



**APV-16 Series  
Single Output  
Switching Power  
Supply**



# MEAN WELL APV-16 Series Single Output Switching Power Supply Owner's Manual

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**MEAN WELL APV-16 Series Single Output Switching Power Supply**



## Product Usage Instructions

- Ensure that the power supply is disconnected from the power source before installation. Connect the L line to the positive pole and the N line to the negative pole under DC input.
- Operate the power supply within the specified temperature range of -30°C to +70°C and humidity range of 20% to 90% RH non-condensing.
- The power supply features overload protection. In case of overload, the protection mechanism will activate to safeguard the unit.
- Adhere to safety standards and guidelines provided in the user manual. Do not operate the product in environments exceeding specified temperature or humidity limits.

## FAQ

- **Q: What should I do if the power supply overheats?**
  - **A:** If the power supply overheats, immediately disconnect it from the power source and allow it to cool down before attempting to use it again.
- **Q: Can this power supply be used for LED lighting applications?**
  - **A:** This product is not intended for LED lighting luminaire applications in the EU and China. Please refer to the LPF/NPF/XLG/XLC/XLN series for LED applications in these regions.

## 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 fixtures or appliances (such as LED Decoration or Advertisement devices)(Note.7)
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty



## GTIN CODE

- MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

## SPECIFICATION

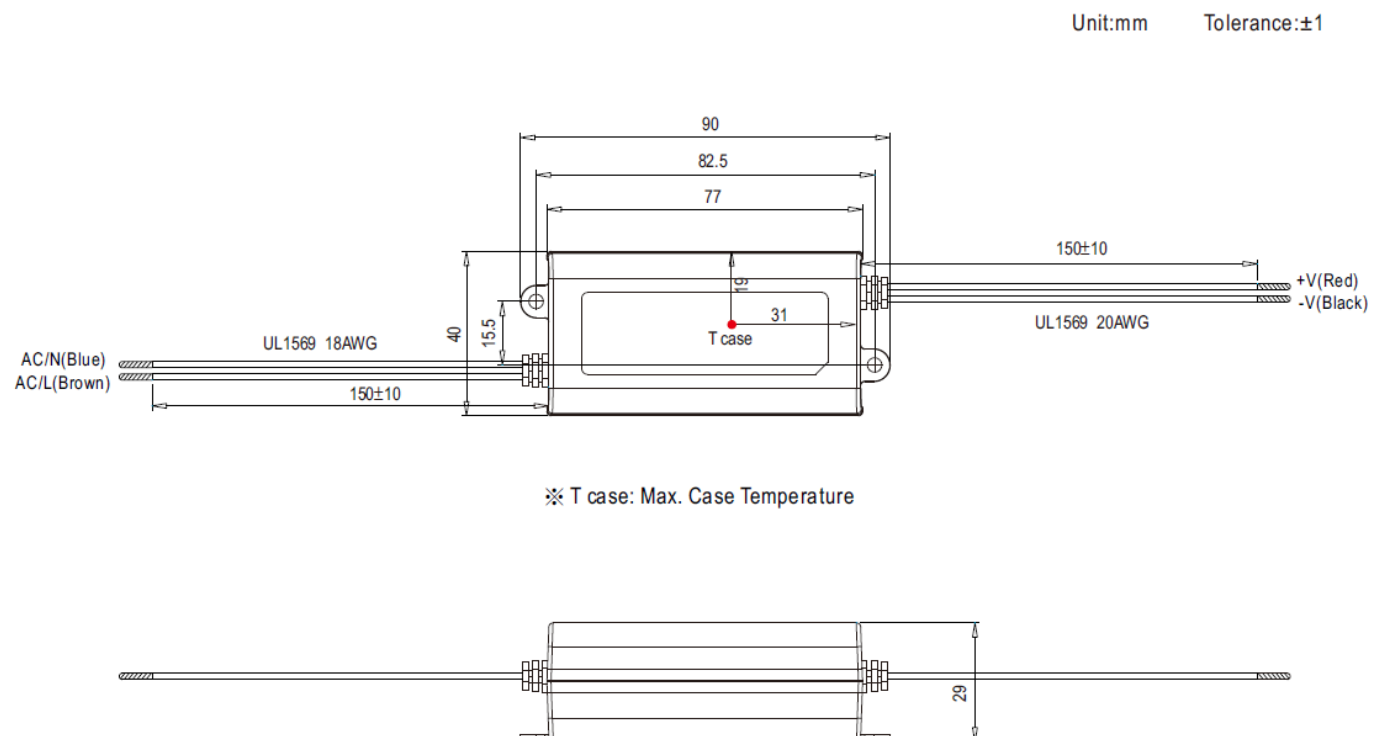
MODEL		APV-16-5		APV-16-12		APV-16-15		APV-16-24	
OUTPUT	DC VOLTAGE	5V		12V		15V		24V	
	RATED CURRENT	2.6A		1.25A		1A		0.67A	
	CURRENT RANGE	0 ~ 2.6A		0 ~ 1.25A		0 ~ 1A		0 ~ 0.67A	
	RATED POWER	13W		15W		15W		16.08W	
	RIPPLE & NOISE (max.) <small>Note.2</small>	100mVp-p		120mVp-p		120mVp-p		150mVp-p	
	VOLTAGE TOLERANCE <small>Note.3</small>	±5.0%							
	LINE REGULATION	±1.0%							
	LOAD REGULATION	±2.0%							
	SETUP, RISE TIME <small>Note.6</small>	1500ms, 30ms / 230VAC		1500ms,30ms / 115VAC at full load					
	HOLD UP TIME (Typ.)	20ms/230VAC		12ms/115VAC at full load					
INPUT	VOLTAGE RANGE <small>Note.4</small>	90 ~ 264VAC		127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz							
	EFFICIENCY (Typ.)	76%		80%		81%		83%	
	AC CURRENT	0.3A/230VAC		0.5A/115VAC					
	INRUSH CURRENT(Typ.)	COLD START 50A(twidth=250μs 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°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 <small>Note.8</small>	UL8750,CSA C22.2 No.250.0-08, BIS IS15885(except for 15V),EAC TP TC 004,IP42 , BS EN/EN 62368-1 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 BS EN/EN55032,BS EN/EN61000-3-2,BS EN/EN61000-3-3, EAC TP TC 020							
	EMC IMMUNITY	Compliance to BS EN/EN55035,BS EN/EN61000-4-2,3,4,5,6,8,11; light industry level(surge 2KV), EAC TP TC 020							
OTHERS	MTBF	7265.5K hrs min. Telcordia SR-332 (Bellcore) ;		1128.9K hrs min.		MIL-HDBK-217F (25°C)			
	DIMENSION	77*40*29mm (L*W*H)							
	PACKING	0.1Kg: 120pcs/14Kg/1.06CUFT							

