



# MEAN WELL

## SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

## PSP-500 SERIES

- .LOW COST, HIGH RELIABILITY
- .BUILT IN EMI FILTER, CURRENT SHARING CIRCUIT
- .BUILT IN REMOTE CONTROL, REMOTE SENSE, POWER GOOD SIGNAL
- .SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE, OVER TEMP. PROTECTED
- .100% FULL LOAD BURN-IN TEST
- .105°C OUTPUT CAPACITOR
- .BUILT IN PFC CIRCUIT PFC>=0.95, COMPLIES WITH EN61000-3-2



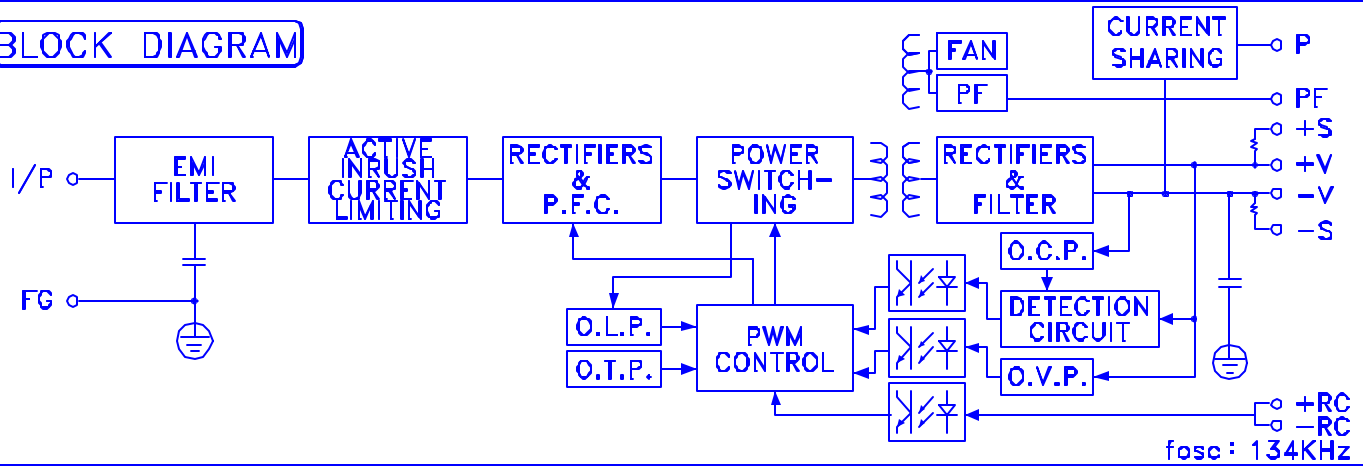
MODEL	PSP-500 -5	PSP-500 -12	PSP-500 -13.5	PSP-500 -15	PSP-500 -24	PSP-500 -27	PSP-500 -48
DC OUTPUT VOLTAGE	5V	12V	13.5V	15V	24V	27V	48V
OUTPUT V. TOLERANCE	±2%	±1%	±1%	±1%	±1%	±1%	±1%
OUTPUT RATED CURRENT	80A	41.5A	37A	33A	20.8A	18.5A	10.5A
OUTPUT CURRENT RANGE	0-80A	0-41.5A	0-37A	0-33A	0-20.8A	0-18.5A	0-10.5A
RIPPLE & NOISE(Vp-p)	100m	150m	150m	150m	150m	150m	200m
LINE REGULATION	±0.5%	±0.3%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%
LOAD REGULATION	±2%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
DC OUTPUT POWER	400W	498W	499.5W	495W	499.2W	499.5W	504W
EFFICIENCY	76%	82%	82%	82%	84%	84%	86%
DC VOLTAGE ADJ.	4.75-5.5V	10-13.2V	12-15V	13.5-18V	20-26.4V	24-30V	41-56V
INPUT VOLTAGE RANGE	90-264VAC 47-63Hz; 127-370VDC						
AC CURRENT	7A/115V 3.5A/230V						
POWER FACTOR	0.98/100VAC 0.95/230VAC						
INRUSH CURRENT	20A/115V 40A/230V						
LEAKAGE CURRENT	<1mA/240VAC						
OVERLOAD PROTECTION	110-125% TYPE:CONSTANT CURRENT LIMITING RESET:AUTO RECOVERY						
OVER VOLTAGE PROTECTION	5.75-6.75	13.8-16.2V	15.5-18.2V	18-21V	27.6-32.4V	31-36.5V	57.6-67.2V
OVER TEMP.PROTECTION	RTH2>=95°C OUTPUT SHUTDOWN						
REMOTE CONTROL	RC+/RC-: 0-0.8V=POWER ON; 4-10V=POWER OFF SINK CURRENT 4-10mA						
TEMP. COEFFICIENT	±0.03% / °C (0-50°C)						
SETUP, RISE, HOLD UP TIME	1.5s, 50ms, 15ms						
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 WITH 30CFM FORCED AIR						
STORAGE TEMP., HUMIDITY	-20°C~+85°C, 10%-95% RH						
DIMENSION	278*127*63.5mm						
WEIGHT	2.5 Kgs						
SAFETY STANDARDS	UL1950, TUV EN60950 APPROVED						
EMC STANDARDS	CISPR22(EN55022)CLASS B, EN61000-4-2,3,4,5,6,8,11;ENV50204 EN61000-3-2 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.REFER TO OUTPUT DERATING CURVE VS INPUT VOLTAGE.
  - 7.IN PARALLEL CONNECTION, MAYBE ONLY ONE UNIT OPERATED, IF THE TOTAL OUTPUT LOAD LESS THAN 5% OF RATED LOAD CONDITION.

