16W Single Output Switching Power Supply

APV-16 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 lighting and moving sign applications
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

SPECIFICATION

SELV LPS IP42 CB CE

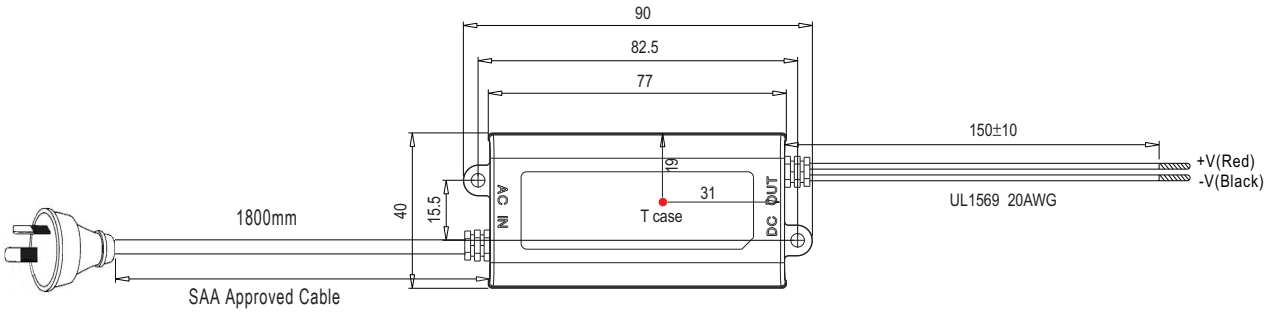
MODEL		APV-16-12	APV-16-24		
OUTPUT	DC VOLTAGE	12V	24V		
	RATED CURRENT	1.25A	0.67A		
	CURRENT RANGE	0 ~ 1.25A	0 ~ 0.67A		
	RATED POWER	15W	16.08W		
	RIPPLE & NOISE (max.) Note.2	120mVp-p	150mVp-p		
	VOLTAGE TOLERANCE Note.3	±5.0%			
	LINE REGULATION	±1.0%			
	LOAD REGULATION	±2.0%			
	SETUP, RISE TIME Note.6	1500ms, 30ms / 230VAC 1500ms,30ms / 115VAC at full load			
	HOLD UP TIME (Typ.)	20ms/230VAC 12ms/115VAC at full load			
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC 127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	80%	83%		
	AC CURRENT	0.3A/230VAC 0.5A/115VAC			
	INRUSH CURRENT(Typ.)	COLD START 50A(twidth=185μs measured at 50% Ipeak) at 230VAC			
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	13 units (circuit breaker of type B) / 22 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
		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 ~ 50℃)			
	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, ENEC EN61347-1,EN61347-2-13,EN62384 Independent,IP42 Approved; design refer to 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 EN55032,EN61000-3-2 Class A,EN61000-3-3			
	EMC IMMUNITY	Compliance to EN55024,EN61000-4-2,3,4,5,6,8,11; light industry level(surge 2KV), criteria A			
OTHERS	MTBF	1145.7K hrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	77*40*29mm (L*W*H)			
	PACKING	30pcs/8.5Kg			

NOTE

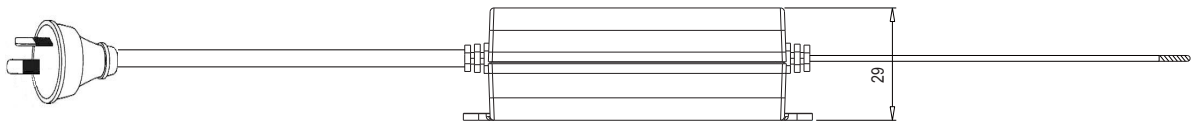
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation 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 unit might not be suitable for lighting applications in EU countries. Please check with your local authorities for the possible use of the unit.
8. The model certified for CCC(GB19510.14, GB19510.1, GB17743 and GB17625.1) is an optional model . Please contact MEAN WELL for details.

■ Mechanical Specification

Unit:mm

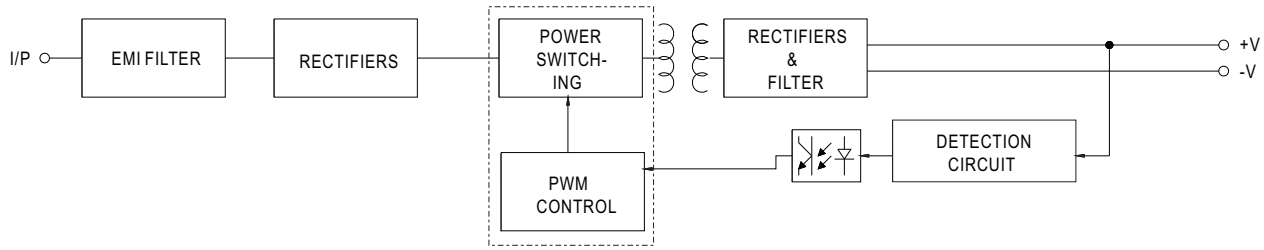


※ T case: Max. Case Temperature

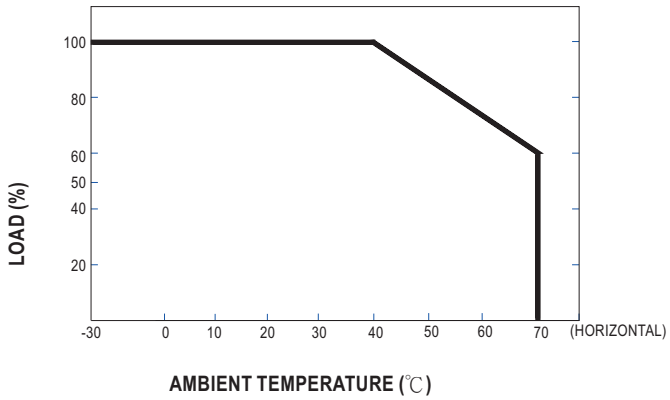


■ Block Diagram

fosc : 67KHz

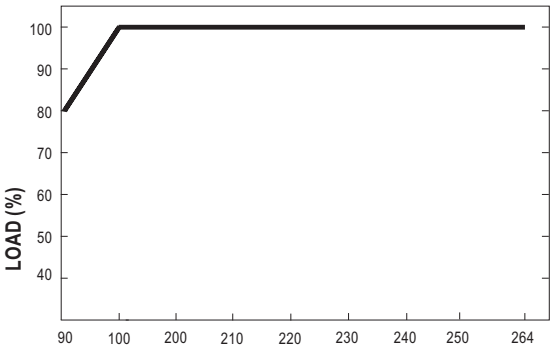


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Static Characteristics



INPUT VOLTAGE (VAC) 60Hz