



12W Single Output Switching Power Supply

APC-12 series



■ Features :

- Constant current design
- Universal AC input / Full range
- Protections: Short circuit / Over voltage
- Fully isolated plastic case
- Small and compact size
- Cooling by free air convection
- 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)(Note.6)
- 100% full load burn-in test
- Low cost / High reliability
- 2 years warranty

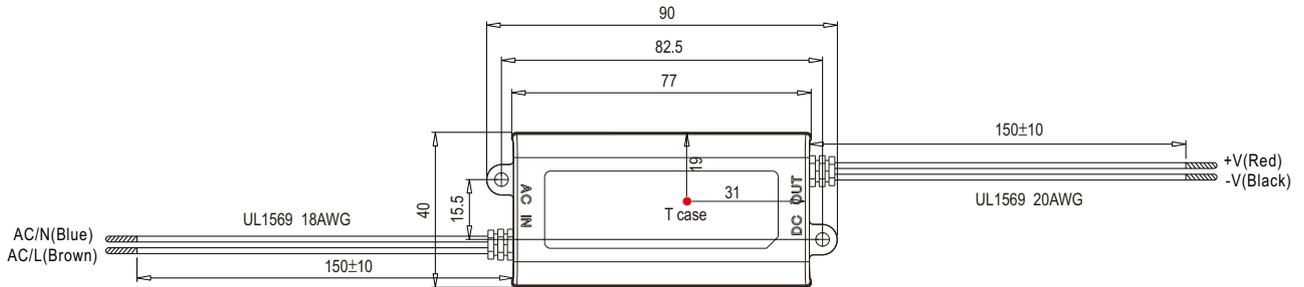


SPECIFICATION

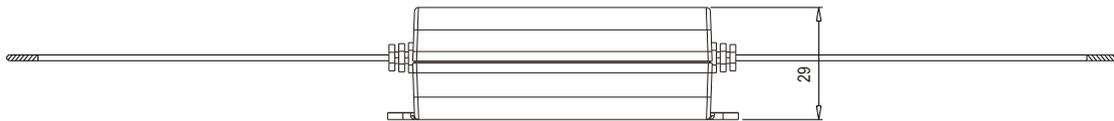
| MODEL                 | APC-12-350   |  | APC-12-700                          |  |
|-----------------------|--|--|-------------------------------------|--|
| OUTPUT                | RATED CURRENT  | 350mA  | 700mA                               |  |
|                       | DC VOLTAGE RANGE   | 9~36V  | 9~18V                               |  |
|                       | RATED POWER  | 12.6W  | 12.6W                               |  |
|                       | RIPPLE & NOISE (max.) Note.2   | 300mVp-p   | 250mVp-p                            |  |
|                       | VOLTAGE TOLERANCE Note.3   | ±5.0%  |                                     |  |
|                       | CURRENT ACCURACY   | ±8.0%  |                                     |  |
|                       | LINE REGULATION  | ±1.0%  |                                     |  |
|                       | LOAD REGULATION  | ±3.0%  |                                     |  |
|                       | SETUP, RISE TIME   | 3000ms, 180ms / 230VAC   | 3000ms, 150ms / 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.)   | 82%  | 80%                                 |  |
|                       | 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  |                                     |  |
| PROTECTION            | LEAKAGE CURRENT  | 0.25mA / 240VAC  |                                     |  |
|                       | OVER VOLTAGE   | 39.6~ 46.8V  | 20.7~ 24.3V                         |  |
| ENVIRONMENT           | Protection type : Shut off o/p voltage, clamping by zener diode  |  |                                     |  |
|                       | 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  | ±0.2%/°C (0 ~ 50°C)  |                                     |  |
| SAFETY & EMC (Note 5) | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes  |                                     |  |
|                       | SAFETY STANDARDS Note.7  | UL8750, CSA C22.2 No.250.0-08, BIS IS15885, EAC TP TC 004 approved; design refer to BS EN/EN 62368-1                           |                                     |  |
|                       | 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 BS EN/EN55032, BS EN/EN61000-3-2, BS EN/EN61000-3-3, EAC TP TC 020   |                                     |  |
| OTHERS                | EMC IMMUNITY   | Compliance to BS EN/EN55024, BS EN/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   |                                     |  |
|                       | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Derating may be needed under low input voltage. Please check the static characteristic for more details.</p> <p>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.</p> <p>6. This product is not intended for LED lighting luminaire applications in the EU. (In the EU the LPF/NPF/XLG series are recommended.)</p> <p>7. The model certified for CCC(GB19510.14, GB19510.1, GB17743 and GB17625.1) is an optional model . Please contact MEAN WELL for details.</p> <p>8. 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).</p> <p>9. For any application note and IP water proof function installation caution, please refer our user manual before using.<br/> <a href="https://www.meanwell.com/Upload/PDF/LED_EN.pdf">https://www.meanwell.com/Upload/PDF/LED_EN.pdf</a></p> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p> |  |                                     |  |

