16W Single Output Switching Power Supply

APV-16E-12SC1

SELV IP42

Features

- Constant voltage design
- 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
- No load power consumption <0.5W
- IP42 design
- Suitable for LED lighting and moving sign applications
- 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)

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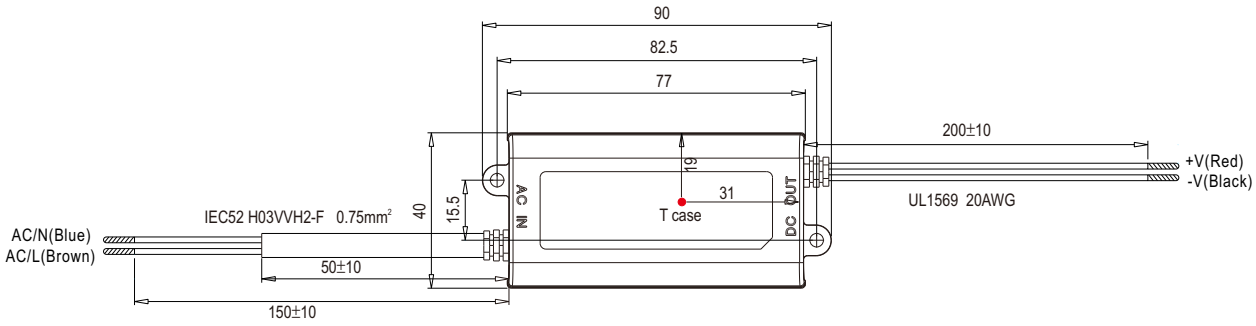
SPECIFICATION

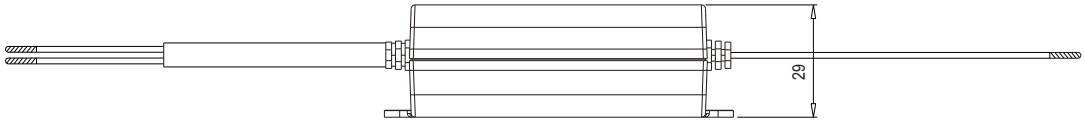
MODEL		APV-16E-12SC1
OUTPUT	DC VOLTAGE	12V
	RATED CURRENT	1.25A
	CURRENT RANGE	0 ~ 1.25A
	RATED POWER	15W
	RIPPLE & NOISE (max.)Note.2	120mVp-p
	VOLTAGE TOLERANCE Note.3	±5.0%
	LINE REGULATION	±1.0%
	LOAD REGULATION	±2.0%
	SETUP, RISE TIME Note.6	500ms, 30ms / 230VAC at full load
	HOLD UP TIME (Typ.)	20ms/230VAC at full load
INPUT	VOLTAGE RANGE Note.4	180 ~ 264VAC 254 ~ 370VDC
	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR (Typ.)	PF>0.5/230VAC at full load
	EFFICIENCY (Typ.)	79%
	AC CURRENT	0.3A/230VAC
	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	13.8 ~ 16V
		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	EAC TP TC 004, IP42 approved;design refer to BS EN/EN 62368-1
	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	1145.7K hrs min. MIL-HDBK-217F (25℃)
	DIMENSION	77*40*29mm (L*W*H)
	PACKING	0.1Kg; 120pcs/14Kg/1.06CUFT
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. 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	

■ Mechanical Specification

Unit:mm

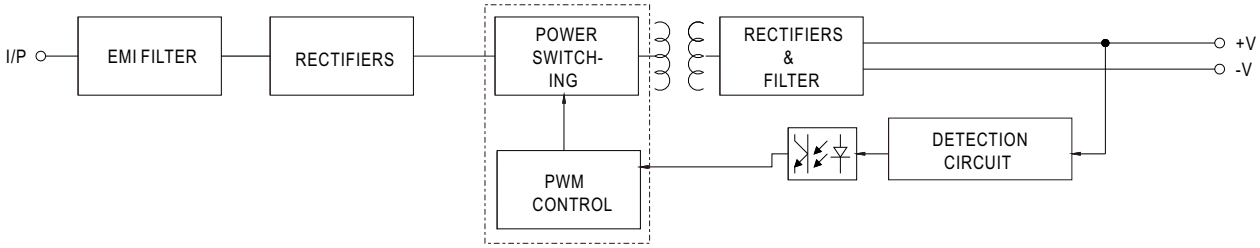


※ T case: Max. Case Temperature

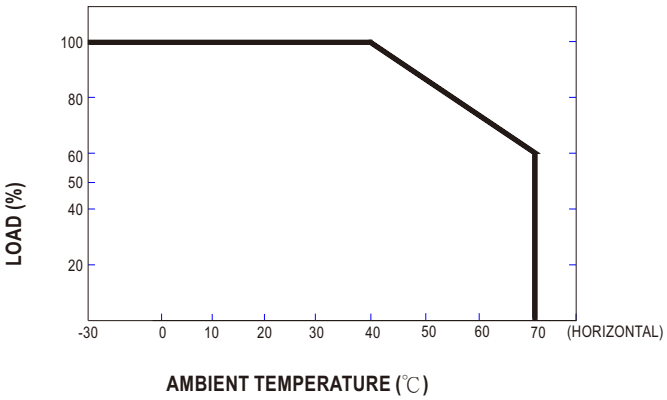


■ Block Diagram

fosc : 67KHz

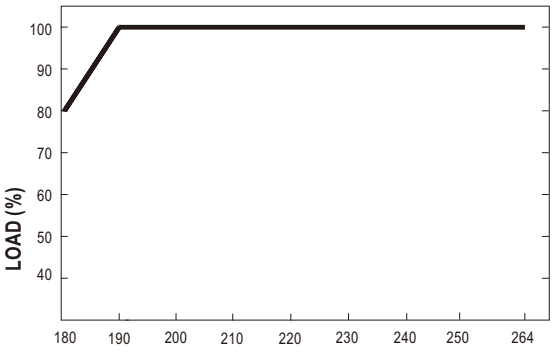


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Static Characteristics



INPUT VOLTAGE (VAC) 60Hz