



IP42 c  US   (optional)

## Features

- Constant current design
- Universal AC input / Full range
- Class II power unit, no FG
- Fully isolated plastic case
- IP42 design
- Small and compact size
- Cooling by free air convection
- Protection: Short circuit
- No load power consumption <0.5W
- 100% full load burn-in test
- Low cost / High reliability
- 2 years warranty

## Applications

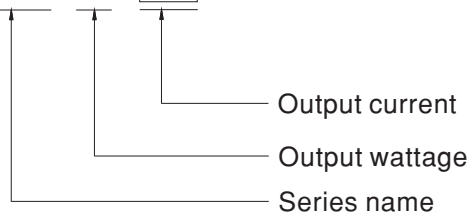
- Indoor LED lighting
- LED decorative lighting
- LED office lighting

## Description

APC-8 series is one 8W AC/DC constant current mode single output LED power supply. It accepts the full range input 90~264VAC and provides four models with different output current, 250mA, 350mA, 500mA and 700mA, respectively, that the small wattage LED applications employ the most frequently. Exploiting Class II design (without FG pin) and adopting the 94V-0 flame retardant plastic enclosure, APC-8 ideally fits the entry-level LED applications.

## Model Encoding

**APC - 8 - 350**





## 8W Single Output Switching Power Supply

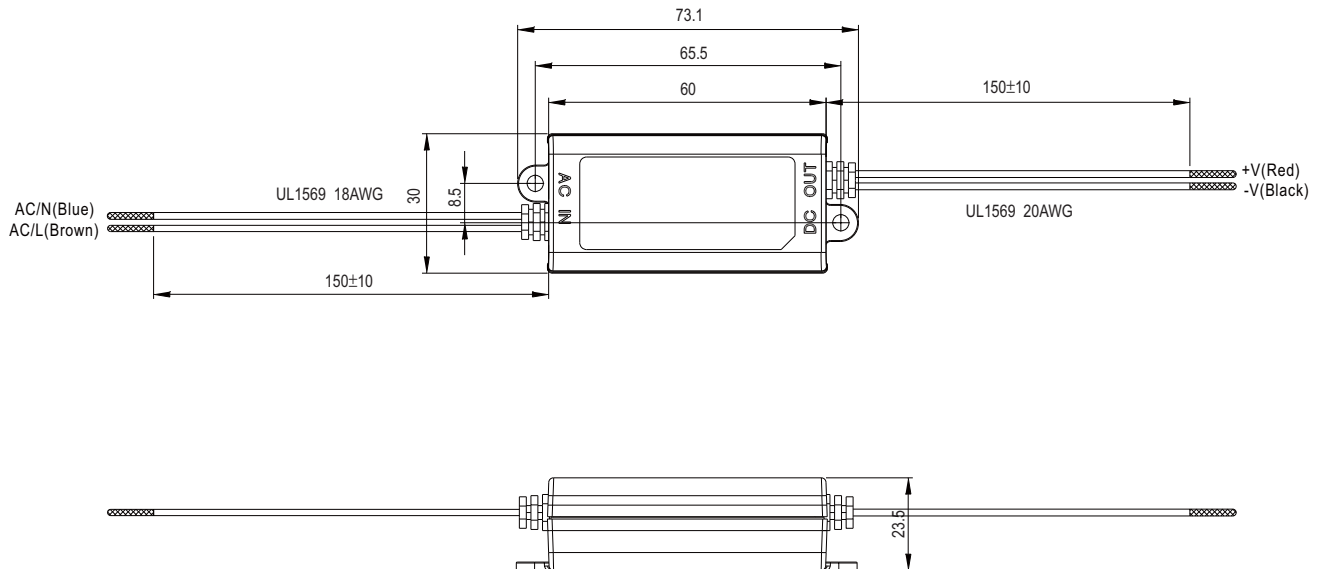
## APC-8 series

### SPECIFICATION

| MODEL                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | APC-8-250                                                                                   | APC-8-350 | APC-8-500 | APC-8-700 |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|-----------|-----------|
| OUTPUT                | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 250mA                                                                                       | 350mA     | 500mA     | 700mA     |
|                       | OPERATING VOLTAGE RANGE <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 16~32V                                                                                      | 11~23V    | 8~16V     | 6~11V     |
|                       | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 8W                                                                                          | 8.05W     | 8W        | 7.7W      |
|                       | RIPPLE & NOISE <small>(max.) Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 350mVp-p                                                                                    | 300mVp-p  | 300mVp-p  | 250mVp-p  |
|                       | NO LOAD OUTPUT VOLTAGE <sub>(max.)</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 38V                                                                                         | 29V       | 24V       | 17V       |
|                       | CURRENT ACCURACY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ±8.0%                                                                                       |           |           |           |
|                       | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 500ms, 180ms / 230VAC      3000ms, 150ms / 115VAC at full load                              |           |           |           |
|                       | HOLD UP TIME (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 20ms/230VAC at full load                                                                    |           |           |           |
| INPUT                 | VOLTAGE RANGE <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 90 ~ 264VAC      127 ~ 370VDC (Note.5)                                                      |           |           |           |
|                       | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 47 ~ 63Hz                                                                                   |           |           |           |
