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## 1. Safety Warnings

**For installation by a licensed electrician only.**

**Read all instructions before installing.**

**Turn off power at the main switch before installing or adjusting the light.**

**Do not disassemble the light fitting or power supply.**

**Do not over-tighten the red cap.**

**You must use a 5V-1A DC power supply, such as the supply included in the box.**

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## 2. Installation Requirements

The mounting point must be able to support at least 2 times the weight of the fitting.

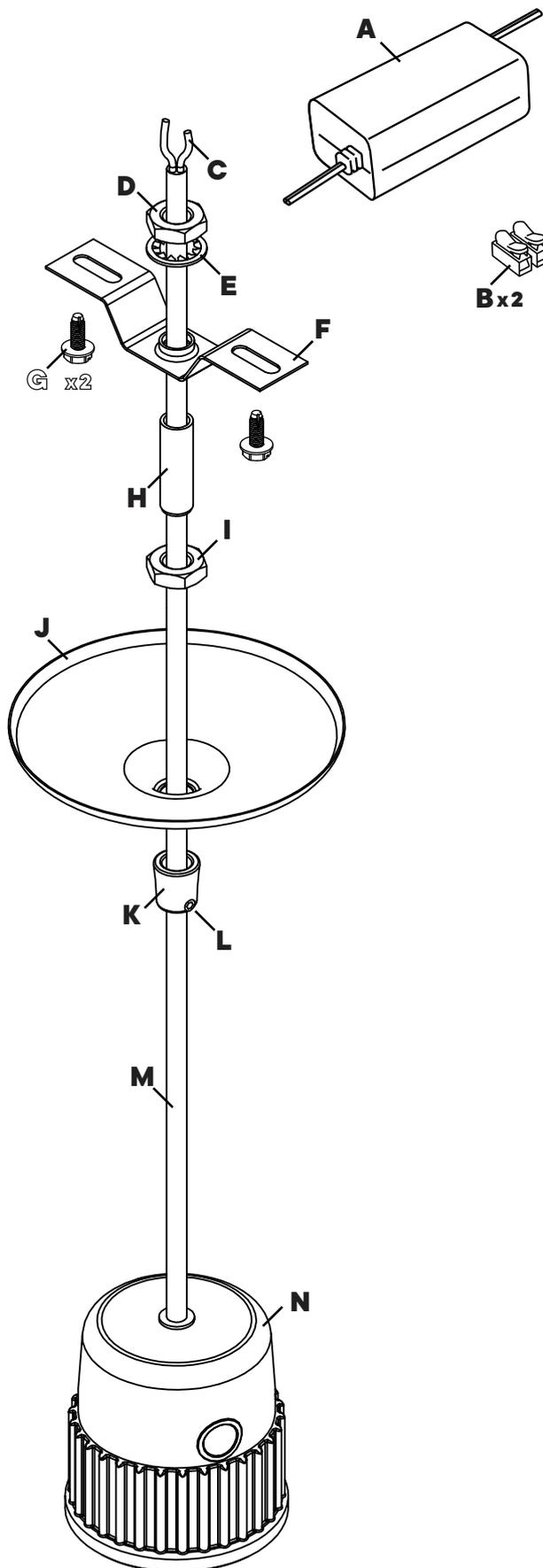
Install indoors only away from air vents, drafts and any source of moisture.

Keep appropriate ventilation around the power supply and ensure ambient temperature is within the operating range specified by the manufacturer.

The lamp is **not suitable** for use with dimming circuits.

### 3. Canopy Diagram

- A** Power Supply Module
- B** Connectors x2
- C** Wires
- D** M10 Nut
- E** M10 star/lock washer
- F** Mounting bracket
- G** Screws x 2 (not included)
- H** M10 hollow threaded rod
- I** M10 Nut
- J** Canopy
- K** Cable grip
- L** Grub Screw for cable grip
- M** Cable
- N** Cap



## 4. Installation with the included canopy

### You will need

2x screws, suitable for the surface.

### Step One

Check shade [O] is securely attached to cap [N]. Do not over-tighten.

### Step Two

Unscrew cable grip [K] from threaded rod [H].

### Step Three

Thread cable [M] through cable grip [K], then canopy [J], then threaded rod [H].

### Step Four

Determine final height of lamp. Tighten a cable tie to cable above upper M10 nut [D] at desired position.

### Step Five

Safely connect wires to the power supply module [A]. Refer to the power supply module information sheet and check that correct connections have been made, and all wires are securely fitted with no wires exposed.

### Step Six

Fit power supply module [A] in ceiling. Ensure safe clearance values are maintained.

### Step Seven

Attach mounting bracket [F] to ceiling using screws suitable for mounting surface.

### Step Eight

Slide canopy [J] up into position. Tighten cable grip [K] on threaded rod until canopy is secure against ceiling. Tighten grub screw [L] in cable grip [K]. Do not over tighten.

### To adjust brightness

Touch and hold the button on the cap to adjust brightness. Release to set desired level. The lamp will save the last used brightness setting.

## 5. Installation with a third-party canopy

### Step 1

Follow all instructions provided with third-party canopy. Ensure canopy meets all safety requirements for weight, ventilation and local regulations.

### Step 2

Safely connect lamp to the power supply module. Safely connect power supply module to the mains power. Refer to the power supply module information sheet and check that correct connections have been made, and all wires are securely fitted with no wires exposed.

### To adjust brightness

Touch and hold the button on the cap to adjust brightness.

