



## 12W Single Output Switching Power Supply

## APC-12 series



## ■ Features :

- Constant current design
- Universal AC input / Full range
- Protections: Short circuit / Over voltage
- Fully isolated plastic case
- Small and compact size
- Cooling by free air convection
- 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.6)
- 100% full load burn-in test
- Low cost / High reliability
- 2 years warranty

User's Manual



LPS IP42

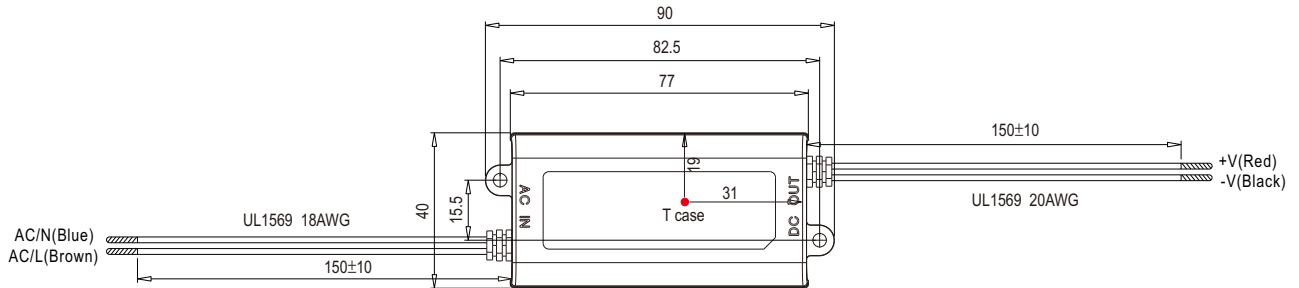
 IS 15885(Part 2/Sec13)  
R-41027766


## SPECIFICATION

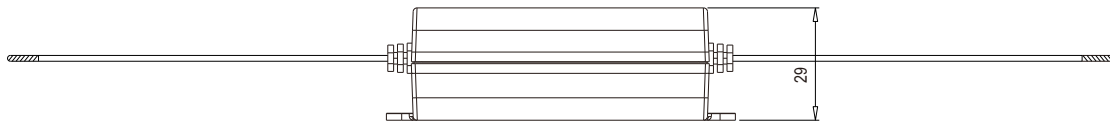
MODEL		APC-12-350		APC-12-700	
OUTPUT	RATED CURRENT	350mA		700mA	
	DC VOLTAGE RANGE	9~36V		9~18V	
	RATED POWER	12.6W		12.6W	
	RIPPLE & NOISE (max.) <small>Note.2</small>	300mVp-p		250mVp-p	
	VOLTAGE TOLERANCE <small>Note.3</small>	±5.0%			
	CURRENT ACCURACY	±8.0%			
	LINE REGULATION	±1.0%			
	LOAD REGULATION	±3.0%			
	SETUP, RISE TIME	3000ms, 180ms / 230VAC      3000ms, 150ms / 115VAC at full load			
	HOLD UP TIME (Typ.)	20ms/230VAC,15ms/115VAC at full load			
INPUT	VOLTAGE RANGE <small>Note.4</small>	90 ~ 264VAC      127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY(Typ.)	82%		80%	
	AC CURRENT	0.2A/230VAC;0.35A/115VAC			
	INRUSH CURRENT(Typ.)	COLD START 70A(twidth=120μs 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 VOLTAGE	39.6~ 46.8V		20.7~ 24.3V	
		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	±0.2%/℃ (0 ~ 50℃)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 5)	SAFETY STANDARDS <small>Note.7</small>	UL8750, CSA C22.2 No.250.0-08, BIS IS15885, EAC TP TC 004 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*29(L*W*H)			
	PACKING	0.08Kg; 120pcs/11.8Kg/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 characteristic 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. This product is not intended for LED lighting luminaire applications in the EU.(In the EU the LPF/NPF/XLG series are recommended.) 7. The model certified for CCC(GB19510.14, GB19510.1, GB17743 and GB17625.1) is an optional model . Please contact MEAN WELL for details. 8. 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). 9. For any application note and IP water proof function installation caution, please refer our user manual before using. <a href="https://www.meanwell.com/Upload/PDF/LED_EN.pdf">https://www.meanwell.com/Upload/PDF/LED_EN.pdf</a> ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>				

## Mechanical Specification

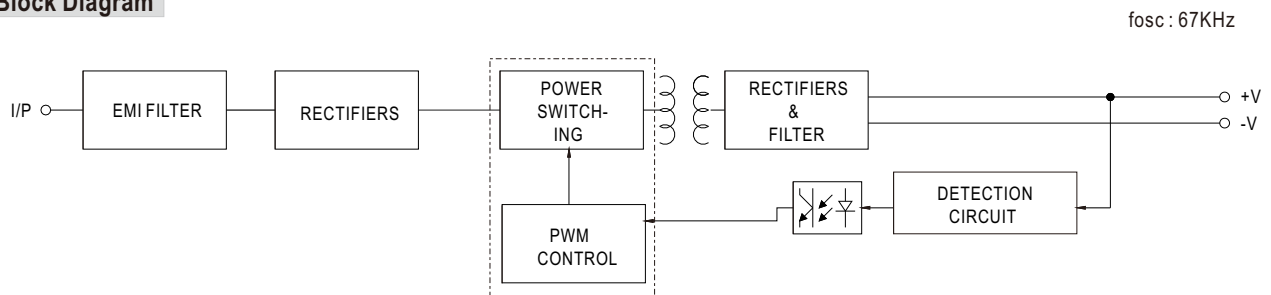
Unit:mm



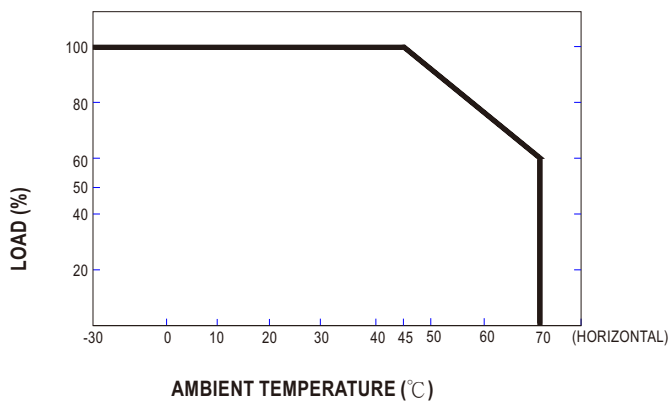
※ T case: Max. Case Temperature



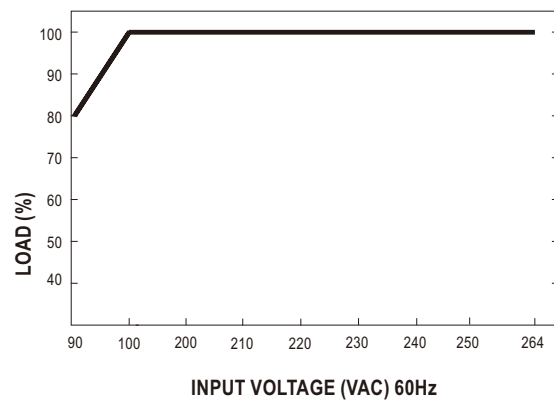
## Block Diagram



## Derating Curve



## Static Characteristics





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■ EFFICIENCY vs LOAD (APC-12-350)

Unit:mm

