



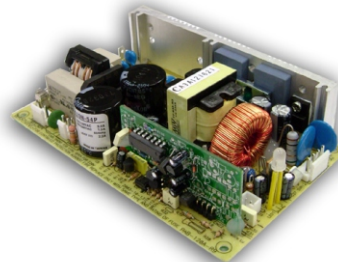
- Features :
  - AC input range selected by switch
  - Built-in passive PFC function compliance to EN61000-3-2
  - With AC ON-OFF switch
  - 3 poles AC inlet with fuse holder
  - Protections: Short circuit / Overload / Over voltage / Over temperature
  - Charger type can be selected (Optional)
  - Charger 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%    |
| INPUT                 | SETUP, RISE TIME             | 1000ms, 50ms at full load                                                                                                          |              |              |
|                       | HOLD UP TIME (Typ.)          | 16ms at full load                                                                                                                  |              |              |
|                       | VOLTAGE RANGE                | 88 ~ 132VAC / 176 ~ 264VAC selected by switch 248 ~ 370VDC                                                                         |              |              |
|                       | 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                                                                                                              |              |              |
| PROTECTION            | INRUSH CURRENT (Typ.)        | COLD START 25A/115VAC 50A/230VAC                                                                                                   |              |              |
|                       | LEAKAGE CURRENT              | <1.5mA / 240VAC                                                                                                                    |              |              |
|                       | OVERLOAD                     | 105 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed            |              |              |
| ENVIRONMENT           | OVER VOLTAGE                 | 15 ~ 17V                                                                                                                           | 30 ~ 35V     | 60 ~ 66V     |
|                       | OVER TEMPERATURE             | RTH2≥70°C±10°C detect on RTH2 thermistor<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |              |              |
|                       | WORKING TEMP.                | -10 ~ +60°C (Refer to "Derating Curve")                                                                                            |              |              |
| SAFETY & EMC (Note 4) | WORKING HUMIDITY             | 20 ~ 90% RH non-condensing                                                                                                         |              |              |
|                       | STORAGE TEMP., HUMIDITY      | -20 ~ +85°C, 10 ~ 95% RH                                                                                                           |              |              |
|                       | TEMP. COEFFICIENT            | ±0.05%/°C (0 ~ 45°C)                                                                                                               |              |              |
|                       | VIBRATION                    | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                                                       |              |              |
| OTHERS                | SAFETY STANDARDS             | UL60950-1, TUV EN60950-1, EN60335, EN60335-1, EN60335-2-29 approved                                                                |              |              |
|                       | WITHSTAND VOLTAGE            | I/P-O/P:3KVAC I/P-FG:2.0KVAC O/P-FG:0.5KVAC                                                                                        |              |              |
|                       | ISOLATION RESISTANCE         | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH                                                                          |              |              |
|                       | EMC EMISSION                 | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3                                                                            |              |              |
| NOTE                  | EMC IMMUNITY                 | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A                                                  |              |              |
|                       | MTBF                         | 249.5K hrs min. MIL-HDBK-217F (25°C)                                                                                               |              |              |
|                       | DIMENSION                    | PCB Type:144*90*33mm External case type:180*96*49mm (L*W*H)                                                                        |              |              |
| PACKING               |                              | External case type: 1.1Kg; 16pcs / 17.9Kg / 1.47CUFT(without PFC) 1.24Kg; 16pcs / 20.1Kg / 1.47CUFT(with PFC)                      |              |              |
|                       |                              | PCB Type : 0.36Kg; 36pcs / 14Kg / 1.64CUFT(without PFC) 0.5Kg; 36pcs / 19Kg / 1.64CUFT(with PFC)                                   |              |              |

## 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

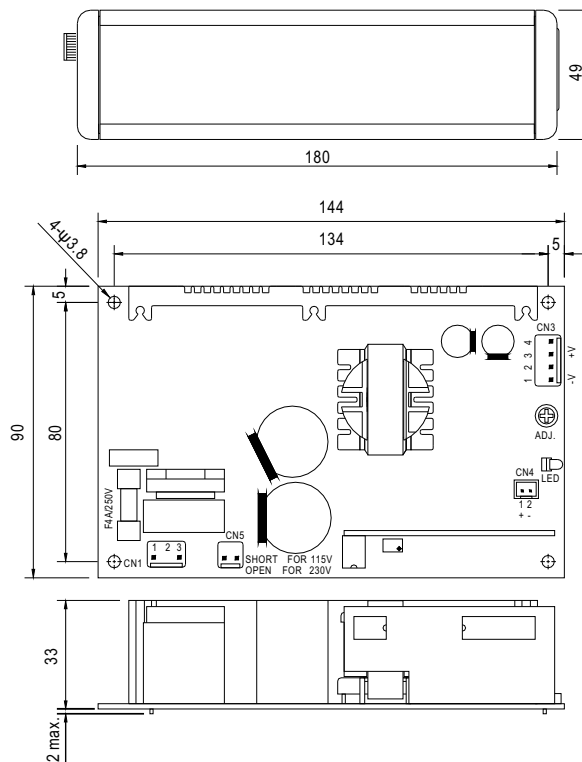
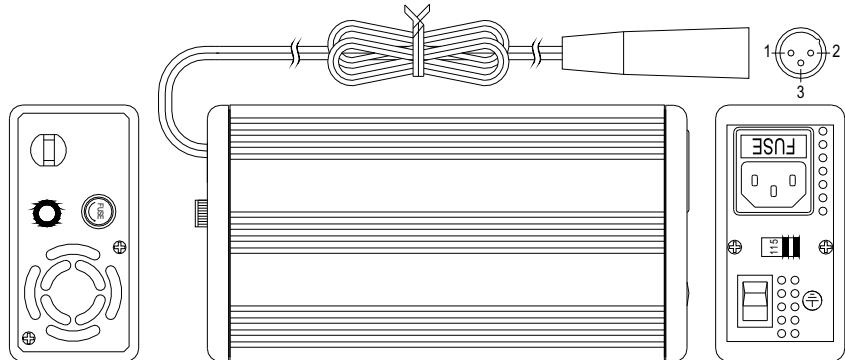
| Pin No. | Assignment | Mating Housing        | Terminal                       |
|---------|------------|-----------------------|--------------------------------|
| 1,2     | -V         | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 3,4     | +V         |                       |      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

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

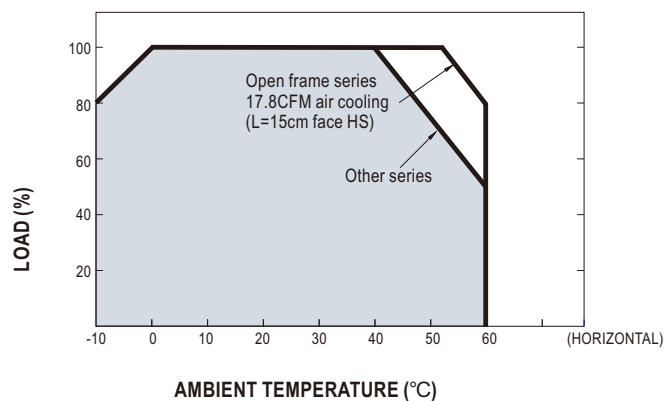
| Pin No. | Assignment | Mating Housing        | Terminal                        |
|---------|------------|-----------------------|---------------------------------|
| 1       | +V         | JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |
| 2       | -V         |                       |   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

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)