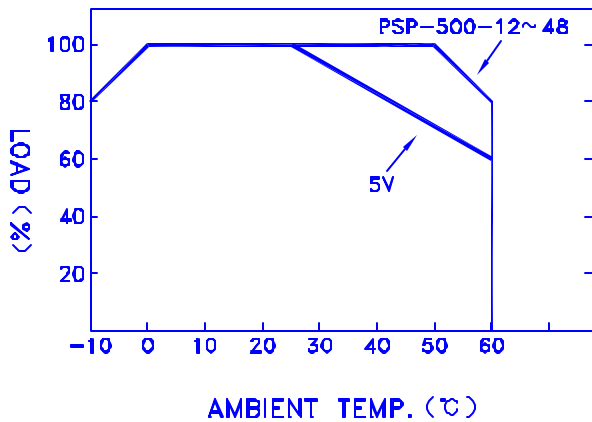
2002-07-23

[NEXT \(MECHANICAL INFO\)](#)

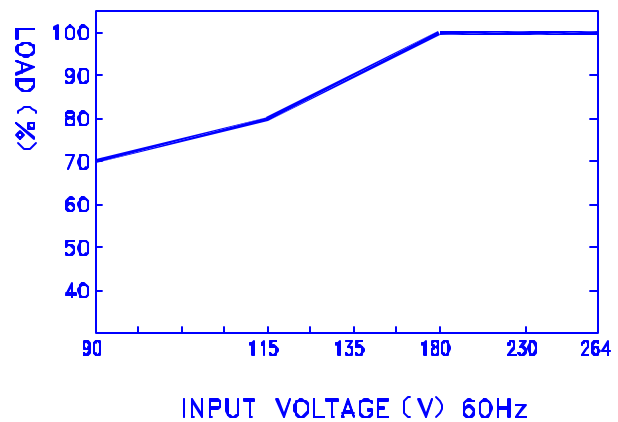
## BLOCK DIAGRAM



## OUTPUT DERATING VS $T_a$

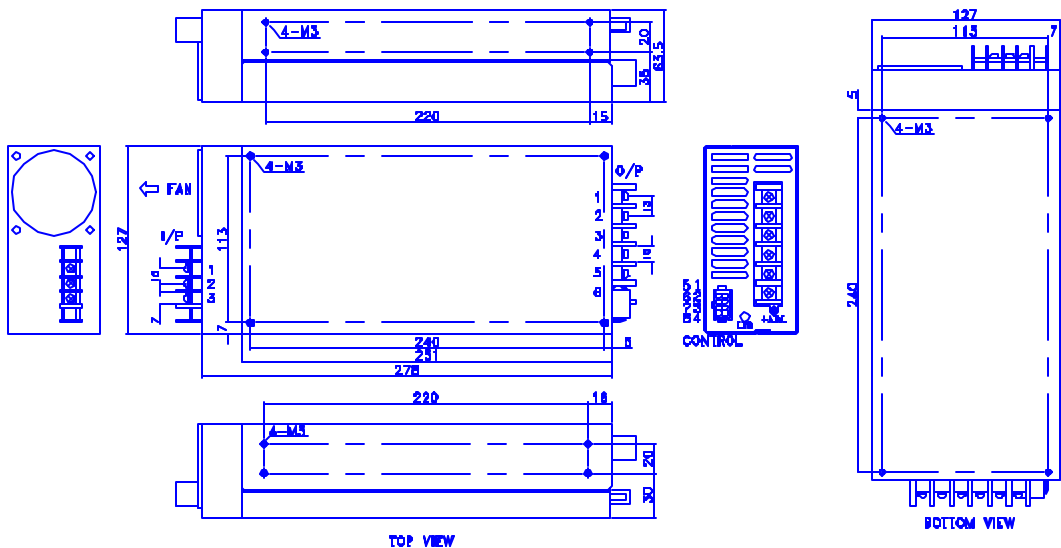


## OUTPUT DERATING VS INPUT VOLTAGE



## DIMENSION (mm)

- |   |   |   |
|---|---|---|
| <ul style="list-style-type: none"> <li>☒ CASE : 919</li> <li>☒ I/P TERMINAL PIN NO. ASSIGNMENT                     <ul style="list-style-type: none"> <li>☒ PIN 1,2 : AC INPUT</li> <li>☒ PIN 3 : FG <math>\perp</math></li> </ul> </li> <li>☒ O/P TERMINAL PIN NO. ASSIGNMENT                     <ul style="list-style-type: none"> <li>☒ PIN 1,2,3 : DC OUTPUT +V</li> <li>☒ PIN 4,5,6 : DC OUTPUT -V</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>☒ CONTROL PIN NO. ASSIGNMENT                     <ul