

## KEY FEATURES

- U Bracket Switching Power Supply
- Universal Input: 90-264 VAC
- Single Output
- 5 VDC to 48 VDC Output
- 3000 VAC Input to Output Isolation
- 3-Year Product Warranty

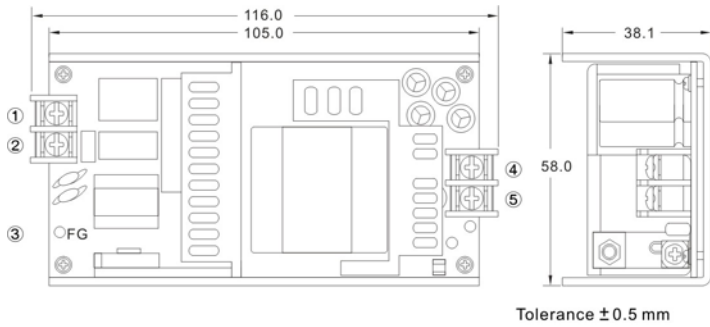


## ELECTRICAL SPECIFICATIONS

| Model No.   | AES60U-5S   | AES60U-9S | AES60U-12S | AES60U-15S | AES60U-24S | AES60U-48S |
|---|---|-----------|------------|------------|------------|------------|
| Max Output Wattage (W)                                      | 50W   | 60W       | 60W        | 60W        | 60W        | 60W        |
| Input   | Voltage   |           |            |            |            |            |
|   | 90-264 VAC or 120-370 VDC   |           |            |            |            |            |
|   | Frequency (Hz)  |           |            |            |            |            |
|   | 47-63 Hz  |           |            |            |            |            |
|   | Current (Full load)   |           |            |            |            |            |
| 2 A max. (115 VAC) / 1 A max. (230 VAC)                     |   |           |            |            |            |            |
| Inrush Current (<2ms)                                       |   |           |            |            |            |            |
| 30 A max. (115 VAC) / 50 A max. (230 VAC)                   |   |           |            |            |            |            |
| Leakage Current   |   |           |            |            |            |            |
| 0.5 mA max.   |   |           |            |            |            |            |
| Output  | Voltage (V.DC.)   |           |            |            |            |            |
|   | 5V  | 9V        | 12V        | 15V        | 24V        | 48V        |
|   | Voltage Accuracy  |           |            |            |            |            |
|   | ±2%   |           |            |            |            |            |
|   | Current (mA) max  |           |            |            |            |            |
|   | 10,000  | 6,660     | 5,000      | 4,000      | 2,500      | 1,250      |
|   | Line Regulation (LL-HL) (typ.)  |           |            |            |            |            |
|   | ±1%   |           |            |            |            |            |
|   | Load Regulation (5-100%) (typ.)                                       |           |            |            |            |            |
|   | ±1%   |           |            |            |            |            |
|   | Minimum Load  |           |            |            |            |            |
|   | 1%  |           |            |            |            |            |
| Maximum Capacitive Load                                     |   |           |            |            |            |            |
| 470-23,000µF depending on model                             |   |           |            |            |            |            |
| Ripple  |   |           |            |            |            |            |
| <0.2% Vout +40mV max (Vp-p)                                 |   |           |            |            |            |            |
| Noise   |   |           |            |            |            |            |
| <0.5% Vout +50mV max (Vp-p)                                 |   |           |            |            |            |            |
| Efficiency (at 230V)  |   |           |            |            |            |            |
| 82%   | 84%   | 86%       | 86%        | 86%        | 86%        |            |
| Trim  |   |           |            |            |            |            |
| ±10%  |   |           |            |            |            |            |
| Hold-up Time  |   |           |            |            |            |            |
| 10 ms min.  |   |           |            |            |            |            |
| Protection  | Over Power Protection   |           |            |            |            |            |
|   | Auto recovery   |           |            |            |            |            |
|   | Over Voltage Protection   |           |            |            |            |            |
| Zener diode clamp   |   |           |            |            |            |            |
| Short Circuit Protection                                    |   |           |            |            |            |            |
| Auto recovery   |   |           |            |            |            |            |
| Isolation   | Input-Output (V.AC)   |           |            |            |            |            |
|   | 3000V   |           |            |            |            |            |
|   | Input-FG (V.AC)   |           |            |            |            |            |
| 1500V   |   |           |            |            |            |            |
| Output-FG (V.AC)  |   |           |            |            |            |            |
| 500V  |   |           |            |            |            |            |
| Environment   | Operating Temperature   |           |            |            |            |            |
|   | -40°C...+70°C (with derating)   |           |            |            |            |            |
|   | Storage Temperature   |           |            |            |            |            |
|   | -50°C...+85°C   |           |            |            |            |            |
|   | Temperature coefficient   |           |            |            |            |            |
| ±0.02%/°C   |   |           |            |            |            |            |
| Humidity  |   |           |            |            |            |            |
| 95% RH  |   |           |            |            |            |            |
| MTBF  |   |           |            |            |            |            |
| >130,000 h @ 25°C (MIL-HDBK-217F)                           |   |           |            |            |            |            |
| Vibration   |   |           |            |            |            |            |
| 10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes. |   |           |            |            |            |            |
| Physical  | Dimension (L x W x H)   |           |            |            |            |            |
|   | 4.13 x 2.28 x 1.5 Inches ( 105.0 x 58.0 x 38.1 mm ) Tolerance ±0.5 mm |           |            |            |            |            |
|   | Weight  |           |            |            |            |            |
| 240 g   |   |           |            |            |            |            |
| Cooling Method  |   |           |            |            |            |            |
| Free air convection   |   |           |            |            |            |            |
| Safety  | Agency Approvals  |           |            |            |            |            |
| CE, UL60950   |   |           |            |            |            |            |
| EMC   | EMI (Conducted & Radiated Emission)                                   |           |            |            |            |            |
|   | EN 55022 class B  |           |            |            |            |            |
| EMS (Noise Immunity)  |   |           |            |            |            |            |
| EN 55024  |   |           |            |            |            |            |

