



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

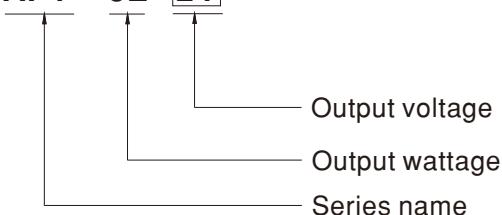
- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)(Note.8)

■ 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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SPECIFICATION

MODEL	APV-8E-5	APV-8E-12	APV-8E-24
OUTPUT	DC VOLTAGE	5V	12V
	RATED CURRENT	1.4A	0.67A
	CURRENT RANGE	0 ~ 1.4A	0 ~ 0.67A
	RATED POWER	7W	8.04W
	RIPPLE & NOISE (max.) Note.2	250mVp-p	250mVp-p
	VOLTAGE TOLERANCE Note.3	±5.0%	
	LINE REGULATION	±1.0%	
	LOAD REGULATION	±2.0%	
	SETUP, RISE TIME	500ms, 30ms / 230VAC	
INPUT	HOLD UP TIME (Typ.)	20ms/230VAC at full load	
	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	
PROTECTION	LEAKAGE CURRENT	0.25mA / 240VAC	
	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	
ENVIRONMENT	OVER VOLTAGE	5.75 ~ 6.75V	13.8 ~ 16V
		Protection type : Shut off o/p voltage, clamping by zener diode	27.6 ~ 32.4V
	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	
SAFETY & EMC	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 45°C)	
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes	
	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°C / 70% RH	
OTHERS	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	
	MTBF	1631.5K hrs min. MIL-HDBK-217F (25°C)	
NOTE	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°C 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°C/1000m with fanless models and of 5°C/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. https://www.meanwell.com/Upload/PDF/LED_EN.pdf		
	※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx		

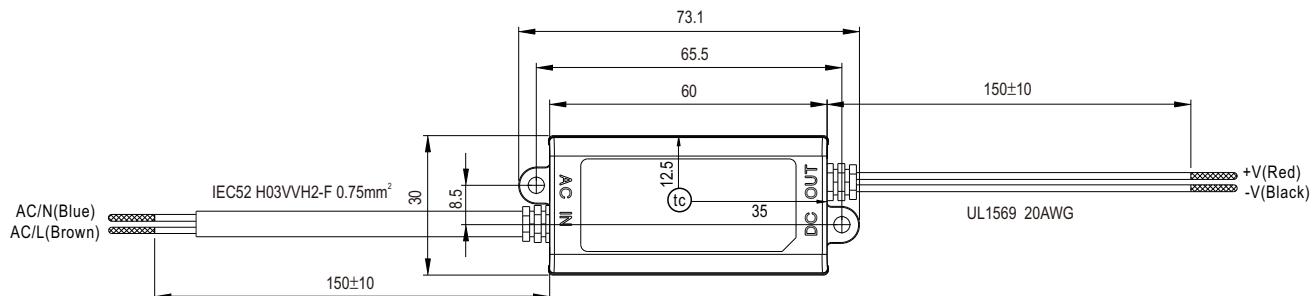


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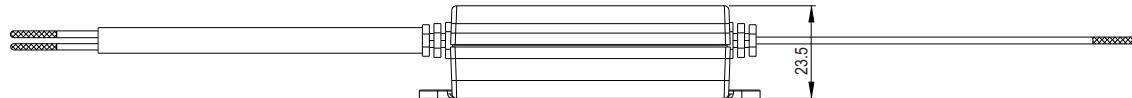
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■ Mechanical Specification

Unit:mm

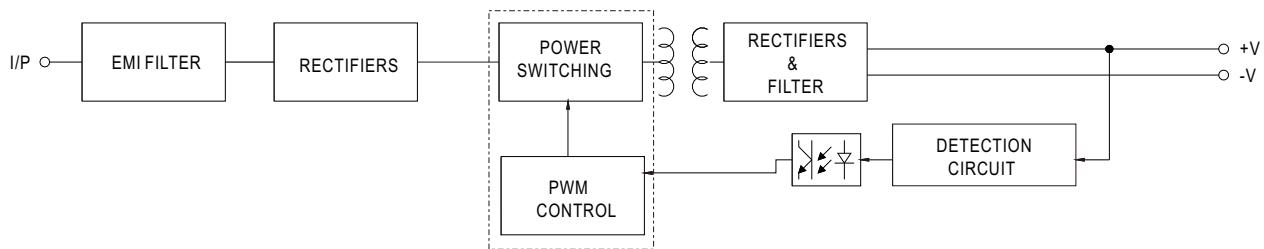


• (tc) : Max. Case Temperature

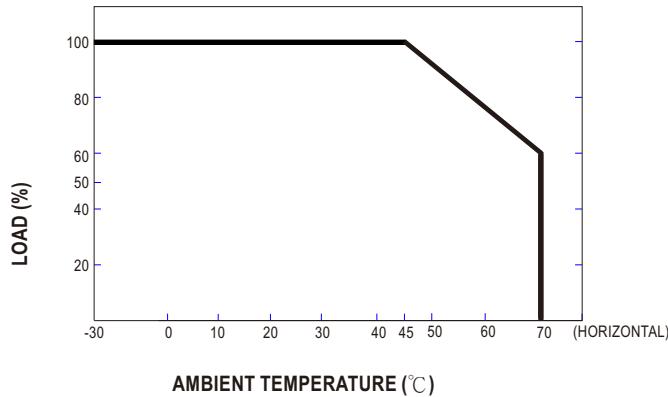


■ Block Diagram

fosc : 67KHz



■ Derating Curve



■ Static Characteristics