## NOTE

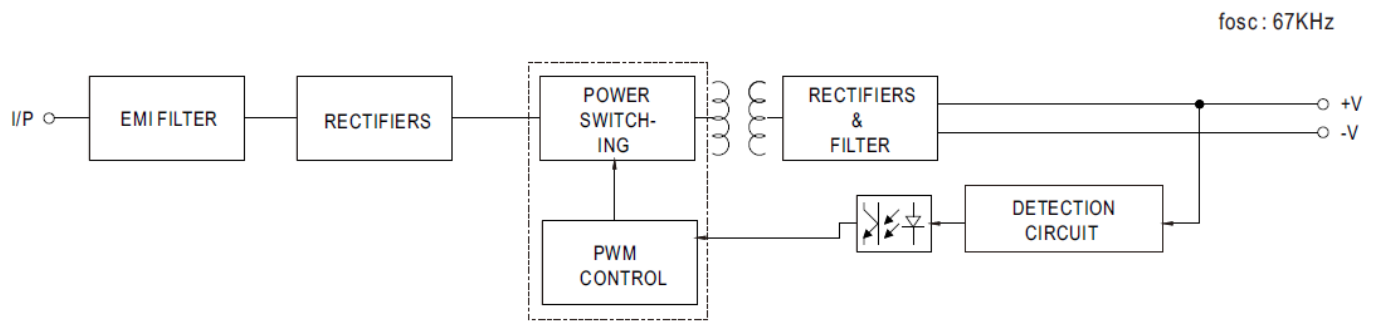
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation, and load regulation.
4. Derating may be needed under low input voltage. Please check the static characteristics for more details.  
Please connect the L line to the positive pole and the N line to the negative pole under DC input.
5. The power supply is considered as a component that will be operated in combination with the final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify the EMC Directive on the complete installation. (as available on [https://www.meanwell.com/Upload/PDF/EMI\\_statement\\_en.pdf](https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf))
6. The length of set-up time is measured at the first cold start. Turning ON/OFF the power supply may lead to an increase in the set-up time.
7. This product is not intended for LED lighting luminaire applications in the EU and China. (In the EU and China the LPF/NPF/XLG/XLC/XLN series are recommended.)
8. The ambient temperature derating of 3.5°C/1000m with fanless models and 5°C/1000m with fan models for operating altitudes higher than 2000m(6500ft).
9. Products sourced from the Americas regions may not have the ENEC/BIS logo. Please contact your MEAN WELL sales for more information.
10. For any application note and IP waterproof function installation caution, please refer to 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>

