



## ■ 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
- Pass LPS
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED lighting and moving sign applications
- 2 years warranty

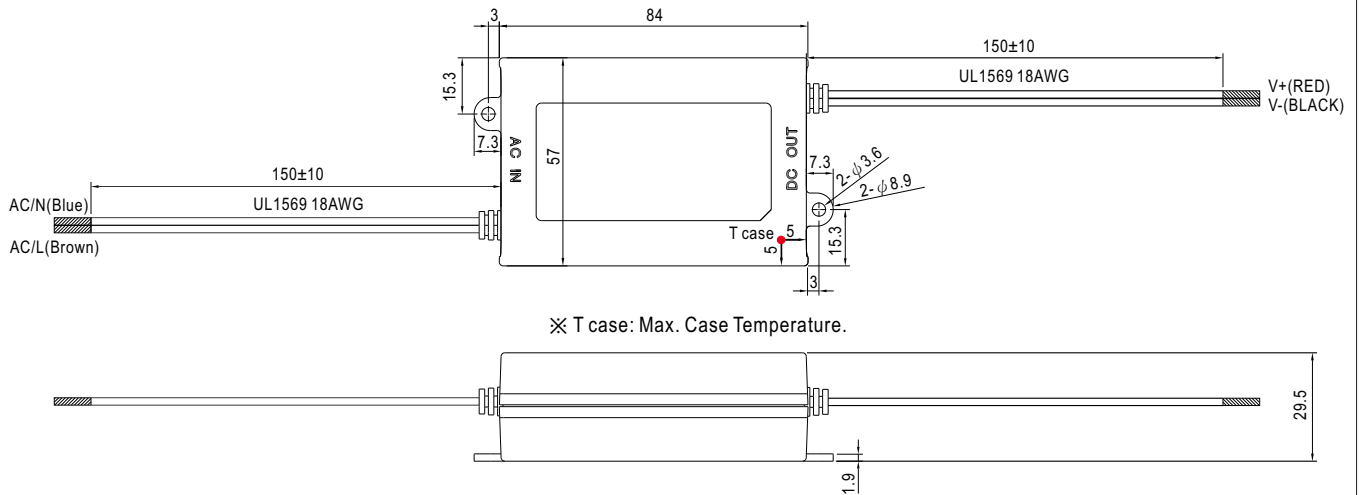


## SPECIFICATION

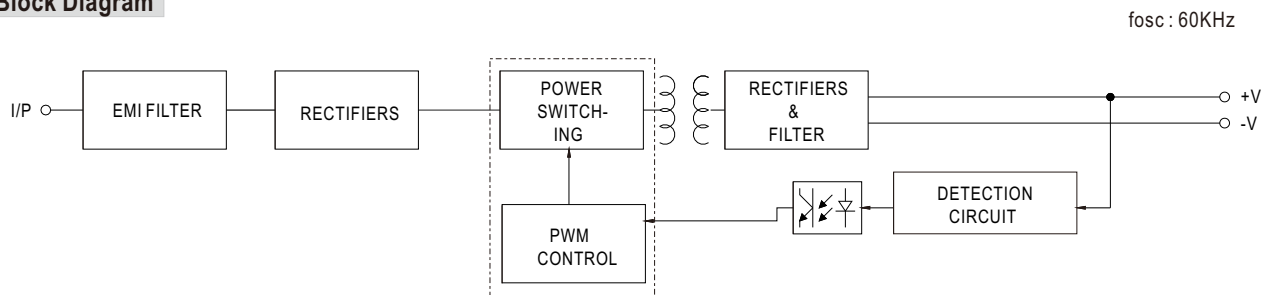
| MODEL        |                              | APV-35-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | APV-35-12    | APV-35-15   | APV-35-24  | APV-35-36    |
|--------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|------------|--------------|
| OUTPUT       | DC VOLTAGE                   | 5V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 12V          | 15V         | 24V        | 36V          |
|              | RATED CURRENT                | 5A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3A           | 2.4A        | 1.5A       | 1A           |
|              | CURRENT RANGE                | 0 ~ 5A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0 ~ 3A       | 0 ~ 2.4A    | 0 ~ 1.5A   | 0 ~ 1A       |
|              | RATED POWER                  | 25W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 36W          | 36W         | 36W        | 36W          |
|              | RIPPLE & NOISE (max.) Note.2 | 120mVp-p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 150mVp-p     | 150mVp-p    | 180mVp-p   | 180mVp-p     |
|              | VOLTAGE TOLERANCE Note.3     | ±5.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |             |            |              |
|              | LINE REGULATION              | ±1.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |             |            |              |
|              | LOAD REGULATION              | ±2.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |             |            |              |
| INPUT        | SETUP, RISE TIME Note.6      | 1500ms, 40ms / 230VAC 1500ms, 40ms / 115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |             |            |              |
|              | HOLD UP TIME (Typ.)          | 20ms/230VAC 12ms/115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |             |            |              |
|              | VOLTAGE RANGE Note.4         | 90 ~ 264VAC 127 ~ 370VDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |             |            |              |
|              | FREQUENCY RANGE              | 47 ~ 63Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |             |            |              |
|              | EFFICIENCY (Typ.)            | 76.5%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 83%          | 84%         | 84%        | 85%          |
|              | AC CURRENT                   | 0.5A/230VAC 0.75A/115VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |             |            |              |
| PROTECTION   | INRUSH CURRENT(Typ.)         | COLD START 45A(twidth=440μs measured at 50% Ipeak) at 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |             |            |              |