## Mechanical Specification

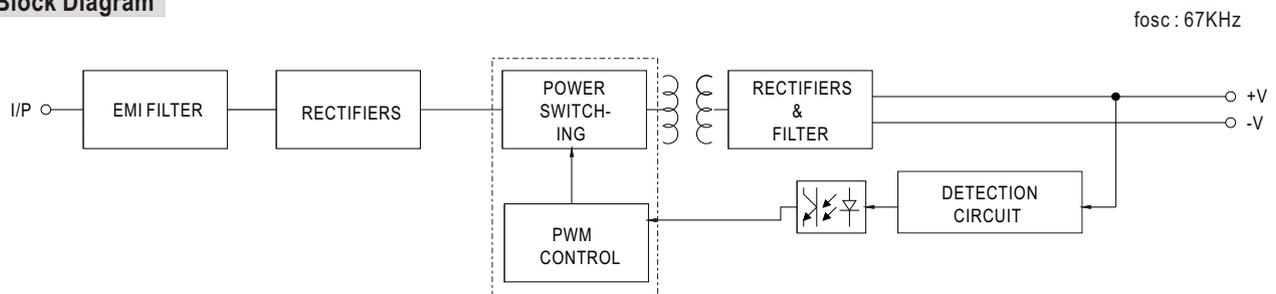
Unit:mm



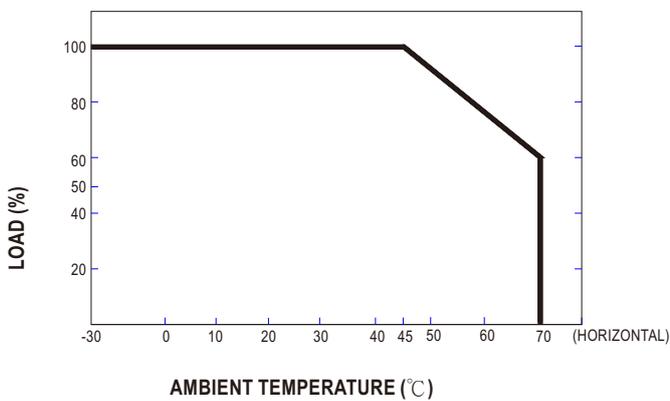
※ T case: Max. Case Temperature



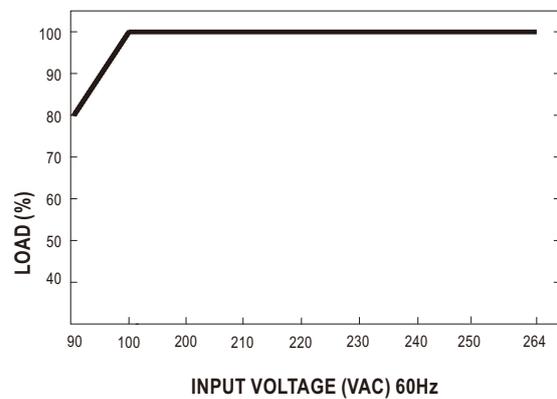
## Block Diagram



## Derating Curve



## Static Characteristics





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■ EFFICIENCY vs LOAD (APC-12-350)

Unit:mm

