APV-25 series

25W Single Output Switching Power Supply

User's Manual

Features :

- Constant voltage mode power supply
- Universal AC input / Full range
- Withstand 300VAC Surge input for 5 seconds
- Protections: Short circuit / Over load / Over voltage
- Fully isolated plastic case
- Cooling by free air convection
- Small and compact size
- IP42 design
- Class 2 power unit
- Pass LPS
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)(Note.9)
- 2 years warranty

IP42 LPS IS 15885(Part 2/Sec13) R-41027766 (except for 15V,36V)

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

SPECIFICATION

MODEL		APV-25-5	APV-25-12	APV-25-15	APV-25-24	APV-25-36
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	36V
	RATED CURRENT	3.5A	2.1A	1.68A	1.05A	0.7A
	CURRENT RANGE	0 ~ 3.5A	0 ~ 2.1A	0 ~ 1.68A	0 ~ 1.05A	0 ~ 0.7A
	RATED POWER	17.5W	25.2W	25.2W	25.2W	25.2W
	RIPPLE & NOISE (max.) Note.2	120mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3	±5.0%				
	LINE REGULATION	±1.0%				
	LOAD REGULATION	±2.0%				
	SETUP, RISE TIME Note.6	1500ms, 30ms / 230VAC	1500ms,30ms / 115VAC at full load			
	HOLD UP TIME (Typ.)	20ms/230VAC	12ms/115VAC at full load			
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC	127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz				
	EFFICIENCY (Typ.)	75.5%	82%	83%	83%	84%
	AC CURRENT	0.4A/230VAC	0.8A/115VAC			
	INRUSH CURRENT(Typ.)	COLD START 45A(twidth=310μs measured at 50% Ipeak) at 230VAC				
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	9 units (circuit breaker of type B) / 15 units (circuit breaker of type C) at 230VAC				
	LEAKAGE CURRENT	0.25mA / 240VAC				
PROTECTION	OVER LOAD	Above 105% rated output power				
		Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	OVER VOLTAGE	5.75 ~ 6.95V	13.8 ~ 16.2V	17.25 ~ 21V	27 ~ 32.4V	41.4 ~ 48.6V
		Protection type : Shut down o/p voltage, re-power on to recover				
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 ~ 50℃)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC	SAFETY STANDARDS	UL8750 , CSA-C22.2 No. 250.0-13, BIS IS15885(except for 15V,36V), EAC TP TC 004,IP42 BS EN/EN 62368-1approved				
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC				
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25℃/ 70% RH				
	EMC EMISSION	Compliance to BS EN/EN55032,BS EN/EN61000-3-2 Class A,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), EAC TP TC 020				
OTHERS	MTBF	5489.6K hrs min. Telcordia SR-332 (Bellcore) ; 600.0K hrs min. MIL-HDBK-217F (25℃)				
	DIMENSION	84*57*29.5mm (L*W*H)				
	PACKING	0.13Kg; 72pcs / 10.4Kg / 0.92CUFT				

