



8W Single Output Switching Power Supply

**APV-8E series**

User's Manual



SELV IP42 EAC CE UK CA

## ■ 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

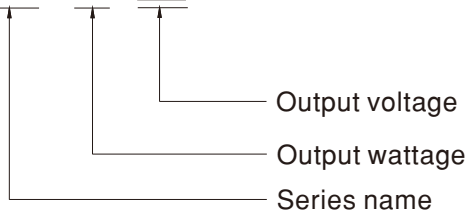
- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)(Note.8)

## ■ 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**





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## 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	
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	EAC TP TC 004 approved; design refer to UL8750,CSA C22.2 No.250.0-08; BS EN/EN62368-1				
WITHSTAND VOLTAGE		I/P-O/P:3.75KVAC					
ISOLATION RESISTANCE		I/P-O/P:>100M Ohms / 500VDC / 25℃ / 70% RH					
EMC EMISSION		Compliance to BS EN/EN55032,BS EN/EN61000-3-2,BS EN/EN61000-3-3, EAC TP TC 020					
EMC IMMUNITY		Compliance to BS EN/EN55024,BS EN/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/0.70CUFT					
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. 7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). 8. This product is not intended for LED lighting luminaire applications in the EU.(In the EU the LPF/NPF/XLG series are recommended.) 9. For any application note and IP water proof function installation caution, please refer our user manual before using. <a href="https://www.meanwell.com/Upload/PDF/LED_EN.pdf">https://www.meanwell.com/Upload/PDF/LED_EN.pdf</a> ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>						

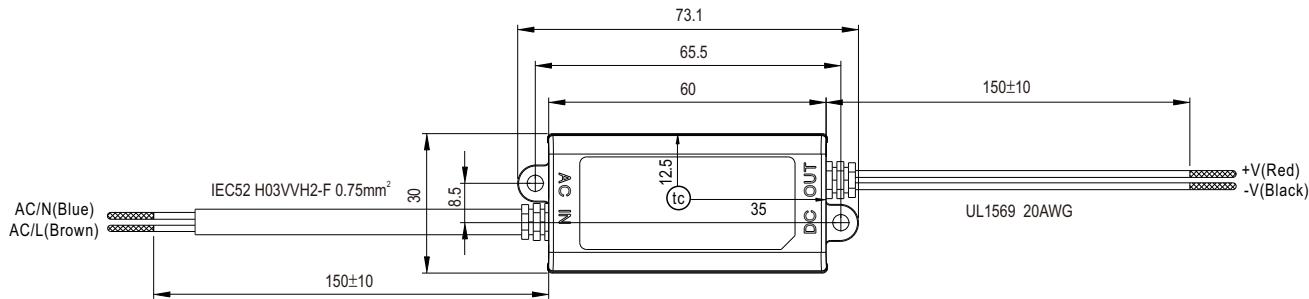


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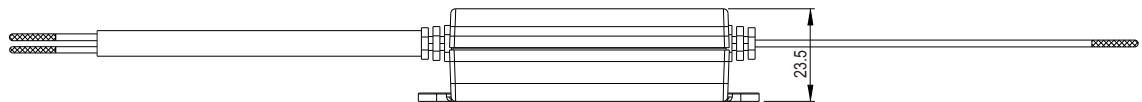
APV-8E series

■ Mechanical Specification

Unit:mm

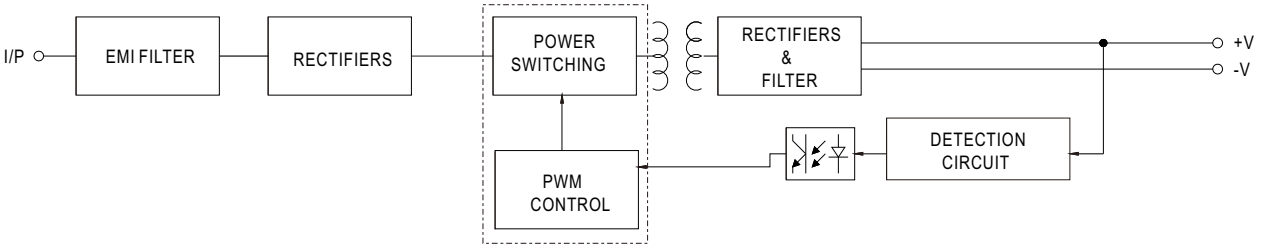


• (tc) : Max. Case Temperature

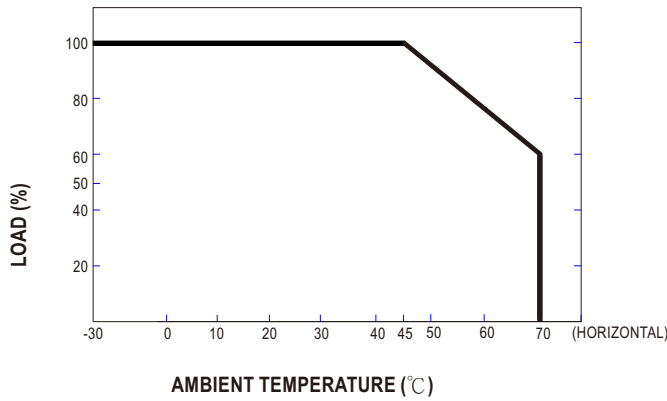


■ Block Diagram

fosc : 67KHz



■ Derating Curve



■ Static Characteristics

