP320-24	24 Volts(DC)	13 Amps	27.6 ~ 32.4Volt(DC)	0~13Amps	20~26.4Volt(DC)	±0.5%	87%
SP320-27	27 Volts(DC)	11.7 Amps	33.7 ~ 39.2Volt(DC)	0~11.7Amps	26~31.5Volt(DC)	±0.5%	88%
SP320-36	36 Volts(DC)	8.8 Amps	45 ~ 52.5Volt(DC)	0~8.8Amps	32.4~39.6Volt(DC)	±0.5%	87%
SP320-48	48 Volts(DC)	6.7 Amps	57.6~ 67.2Volt(DC)	0~6.7Amps	41~56Volt(DC)	±0.5%	89%

## 320W Single Output with PFC Function

## SP320 series

### INPUT SPECIFICATIONS

Input Voltage Range (Note3)	90 ~ 264VAC 124~370 Volts(DC)
Frequency Range	47-63 Hz
Inrush Current, typ: (cold start)	20Amps/115VAC; 40Amps 230VAC
Input Current	3.3Volts(DC):2.5Amps@115VAC;1.5 Amps@230VAC 5~48Volts(DC):5Amps@115VAC;2.5Amps@230VAC
Leakage current	< 1mAmps / 240VAC
Min Load	See Selection Chart
Power Factor @ FL	PF> 0.95 / 230VAC > 0.98 / 115VAC

### OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation	±0.5%: 3.3~7.5Volts(DC) ±0.3%: 12~15Volts(DC) ±0.2%: 24~48Volts(DC)
Load Regulation	See Selection Chart
Voltage Tolerance (Note 2)	±2.0%: 3.3;12~48Volts(DC) ±1.0%: 5~7.5Volts(DC)
Ripple/Noise (Note 1)	150mVpk-pk: 3.3~24Volts(DC) 200mVpk-pk: 27Volts(DC) 220mVpk-pk: 36Volts(DC) 240mVpk-pk: 48(DC)
Hold Up Time @ FL	16mS /230VAC 16mS /115VAC
Setup, Rise Time @ FL	800mS, 50mS /230VAC 2500mS, 50mS /115VAC
Over Voltage Protection	See Selection Chart Shut down o/p voltage, re-power
Over Current Protection	105 ~ 135% rated output power Hiccup mode, auto recover
Over Temperature	80°C ±5°C (70°C±5°C 3.3;5V only) TSW1: detect on heatsink of power transistor Shut down o/p voltage, auto recover after cool down
DC Volt Adjust	See Selection Chart

### GENERAL SPECIFICATIONS

Safety	UL60950-1, TUV EN60950-1 Approved
Insulation Resistance	≥ 100MΩ / 500Volts(DC)
EMI	Compliance to EN55022B (CISPR22B)
Harmonic Current	Compliance to EN61000-3-2,-3
Efficiency	See Selection Chart
Isolation	3000VAC Input - Output 1500VAC Input - Ground 500VAC Output - Ground
EMS	Compliance to EN61000-4-2,3,4,5,6,8,11 ENV50204, EN55024, light Industry Level, Criteria A

### ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-20°C to +65°C (See Derate Curve)
Storage Temperature	-40°C to +85°C, 10~95% RH
Relative Humidity	20~90% RH non cond
Temperature Coefficient	±0.03% / °C (0-50°C)
MTBF	207Khrs min, MIL-HDBK-217F(25°C)
Vibration	10~500Hz, 2G10min./1cycle, period for 60min. each along X, Y, Z axes

### PHYSICAL SPECIFICATIONS

Size	215x115 x 50mm (8.46"x4.53 "x1.97")
Weight	38.80 oz (1100g)