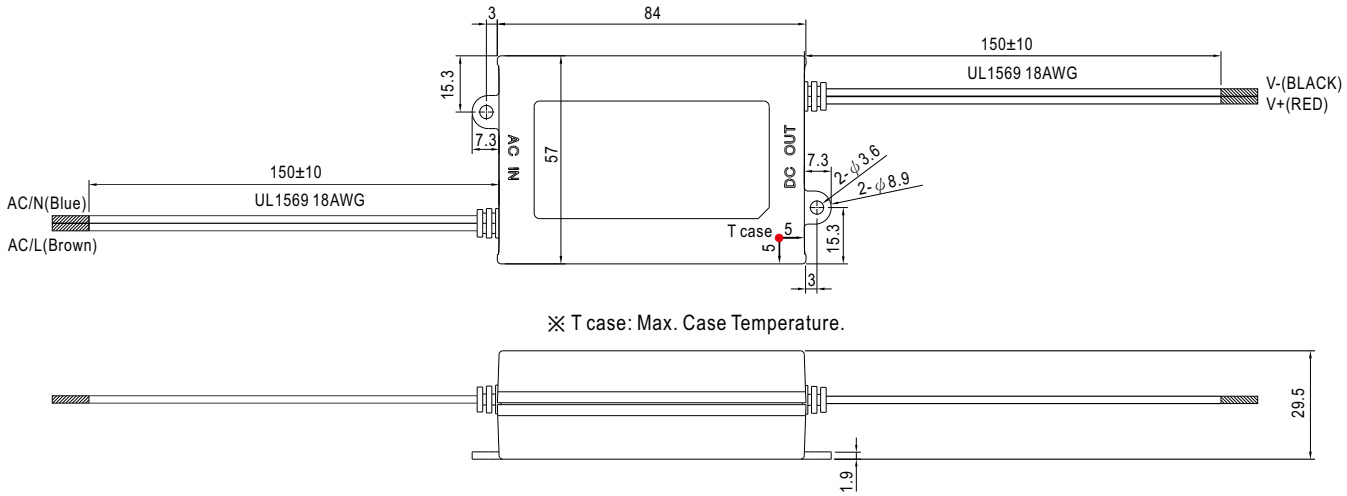
NOTE

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. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.
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. 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
9. This product is not intended for LED lighting luminaire applications in the EU.(In the EU the LPF/NPF/XLG series are recommended.)
10. To fulfill requirements of latest ErP regulation for lighting luminaires, this LED Driver can only be used behind a switch without permanently connected to mains.

※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

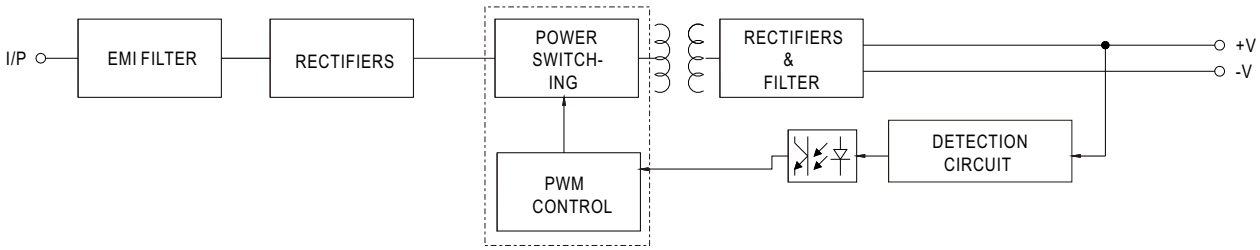
■ Mechanical Specification

Case No.PCD16A Unit:mm

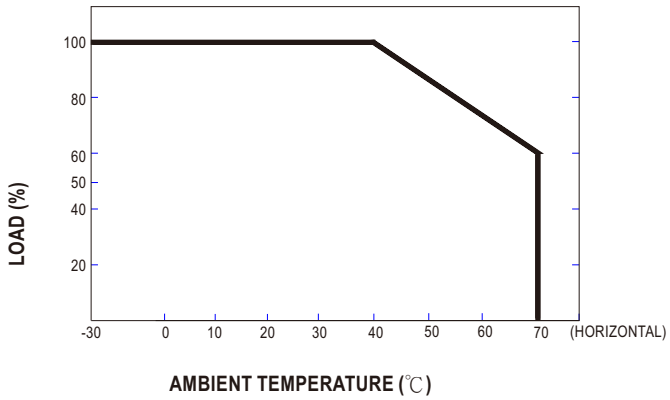


■ Block Diagram

fosc : 60KHz

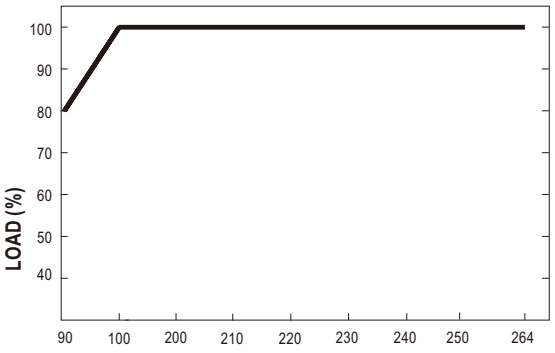


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Static Characteristics



INPUT VOLTAGE (VAC) 60Hz