



- 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
- Remote ON-OFF control (Optional)



Model Number	Output Volts	Output Amps	Ripple & Noise	Min Load	DC Volt Adjust	Load Reg	Efficiency
SINGLE OUTPUT							
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)

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

EMI	Compliance to EN55022B (CISPR22B)
Harmonic Current	Compliance to EN61000-3-2,-3
Remote Control(option)	CN1: 4 ~ 10Volts(DC) POWER ON <0 ~ 0.8Volts(DC)DC POWER OFF
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)

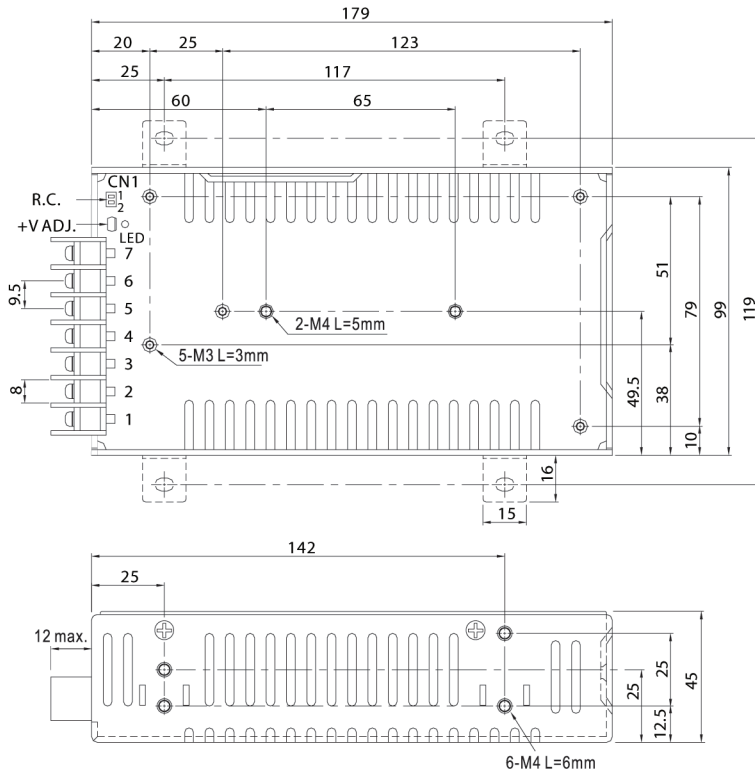
NOTE

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.

Astrodyne products are not authorized or warranted for use as critical components in life support systems, equipment used in hazardous environments, nuclear controls systems, or other mission-critical applications.

Mechanical Specification

Case No. 915A Unit:mm



Terminal Pin No. Assignment

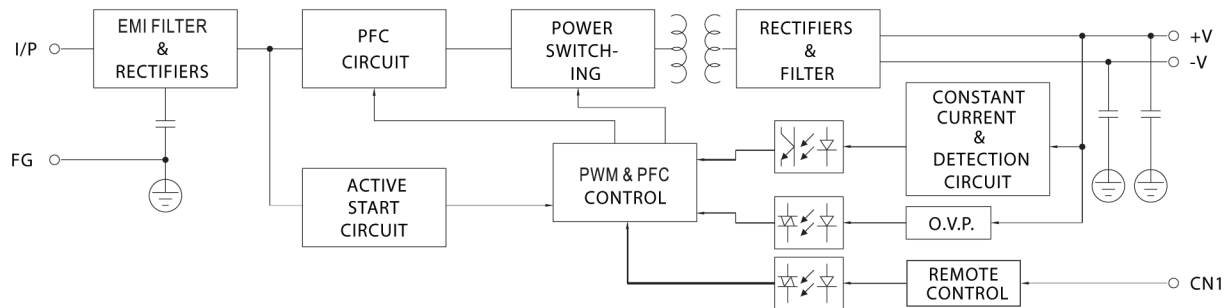
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG \perp		

Remote ON/OFF(CN1): JST S2B-XH or equivalent(optional)

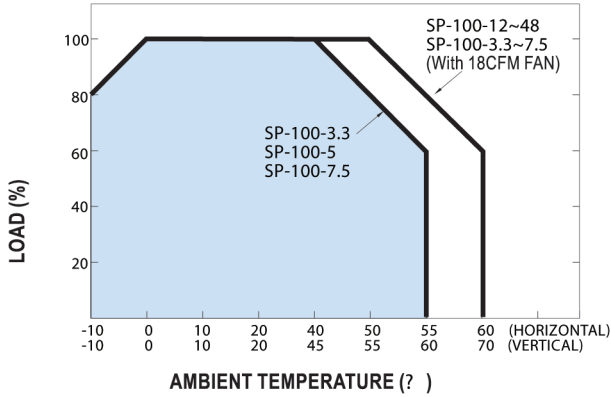
Pin No.	Assignment	Mating Housing	Terminal
1	RC+	JST XHP or equivalent	JST SXH-001T-P0.6 or equivalent
2	RC-		

PFC fosc : 67KHz
PWM fosc : 134KHz

Block Diagram



Derating Curve



Output Derating VS Input Voltage

