



E-Star Power Development Co., Ltd. (E-STAR)  
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**12W LED Driver power supply < APC-12**



■ 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)
- 100% full load burn-in test
- Low cost / High reliability
- 2 years warranty

IS15885(Part 2/Sec13)



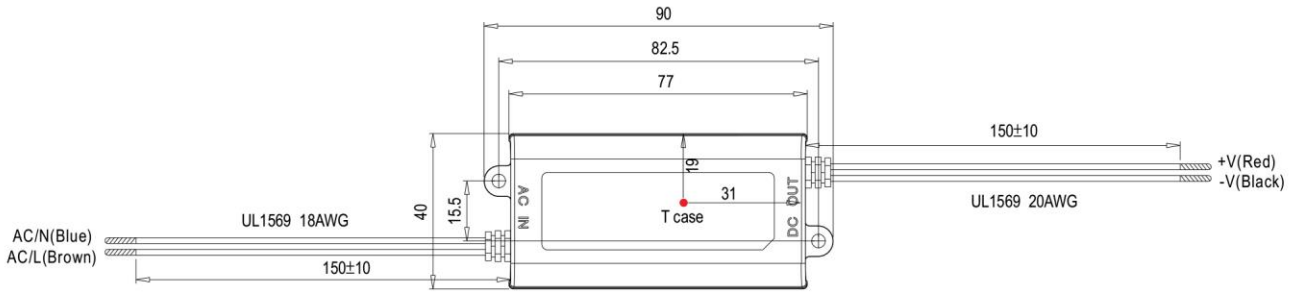
**SPECIFICATION**

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.) Note.2	300mVp-p	250mVp-p
	VOLTAGE TOLERANCE Note.3	±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 Note.4	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°C (Refer to "Derating Curve")	
	WORKING HUMIDITY	20 ~ 90% RH non-condensing	
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH	
	TEMP. COEFFICIENT	±0.2%/°C (0 ~ 50°C)	
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes	
SAFETY & EMC (Note 5)	SAFETY STANDARDS Note.7	UL8750, CSA C22.2 No.250.0-08 approved, Design refer to EN60950-1	
	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 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°C)	
	DIMENSION	77*40*29(L*W*H)	
	PACKING	0.08Kg; 120pcs/11.8Kg/1.06CUFT	
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. Derating may be needed under low input voltage. Please check the static characteristic for more details.</li> <li>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.</li> <li>6. 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.</li> <li>7. The model certified for CCC(GB19510.14, GB19510.1, GB17743 and GB17625.1) is an optional model .</li> </ol>		

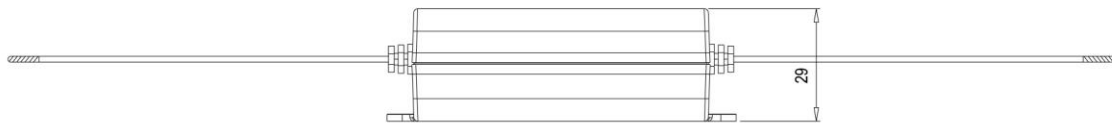
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**Mechanical Specification**

Unit:mm

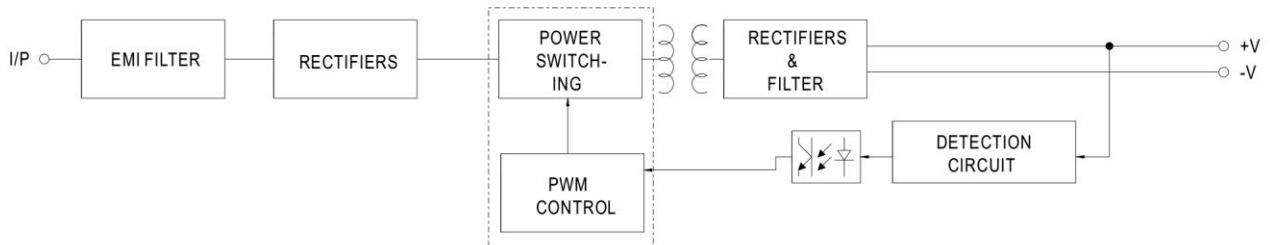


※ T case: Max. Case Temperature

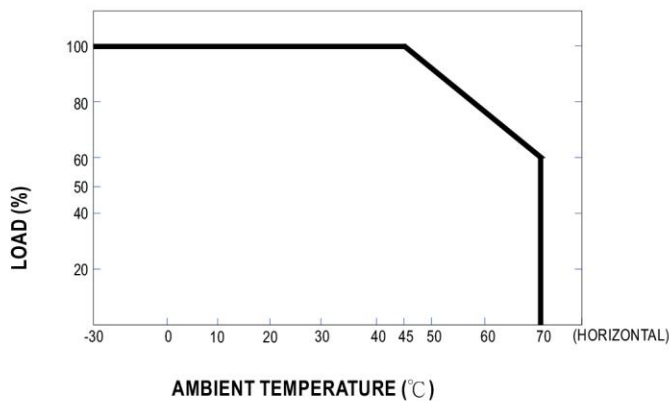


**Block Diagram**

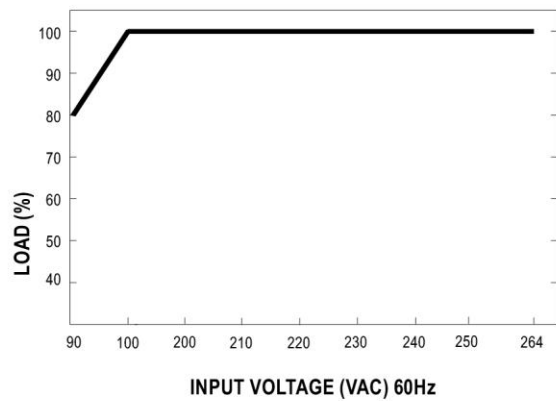
fosc : 67KHz



**Derating Curve**



**Static Characteristics**





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■ EFFICIENCY vs LOAD (APC-12-350)

Unit:mm