style="list-style-type: none"> <li>☒ PIN 1 : P(CURRENT SHARE)</li> <li>☒ PIN 2 : -S</li> <li>☒ PIN 3 : G</li> <li>☒ PIN 4 : RC-</li> <li>☒ PIN 5 : NC</li> <li>☒ PIN 6 : PF(POWER FAIL SIGNAL)</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>☒ MATING CONNECTOR                     <ul style="list-style-type: none"> <li>☒ Molex 5559-NP Uses 5558 Male Crimp Terminal</li> <li>☒ Molex 5557-NR Uses 5556 Female Crimp Terminal Receptacle</li> </ul> </li> </ul> |
|---|---|---|





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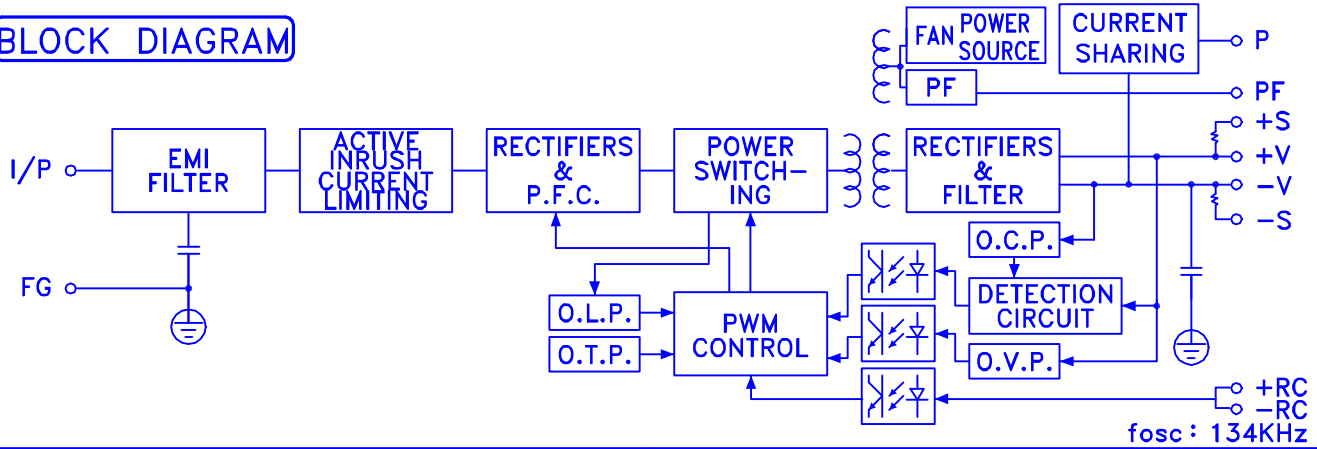
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DIMENSION	250*123*55mm						
WEIGHT	1.3 Kgs						
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EMC STANDARDS	MEET CISPR22(EN55022)CLASS B, EN61000-4-2,3,4,5,6,8,11:ENV50204 EN61000-3-2						

