

## 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:

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

#### Output Characteristics:

<b>Output Voltage:</b>	12VDC±2.0%Vdc
<b>Output Current (Convection):</b>	0-8.34A
<b>Output Power(Convection):</b>	100W
<b>Adjustable Output Range:</b>	11.4 – 12.6V. Output voltage can be adjusted at VR51
<b>Ripple &amp; Noise<sup>1</sup>:</b>	100mVp-p
<b>Load Regulation:</b>	±1.0%
<b>Line Regulation:</b>	±0.5%
<b>Efficiency:</b>	86.0%
<b>Start-up Time:</b>	1500ms/230VAC, 3000ms/115VAC, full load
<b>Rise-up Time:</b>	30ms/230VAC, 30ms/115VAC, full load
<b>Hold-up Time:</b>	14ms/230VAC, 14ms/115VAC, full load
<b>Over Current Protection:</b>	11.55 – 15.75A. Hiccup mode. Resets automatically once the fault condition is removed.
<b>Over Voltage Protection:</b>	13.8 – 16.2VDC.

#### General Specifications:

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

#### Environmental Specifications:

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

#### EMC & Safety Specifications<sup>2</sup>:

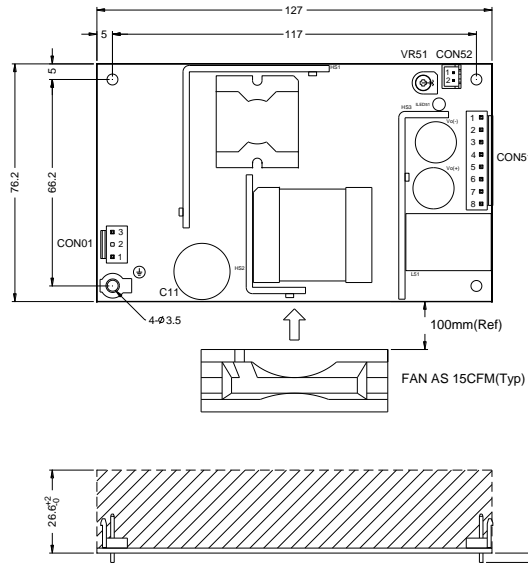
<b>EMI Emissions:</b>	Compliance to EN55022, CISPR22 Class B (Conducted & Radiated)
<b>Harmonic Current:</b>	Compliance to EN61000-3-2, 3
<b>EMS Immunity:</b>	Compliance to EN61000-4-2, 3-6, 8 & 11; EN55024 heavy, light industry level, criteria A
<b>Safety Approval:</b>	UL 60950-1, TUV EN60950-1 (insulation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



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

<sup>2</sup> 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

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

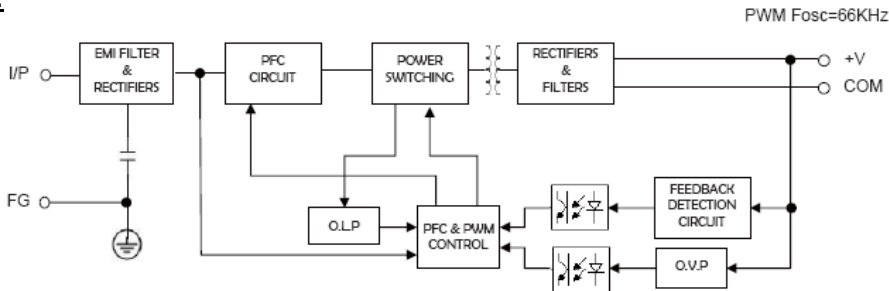
DC Output Connector (CON51)  
JST B8P-VH or equivalent

Assignment	
P1-P4	COM
P5-P8	V+

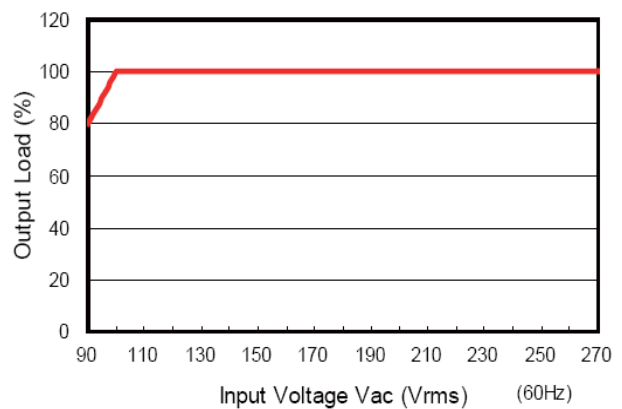
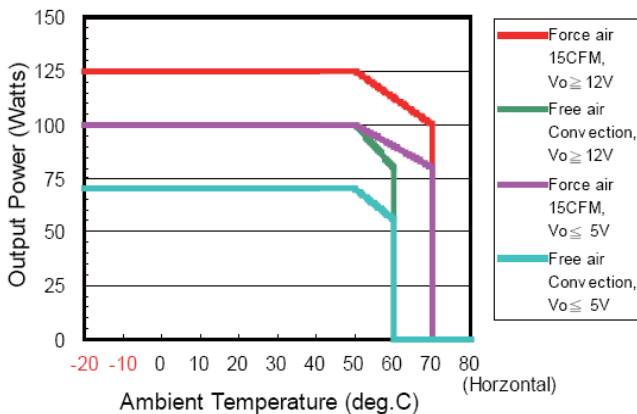
DC Output Connector (ON52-Optional)  
JST B2B-XH

Assignment	
P1	Vs+
P2	Vs-

**Block Diagram:**



**Derating Curve:**



**RoHS Compliance:** As of manufacturing date February 2016, all standard products meet the requirements of 2015/863/EU, known as the RoHS 3 initiative.

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