# AC-DC Switching Power Supply

**AQF240E SERIES** 240 Watts

## KEY FEATURES
- Enclosed Switching Power Supply
- Universal Input: 90-264 VAC
- With P.F.C. Function, PF>0.95
- High Efficiency up to 93%
- RoHS Compliant Design
- Ultra Compact Size: 6.0 x 4.18 x 1.38 Inches
- 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.

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<tbody>
<tr>
<td>Max Output Wattage (W)</td>
<td>200W</td>
<td>220W</td>
<td>240W</td>
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### Input
- Voltage (Note 3) 90-264 VAC or 120-370 VDC
- Frequency (Hz) 47-63 Hz
- Current (Full load) <3.0 A max. (115 VAC) / <1.5 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>0.95 (230 VAC) at Full Load

### Output
- Voltage (V.DC.) 12V 15V 24V 28V 36V 32V 48V
- Voltage Accuracy ±2%
- Current (Convection) (A) max 16.66 14.66 10 8.57 6.66 7.5 5
- Line Regulation ±1%
- Load Regulation ±1%
- Minimum Load 2%
- Maximum Capacitive Load 470-23,000µF depending on model
- Ripple & Noise (max.) 120mVp-p 200mVp-p
- Efficiency (at 230VAC) 90% 90% 92% 92% 92% 92% 93%
- Hold-up Time (Note 4) 12 ms min.

### Protection
- Over Power Protection Auto recovery
- Over Voltage Protection Latch Off
- Short Circuit Protection Latch Off

### Isolation
- Input-Output (V.AC) 4000VAC or 5656VDC
- Input-FG (V.AC) 2000V
- Output-FG (V.AC) 500V

### Environment
- Operating Temperature -10°C…+70°C (with derating)
- Storage Temperature -25°C…+65°C
- Temperature Coefficient ±0.03%/°C (0~50°C)
- Humidity 95% RH
- MTBF >120,000 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) 6.0 x 4.18 x 1.38 Inches (150.0 x 106.0 x 35.0 mm ) Tolerance ±0.5 mm
- Weight 610 g
- Cooling Method Free convection or 18CFM

### Safety
- Agency Approvals CE, UL60950, CB(except 36S)

### EMC
- EMI (Conducted & Radiated Emission) EN 55032 class B
- EMS (Noise Immunity) EN 55024

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NOTE
1. Ripple & Noise are measured at 20MHz of bandwidth with 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 within Arch power supply.
3. Derating may be needed under low input voltages. Please check the derating curve for more details.
4. Hold-up Time: 10ms at 32S output, 12ms for others output models.

MECHANICAL DIMENSION (Top View)

ASSEMBLY INSTRUCTIONS

*U Case  T=2.0mm
Customer is advised to screw into the threads no more than 2.0mm

BLOCK DIAGRAM

Single Output:

DERATING
Din Rail Kit

**AQF240E-DRK**

<table>
<thead>
<tr>
<th>PIN#</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>AC IN (L)</td>
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<tr>
<td>2</td>
<td>AC IN (N)</td>
</tr>
<tr>
<td>3</td>
<td>FG</td>
</tr>
<tr>
<td>4</td>
<td>+DC OUT</td>
</tr>
<tr>
<td>5</td>
<td>+DC OUT</td>
</tr>
<tr>
<td>6</td>
<td>-DC OUT</td>
</tr>
<tr>
<td>7</td>
<td>-DC OUT</td>
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Tolerance ±6.5 mm