

## AEU65-033

### Description:

The AEU65-033 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:               | 3.3VDC±2.0%Vdc   |
| Output Current (Convection):  | 0-10A  |
| Output Power(Convection):     | 33W  |
| Adjustable Output Range:      | 3.15 – 3.45V. Output voltage can be adjusted at VR51                               |
| Ripple & Noise <sup>1</sup> : | 50mVp-p  |
| Load Regulation:              | ±2.0%  |
| Line Regulation:              | ±0.5%  |
| Efficiency:                   | 81.0%  |
| 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:      | 3.80 – 4.45VDC.  |

#### General Specifications:

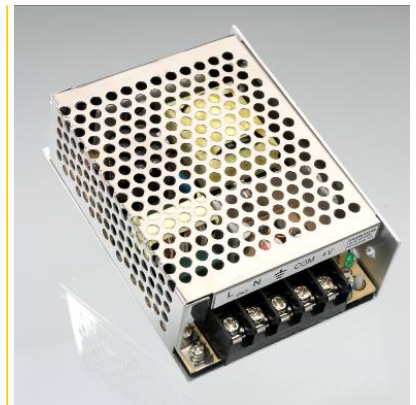
|                       |   |
|-----------------------|---|
| Dimension (LxWxH):    | 99(3.9) x 75(3.0) x 35.0(1.38) mm (in)        |
| Weight:               | 200g  |
| Cooling:              | Natural Convection                            |
| Isolation Resistance: | I/P—O/P, I/P—FG, O/P—FG: 500VDC/100M 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 Specifications<sup>2</sup>:

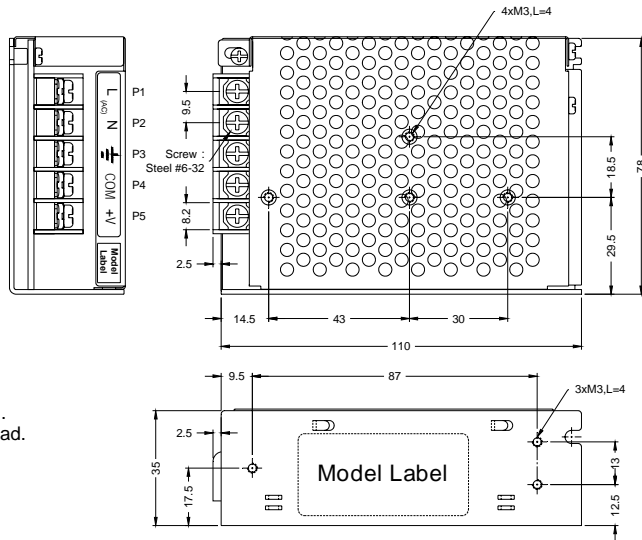
|                   |   |
|-------------------|---|
| EMI Emissions:    | Compliance to EN55022,CISPR22 Class B (Conducted & Radiated)                            |
| Harmonic Current: | Compliance to EN61000-3-2, 3  |
| EMS Immunity:     | Compliance to EN61000-4-2, 3-6, 8 & 11; EN55024 heavy, light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



<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 :

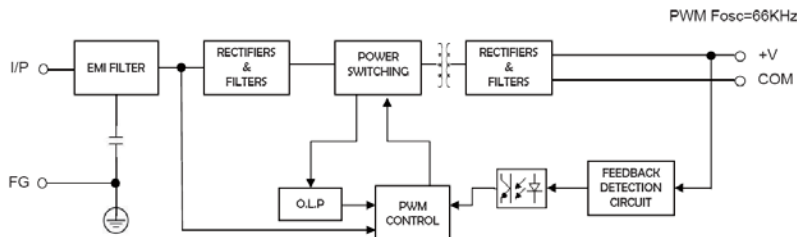
1. All I/O connection shall Follow specified Model Label.
2. Temp = +50°C (max) at full load.

### Connections:

| AC Input Connector |      |
|--------------------|------|
| Assignment         |      |
| P1                 | AC/L |
| P2                 | AC/N |
| P3                 | FG   |

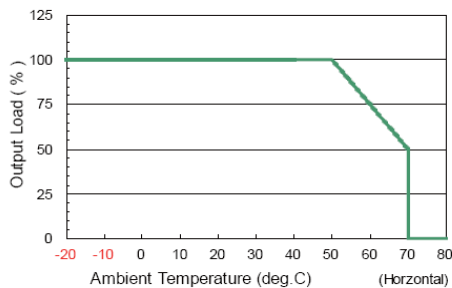
| DC Output Connector |     |
|---------------------|-----|
| Assignment          |     |
| P4                  | COM |
| P5                  | V+  |

### Block Diagram:

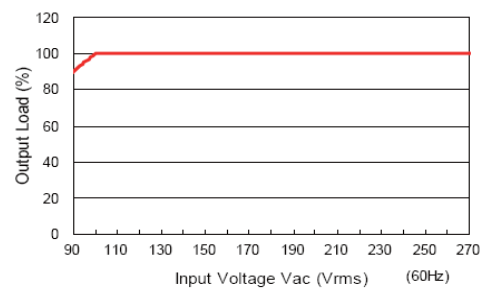


### Derating Curve:

#### ■ Output Derating VS Ambient Temperature : (HORIZONTAL MOUNTING)



#### ■ Output Derating VS Input Voltage :



**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.