

ABU125-120

Description:

The ABU125-120 is a single output power supply. This power supply is designed for a wide variety applications where high reliability is desired, including applications for the industrial and telecommunications markets. Excellent performance specifications are provided, together with compliance to European EMC (EN55022, Class B and EN61000-3-2), and Low Voltage directive (TUV EN60950).

Specifications (@25C)

Input Characteristics:

| | |
|-------------------------------|---|
| Input Voltage: | 90-264VAC, 127-373VDC |
| Input Frequency Range: | 47-63Hz |
| Input Current: | 1.6A @ 115VAC, 0.8A @ 230VAC typ. |
| Max Inrush Current: | 30A@115VAC, 60A@230VAC at cold start |
| Power Factor: | >0.95/230VAC, >0.98/115VAC at full load |
| Leakage Current: | <2.4mA/240Vac |

Output Characteristics:

| | |
|--|--|
| Output Voltage: | 12VDC±2.0%Vdc |
| Output Current (Convection): | 0-8.34A |
| Output Power(Convection): | 100W |
| Adjustable Output Range: | 11.4 – 12.6V. Output voltage can be adjusted at VR51 |
| Ripple & Noise¹: | 100mVp-p |
| Load Regulation: | ±1.0% |
| Line Regulation: | ±0.5% |
| Efficiency: | 86.0% |
| Start-up Time: | 1500ms/230VAC, 3000ms/115VAC, full load |
| Rise-up Time: | 30ms/230VAC, 30ms/115VAC, full load |
| Hold-up Time: | 14ms/230VAC, 14ms/115VAC, full load |
| Over Current Protection: | 11.55 – 15.75A. Hiccup mode. Resets automatically once the fault condition is removed. |
| Over Voltage Protection: | 13.8 – 16.2VDC. |

General Specifications:

| | |
|------------------------------|---|
| Dimension (LxWxH): | 127(5.0) x 76.2(3.0) x 27.0(1.05) mm (in) |
| Weight: | 300g |
| Cooling: | Natural Convection or FAN at 15CFM |
| Isolation Resistance: | I/P—O/P, I/P—FG, O/P—FG: 500VDC/100M Ohms |
| Dielectric Strength: | I/P—O/P:3KVAC; I/P—FG:1.5KVAC; O/P—FG:0.5KVAC |
| Warranty: | 3 years |
| MTBF: | 200K hrs. min. MIL-HDBK-217F (25°C) |

Environmental Specifications:

| | |
|-------------------------------|---|
| Operating Temperature: | -20° to 50°C at full load (Refer to output load derating curve) |
| Operating Humidity: | 20 to 90% RH, non-condensing |
| Storage Temperature: | -40 to 85°C |
| Storage Humidity: | 10 to 95% RH, non-condensing |
| Temperature Drift: | <0.04%/°C (0-50°C) |
| Vibration: | 10-500Hz, 2G 10min/cycle, period of 60min, each X, Y & Z axis |

EMC & Safety Specifications²:

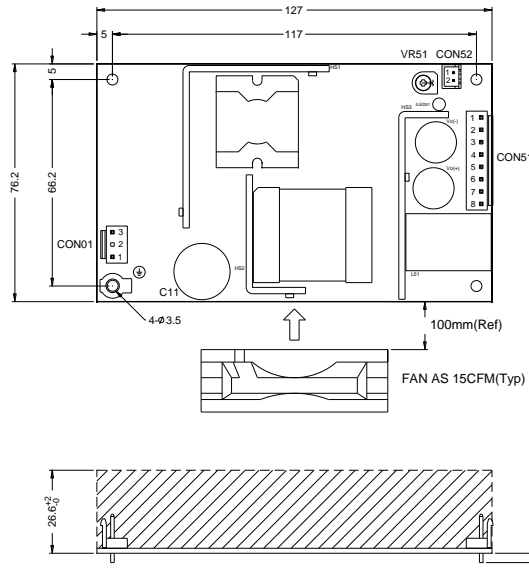
| | |
|--------------------------|---|
| EMI Emissions: | Compliance to EN55022, CISPR22 Class B (Conducted & Radiated) |
| Harmonic Current: | Compliance to EN61000-3-2, 3 |
| EMS Immunity: | Compliance to EN61000-4-2, 3-6, 8 & 11; EN55024 heavy, light industry level, criteria A |
| Safety Approval: | UL 60950-1, TUV EN60950-1 (insulation class -1) |



¹ Ripple and noise are measured at 20MHz of bandwidth by using a 12" twisted-pair wire termination with a 0.1uF & 47uF parallel capacitors.