Release to set desired level. The lamp will save the last used brightness setting.

## 6. Choosing a third-party canopy

If the power supply cannot be concealed in the ceiling, a larger canopy may be used.

Refer to the power supply information sheet for dimensions.

## 7. Recommended canopies

We have tested these canopies.

You can find them on Amazon and at many lighting retailers.

- CableCup Original 158mm
- Industrial Rewind Slightly Oversized Ceiling Canopy Kit

## 8. Using another DC power source e.g. USB or DC plug

You can adapt the cable to a USB or DC plug to use with a wall power adaptor.

### The power input must be 5V-1A DC

For safety, a licensed electrician or similarly qualified person should make the modifications according to local regulations.



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

**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=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			
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, ENEC EN61347-1, EN61347-2-13, EN62384 Independent, BIS IS15885(except for 15V), EAC TP TC 004, IP42 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 EN55032, EN61000-3-2 Class A, EN61000-3-3, EAC TP TC 020			
	EMC IMMUNITY	Compliance to EN55024, 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°C)			
	DIMENSION	77*40*29(L*W*H)			
	PACKING	0.08Kg; 120pcs/11.8Kg/1.06CUFT			

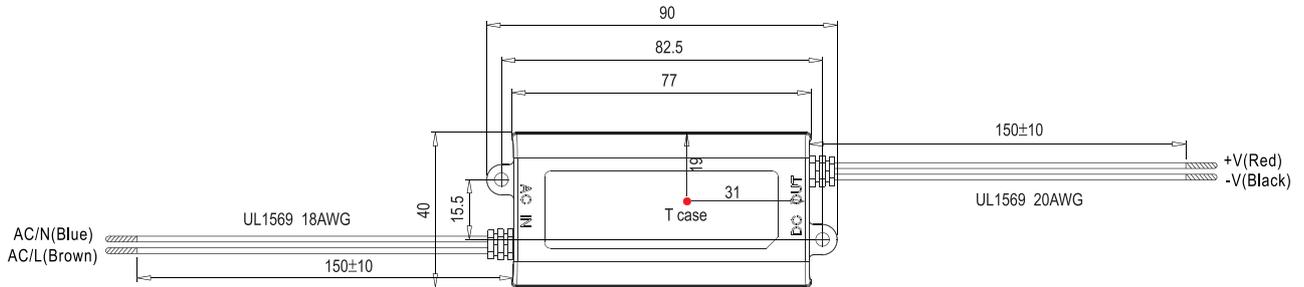
**NOTE**

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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.
9. 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).
10. Products sourced from the Americas regions may not have the ENEC/BIS/CCC logo. Please contact your MEAN WELL sales for more information.
11. 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](https://www.meanwell.com/Upload/PDF/LED_EN.pdf)

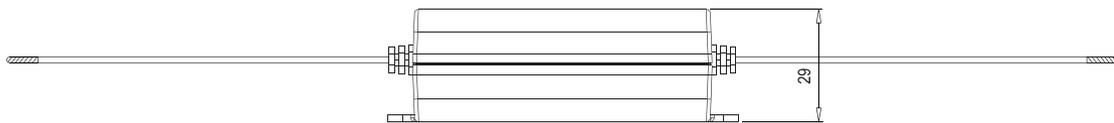
※ Product Liability Disclaimer : For detailed information, please refer to <https://www.meanwell.com/serviceDisclaimer.aspx>

## Mechanical Specification

Unit:mm

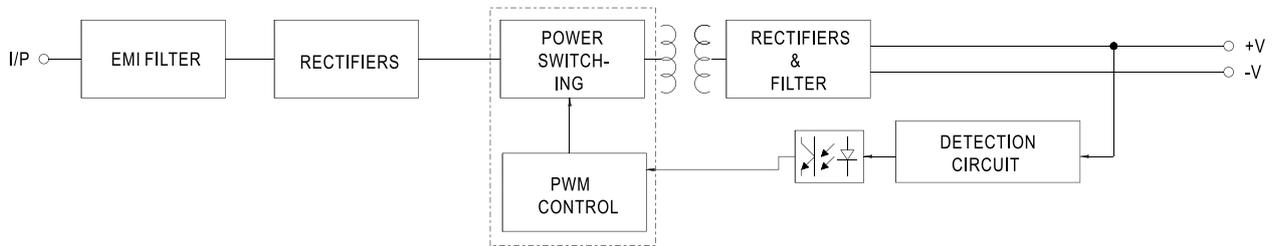


※ T case: Max. Case Temperature

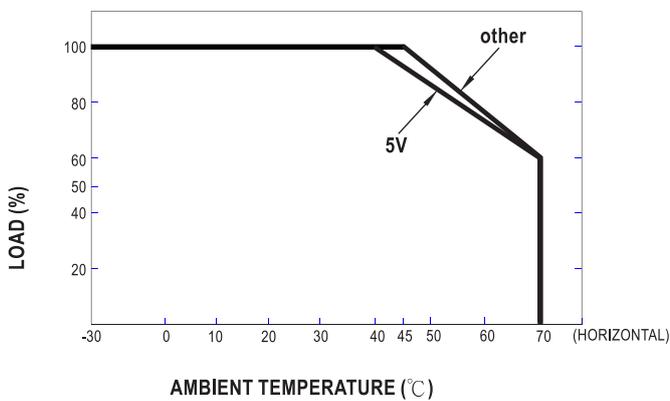


## Block Diagram

fosc : 67KHz



## Derating Curve



## Static Characteristics