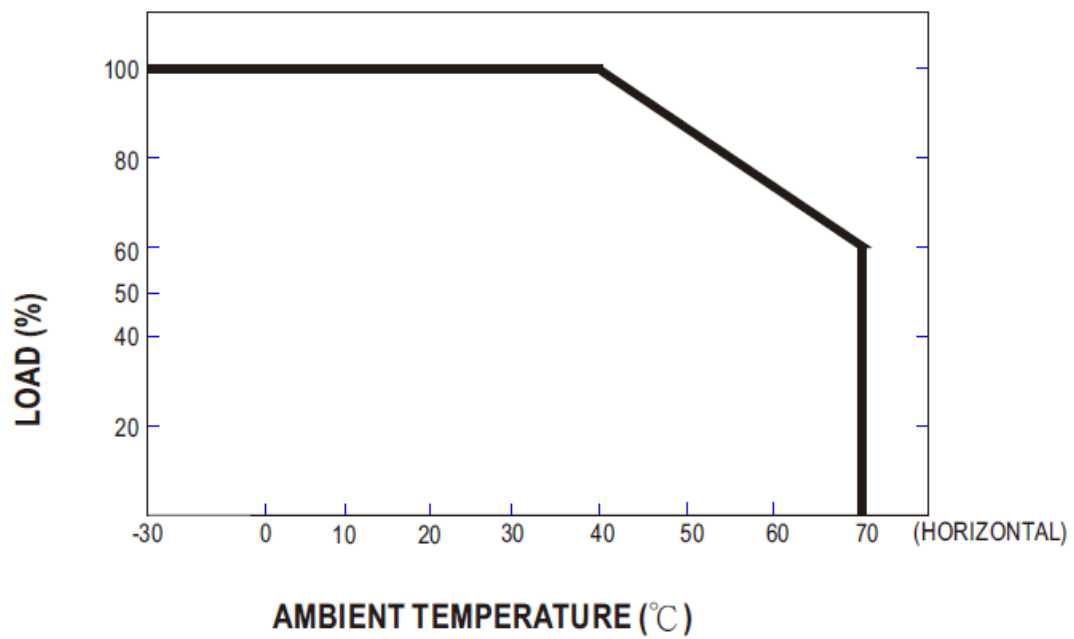
## Mechanical Specification



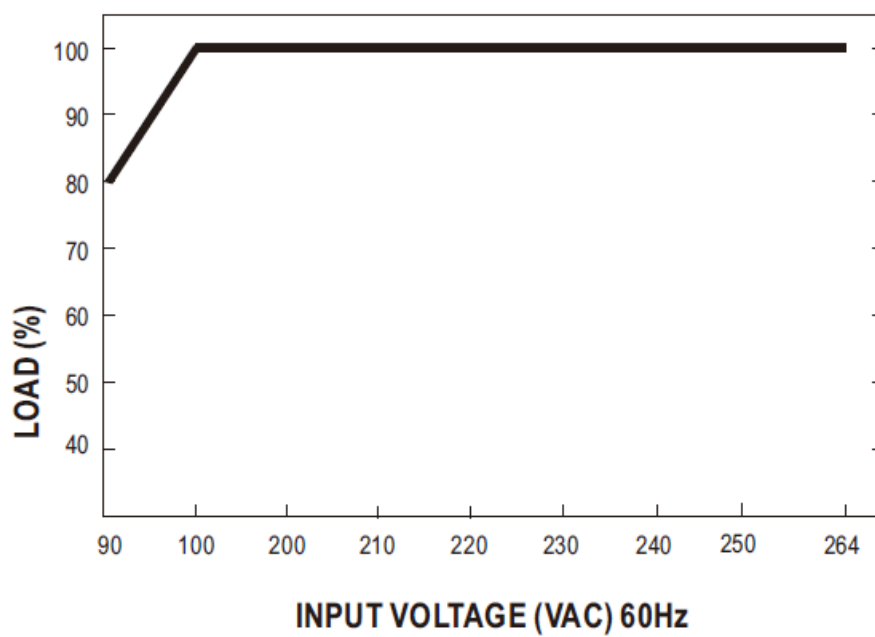
## Block Diagram



## Derating Curve



## Static Characteristics



- <https://www.meanwell.com/serviceGTIN.aspx>



## Documents / Resources



[MEAN WELL APV-16 Series Single Output Switching Power Supply](#) [pdf] Owner's Manual APV-16-5, APV-16-12, APV-16-15, APV-16-24, APV-16 Series Single Output Switching Power Supply, APV-16 Series, Single Output Switching Power Supply, Output Switching Power Supply, Switching Power Supply, Power Supply, Supply

## References

- [User Manual](#)

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