



MEAN WELL

SWITCHING POWER SUPPLY
ISO-9001 CERTIFIED MANUFACTURER

SP-500 SERIES

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



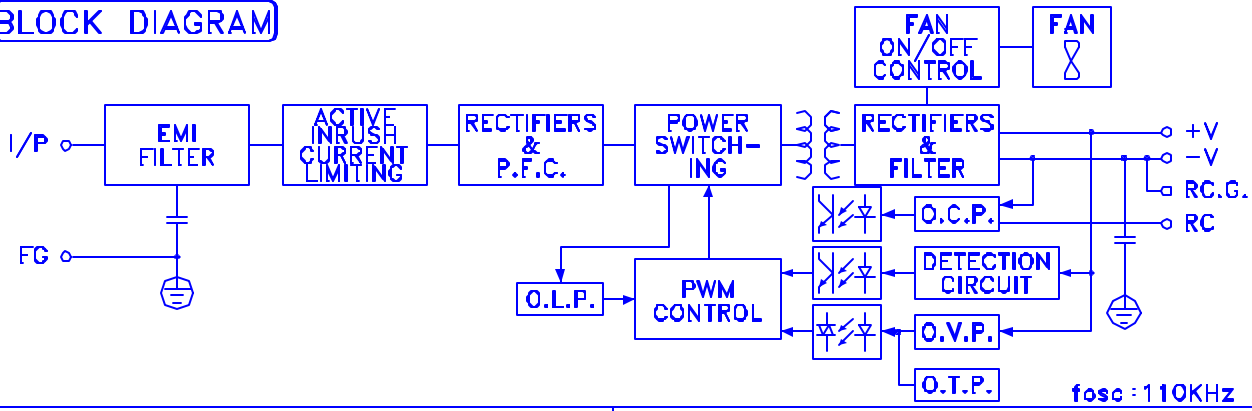
MODEL	SP-500-12	SP-500-13.5	SP-500-15	SP-500-24	SP-500-27	SP-500-48
SPECIFICATION						
DC OUTPUT VOLTAGE	12V	13.5V	15V	24V	27V	48V
OUTPUT V. TOLERANCE	±1%	±1%	±1%	±1%	±1%	±1%
OUTPUT RATED CURRENT	40A	36A	32A	20A	18A	10A
OUTPUT CURRENT RANGE	0-40A	0-36A	0-32A	0-20A	0-18A	0-10A
RIPPLE & NOISE	240mVp-p	240mVp-p	240mVp-p	240mVp-p	200mVp-p	300mVp-p
LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
LOAD REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
DC OUTPUT POWER	480W	486W	480W	480W	486W	480W
EFFICIENCY	84%	84%	83%	85.5%	86.5%	87%
DC VOLTAGE ADJ.	10-13.2V	12-15V	13.5-18V	20-26.4V	24-30V	41-56V
INPUT VOLTAGE RANGE	88-264VAC 47-63Hz; 124-370VDC					
AC CURRENT	7A/115V 3.5A/230V					
POWER FACTOR	0.95/100-240VAC					
INRUSH CURRENT	18A/115V 36A/230V					
LEAKAGE CURRENT	<3.5mA/240VAC					
OVERLOAD PROTECTION	105%-135% TYPE:FOLDBACK CURRENT LIMITING RESET:AUTO RECOVERY					
OVER VOLTAGE PROTECTION	13.8-16.2V	15.5-18.2V	18-21V	27.6-32.4V	31-36.5V	57.6-67.2V
FAN CONTROL, O.T.P.	RTH1 or RTH2>=50°C FAN ON, <=45°C FAN OFF, >=70°C OUTPUT SHUTDOWN					
TEMP. COEFFICIENT	±0.03% / °C (0-50°C)					
SETUP, RISE, HOLD UP TIME	1.5s, 50ms, 20ms					
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~+50°C(REFER TO OUTPUT DERATING CURVE), 20%-90% RH					
STORAGE TEMP., HUMIDITY	-20°C~+85°C, 10%-95% RH					
DIMENSION	170*120*93mm CASE:910					
WEIGHT	1.8Kgs					
SAFETY STANDARDS	UL1950, TUV EN60950 APPROVED					
EMC STANDARDS	CISPR22 (EN55022), IEC1000-4-2,3,4,5,6,8,11 IEC1000-3-2 VERIFICATION					

NOTE :

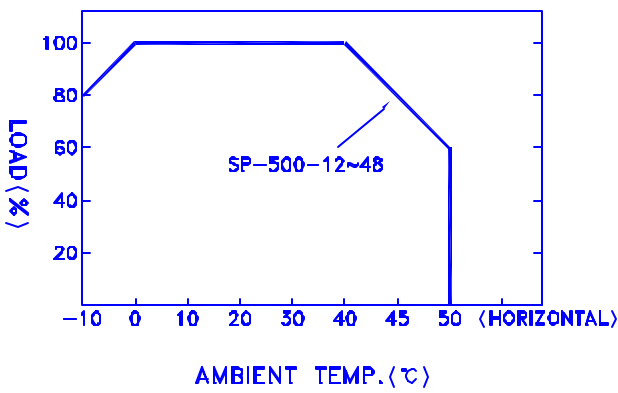
- 1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C 70% RH. AMBIENT.
- 2.TOLERANCE: INCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
- 3.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
- 4.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
- 5.LOAD REGULATION IS MEASURED FROM 0% TO 100% RATED LOAD.
- 6.C3,4,14,16,31,32,101,102 MUST BE REMOVED.
- 7.REFER TO OUTPUT DERATING CURVE VS INPUT VOLTAGE.

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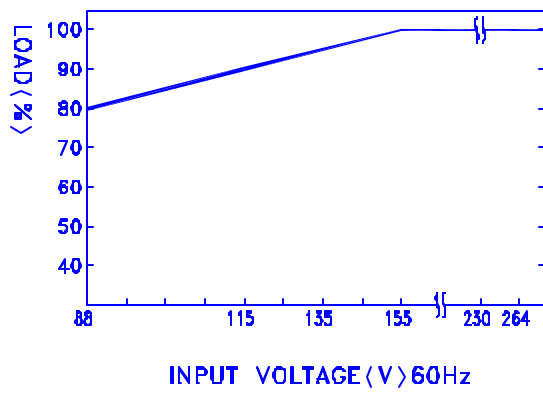
BLOCK DIAGRAM



OUTPUT DERATING VS T_d



OUTPUT DERATING VS INPUT VOLTAGE



DIMENSION (mm)

- ☒ CASE : 910
- ☒ TERMINAL PIN NO. ASSIGNMENT
 - ☒ PIN 1,2 : AC INPUT
 - ☒ PIN 3 : FG \perp
 - ☒ PIN 4,5 : NC
 - ☒ PIN 6 : R.C G
 - ☒ PIN 7 : R.C.
 - ☒ PIN 8 : +S
 - ☒ PIN 9,10,11: DC OUTPUT +V
 - ☒ PIN 12,13,14: DC OUTPUT -V
 - ☒ PIN 15 : -S