NOTE :

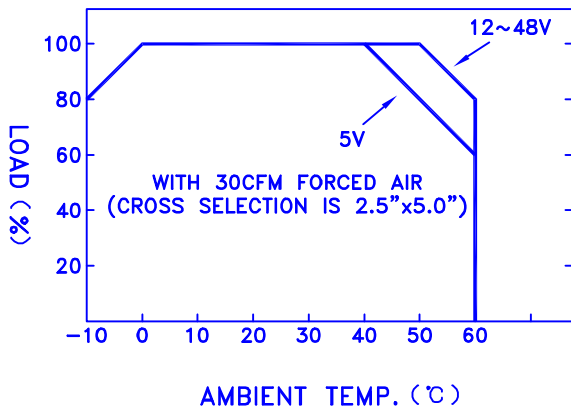
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# PSP-500P SERIES

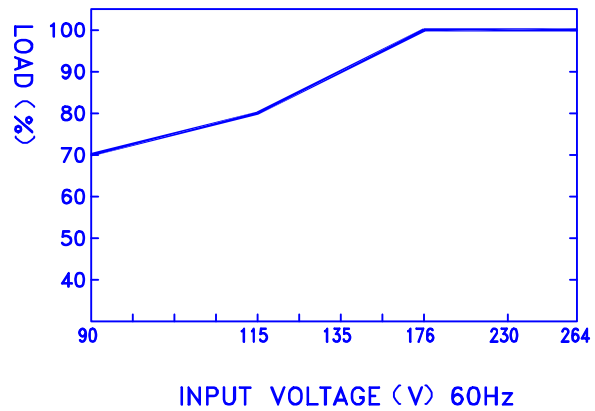
## BLOCK DIAGRAM



## OUTPUT DERATING VS $T_a$



## OUTPUT DERATING VS INPUT VOLTAGE



## DIMENSION (mm)

### TERMINAL 1 PIN NO. ASSIGNMENT

☒ PIN 1 : FG  $\perp$

☒ PIN 2,3 : AC INPUT

### TERMINAL 2 PIN NO. ASSIGNMENT

☒ PIN 1,2,3 : DC OUTPUT +V

☒ PIN 4,5,6 : DC OUTPUT -V

### CONNECTOR PIN NO. ASSIGNMENT

☒ CN1 : JST B2B-XH    ☒ CN2 : JST B7B-XH

☒ PIN 1 : GND

☒ PIN 2 : +12V

☒ FAN POWER SOURCE  
0.3A max.

☒ PIN 1 : P(CURRENT SHARE)

☒ PIN 2 : +S

☒ PIN 3 : -S

☒ PIN 4 : GND

☒ PIN 5 : POWER FAIL SIGNAL

☒ PIN 6 : RC+

☒ PIN 7 : RC-

### MATING CONNECTORS

☒ CN1,2 MATING CONNECTOR  
TYPE JST XHP SERIES OR  
EQUIVALENT WITH JST  
SXH-001T-P0.6 OR  
EQUIVALENT CRIMP  
TERMINALS

☒ SVR1 VO ADJ.

☒ SVR2 IO ADJ.