|              | LEAKAGE CURRENT              | 0.25mA / 240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |             |            |              |
|              | OVER LOAD                    | 110%~160% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |             |            |              |
| ENVIRONMENT  | OVER VOLTAGE                 | 5.75 ~ 6.95V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 13.8 ~ 16.2V | 17.25 ~ 21V | 27 ~ 32.4V | 41.4 ~ 48.6V |
|              |                              | Protection type : Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |             |            |              |
|              | WORKING TEMP.                | -30 ~ 70°C (Refer to "Derating Curve")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |             |            |              |
| SAFETY & EMC | WORKING HUMIDITY             | 20 ~ 90% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |              |             |            |              |
|              | STORAGE TEMP., HUMIDITY      | -40 ~ +80°C, 10 ~ 95% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |             |            |              |
|              | TEMP. COEFFICIENT            | ±0.03%/°C (0 ~ 50°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |             |            |              |
| OTHERS       | VIBRATION                    | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |             |            |              |
|              | SAFETY STANDARDS             | UL8750, CSA-C22.2 No. 250.0-13 approved; design refer to EN60950-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |             |            |              |
|              | WITHSTAND VOLTAGE            | I/P-O/P:3KVAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |             |            |              |
| NOTE         | ISOLATION RESISTANCE         | I/P-O/P:>100M Ohms / 500VDC / 25°C / 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         | MTBF                         | 692.8K hrs min. MIL-HDBK-217F (25°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |             |            |              |
|              | DIMENSION                    | 84*57*29.5mm (L*W*H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |             |            |              |
|              | PACKING                      | 0.18Kg; 72pcs / 14Kg/ 0.92CUFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |             |            |              |
| NOTE         |                              | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Derating may be needed under low input voltage. Please check the static characteristics for more details.<br>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.<br>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.<br>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. |              |             |            |              |

## Mechanical Specification

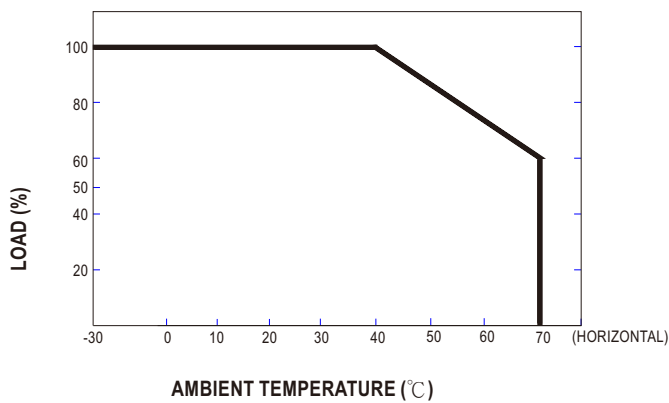
Case No.PCD16A Unit:mm



## Block Diagram



## Derating Curve



## Static Characteristics