- 1.All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.
- 2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1µF & 47µF parallel capacitor.

**MECHANICAL DIMENSION ( Top View )**

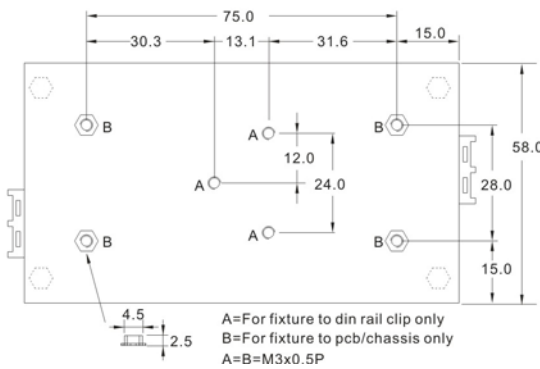
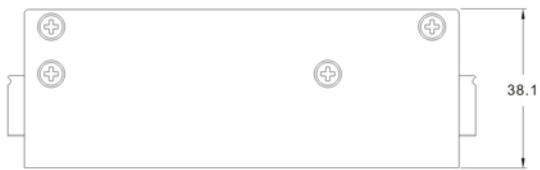


| PIN# | Single    |
|------|-----------|
| 1    | AC IN (N) |
| 2    | AC IN (L) |
| 3    | FG        |
| 4    | +DC OUT   |
| 5    | -DC OUT   |

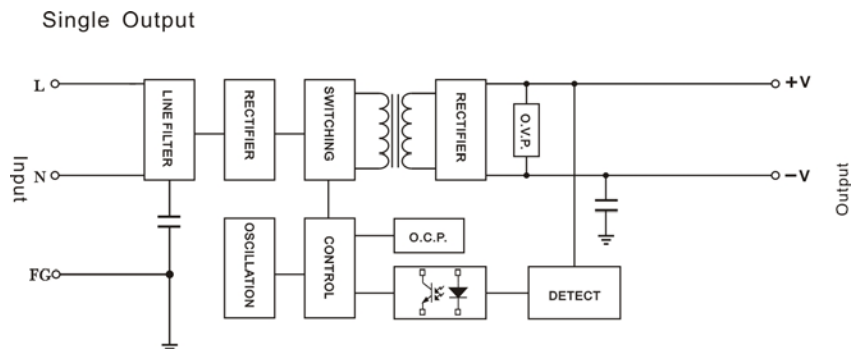
**ASSEMBLY INSTRUCTIONS**

\*U Case T=2.5mm

Customer is advised to screw into the threads no more than 2.5mm



**BLOCK DIAGRAM**



**DERATING**

