



# MEAN WELL

## SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

## SP-150 SERIES

- .LOW COST, HIGH RELIABILITY
- .105°C OUTPUT CAPACITOR
- .INTERNATIONAL AC INPUT RANGE
- .HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- .SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- .SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE
- .COMPACT SIZE, LIGHT WEIGHT
- .100% FULL LOAD BURN-IN TEST
- .BUILT IN EMI FILTER, LOW RIPPLE NOISE
- .BUILT IN PFC CIRCUIT
- .REMOTE CONTROL (OPTION)
- .OVER TEMPERATURE PROTECTED



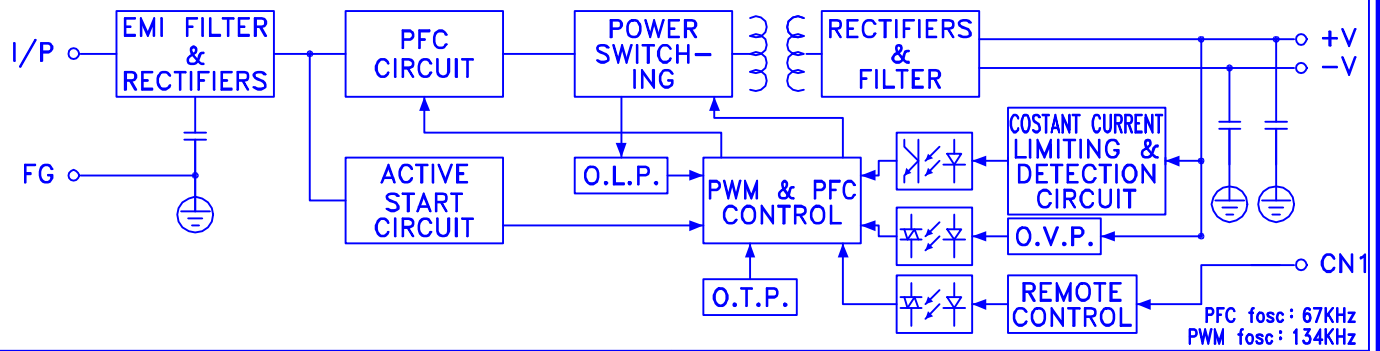
SPECIFICATION	MODEL	SP-150 -3.3	SP-150 -5	SP-150 -7.5	SP-150 -12	SP-150 -13.5	SP-150 -15	SP-150 -24	SP-150 -27	SP-150 -48
DC OUTPUT VOLTAGE		3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	48V
OUTPUT V. TOLERANCE		±2%	±2%	±2%	±2%	±2%	±2%	±1%	±1%	±1%
OUTPUT RATED CURRENT		30A	30A	20A	12.5A	11.2A	10A	6.3A	5.6A	3.2A
OUTPUT CURRENT		0-30A	0-30A	0-20A	0-12.5A	0-11.2A	0-10A	0-6.3A	0-5.6A	0-3.2A
RIPPLE & NOISE		100mV	100mV	100mV	100mV	100mV	100mV	150mV	150mV	250mV
LINE REGULATION		±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
LOAD REGULATION		±1%	±1%	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
RATED OUTPUT POWER		99W	150W	150W	150W	151.2W	150W	150W	151.2W	153.6W
EFFICIENCY		67%	75%	79%	80%	80%	81%	83%	84%	84%
DC VOLTAGE ADJ.		+10,-5%								
INPUT VOLTAGE RANGE		85~264VAC 47~63Hz 120~370VDC								
AC CURRENT		2.2A/115V 1.1A/230V		3.3V: 1.5A/115V		0.8A/230V				
INRUSH CURRENT		COLD START 40A/230V								
LEAKAGE CURRENT		< 2 mA / 240VAC								
OVERLOAD PROTECTION		105~150% TYPE:CONSTANT CURRENT LIMITING RESET:AUTO RECOVERY								
OVER VOLTAGE PROTECTION		110%~135% TYPE:SHUTDOWN RESET:RE POWER ON								
OVER TEMP. PROTECTION		95°C±5°C (TSW1) TYPE:SHUTDOWN RESET:AUTO RECOVERY								
REMOTE CONTROL (OPTION)		CN1: 3 -15VDC POWER ON, <1VDC POWER OFF								
TEMP. COEFFICIENT		±0.05% / °C (0~50°C)								
SETUP, RISE, HOLD UP TIME		600ms, 30ms, 20ms								
POWER FACTOR		PF>0.93/230VAC, PF>0.98/115VAC								
VIBRATION		10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES								
WITHSTAND VOLTAGE		I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC								
ISOLATION RESISTANCE		I/P-O/P, I/P-FG, O/P-FG:500VDC / 100M Ohms								
WORKING TEMP., HUMIDITY		-10°C~+60°C(REFER TO OUTPUT DERATING CURVE), 20%~90% RH								
STORAGE TEMP., HUMIDITY		-20°C~+85°C, 10%~95% RH								
DIMENSION		199*99*50mm (L*W*H)		CASE:916A						
WEIGHT		750gs								
SAFETY STANDARDS		UL1950, TUV EN60950, S-MARK APPROVED								
EMC STANDARDS		CISPR22 (EN55022) CLASS B, EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-3-2,-3 VERIFICATION								

