



#### ■ Features :

- AC input range selected by switch
- Built-in passive PFC function compliance to EN61000-3-2
- With AC ON-OFF switch
- 3 poles AC inlet with fuse holder
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Charger type can be selected (Optional)
- Charger for lead-acid batteries
- 2 color LED loading indicator
- Open frame models available (Without safety approval)
- Low cost, High reliability
- 2 years warranty



S:Power Supply  
A:Voltage detector  
B:Current detector

P:With PFC  
N:None PFC

P A - 120 P - 13 C

□:O.D.M. number

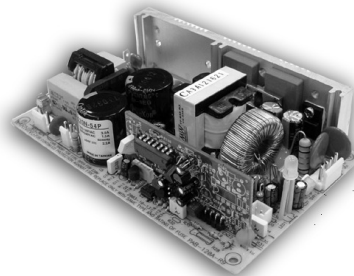
P:Open P.C.B.

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 |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| OUTPUT                   | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 13.8V                                                                                                                               | 27.6V        | 54V          |
|                          | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 7.2A                                                                                                                                | 4.3A         | 2.2A         |
|                          | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0 ~ 7.2A                                                                                                                            | 0 ~ 4.3A     | 0 ~ 2.2A     |
|                          | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 99.36W                                                                                                                              | 118.68W      | 118.8W       |
|                          | RIPPLE & NOISE (max.) Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 150mVp-p                                                                                                                            | 200mVp-p     | 250mVp-p     |
|                          | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 12 ~ 15V                                                                                                                            | 24 ~ 30V     | 48 ~ 60V     |
|                          | VOLTAGE TOLERANCE Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ±3.0%±8.5%                                                                                                                          | ±1.0%±8.0%   | ±1.0%±7.5%   |
|                          | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±1.0%                                                                                                                               | ±1.0%        | ±1.0%        |
|                          | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.0%±6.0%                                                                                                                           | 1.0%±5.0%    | 1.0%±5.0%    |
|                          | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1000ms, 50ms at full load                                                                                                           |              |              |
| HOLD UP TIME (Typ.)      | 16ms at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                     |              |              |
| INPUT                    | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 88 ~ 132VAC / 176 ~ 264VAC selected by switch                                                                                       |              |              |
|                          | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 47~63Hz                                                                                                                             |              |              |
|                          | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | >0.65 (with PFC series)                                                                                                             |              |              |
|                          | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 77%/70%                                                                                                                             | 81%/76%      | 82%/78%      |
|                          | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3A/115VAC    1.5A/230VAC                                                                                                            |              |              |
|                          | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | COLD START 25A/115VAC    50A/230VAC                                                                                                 |              |              |
|                          | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <1.5mA / 240VAC                                                                                                                     |              |              |
| PROTECTION               | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 105 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed             |              |              |
|                          | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 15 ~ 17V                                                                                                                            | 30 ~ 35V     | 60 ~ 66V     |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Protection type : Hiccup mode, recovers automatically after fault condition is removed                                              |              |              |
|                          | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | RTH2 ≥ 70℃ ±10℃ detect on RTH2 thermistor<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |              |              |
| ENVIRONMENT              | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -10 ~ +60℃ (Refer to output load derating curve)                                                                                    |              |              |
|                          | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 20 ~ 90% RH non-condensing                                                                                                          |              |              |
|                          | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -20 ~ +85℃, 10 ~ 95% RH                                                                                                             |              |              |
|                          | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ±0.05%/℃ (0 ~ 45℃ )                                                                                                                 |              |              |
|                          | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                                                        |              |              |
| SAFETY & EMC<br>(Note 4) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UL60950-1, TUV EN60950-1, EN60335, EN60335-1, EN60335-2-29 approved                                                                 |              |              |
|                          | 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:100M Ohms/500VDC                                                                                            |              |              |
|                          | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Compliance to EN55022 (CISPR22) Class B                                                                                             |              |              |
|                          | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Compliance to EN61000-3-2,-3                                                                                                        |              |              |
| OTHERS                   | EMS IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A                                         |              |              |
|                          | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 249.5K hrs min.    MIL-HDBK-217F (25℃)                                                                                              |              |              |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PCB Type:144*90*33mm    External case type:180*96*49mm (L*W*H)                                                                      |              |              |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.1Kg; 16pcs / 17.9Kg / 1.47CUFT(without PFC)    1.24Kg; 16pcs / 20.1Kg / 1.47CUFT(with PFC)                                        |              |              |
| NOTE                     | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.<br>5. With PFC I/P range: 95~132VAC/190~264VAC.<br>6. For open P.C.B. WITH 17.8CFM min. Forced air. |                                                                                                                                     |              |              |

