



■ 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

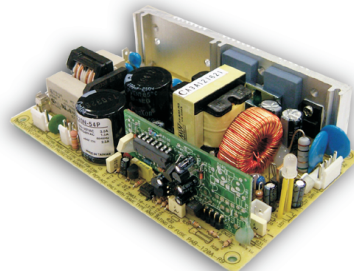
P:Open P.C.B.

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.) <small>Note.2</small> | 150mVp-p | 200mVp-p | 250mVp-p |
| | VOLTAGE ADJ. RANGE | 12 ~ 15V | 24 ~ 30V | 48 ~ 60V |
| | VOLTAGE TOLERANCE <small>Note.3</small> | ±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 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 | | |
| | INRUSH CURRENT (Typ.) | COLD START 25A/115VAC 50A/230VAC | | |
| | LEAKAGE CURRENT | <1.5mA / 240VAC | | |
| PROTECTION | OVERLOAD | 105 ~ 150% rated output power 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 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 <small>(Note 4)</small> | 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 / 25℃ / 70% RH | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55022 (CISPR22) Class B | | |
| | HARMONIC CURRENT | Compliance to EN61000-3-2,-3 | | |
| | EMS IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A | | |
| OTHERS | 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. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 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. 5. With PFC I/P range: 95~132VAC/190~264VAC. 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

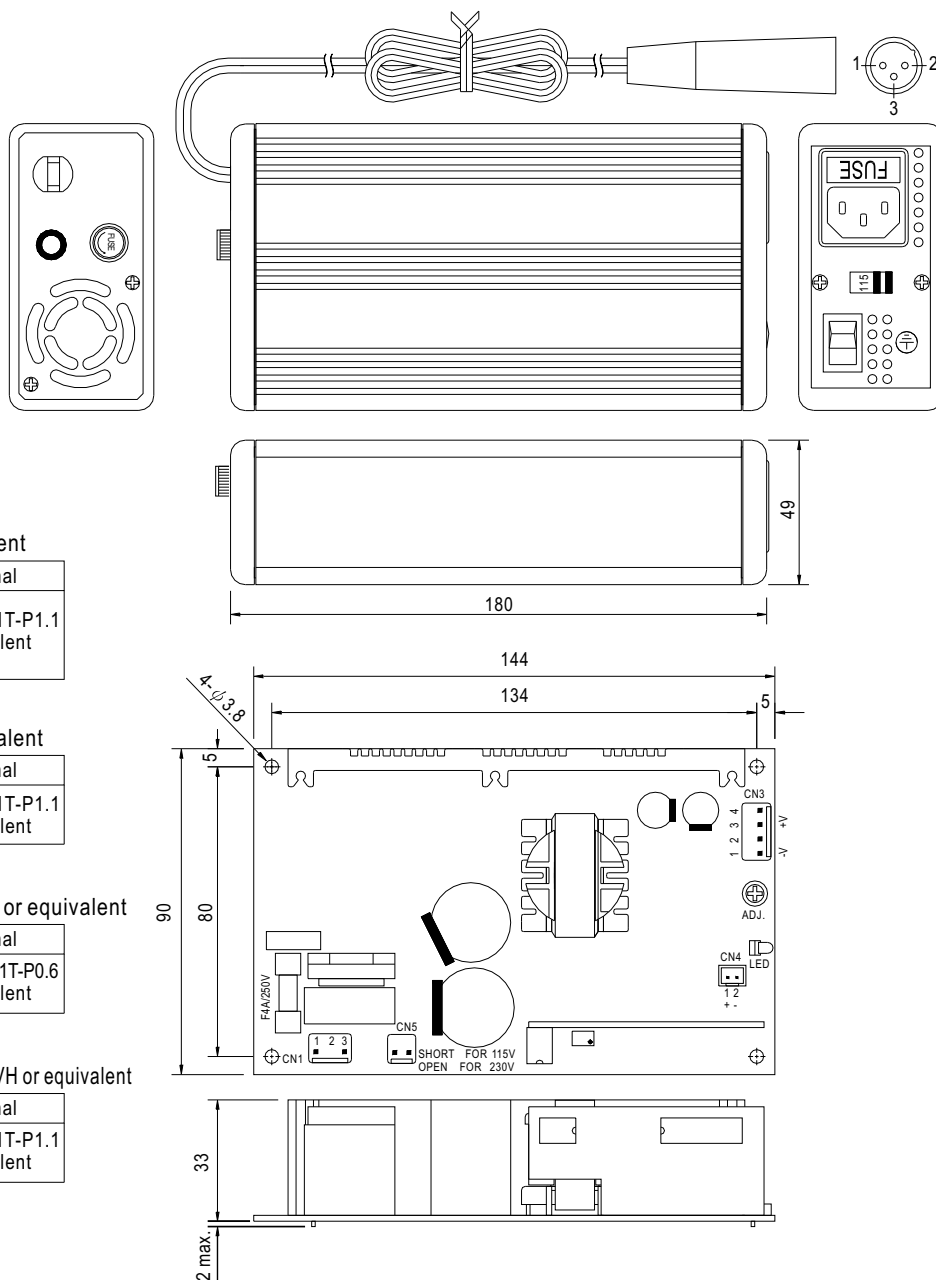
| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------|--------------------------------|
| 1,2 | -V | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 3,4 | +V | | |

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

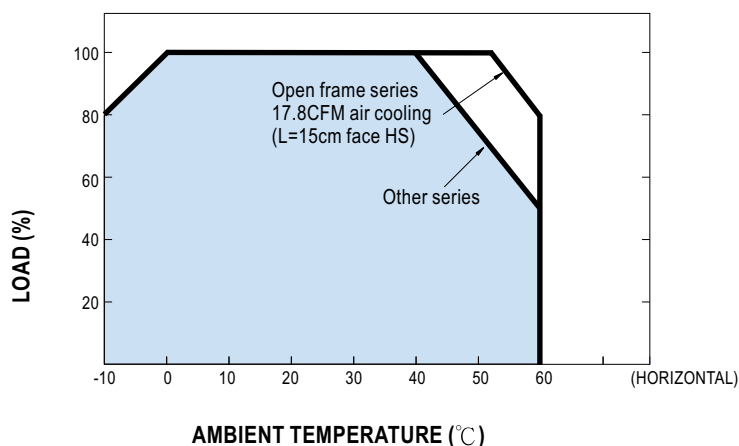
| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------|---------------------------------|
| 1 | +V | JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |
| 2 | -V | | |

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)

