



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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### ■ Features

- Constant current design
- 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
- PF>0.5
- 100% full load burn-in test
- Low cost / High reliability
- 2 years warranty

### ■ Applications

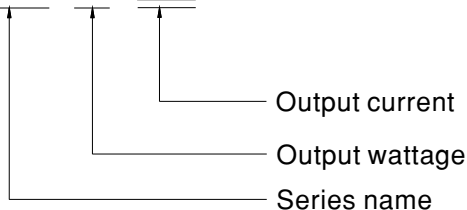
- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)

### ■ Description

APC-8E series is one 8W AC/DC constant current mode single output LED power supply. It accepts input 180~264VAC 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-8E ideally fits the entry-level LED applications.

### ■ Model Encoding

**APC - 8E - 700**



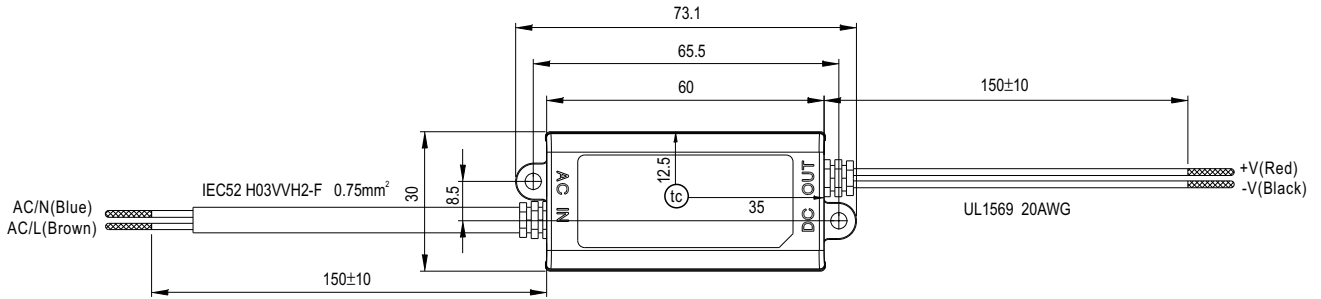


## SPECIFICATION

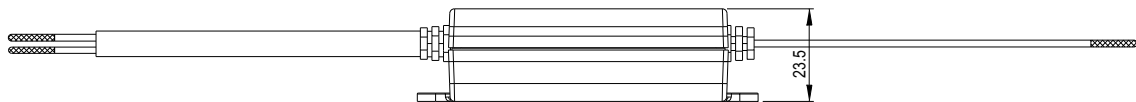
MODEL		APC-8E-250	APC-8E-350	APC-8E-500	APC-8E-700
OUTPUT	RATED CURRENT	250mA	350mA	500mA	700mA
	OPERATING VOLTAGE RANGE <small>Note.4</small>	16~32V	11~23V	8~16V	6~11V
	RATED POWER	8W	8.05W	8W	7.7W
	RIPPLE & NOISE <small>(max.) Note.2</small>	350mVp-p	300mVp-p	300mVp-p	250mVp-p
	NO LOAD OUTPUT VOLTAGE <sub>E(max.)</sub>	38V	29V	24V	17V
	CURRENT ACCURACY	±8.0%			
	SETUP, RISE TIME	500ms, 180ms / 230VAC			
	HOLD UP TIME (Typ.)	20ms/230VAC at full load			
INPUT	VOLTAGE RANGE <small>Note.3</small>	180 ~ 264VAC      254 ~ 370VDC ( <small>Note.5</small> )			
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR (Typ.)	PF>0.5/230VAC at full load			
	EFFICIENCY(Typ.)	81.5%	80.5%	79%	77.5%
	AC CURRENT	0.15A/230VAC			
	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°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 ~45°C)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
SAFETY & EMC <small>(Note 5)</small>	SAFETY STANDARDS	ENEC EN61347-1,EN61347-2-13,EN62384,EAC TP TC 004 approved; design refer to UL8750,CSA C22.2 No.250.0-08; 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 EN55015,EN61000-3-2 Class A,EN61000-3-3, EAC TP TC 020			
	EMC IMMUNITY	Compliance to EN61547,EN61000-4-2,3,4,5,6,8,11; light industry level(surge 2KV), criteria A, EAC TP TC 020			
OTHERS	MTBF	2275.8K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	60*30*23.5(L*W*H)			
	PACKING	0.05Kg; 144pcs/7.6Kg/0.75CUFT			
NOTE	<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. Derating may be needed under low input voltage, please check the static characteristic for more details.</p> <p>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.</p> <p>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.</p>				

■ Mechanical Specification

Unit:mm

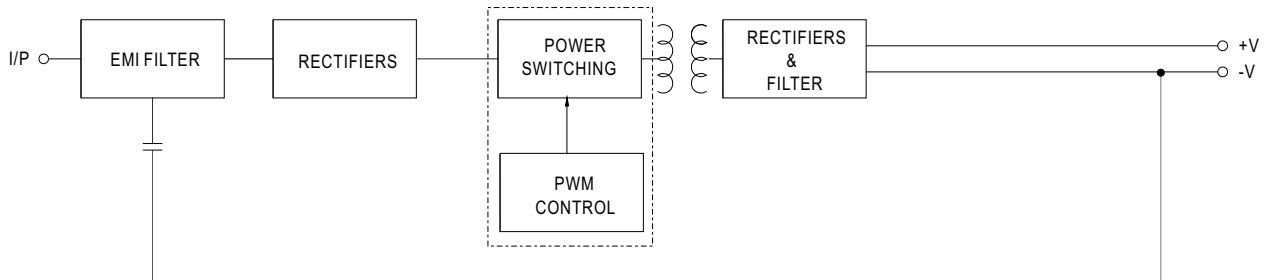


• (tc) : Max. Case Temperature

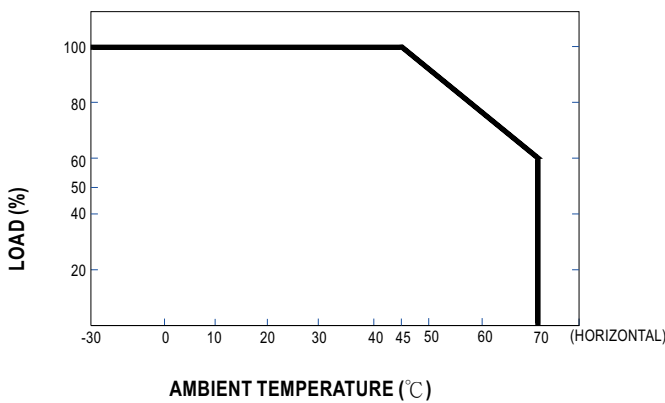


■ Block Diagram

fosc : 67KHz



■ Derating Curve



■ Static Characteristics

