

AEU65-120

Description:

The AEU65-120 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
Leakage Current:	<2.4mA/240Vac

Output Characteristics:

Output Voltage:	12.0VDC \pm 1.5%Vdc
Output Current (Convection):	0-5.42A
Output Power(Convection):	65W
Adjustable Output Range:	11.4 – 12.6V. Output voltage can be adjusted at VR51
Ripple & Noise ¹ :	120mVp-p
Load Regulation:	\pm 0.5%
Line Regulation:	\pm 0.5%
Efficiency:	87.0%
Start-up Time:	1000ms/230VAC, 2000ms/115VAC, full load
Rise-up Time:	30ms/230VAC, 30ms/115VAC, full load
Hold-up Time:	24ms/230VAC, 12ms/115VAC, full load
Over Current Protection:	110 – 160%. Hiccup mode. Resets automatically once the fault condition is removed.
Over Voltage Protection:	13.8 – 16.2VDC.

General Specifications:

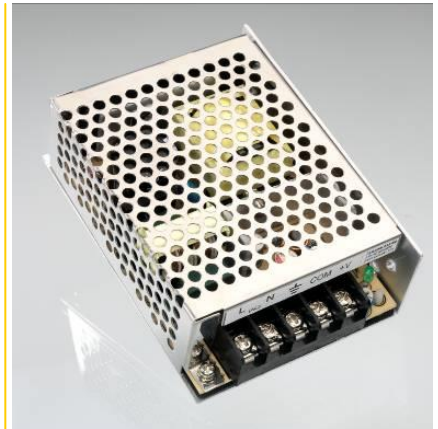
Dimension (LxWxH):	99(3.9) x 75(3.0) x 35.0(1.38) mm (in)
Weight:	200g
Cooling:	Natural Convection
Isolation Resistance:	I/P—O/P, I/P—FG, O/P—FG: 500VDC/100M Ohms
Dielectric Strength:	I/P—O/P:3KVAC; I/P—FG:1.5KVAC; O/P—FG:0.5KVAC
Warranty:	3 years
MTBF:	250K hrs. min. MIL-HDBK-217F (25°C)

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:	<0.03%/°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.

Technical drawing of the HPS-1000 power supply unit, showing front and side views with dimensions in millimeters.

Front View Dimensions:

- Overall width: 110 mm
- Overall height: 78 mm
- Mounting hole spacing (P1 to P5): 9.5 mm (P1-P2), 8.2 mm (P2-P3), 8.2 mm (P3-P4), 2.5 mm (P4-P5)
- Internal width segments: 14.5 mm, 43 mm, 30 mm
- Overall depth: 219.5 mm
- Top mounting hole offset: 18.5 mm

Side View Dimensions:

- Overall width: 87 mm
- Overall height: 35 mm
- Mounting hole spacing: 9.5 mm (top), 2.5 mm (bottom)
- Internal height segments: 17.5 mm, 12.5 mm
- Mounting hole offset: 13 mm
- Label area: Model Label
- Mounting hole specification: 3xM3, L=4

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

	Assignment
P1	AC/L
P2	AC/N
P3	FG

	Assignment
P4	COM
P5	V+

PWM Fosc=66KHz

Ambient Temperature (deg.C)	Output Load (%)
-20	100
50	100
70	50
75	0

Input Voltage Vac (Vrms)	Output Load (%)
90	90
110	100
130	100
150	100
170	100
190	100
210	100
230	100
250	100
270	100

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