



# MEAN WELL

## SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

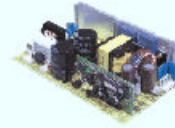
## PS-120 SERIES

S: Power supply  
 A: Voltage detector  
 B: current detector  
 P: With PFC  
 N: None PFC

**PA-120P-13C**

□ : O.D.M number  
 P : Open P.C.B.  
 C : With case

13: 13.8V  
 27: 27.6V  
 54: 55.2V

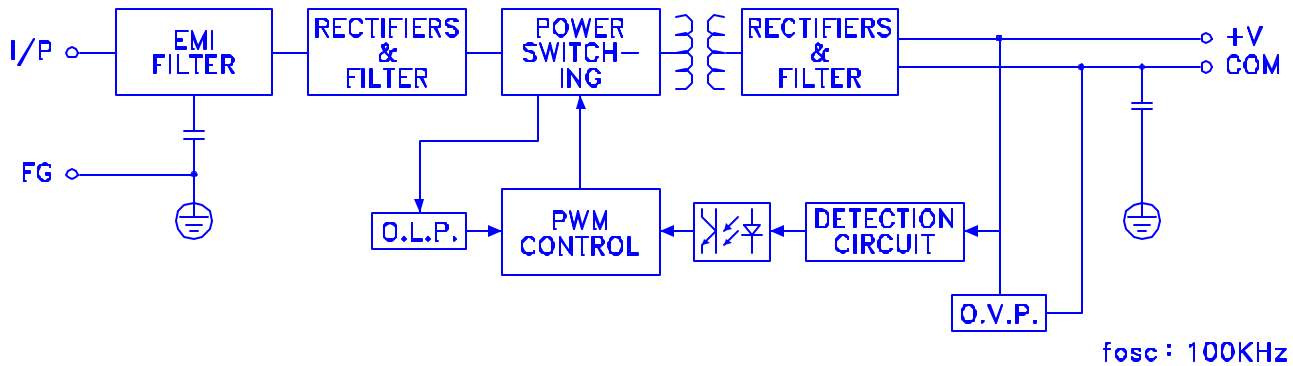


SPECIFICATION	MODEL	PS-120 -13P/C	PS-120 -27P/C	PS-120 -54P/C
DC OUTPUT VOLTAGE		13.8V	27.6V	54V
OUTPUT V. TOLERANCE		±3%/±8.5%	±1%/±8%	±1%/±7.5%
OUTPUT RATED CURRENT		7.2A	4.3A	2.2A
OUTPUT CURRENT RANGE		0-7.2A	0-4.3A	0-2.2A
RIPPLE & NOISE		150mVp-p	200mVp-p	250mVp-p
LINE REGULATION		±1%	±1%	±1%
LOAD REGULATION		1%±6%	1%±5%	1%±5%
DC OUTPUT POWER		99.36W	118.68W	118.8W
EFFICIENCY		77%/70%	81%/76%	82%/78%
DC VOLTAGE ADJ.		12-15V	24-30V	48-60V
INPUT VOLTAGE RANGE		88~132VAC / 176~264VAC SELECTED BY SWITCH 47~63Hz		
AC CURRENT		3A/115V 1.5A/230V		
POWER FACTOR		>0.65 (WITH PFC SERIES)		
INRUSH CURRENT		COLD START 30A/115V 60A/230V		
LEAKAGE CURRENT		<1.5mA/240VAC		
OVERLOAD PROTECTION		105-150% TYPE:PULSING HICCUP SHUTDOWN RESET:AUTO RECOVERY		
OVER VOLTAGE PROTECTION		15~17V	30~35V	60~66V
OVER TEMP. PROTECTION		RTH20 °C ±10°C		
TEMP. COEFFICIENT		±0.05%/°C (0~+45°C)		
SETUP, RISE, HOLD UP TIME		1s, 50ms, 16ms		
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~+45°C (REFER TO OUTPUT DERATING CURVE), 20%~90% RH		
STORAGE TEMP., HUMIDITY		-20°C~+85°C, 10%~95% RH		
DIMENSION		PCB TYPE:144*90*35mm EXTERNAL CASE TYPE:180*96*49mm (L*W*H)		
WEIGHT		PCB :0.36Kgs+PFC CHOKE:0.13Kgs+CASE:0.46Kgs		
SAFETY STANDARDS		TUV EN60950, UL1950 APPROVED		
EMC STANDARDS		CISPR22 (EN55022) CLASS B, EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-3-2,-3;EN61000-3-2 WITH PFC SERIES		

