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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8W Single Output Switching Power Supply

APV-8E series

SELV IP42

Features

- Constant voltage design
- Class Ⅱ power unit, no FG
- Fully isolated plastic case
- IP42 design
- Small and compact size
- Cooling by free air convection
- Protections: Short circuit / Overload / Over voltage
- No load power consumption <0.5W
- 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

APV-8E series is one 8W AC/DC constant voltage mode single output LED power supply. It accepts input 180~264VAC and provides three models with different output voltage, 5V, 12V, 24V, 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, APV-8E ideally fits the entry-level LED applications.

Model Encoding

APV - 8E - 24

- 24 — Output voltage
- 8E — Output wattage
- APV — Series name

8W Single Output Switching Power Supply

APV-8E series

SPECIFICATION

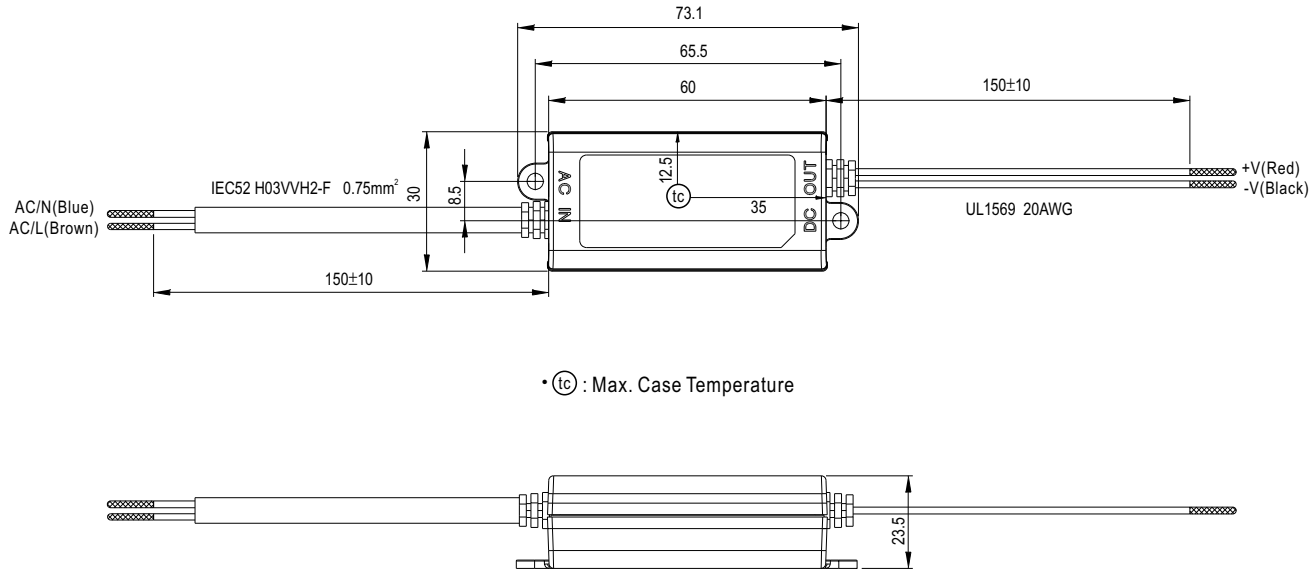
MODEL		APV-8E-5	APV-8E-12	APV-8E-24
OUTPUT	DC VOLTAGE	5V	12V	24V
	RATED CURRENT	1.4A	0.67A	0.34A
	CURRENT RANGE	0 ~ 1.4A	0 ~ 0.67A	0 ~ 0.34A
	RATED POWER	7W	8.04W	8.16W
	RIPPLE & NOISE (max.) Note.2	250mVp-p	250mVp-p	300mVp-p
	VOLTAGE TOLERANCE Note.3	±5.0%		
	LINE REGULATION	±1.0%		
	LOAD REGULATION	±2.0%		
	SETUP, RISE TIME	500ms, 30ms / 230VAC		
	HOLD UP TIME (Typ.)	20ms/230VAC at full load		
INPUT	VOLTAGE RANGE Note.4	180 ~ 264VAC 254 ~ 370VDC (Note.6)		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF>0.5/230VAC at full load		
	EFFICIENCY (Typ.)	74%	77.5%	78.5%
	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		
	OVER LOAD	Above 105% rated output power		
		Protection type : Hiccup mode, recovers automatically after fault condition is removed		
	OVER VOLTAGE	5.75 ~ 6.75V	13.8 ~ 16V	27.6 ~ 32.4V
		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	±0.03%/℃ (0 ~ 45℃)		
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
SAFETY & EMC	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℃/ 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	1631.5K hrs min. MIL-HDBK-217F (25℃)		
	DIMENSION	60*30*23.5(L*W*H)		
	PACKING	0.05Kg; 144pcs/7.6Kg/0.75CUFT		

