# 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

User's Manual

## GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

LPS IP42 IS 15885(Part 2/Sec13) R-41027766

## 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=150μs 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 VOLTAGE | 39.6~ 46.8V | 20.7~ 24.3V |
| | | Protection type : Shut off o/p voltage, clamping by zener diode | |
| ENVIRONMENT | WORKING TEMP. | -30 ~ 70℃ (Refer to "Derating Curve") | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +80℃, 10 ~ 95% RH | |
| | TEMP. COEFFICIENT | ±0.2%/℃ (0 ~ 50℃) | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | |
| SAFETY & EMC (Note 5) | SAFETY STANDARDS Note.7 | UL8750,CSA C22.2 No.250.0-08, BIS IS15885, EAC TP TC 004,BS EN/EN 62368-1 approved | |
| | WITHSTAND VOLTAGE | I/P-O/P:3.75KVAC | |
| | ISOLATION RESISTANCE | I/P-O/P:>100M Ohms / 500VDC / 25℃/ 70% RH | |
| | EMC EMISSION | Compliance to BS EN/EN55032,BS EN/EN61000-3-2,BS EN/EN61000-3-3, EAC TP TC 020 | |
| | EMC IMMUNITY | Compliance to BS EN/EN55035,BS EN/EN61000-4-2,3,4,5,6,8,11; light industry level(surge 2KV), EAC TP TC 020 | |
| OTHERS | MTBF | 6418.1K hrs min. Telcordia SR-332 (Bellcore) ; 1097.4K hrs min. MIL-HDBK-217F (25℃) | |
| | DIMENSION | 77*40*29(L*W*H) | |
| | PACKING | 0.08Kg; 120pcs/11.8Kg/1.06CUFT | |

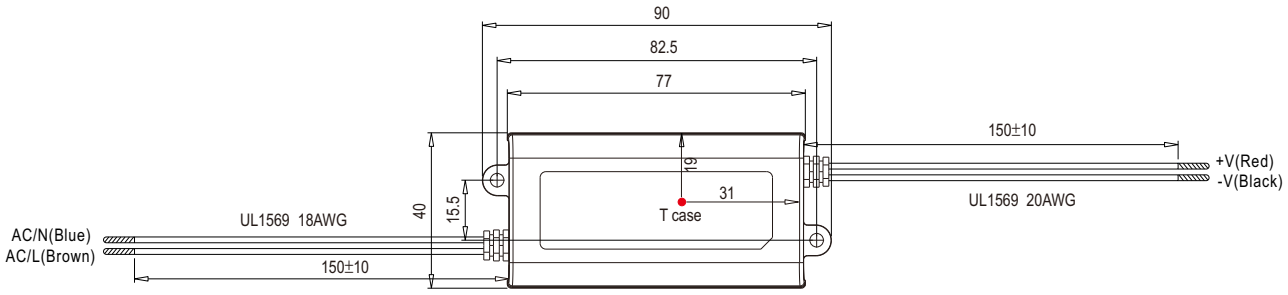
NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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 characteristic for more details. Please connect L line to the positive pole and N line to the negative pole under DC input.
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. (as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)
6. This product is not intended for LED lighting luminaire applications EU and China.(In the EU and China the LPF/NPF/XLG/XLC/XLN series are recommended.)
7. 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).
8. For any application note and IP water proof function installation caution, please refer our user manual before using. https://www.meanwell.com/Upload/PDF/LED_EN.pdf

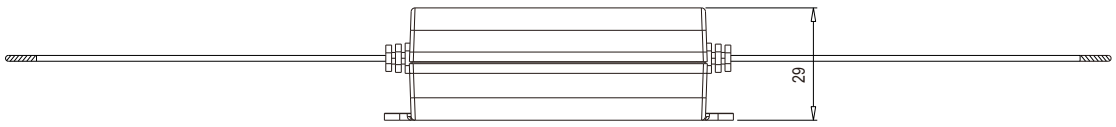
※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

## ■ Mechanical Specification

Unit:mm Tolerance:±1

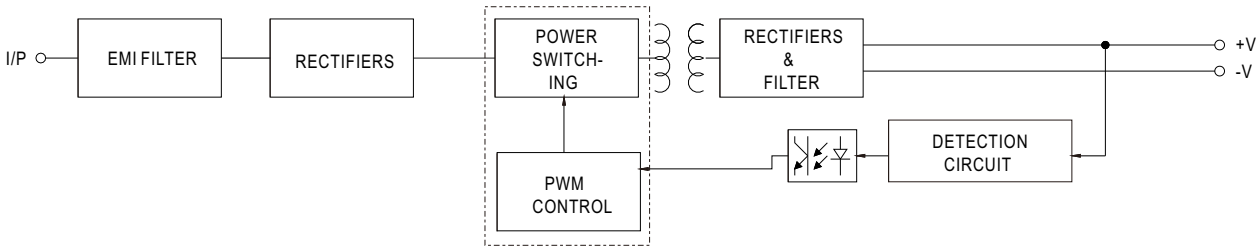



※ T case: Max. Case Temperature

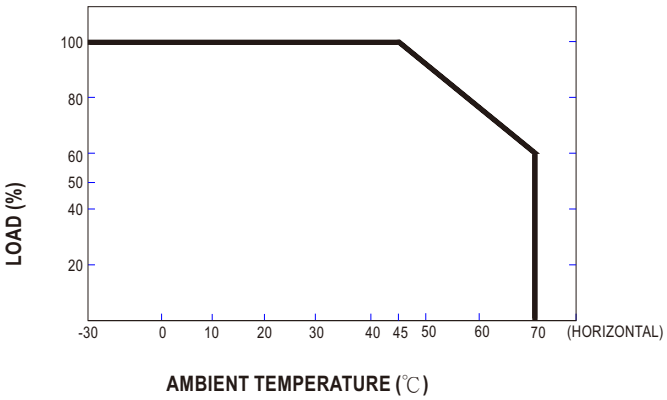



## ■ Block Diagram

fosc : 67KHz

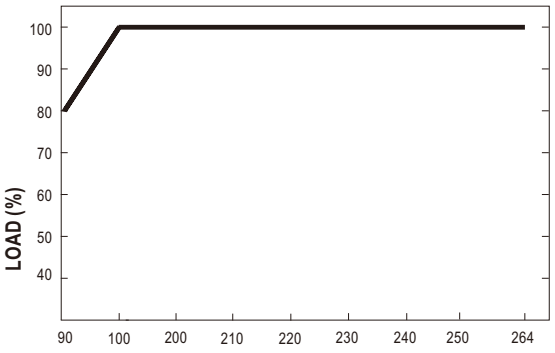



## ■ Derating Curve




AMBIENT TEMPERATURE (℃)

## ■ Static Characteristics




INPUT VOLTAGE (VAC) 60Hz

## ■ EFFICIENCY vs LOAD (APC-12-350)