## Mechanical Specification

Case No. PS-120A Unit:mm

CASE:  
Output cable length=183cm±5cm

| Pin No. | Assignment   |
|---------|--------------|
| 1       | DC OUTPUT +V |
| 2,3     | DC OUTPUT -V |

PCB:  
AC Input Connector (CN1) : JST B3P-VH or equivalent

| Pin No. | Assignment | Mating Housing        | Terminal                       |
|---------|------------|-----------------------|--------------------------------|
| 1       | AC/L       | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2       | No Pin     |                       |                                |
| 3       | AC/N       |                       |                                |

DC Output Connector (CN3) : JST B4P-VH or equivalent

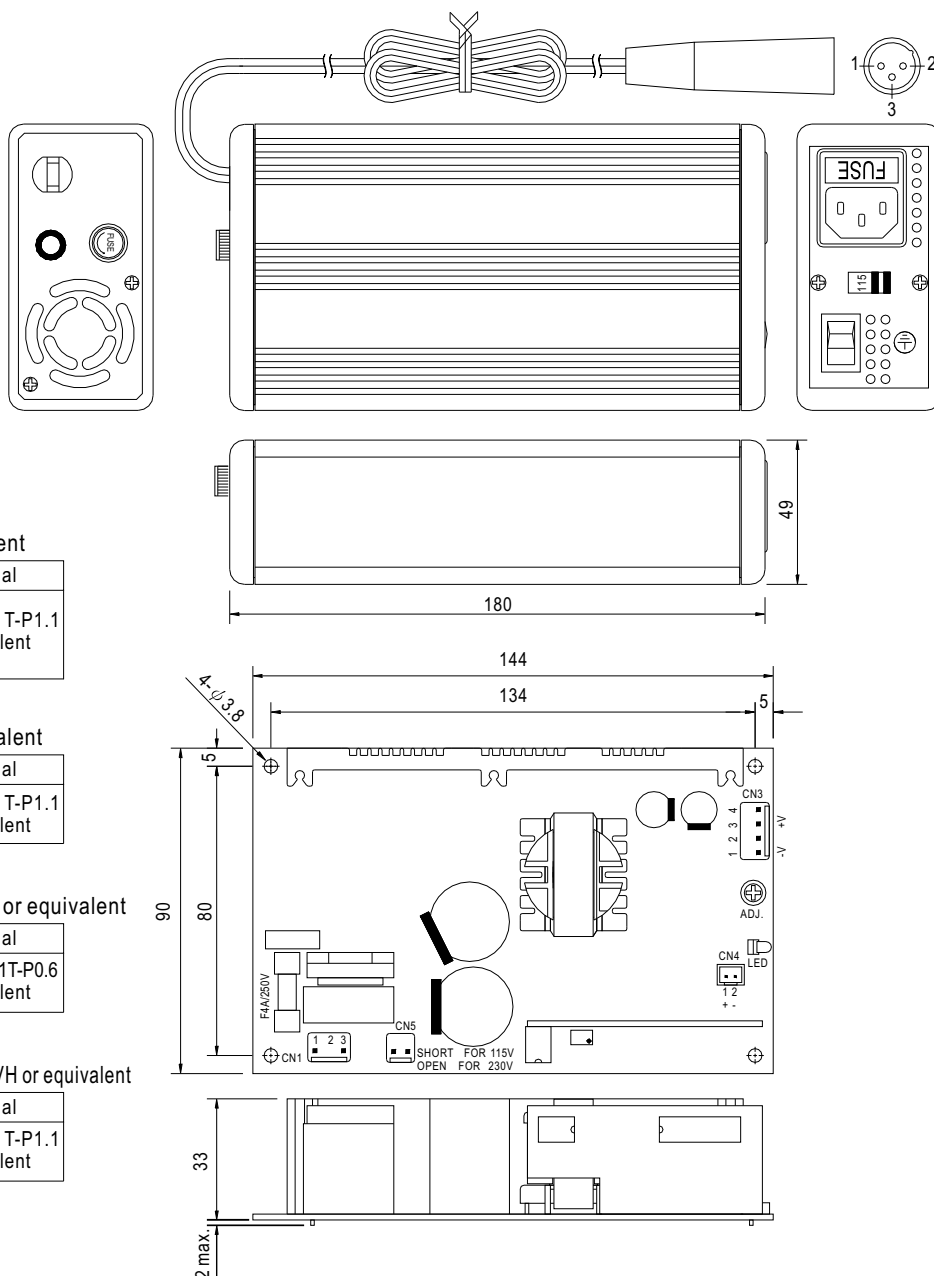
| Pin No. | Assignment | Mating Housing        | Terminal                       |
|---------|------------|-----------------------|--------------------------------|
| 1,2     | -V         | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 3,4     | +V         |                       |                                |

