



12W Single Output Switching Power Supply

APV-12 series



■ Features :

- Constant voltage design
- Universal AC input / Full range
- Protections: Short circuit / Over load / Over voltage
- Fully isolated plastic case
- Cooling by free air convection
- Small and compact size
- Class II power unit, no FG
- Class 2 power unit
- Pass LPS
- IP42 design
- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)(Note.7)
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

User's Manual



■ GTIN CODE

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

IS 15885(Part 2/Sec13)

R-41027766
(except for 15V)

SELV LPS IP42



SPECIFICATION

MODEL	APV-12-5	APV-12-12	APV-12-15	APV-12-24	
OUTPUT	DC VOLTAGE	5V	12V	15V	24V
	RATED CURRENT	2A	1A	0.8A	0.5A
	CURRENT RANGE	0 ~ 2A	0 ~ 1A	0 ~ 0.8A	0 ~ 0.5A
	RATED POWER	10W	12W	12W	12W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	120mVp-p	120mVp-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	15ms/115VAC at full load			
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC	127 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	76%	82%	82%	84%
	AC CURRENT	0.2A/230VAC	0.35A/115VAC		
	INRUSH CURRENT(Typ.)	COLD START 70A(twidth=185µs measured at 50% Ipeak) at 230VAC			
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	17 units (circuit breaker of type B) / 29 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 ~ 6.75V	13.8 ~ 16V	17.5 ~ 21V	27.6 ~ 32.4V
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	±0.03%/°C (0 ~ 50°C)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
SAFETY & EMC	SAFETY STANDARDS Note.8	UL8750, CSA C22.2 No.250.0-08, BIS IS15885(except for 15V), EAC TP TC 004, IP42, BS EN/EN 62368-1 approved			
	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 BS EN/EN55032, BS EN/EN61000-3-2, BS EN/EN61000-3-3, EAC TP TC 020			
	EMC IMMUNITY	Compliance to BS EN/EN55035, BS EN/EN61000-4-2, 3, 4, 5, 6, 8, 11; light industry level(surge 2KV), EAC TP TC 020			
OTHERS	MTBF	7488.9K hrs min. Telcordia SR-332 (Bellcore); 1132.5K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	77*40*29(L*W*H)			
	PACKING	0.08Kg; 120pcs/11.8Kg/1.06CUFT			

NOTE

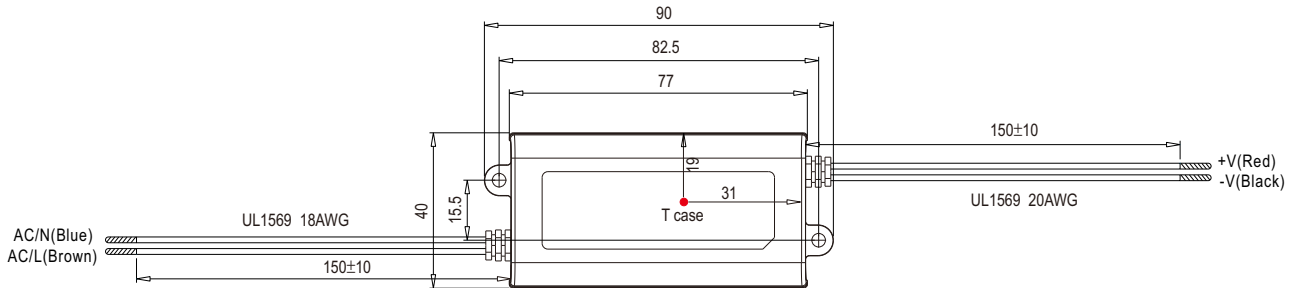
- All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
- Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µf & 47µf parallel capacitor.
- Tolerance : includes set up tolerance, line regulation and load regulation.
- Derating may be needed under low input voltage. Please check the static characteristics for more details. Please connect L line to the positive pole and N line to the negative pole under DC input.
- 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. (as available on https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf)
- 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.
- This product is not intended for LED lighting luminaire applications in the EU and China. (In the EU and China the LPF/NPF/XLG/XLC/XLN series are recommended.)
- 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).
- Products sourced from the Americas regions may not have the ENEC/BIS logo. Please contact your MEAN WELL sales for more information.
- 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>

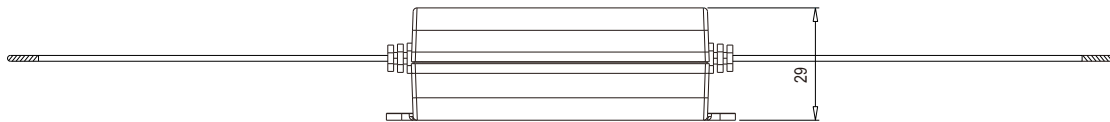
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Mechanical Specification

Unit:mm

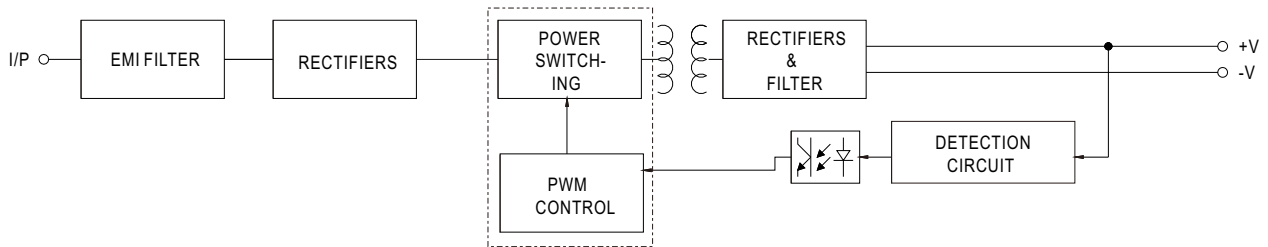


※ T case: Max. Case Temperature

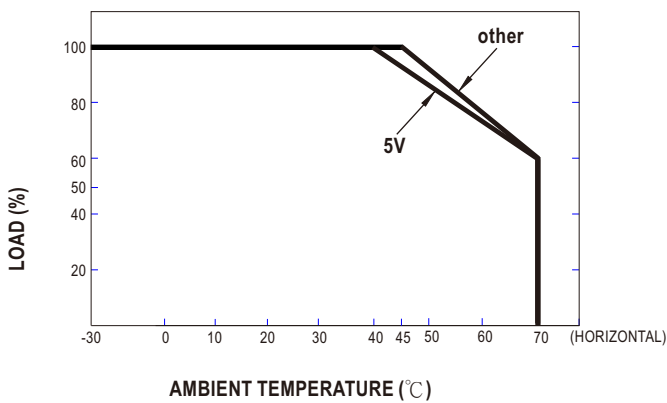


Block Diagram

fosc : 67KHz



Derating Curve



Static Characteristics

