



- Universal AC input
- Protections: Short circuit/Over load/Over voltage
- Built-in active PFC function, PF>0.93
- LED indicator for power on
- Built-in constant current limiting circuit
- Low profile: 33mm thickness
- Fixed switching frequency at PFC: 67KHz PWM: 134KHz



Model Number	Output Volts	Output Amps	Ripple & Noise	Min Load	DC Volt Adjust	Load Reg	Efficiency
<b>SINGLE OUTPUT</b>							
SP100-3.3	3.3 Volts(DC)	20 Amps	100mV pk-pk	0~20Amps	3.14~3.63Volt(DC)	±1.0%	70%
SP100-5	5 Volts(DC)	20 Amps	100mV pk-pk	0~20Amps	4.75~5.5Volt(DC)	±1.0%	76%
SP100-7.5	7.5 Volts(DC)	13.5 Amps	100mV pk-pk	0~13.5Amps	7.13~8.25Volt(DC)	±1.0%	78%
SP100-12	12 Volts(DC)	8.5 Amps	100mV pk-pk	0~8.5Amps	11.4~13.2Volt(DC)	±0.5%	80%
SP100-13.5	13.5 Volts(DC)	7.5 Amps	100mV pk-pk	0~7.5Amps	12.8~14.9Volt(DC)	±0.5%	80%
SP100-15	15 Volts(DC)	6.7 Amps	100mV pk-pk	0~6.7Amps	14.3~16.5Volt(DC)	±0.5%	82%
SP100-24	24 Volts(DC)	4.2Amps	150mV pk-pk	0~4.2Amps	22.8~26.4Volt(DC)	±0.5%	84%
SP100-27	27 Volts(DC)	3.8 Amps	150mV pk-pk	0~3.8Amps	25.7~29.7Volt(DC)	±0.5%	83%
SP100-48	48 Volts(DC)	2.1 Amps	250mV pk-pk	0~2.1Amps	45.6~52.8Volt(DC)	±0.5%	82%

## 100W Single Output with PFC Function

## SP100 series

### INPUT SPECIFICATIONS

Input Voltage Range	90 ~ 264VAC 120~370 Volts(DC)
Frequency Range	47-63 Hz
Inrush Current, typ: (cold start)	30Amps / 230VAC
Input Current	1.7 Amps. @ 115VAC 0.8 Amps. @ 230VAC
Leakage current	< 2mAmps / 240VAC
Min Load	See Selection Chart
Power Factor @ FL	PF> 0.93 / 230VAC > 0.98 / 115VAC

### OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation	±0.5%
Load Regulation	See Selection Chart
Voltage Tolerance (Note 2)	±2.0%: 3.3~15Volts(DC) ±1.0%: 24~48Volts(DC)
Ripple/Noise (Note 1)	See Selection Chart
Hold Up Time	20ms @ FL
Setup, Rise Time	600ms, 30ms @ FL
Over Voltage Protection	3.63 ~ 4.46Volt(DC): 3.3Volts(DC) 5.5 ~ 6.75Volt(DC): 5Volts(DC) 8.25 ~ 10.13Volt(DC): 7.5Volts(DC) 13.2 ~ 16.2Volt(DC): 12Volts(DC) 14.85 ~ 18.23Volt(DC): 13.5Volts(DC) 16.5 ~ 20.25Volt(DC): 15Volts(DC) 26.4 ~ 32.4Volt(DC): 24Volts(DC) 29.7 ~ 36.45Volt(DC): 27Volts(DC) 52.8 ~ 64.8Volt(DC): 48Volts(DC)
	Shut down o/p voltage, re-power
Over Current Protection	105 ~ 150% rated output power Constant current limiting, auto-recover
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	-10°C to +60°C (See Derate Curve)
Storage Temperature	-20°C to +85°C, 10~95% RH
Relative Humidity	20~90% RH non cond
Temperature Coefficient	±0.05% / °C (0-50°C)
MTBF	211.3KHrs min, MIL-HDBK-217F(25°C)
Vibration	10~500Hz, 2G10min./1cycle, period for 60min. each along X, Y, Z axes

### PHYSICAL SPECIFICATIONS

Size	Millimeters	179 x 99 x 45
	Inches	7.05" x 3.90" x 1.77"
Weight		23.28 oz (660g)