12VDC FAN Output Connector (CN4) : JST B2B-XH or equivalent

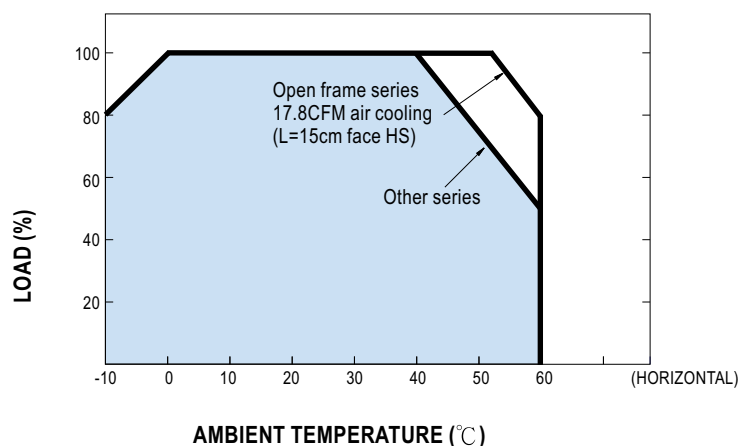
| Pin No. | Assignment | Mating Housing        | Terminal                        |
|---------|------------|-----------------------|---------------------------------|
| 1       | +V         | JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |
| 2       | -V         |                       |   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

115/230V selected by switch Connector (CN5) : JST B2P-VH or equivalent

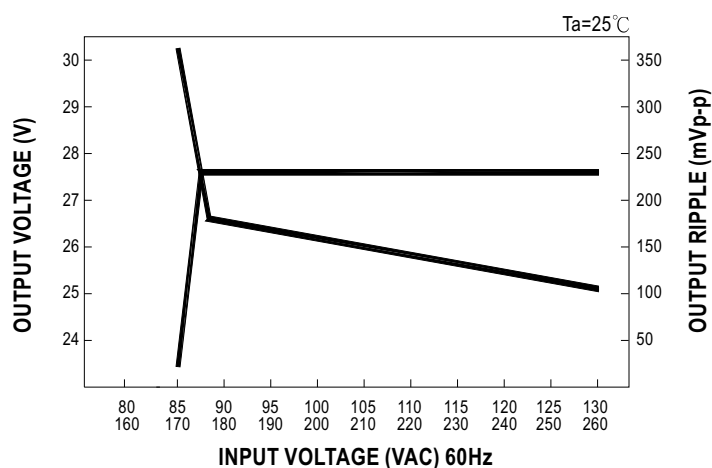
| Switch | Assignment | Mating Housing        | Terminal                       |
|--------|------------|-----------------------|--------------------------------|
| 115V   | Short      | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 230V   | Open       |                       |                                |



## Derating Curve



## Static Characteristics (27V)





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Электрон  
Связь**

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