## SPECIFICATION

### APV-25 series

#### Features:
- Constant voltage mode power supply
- Universal AC input / Full range
- Withstand 300VAC Surge input for 5 seconds
- Protections: Short circuit / Over load / Over voltage
- Fully isolated plastic case
- Cooling by free air convection
- Small and compact size
- IP30 design
- Class 2 power unit
- Pass LPS
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED lighting and moving sign applications
- 2 years warranty

### OUTPUT

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DC VOLTAGE</th>
<th>RATED CURRENT (A)</th>
<th>CURRENT RANGE (A)</th>
<th>RATED POWER (W)</th>
<th>RIPPLE &amp; NOISE (Vp-p)</th>
<th>VOLTAGE TOLERANCE (%)</th>
<th>LINE REGULATION (%)</th>
<th>LOAD REGULATION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APV-25-5</td>
<td>5V</td>
<td>3.5A</td>
<td>0 ~ 3.5A</td>
<td>17.5W</td>
<td>120mVp-p</td>
<td>±5.0%</td>
<td>±1.0%</td>
<td>±2.0%</td>
</tr>
<tr>
<td>APV-25-12</td>
<td>12V</td>
<td>2.1A</td>
<td>0 ~ 2.1A</td>
<td>25.2W</td>
<td>150mVp-p</td>
<td>±5.0%</td>
<td>±1.0%</td>
<td>±2.0%</td>
</tr>
<tr>
<td>APV-25-15</td>
<td>15V</td>
<td>1.68A</td>
<td>0 ~ 1.68A</td>
<td>25.2W</td>
<td>150mVp-p</td>
<td>±5.0%</td>
<td>±1.0%</td>
<td>±2.0%</td>
</tr>
<tr>
<td>APV-25-24</td>
<td>24V</td>
<td>1.05A</td>
<td>0 ~ 1.05A</td>
<td>25.2W</td>
<td>150mVp-p</td>
<td>±5.0%</td>
<td>±1.0%</td>
<td>±2.0%</td>
</tr>
</tbody>
</table>

#### INPUT

- **VOLTAGE RANGE**: 90 ~ 264VAC, 127 ~ 370VDC
- **FREQUENCY RANGE**: 47 ~ 63Hz
- **EFFICIENCY**: 75.5% - 84%
- **AC CURRENT**: 
  - 0.4A at 230VAC
  - 0.8A at 115VAC
- **INRUSH CURRENT (Typ.):**
  - Cold Start: 45A (width=310s measured at 50% Ipeak) at 230VAC
- **LEAKAGE CURRENT**: 0.25mA at 240VAC

#### PROTECTION

- **OVER LOAD**: Protection type: Hiccup mode, recovers automatically after fault condition is removed
- **OVER VOLTAGE**: Protection type: Shut down o/p voltage, re-power on to recover

#### ENVIRONMENT

- **WORKING TEMP.**: -30 ~ 70℃ (Refer to "Derating Curve")
- **HUMIDITY**: 20 ~ 90% RH non-condensing
- **STORAGE TEMP., HUMIDITY**: -40 ~ +80℃, 10 ~ 95% RH
- **TEMP. COEFFICIENT**: ±0.3%/℃ (0 ~ 50℃)
- **VIBRATION**: 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes

#### SAFETY & EMC

- **SAFETY STANDARDS**: UL8750, CSA-C22.2 No. 250.0-13 approved; design refer to EN60950-1
- **WITHSTAND VOLTAGE**: I/P-O/P: 3KVAC
- **ISOLATION RESISTANCE**: I/P-O/P: >100M Ohms / 500VDC / 25℃ / 70% RH
- **EMC EMISSION**: Compliance to EN55022, EN61000-3-2 Class A, EN61000-3-3
- **EMC IMMUNITY**: Compliance to EN55024, EN61000-4-2, 3, 4, 5, 6, 8, 11; light industry level(surge 2KV), criteria A
- **MTBF**: 692.8K hrs min. (MIL-HDBK-217F (25℃))
- **DIMENSION**: 84.1*57.9*29.5mm (L*W*H)
- **PACKING**: 0.13Kg, 72pcs / 10.4Kg / 0.92CUFT

#### NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. Derating may be needed under low input voltage. Please check the static characteristics for more details.
5. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.
6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.
7. The unit might not be suitable for lighting applications in EU countries. Please check with your local authorities for the possible use of the unit.
25W Single Output Switching Power Supply

Mechanical Specification

- AMBIENT TEMPERATURE (℃)
  - -30
  - 0
  - 10
  - 20
  - 30
  - 40
  - 50
  - 70
- LOAD (%)
  - 0
  - 10
  - 20
  - 30
  - 40
  - 50
  - 70

Block Diagram

- DETECTION
- PWM CIRCUIT
- EMI FILTER
- POWER SWITCH-FILTER & RECTIFIERS
- DC-OUT
- I/P
- V+(RED)
- V-(BLACK)
- UL1569 18AWG
- AC/N(Blue)
- AC/L(Brown)
- Case No.PCD16A
- Unit:mm

Derating Curve

- AMBIENT TEMPERATURE (℃)
- LOAD (%)
- (HORIZONTAL)

Static Characteristics

- INPUT VOLTAGE (VAC) 60Hz
- LOAD (%)
- (VERTICAL)