



Features

- Constant current design
- Protections: Short circuit / Over voltage
- Fully isolated plastic case
- Small and compact size
- Cooling by free air convection
- Class II power unit, no FG
- No load power consumption <0.5W
- IP42 design
- Suitable for LED lighting and moving sign applications
- 100% full load burn-in test
- Low cost / High reliability
- 2 years warranty

Applications

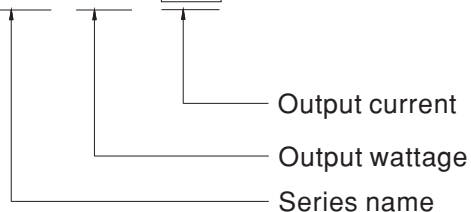
- Indoor LED lighting
- LED decorative lighting
- LED office lighting

Description

APC-16E series is one 16W AC/DC constant current mode single output LED power supply. It accepts input 180~264VAC and provides two models with different output current, 350mA 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-16E ideally fits the entry-level LED applications.

Model Encoding

APC - 16E - 700



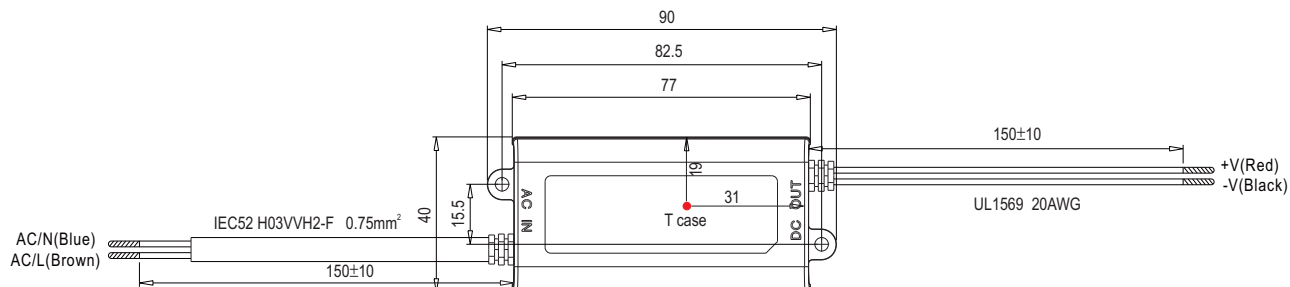


SPECIFICATION

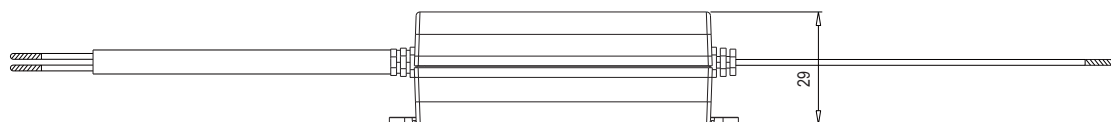
| MODEL | | APC-16E-350 | | APC-16E-700 | |
|-----------------------|---|---|--------------|-------------|--|
| OUTPUT | RATED CURRENT | 350mA | | 700mA | |
| | DC VOLTAGE RANGE | 12~48V | | 9~24V | |
| | RATED POWER | 16.8W | | 16.8W | |
| | RIPPLE & NOISE (max.) <small>Note.2</small> | 300mVp-p | | 250mVp-p | |
| | VOLTAGE TOLERANCE <small>Note.3</small> | ±5.0% | | | |
| | CURRENT ACCURACY | ±8.0% | | | |
| | LINE REGULATION | ±1.0% | | | |
| | LOAD REGULATION | ±3.0% | | | |
| | SETUP, RISE TIME | 500ms, 200ms / 230VAC at full load | | | |
| | HOLD UP TIME (Typ.) | 20ms/230VAC at full load | | | |
| INPUT | VOLTAGE RANGE <small>Note.4</small> | 180 ~ 264VAC | 254 ~ 370VDC | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | |
| | POWER FACTOR (Typ.) | PF>0.5/230VAC at full load | | | |
| | EFFICIENCY(Typ.) | 83% | 82% | | |
| | AC CURRENT | 0.3A/230VAC | | | |
| | INRUSH CURRENT(Typ.) | COLD START 45A(twidth=210μs measured at 50% Ipeak) at 230VAC | | | |
| | MAX. No. of PSUs on 16A CIRCUIT BREAKER | 13 units (circuit breaker of type B) / 23 units (circuit breaker of type C) at 230VAC | | | |
| | LEAKAGE CURRENT | 0.25mA / 240VAC | | | |
| PROTECTION | OVER VOLTAGE | 50.4~ 60V | | 27.6~ 33.5V | |
| | | 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 | ENEC EN61347-1, EN61347-2-13, EN62384, IP42 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 EN55015,EN61000-3-2 Class A,EN61000-3-3 | | | |
| | EMC IMMUNITY | Compliance to EN61547,EN61000-4-2,3,4,5,6,8,11; light industry level(surge 2KV), criteria A | | | |
| OTHERS | MTBF | 1145.7K hrs min. MIL-HDBK-217F (25℃) | | | |
| | DIMENSION | 77*40*29(L*W*H) | | | |
| | PACKING | 0.1Kg; 120pcs/14Kg/1.06CUFT | | | |
| NOTE | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. 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. | | | | |

Mechanical Specification

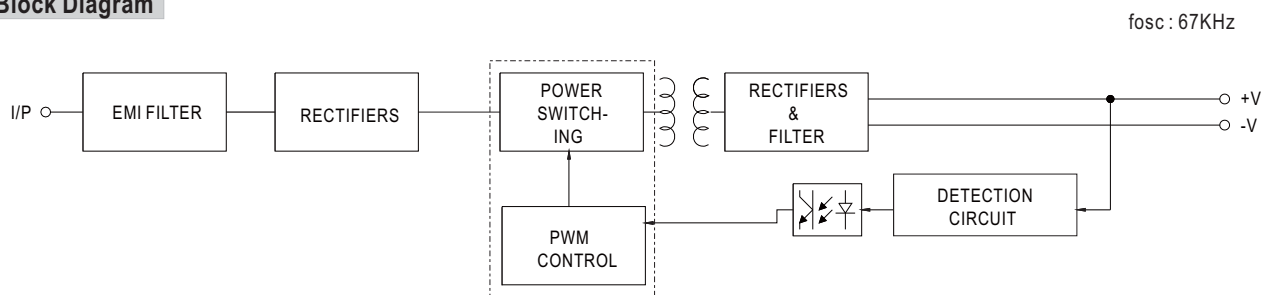
Unit:mm



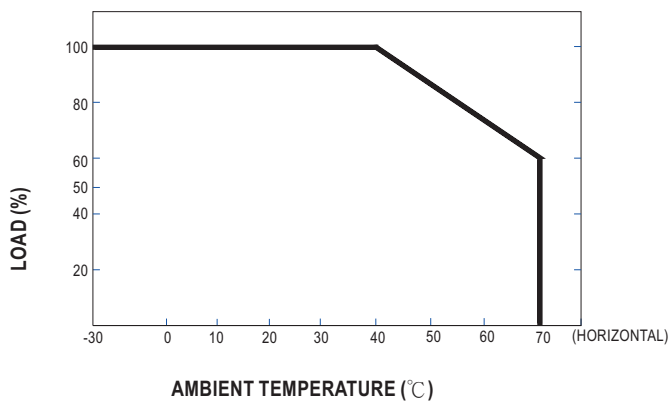
※ T case: Max. Case Temperature



Block Diagram



Derating Curve



Static Characteristics