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 characteristics 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.
6. When applying DC voltage for input, please connect the brown input wire to the positive side whereas blue input wire to the negative side.

■ Mechanical Specification

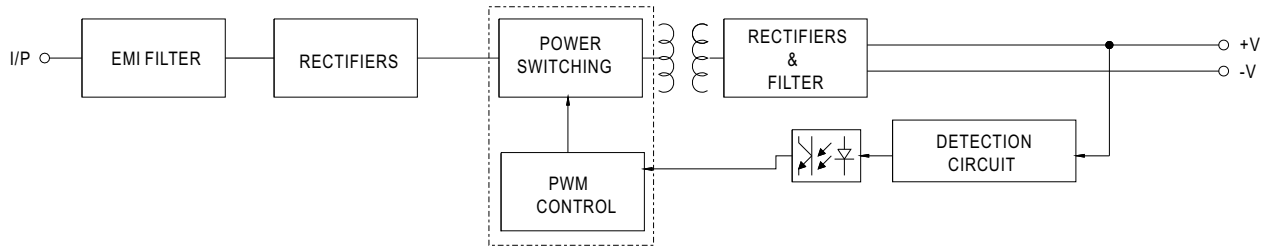
Unit:mm



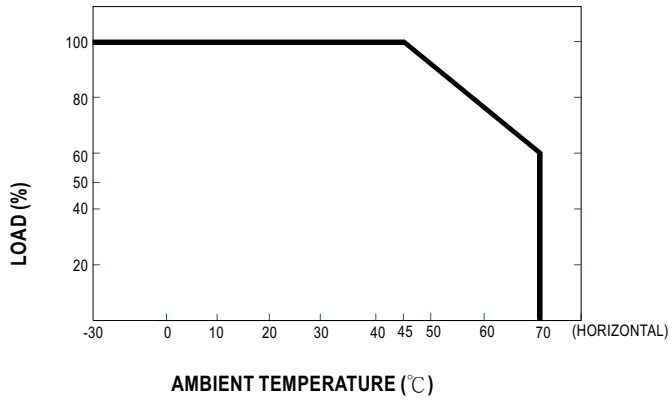
• tc : Max. Case Temperature

■ Block Diagram

fosc : 67KHz

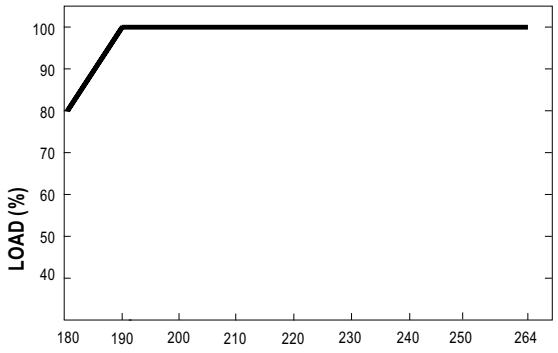


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Static Characteristics



INPUT VOLTAGE (VAC) 60Hz