

## AEU65-360

### Description:

The AEU65-360 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.

### 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>Leakage Current:</b>       | <2.4mA/240Vac                        |

#### Output Characteristics:

|  |  |
|--|--|
| <b>Output Voltage:</b>                 | 36.0VDC±1.5%Vdc  |
| <b>Output Current (Convection):</b>    | 0-1.81A  |
| <b>Output Power (Convection):</b>      | 65W  |
| <b>Adjustable Output Range:</b>        | 34.2 – 37.8V. Output voltage can be adjusted at VR51                               |
| <b>Ripple &amp; Noise<sup>1</sup>:</b> | 300mVp-p   |
| <b>Load Regulation:</b>                | ±0.5%  |
| <b>Line Regulation:</b>                | ±0.5%  |
| <b>Efficiency:</b>                     | 87.5%  |
| <b>Start-up Time:</b>                  | 1000ms/230VAC, 2000ms/115VAC, full load  |
| <b>Rise-up Time:</b>                   | 30ms/230VAC, 30ms/115VAC, full load  |
| <b>Hold-up Time:</b>                   | 24ms/230VAC, 12ms/115VAC, full load  |
| <b>Over Current Protection:</b>        | 110 – 160%. Hiccup mode. Resets automatically once the fault condition is removed. |
| <b>Over Voltage Protection:</b>        | 41.4 – 48.6VDC.  |

#### General Specifications:

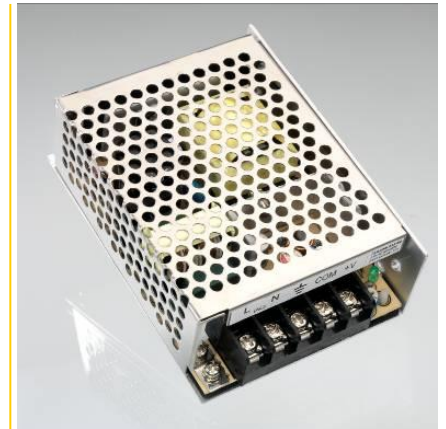
|                              |   |
|------------------------------|---|
| <b>Dimension (LxWxH):</b>    | 99(3.9) x 75(3.0) x 35.0(1.38) mm (in)          |
| <b>Weight:</b>               | 200g  |
| <b>Cooling:</b>              | Natural Convection                              |
| <b>Isolation Resistance:</b> | I/P—O/P, I/P—FG, O/P—FG: 500VDC/100M Ohms       |
| <b>Dielectric Strength:</b>  | I/P—O/P:4.3KVDC; I/P—FG:1.5KVAC; O/P—FG:0.5KVAC |
| <b>Warranty:</b>             | 3 years   |
| <b>MTBF:</b>                 | 250K 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>     | <0.03%/°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>:

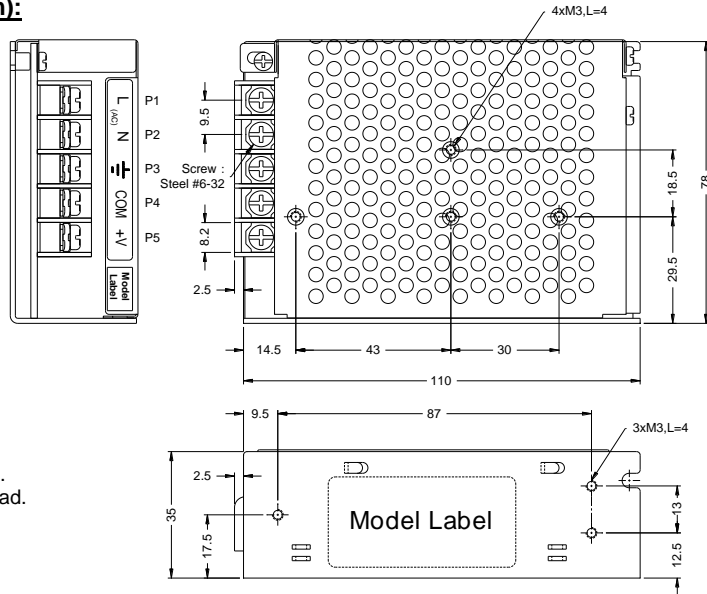
|                          |   |
|--------------------------|---|
| <b>EMI Emissions:</b>    | Compliance to EN55022, CISPR22 Class B (Conducted & Radiated)                           |
| <b>Harmonic Current:</b> | Compliance to EN61000-3-2, 3  |
| <b>EMS Immunity:</b>     | Compliance to EN61000-4-2,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

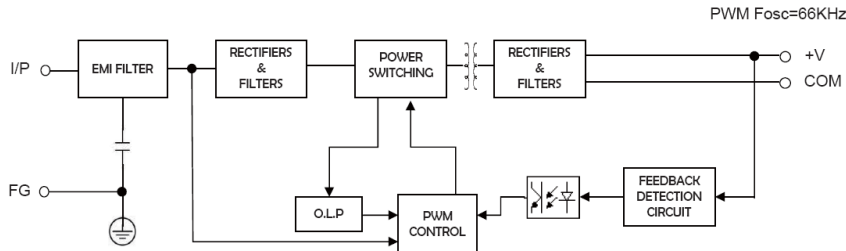
#### AC Input Connector

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

#### DC Output Connector

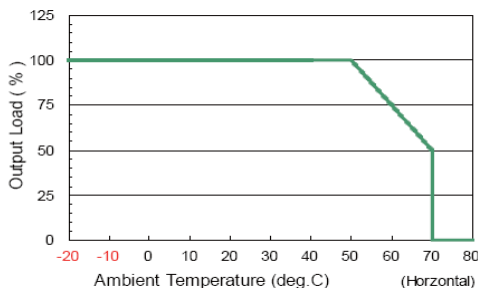
| P4 | Assignment |
|----|------------|
| P4 | COM        |
| P5 | V+         |

### Block Diagram:

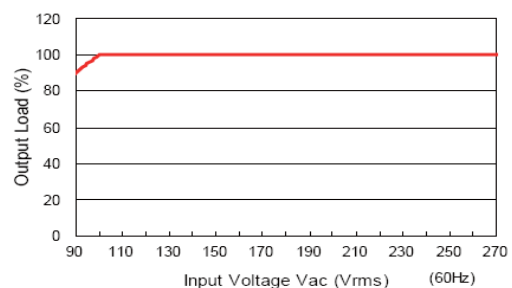


### Derating Curve:

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



#### ■ Output Derating VS Input Voltage :



**RoHS Compliance:** As of manufacturing date February 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.