|                       | EFFICIENCY(Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 82.5%                                                                                       | 81.5%     | 81%       | 80%       |
|                       | AC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.15A/230VAC;0.3A/115VAC                                                                    |           |           |           |
|                       | INRUSH CURRENT(Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | COLD START 70A(twidth=120μs measured at 50% Ipeak) at 230VAC                                |           |           |           |
|                       | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.25mA / 240VAC                                                                             |           |           |           |
| PROTECTION            | SHORT CIRCUIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Hiccup mode, recovers automatically after fault condition is removed.                       |           |           |           |
| 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 ~45℃)                                                                            |           |           |           |
|                       | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                     |           |           |           |
| SAFETY & EMC (Note 5) | SAFETY STANDARDS <small>Note.7</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | UL8750,CSA C22.2 No.250.0-08 approved; design refer to EN60950-1,EN61347-1,EN61347-2-13     |           |           |           |
|                       | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I/P-O/P:3.75KVAC                                                                            |           |           |           |
|                       | 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 |           |           |           |
| OTHERS                | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2275.8K hrs min.      MIL-HDBK-217F (25℃)                                                   |           |           |           |
|                       | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 60*30*23.5mm(L*W*H)                                                                         |           |           |           |
|                       | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.09Kg;144pcs/14Kg/0.75CUFT                                                                 |           |           |           |
| NOTE                  | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. Derating may be needed under low input voltage, please check the static characteristic for more details.<br>4. Constant current operation region is within 50% ~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.<br>5. When applying DC voltage for input, please connect the brown input wire to the positive side whereas blue input wire to the negative side.<br>6. 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.<br>7. The model certified for CCC(GB19510.14, GB19510.1, GB17743 and GB17625.1) is an optional model . Please contact MEAN WELL for details. |                                                                                             |           |           |           |

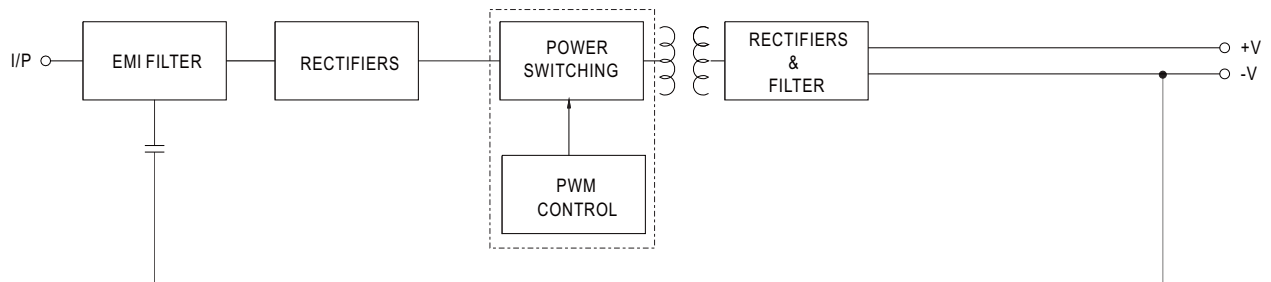
## Mechanical Specification

Unit:mm

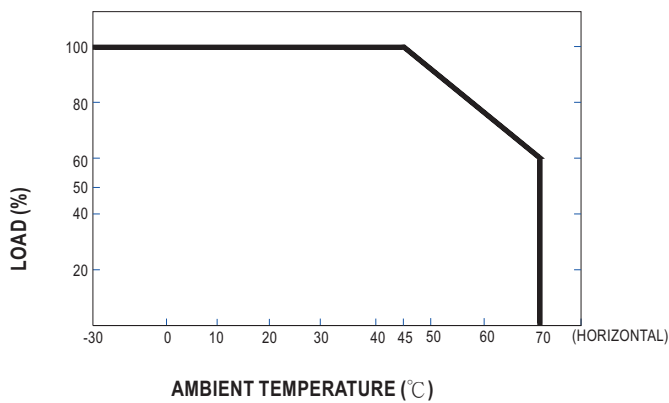


## Block Diagram

fosc : 67KHz



## Derating Curve



## Static Characteristics