NOTE :

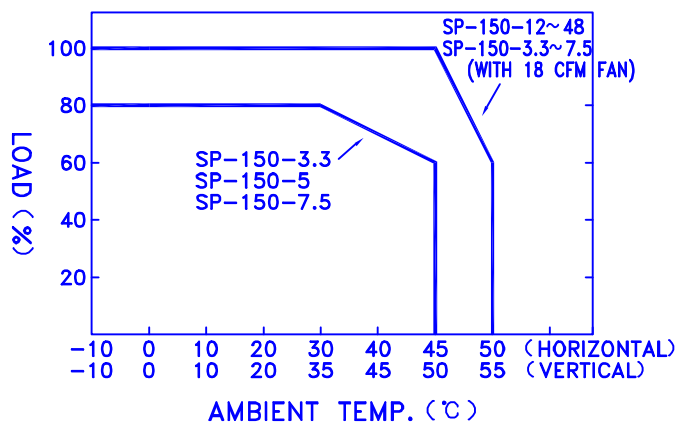
- 1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C AMBIENT.
- 2.TOLERANCE : INCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
- 3.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
- 4.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.

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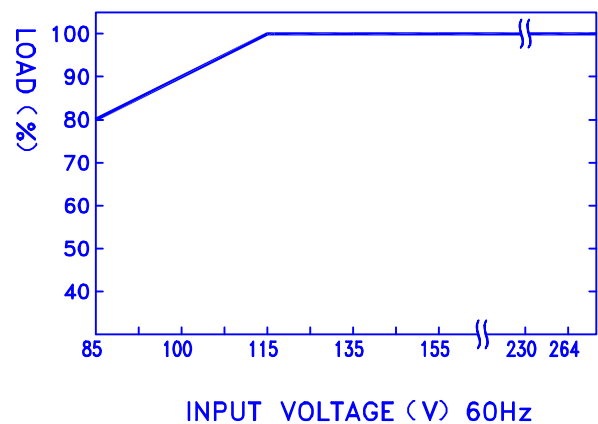
## BLOCK DIAGRAM



## OUTPUT DERATING VS $T_a$



## OUTPUT DERATING VS INPUT VOLTAGE



## DIMENSION (mm)

- ☒ CASE : 916A
- ☒ TERMINAL PIN NO. ASSIGNMENT
  - ☒ PIN 1,2 : AC INPUT
  - ☒ PIN 3 : FG  $\perp$
  - ☒ PIN 4,5 : DC OUTPUT -V
  - ☒ PIN 6,7 : DC OUTPUT +V
  - ☒ CN1 : REMOTE CONTROL (OPTION) (JST S2B-XH COMPATIBLE)