### 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.

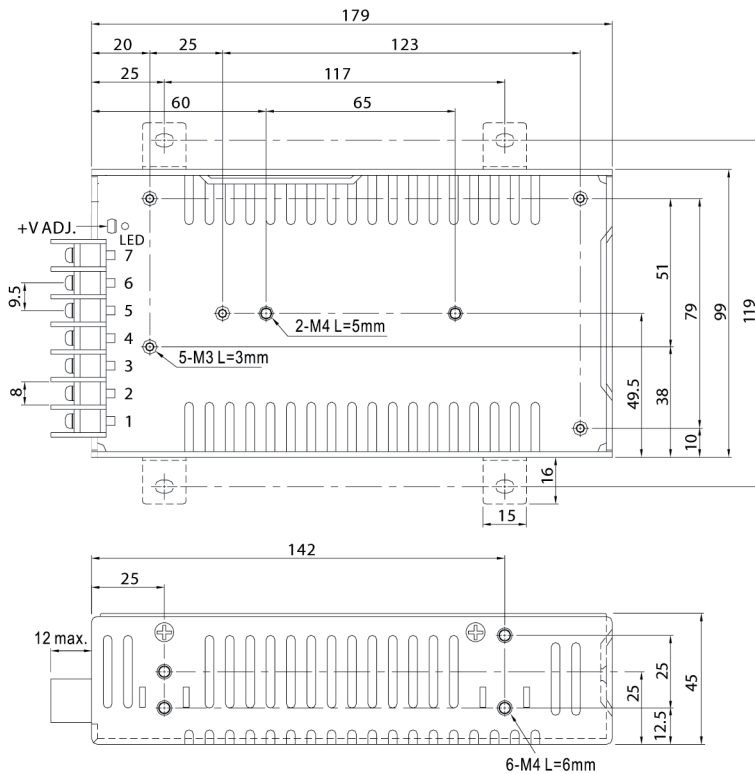
All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

## 100W Single Output with PFC Function

## SP100 series

### Mechanical Specification

Case No. 915A Unit:mm

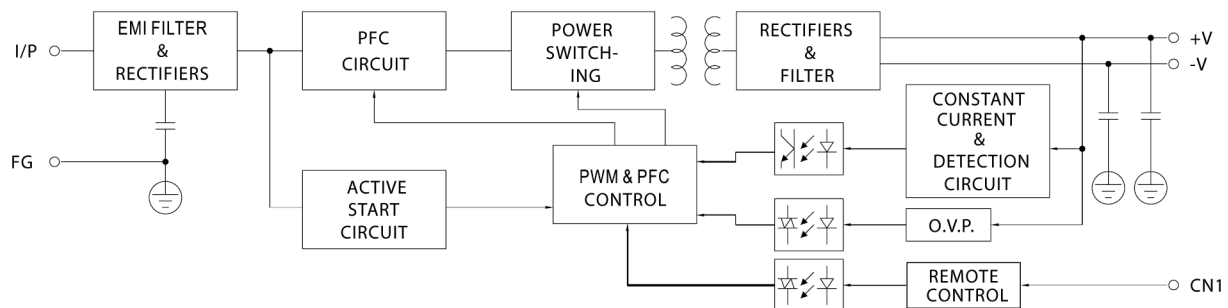


Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG $\perp$		

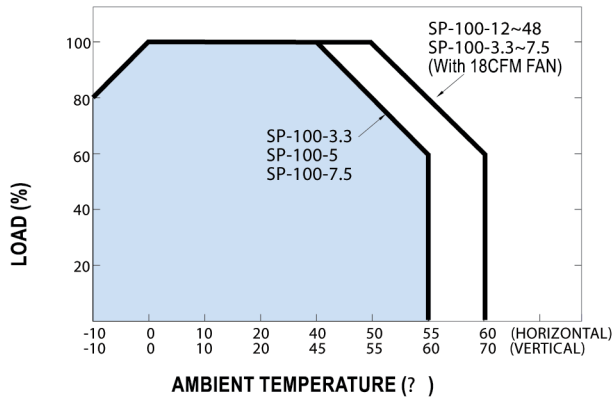
PFC fosc : 67KHz  
 PWM fosc : 134KHz

### Block Diagram



100W Single Output with PFC Function

■ Derating Curve



■ Output Derating VS Input Voltage