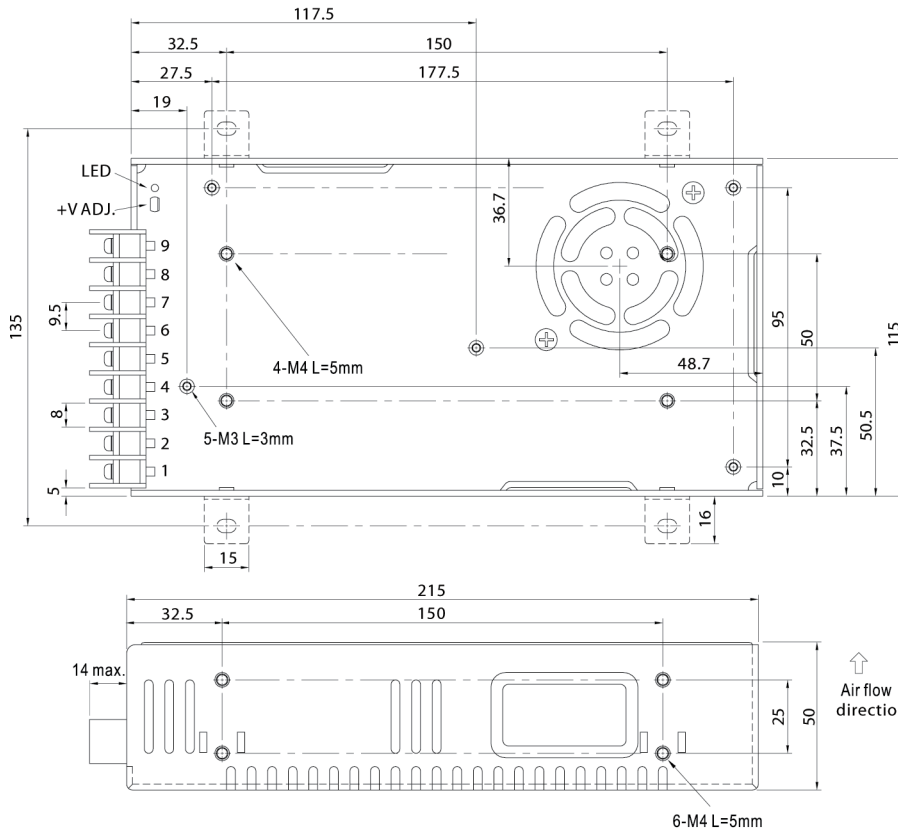
### NOTE

1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
2. Tolerance : includes set up tolerance, line regulation and load regulation.
3. Derating may be needed under low input voltages. Please check the derating curve for more details.

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

### Mechanical Specification

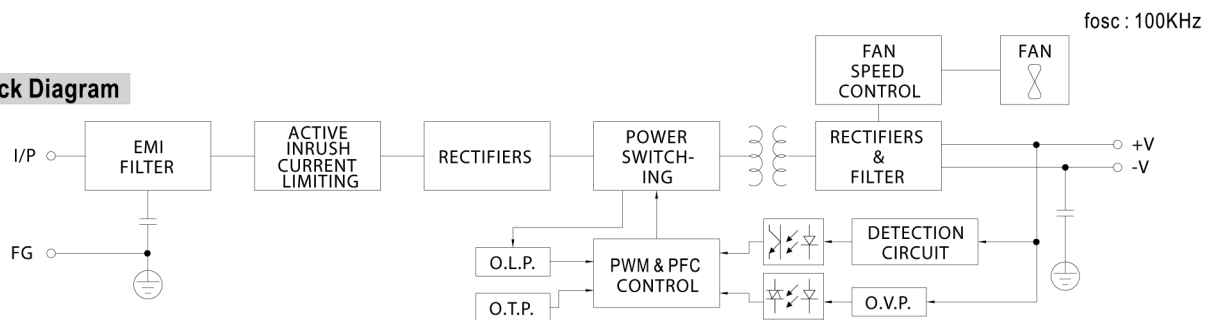
Case No. 912G Unit:mm



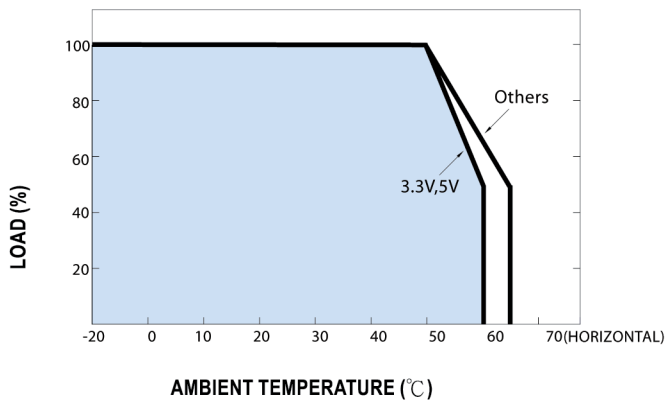
Terminal Pin No. Assignment :

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

