

### KEY FEATURES

- Enclosed Switching Power Supply
- Universal Input: 90-264 VAC
- With P.F.C. Function
- Free Air Convection
- Ultra Compact Size: 5.0 x 3.24 x 1.5 Inches



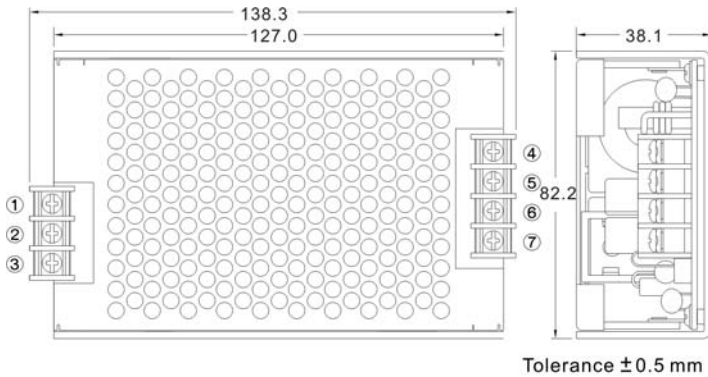
### ELECTRICAL SPECIFICATIONS

| Model No.   | AQF120E-12S   | AQF120E-24S | AQF120E-48S |
|---|---|-------------|-------------|
| Max Output Wattage (W)                                      | 120W  | 120W        | 120W        |
| Input   | Voltage   |             |             |
|   | 90-264 VAC or 120-370 VDC   |             |             |
|   | Frequency (Hz)  |             |             |
|   | 47-63 Hz  |             |             |
|   | Current (Full load)   |             |             |
|   | <2.0 A max. (115 VAC) / <1.0 A max. (230 VAC)                       |             |             |
| Inrush Current (<2ms)                                       |   |             |             |
| < 30 A max. (115 VAC) / < 60 A max. (230 VAC)               |   |             |             |
| Leakage Current   |   |             |             |
| < 0.5 mA max.   |   |             |             |
| Power Factor  |   |             |             |
| PF>0.98 (115 VAC) / PF>0.94 (230 VAC) at Full Load          |   |             |             |
| Output  | Voltage (V.DC.)   |             | 12V         |
|   |   |             | 24V         |
|   |   |             | 48V         |
|   | Voltage Accuracy  |             |             |
|   | ±2%   |             |             |
|   | Current (Convection) (A) max  |             | 10          |
|   |   |             | 5           |
|   |   |             | 2.5         |
|   | Line Regulation   |             |             |
|   | ±1%   |             |             |
| Load Regulation   |   |             |             |
| ±1%   |   |             |             |
| Minimum Load  |   |             |             |
| 0%  |   |             |             |
| Maximum Capacitive Load                                     |   |             |             |
| 470-23,000µF depending on model                             |   |             |             |
| Ripple & Noise  |   |             |             |
| 1% max.   |   |             |             |
| Efficiency (typ.)   |   | 90%         | 91%         |
|   |   | 92%         |             |
| Hold-up Time  |   |             |             |
| 20 ms min.  |   |             |             |
| Switching Frequency   |   |             |             |
| 100 kHz   |   |             |             |
| Protection  | Over Power Protection   |             |             |
|   | Auto recovery   |             |             |
|   | Over Voltage Protection   |             |             |
| Latch Off   |   |             |             |
| Short Circuit Protection                                    |   |             |             |
| Latch Off   |   |             |             |
| Isolation   | Input-Output (V.AC)   |             |             |
|   | 4000V   |             |             |
|   | Input-FG (V.AC)   |             |             |
| 2000V   |   |             |             |
| Output-FG (V.AC)  |   |             |             |
| 500V  |   |             |             |
| Environment   | Operating Temperature   |             |             |
|   | -10°C...+70°C (with derating)                                       |             |             |
|   | Storage Temperature   |             |             |
|   | -25°C...+85°C   |             |             |
|   | Temperature Coefficient   |             |             |
|   | ±0.03%/°C ( 0~50°C )  |             |             |
| Humidity  |   |             |             |
| 95% RH  |   |             |             |
| MTBF  |   |             |             |
| >50,000 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)   |             |             |
|   | 5.0 x 3.24 x 1.5 Inches (127.0 x 82.2 x 38.1 mm ) Tolerance ±0.5 mm |             |             |
|   | Weight  |             |             |
| 400 g   |   |             |             |
| Cooling Method  |   |             |             |
| Free 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 nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

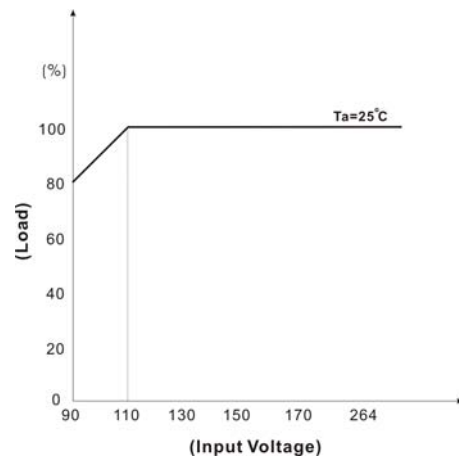
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1µF & 47µF parallel capacitor.

### MECHANICAL DIMENSION ( Top View )



| PIN# | SINGLE    |
|------|-----------|
| 1    | AC IN (L) |
| 2    | AC IN (N) |
| 3    | FG        |
| 4    | +DC OUT   |
| 5    | +DC OUT   |
| 6    | -DC OUT   |
| 7    | -DC OUT   |

### DERATING



Customer screws into the length of the case no higher than 0.5mm  
(Namely screw length for load plate thickness plus 2.5mm)

### BLOCK DIAGRAM

