

KEY FEATURES

- Open Frame ITE Switching Power Supply
- Universal Input Range 90-264VAC, 47-63 Hz
- Operating Ambient Temperature Range -40°C to +80°C
- I/O Isolation 3000VAC
- No Load Power Consumption < 0.1W
- High Efficiency up to 90%
- Ultra Compact Size: 3.0 x 1.5 x 0.87 Inches
- Safety Approval to UL / IEC / EN 62368-1
- 3-Year Product Warranty



ELECTRICAL SPECIFICATIONS

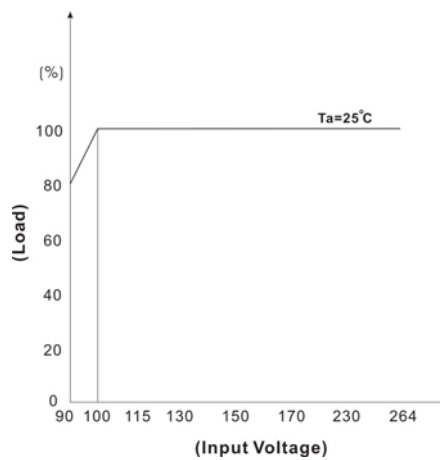
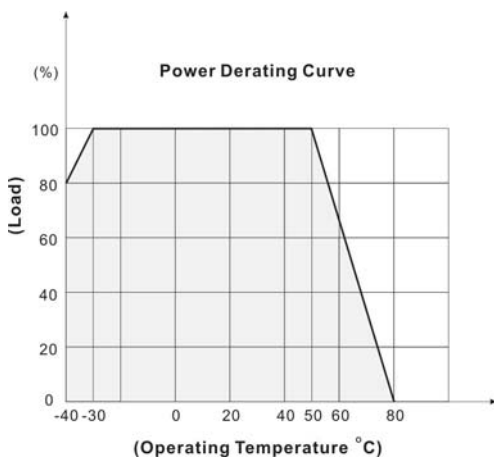
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

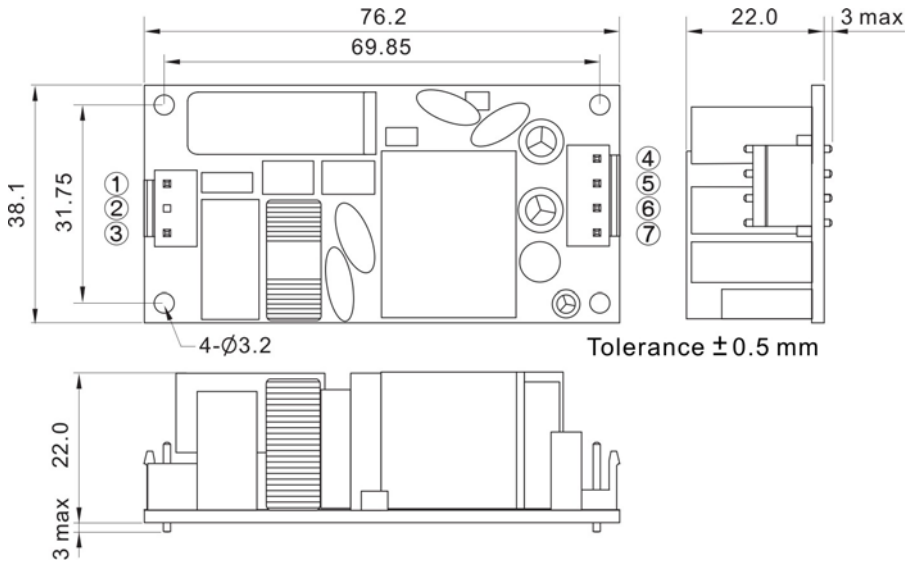
| Model No. | AQF40-12S | | AQF40-24S | |
|------------------------|---|---|-----------|--|
| Max Output Wattage (W) | 40W | | | |
| Input | Voltage (Note 3) | 90-264 VAC or 120-370 VDC | | |
| | Frequency (Hz) | 47-63 Hz | | |
| | Current (Full load) | 1000 mA max. (115 VAC) / 500 mA max. (230 VAC) | | |
| | Inrush Current (<2ms) (Cold Start) | 50 A max. (115 VAC) / 100 A max. (230 VAC) | | |
| | Leakage Current | 0.25 mA max. (100-240 VAC) | | |
| | No Load Power Consumption | < 0.1W (115/230 VAC) | | |
| Output | Voltage (V.DC.) | 12V | 24V | |
| | Voltage Accuracy | ±2% | | |
| | Current (mA) (max.) | 3333 | 1666 | |
| | Line Regulation (LL-HL) (typ.) | ±1% | | |
| | Load Regulation (0-100%) (typ.) | ±1% | | |
| | Maximum Capacitive Load | 6000uF | 1200uF | |
| | Ripple & Noise (Full Load) | 120mV | 240mV | |
| | Efficiency (at 230 VAC) | 90% | 89% | |
| | Hold-up Time (typ) | 30 ms (at 230VAC) | | |
| Protection | Over Power Protection | Auto recovery | | |
| | Over Voltage Protection | Zener diode clamp | | |
| | Short Circuit Protection | Hiccup mode (automatic recovery) | | |
| Isolation | Input-Output (V.AC) | 3000VAC or 4242VDC | | |
| Environment | Operating Temperature | -40°C...+80°C (with derating) | | |
| | Storage Temperature | -40°C...+85°C | | |
| | Temperature Coefficient | ±0.05%/°C | | |
| | Altitude During Operation (UL / IEC / EN 62368-1) | 2000m | | |
| | Humidity | 60% RH | | |
| | MTBF | >330,000 h @ 25°C (MIL-HDBK-217F) | | |
| | Vibration | IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes) | | |
| | Shock | IEC60068-2-27 | | |
| Physical | Dimensions (L x W x H) | 3.0 x 1.5 x 0.87 Inches (76.2 x 38.1 x 22.0 mm) Tolerance ±0.5 mm | | |
| | Weight | 58 g | | |
| | Cooling Method | Free air convection | | |
| Safety | Approval | UL / IEC / EN 62368-1 | | |
| EMC | EMI (Conducted & Radiated Emission) | EN 55032 class B | | |
| | EMS (Noise Immunity) | EN 55035 | | |

NOTE

1. Ripple & Noise are measured at 20MHz of bandwidth by using a 6" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
2. Strongly recommend to conduct this test with DC Voltage. If customer wishes to test with AC Voltage, please disconnect all Y-Capacitors from Arch power supply.
3. Derating may be needed under low input voltages. Please check the derating curve for more details.
4. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

DERATING



MECHANICAL DIMENSIONS (Top View)


| Brands | | Alex | | JST | |
|--------|-----------|----------------|------------|----------------|--------------|
| PIN# | Single | Mating Housing | Terminal | Mating Housing | Terminal |
| 1 | AC IN (N) | 9396-3 | 96T series | VHR-3N | SVH-41T-P1.1 |
| 2 | NO PIN | | | | |
| 3 | AC IN (L) | | | | |
| 4~5 | +DC OUT | 9396-4 | 96T series | VHR-4N | SVH-41T-P1.1 |
| 6~7 | -DC OUT | | | | |