

LED Power Supply • Constant Voltage • Compact Size • 12W  
**MEAN WELL APV-12 Series**



■ Features :

- Constant voltage design
- Universal AC input / Full range
- Protections: Short circuit / Over load / Over voltage
- Fully isolated plastic case
- Cooling by free air convection
- Small and compact size
- Class II power unit, no FG
- Class 2 power unit
- Pass LPS
- IP42 design
- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

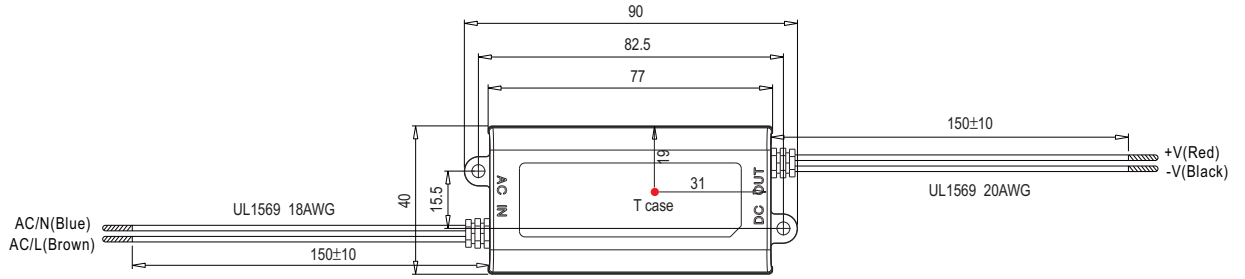
SPECIFICATION



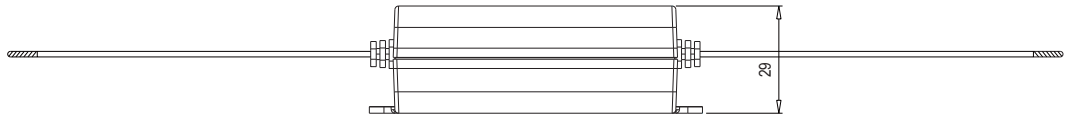
| MODEL               | APV-12-5                                | APV-12-12  | APV-12-15                          | APV-12-24  |              |
|---------------------|---|--|------------------------------------|------------|--------------|
| OUTPUT              | DC VOLTAGE                              | 5V   | 12V                                | 15V        | 24V          |
|                     | RATED CURRENT                           | 2A   | 1A                                 | 0.8A       | 0.5A         |
|                     | CURRENT RANGE                           | 0 ~ 2A   | 0 ~ 1A                             | 0 ~ 0.8A   | 0 ~ 0.5A     |
|                     | RATED POWER                             | 10W  | 12W                                | 12W        | 12W          |
|                     | RIPPLE & NOISE (max.) Note.2            | 100mVp-p   | 120mVp-p                           | 120mVp-p   | 150mVp-p     |
|                     | VOLTAGE TOLERANCE Note.3                | ±5.0%  |                                    |            |              |
|                     | LINE REGULATION                         | ±1.0%  |                                    |            |              |
|                     | LOAD REGULATION                         | ±2.0%  |                                    |            |              |
|                     | SETUP, RISE TIME Note.6                 | 1500ms, 30ms / 230VAC  | 1500ms, 30ms / 115VAC at full load |            |              |
| HOLD UP TIME (Typ.) | 20ms/230VAC                             | 15ms/115VAC at full load   |                                    |            |              |
| INPUT               | VOLTAGE RANGE Note.4                    | 90 ~ 264VAC  | 127 ~ 370VDC                       |            |              |
|                     | FREQUENCY RANGE                         | 47 ~ 63Hz  |                                    |            |              |
|                     | EFFICIENCY (Typ.)                       | 76%  | 82%                                | 82%        | 84%          |
|                     | AC CURRENT                              | 0.2A/230VAC 0.35A/115VAC   |                                    |            |              |
|                     | INRUSH CURRENT(Typ.)                    | COLD START 70A(twidth=120µs measured at 50% Ipeak) at 230VAC   |                                    |            |              |
|                     | MAX. No. of PSUs on 16A CIRCUIT BREAKER | 17 units (circuit breaker of type B) / 29 units (circuit breaker of type C) at 230VAC  |                                    |            |              |
| LEAKAGE CURRENT     | 0.25mA / 240VAC                         |  |                                    |            |              |
| PROTECTION          | OVER LOAD                               | Above 105% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed  |                                    |            |              |
|                     | OVER VOLTAGE                            | 5.75 ~ 6.75V   | 13.8 ~ 16V                         | 17.5 ~ 21V | 27.6 ~ 32.4V |
| ENVIRONMENT         | WORKING TEMP.                           | -30 ~ +70°C (Refer to "Derating Curve")  |                                    |            |              |
|                     | WORKING HUMIDITY                        | 20 ~ 90% RH non-condensing   |                                    |            |              |
|                     | STORAGE TEMP., HUMIDITY                 | -40 ~ +80°C, 10 ~ 95% RH   |                                    |            |              |
|                     | TEMP. COEFFICIENT                       | ±0.03%/°C (0 ~ 50°C)   |                                    |            |              |
|                     | VIBRATION                               | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes  |                                    |            |              |
| SAFETY & EMC        | SAFETY STANDARDS Note.8                 | UL8750, CSA C22.2 No.250.0-08, ENEC EN61347-1, EN61347-2-13, EN62384 Independent, BIS IS15885(except for 15V), EAC TP TC 004, IP42 Approved; design refer to EN60950-1   |                                    |            |              |
|                     | WITHSTAND VOLTAGE                       | I/P-O/P:3.75KVAC   |                                    |            |              |
|                     | ISOLATION RESISTANCE                    | I/P-O/P:>100M Ohms / 500VDC / 25°C / 70% RH  |                                    |            |              |
|                     | EMC EMISSION                            | Compliance to EN55032, EN61000-3-2 Class A, EN61000-3-3, EAC TP TC 020   |                                    |            |              |
| OTHERS              | EMC IMMUNITY                            | Compliance to EN55024, EN61000-4-2, 3, 4, 5, 6, 8, 11; light industry level(surge 2KV), criteria A, EAC TP TC 020  |                                    |            |              |
|                     | MTBF                                    | 1145.7K hrs min. MIL-HDBK-217F (25°C)  |                                    |            |              |
|                     | DIMENSION                               | 77*40*29(L*W*H)  |                                    |            |              |
| NOTE                | PACKING                                 | 0.08Kg; 120pcs/11.8Kg/1.06CUFT   |                                    |            |              |
|                     |   | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µf &amp; 47µf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. Derating may be needed under low input voltage. Please check the static characteristics for more details.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>8. The model certified for CCC(GB19510.14, GB19510.1, GB17743 and GB17625.1) is an optional model . Please contact MEAN WELL for details.</li> <li>9. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</li> </ol> |                                    |            |              |

