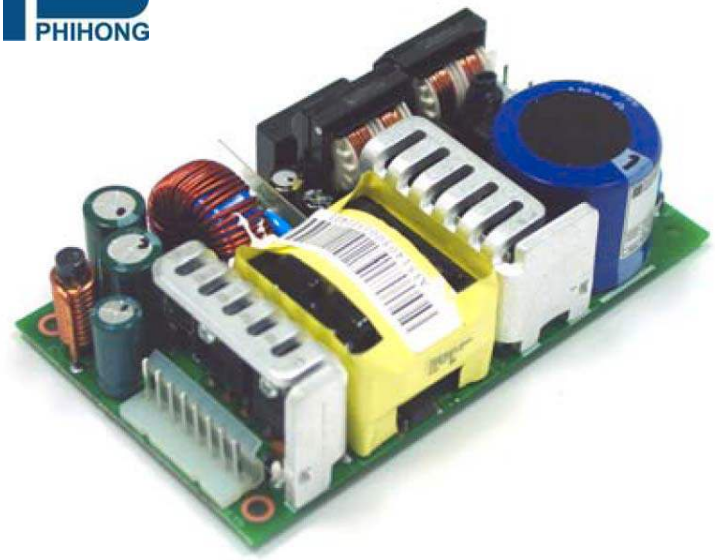
# 120 Watt Low Cost Open Frame Power Supply
# PSA120 Single Output Series



## Features

- 3” x 5” Footprint
- Low Profile fits 1U Height Requirement
- Class B Conducted EMI
- Low Cost
- Zero Minimum load
- Over Voltage and Short Circuit Protection

## Applications

- Low Profile Racks
- POS Terminals
- Network Hubs
- Computer Peripherals
- Routers
- Gaming Machines

## Safety Approvals

- cUL/UL
- CE (Low Voltage Directive)
- TUV

## Mechanical Characteristics

- Length: 127mm (5in)
- Width: 76.2mm (3in)
- Height: 31.5mm (1.24in)
- Weight: 386.7g (13.6oz)

## Output Specifications

| Model | DC Output Voltage | Load | | Ripple (2) P-P (max.) | Regulation | | Max Power(3) |
|---|---|---|---|---|---|---|---|
| | | Min. | Max. (1) | | Line | Load | |
| PSA120-050 | +5V | 0A | 15A | 100mV | ±1% | ±4% | 75W |
| PSA120-120 | +12V | 0A | 10A | 120mV | ±1% | ±2% | 120W |
| PSA120-240 | +24V | 0A | 5A | 240mV | ±1% | ±2% | 120W |

(1) 30CFM forced air required. With convection cooling load is 9A for 5V, 6.67A for 12V, and 3.33A for 24V models.
(2) Measure by using a 12 inch twisted pair terminal with a 10uF capacitor and 0.1uF ceramic capacitor in parallel.
(3) 30CFM forced air required. With convection cooling power is 45W for 5V, and 80W for 12V and 24V models.

## Input:

### AC Input Voltage Rating
100 to 240V AC

### AC Input Voltage Range
90 to 264V AC

### AC Input Frequency
47 to 63Hz

### Input Current
4.0A (RMS) at maximum load and 115V AC
2.0A (RMS) at maximum load and 230V AC

### Leakage Current
3.5mA maximum at 264V AC

### Inrush Current
30A for 115V AC at maximum load
60A for 230V AC at maximum load
(Cold start at ambient 25°C)

### Hold-up Time
10mS minimum at maximum load and 115V AC

## Output:

### Efficiency
70% minimum at max load and 115V AC for 5V
75% minimum at max load and 115V AC for 12V
78% minimum at max load and 115V AC for 24V