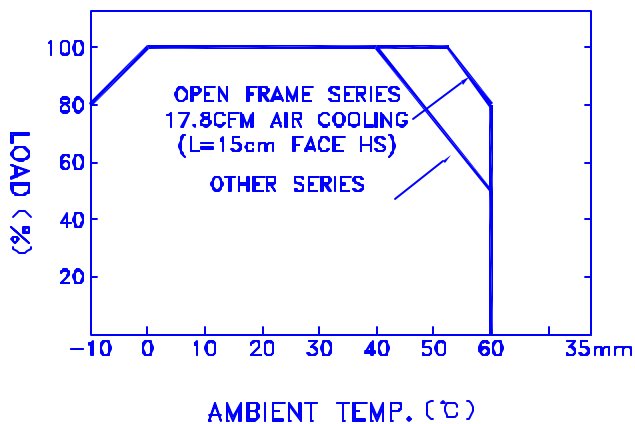
NOTE :

- 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.WITH PFC I/P RANGE:95-132VAC / 190-264VAC.
- 7.FOR OPEN P.C.B. WITH 17.8CFM MIN. FORCED AIR.

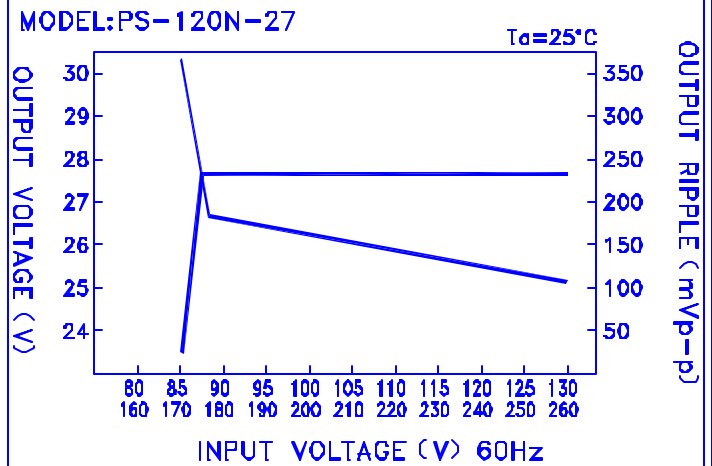
## BLOCK DIAGRAM



## OUTPUT DERATING



## CHARGING CURVE



## DIMENSION (mm)

- ☒ CASE DIMENSION
  - ☒ OUTPUT CABLE LENGTH=183cm±5cm
  - ☒ PIN1: DC OUTPUT +V
  - ☒ PIN2: DC OUTPUT -V
- ☒ PCB DIMENSION
  - ☒ TERMINAL PIN NO. ASSIGNMENT
  - ☒ CN1: JST B3P-VH(AC INPUT)
  - ☒ CN3: JST B4P-VH(DC OUTPUT)
    - ☒ PIN1,2: DC OUTPUT -V
    - ☒ PIN3,4: DC OUTPUT +V
  - ☒ CN4: JST B2B-XH(12VDC FAN OUTPUT)
    - ☒ PIN 1: DC OUTPUT +V
    - ☒ PIN 2: DC OUTPUT -V
  - ☒ CN5: JST B2P-VH(115/230V SELSCTEDBY SWITCH)
    - ☒ SHORT FOR 115V
    - ☒ OPEN FOR 230V
- ☒ MATING CONNECTORS
  - ☒ CN1,3,5 MATING CONNECTOR TYPE JST VHR SERIES OR EQUIVALENT WITH JST SVH-21T-P1.1 OR EQUIVALENT CRIMP TERMINALS.
  - ☒ CN4 MATING CONNECTOR TYPE JST XHP SERIES OR EQUIVALENT WITH JST SXH-001T-P0.6 OR EQUIVALENT CRIMP TERMINALS.