■ Mechanical Specification

Unit:mm

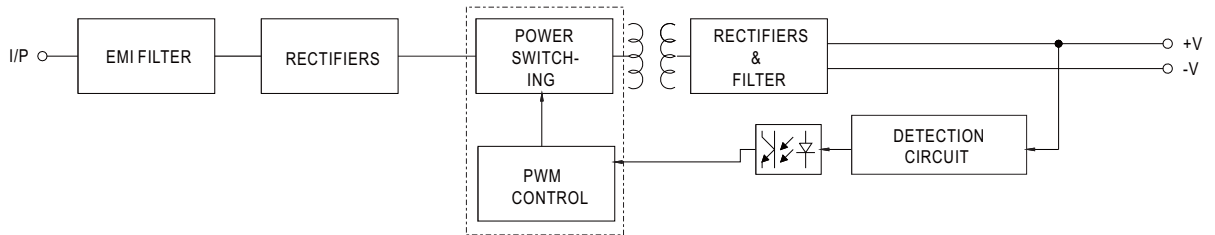


※ T case: Max. Case Temperature

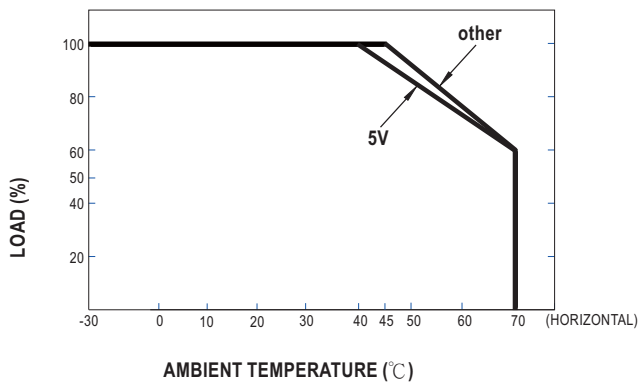


■ Block Diagram

fosc : 67KHz



■ Derating Curve



■ Static Characteristics