² 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.

Outline Dimensions (mm):



NOTE :

1. All I/O connection shall Follow specified Model Label.
2. Temp =+50°C (max) at full load.

Connections:

AC Input Connector (CON1)
JST B3P-VH or equivalent

| Pin | Assignment |
|-----|------------|
| P1 | AC/N |
| P | (N.C.) |
| P3 | AC/L |

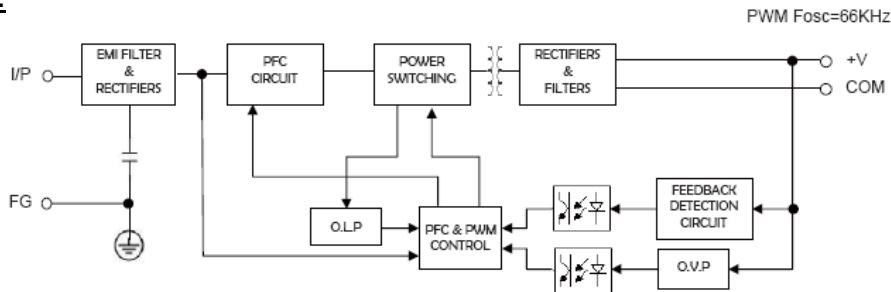
DC Output Connector (CON51)
JST B8P-VH or equivalent

| Pin | Assignment |
|-------|------------|
| P1-P4 | COM |
| P5-P8 | V+ |

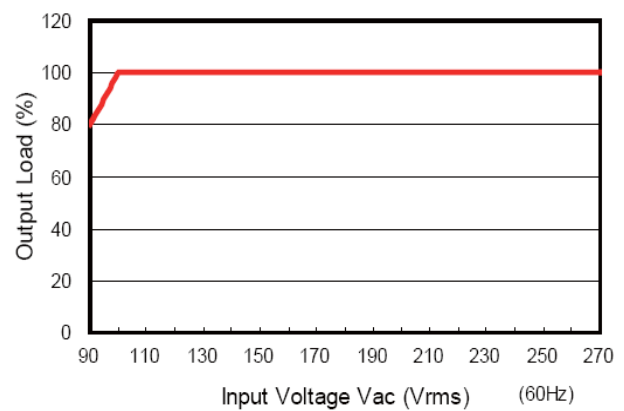
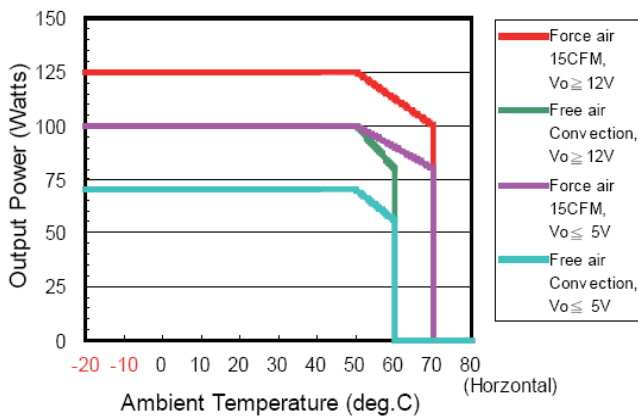
DC Output Connector (ON52-Optional)
JST B2B-XH

| Pin | Assignment |
|-----|------------|
| P1 | Vs+ |
| P2 | Vs- |

Block Diagram:



Derating Curve:



RoHS Compliance: As of manufacturing date February 2005, all standard products meet the requirements of 2011/65/EU, known as the RoHS initiative.

* Upon printing, this document is considered "uncontrolled". Please contact Triad Magnetics' website for the most current version.