### Over-Voltage Protection
>120%

### Over-Current Protection
Over-current protection, auto-restart

### Short-Circuit Protection
Output can be shorted permanently without damage

## Environmental:

### Temperature

| | |
|---|---|
| Operation | 0 to 50°C |
| Non-operation | -25 to +85°C |

### Humidity

| | |
|---|---|
| Operation | 10 to 95% non-condensing |

### Emissions
Conducted: FCC Class B
EN55022 Class B
Radiated: FCC Class A
EN55022 Class A

### Immunity

| | |
|---|---|
| EN55024 | 1998 |
| EN61000-4-2 | Level 3 |
| EN61000-4-3 | Level 2 |
| EN61000-4-4 | Level 3 |
| EN61000-4-5 | Level 3 |
| EN61000-4-6 | Level 2 |
| EN61000-4-11 | |
| EN61000-3-2 | Harmonic Class A |
| EN61000-3-3 | Flicker |

## General:

### Insulation Resistance
Input to Ground: 10M ohms minimum, 500V DC

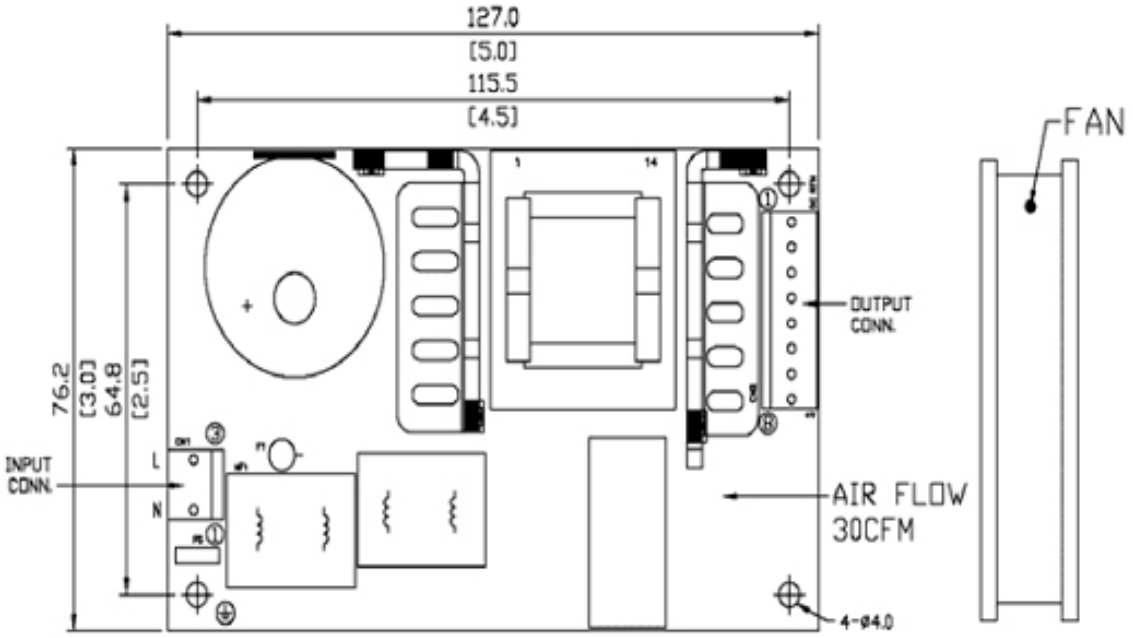
### Dielectric Withstand (Hi-pot) Test
Input to Output: 3000V AC for 1 minute, 10mA
Input to Ground: 1500V AC for 1 minute, 10mA

### Switching Frequency
42KHz ±10%

### MTBF (Full load, 30CFM and ambient 25°C)
150K hours minimum

### AC Input Connector (Molex or Equivalent)
Input Header: Molex 09-65-2038 or equivalent
Mating: Moles 09-50-1031 or equivalent

### DC Output Connector
Output header: Molex 09-65-2088 or equivalent
Mating: Molex 09-50-1081 or equivalent




INPUT CONN.

| PIN | DESC. |
|---|---|
| 1 | NEUTRAL |
| 2 | N.C. |
| 3 | LIVE |

OUTPUT CONN.

| PIN | DESC. |
|---|---|
| 1 | RTN |
| 2 | RTN |
| 3 | RTN |
| 4 | RTN |
| 5 | V+ |
| 6 | V+ |
| 7 | V+ |
| 8 | V+ |