



# MEAN WELL LPV-20 series 20W Single Output Switching Power Supply Owner's Manual

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## MEAN WELL LPV-20 series 20W Single Output Switching Power Supply



## Features

- Constant voltage design
- Universal AC input / Full range

- Withstand 300VAC surge input for 5 seconds
- **Protections:** Short circuit / Over load / Over voltage
- Cooling by free air convection
- Small and compact size
- Fully encapsulated with IP67 level (Note.7)
- Fully isolated plastic case
- Class II power unit, no FG
- Class 2 power unit
- Pass LPS
- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)(Note. 11)
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty



#### GTIN CODE

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

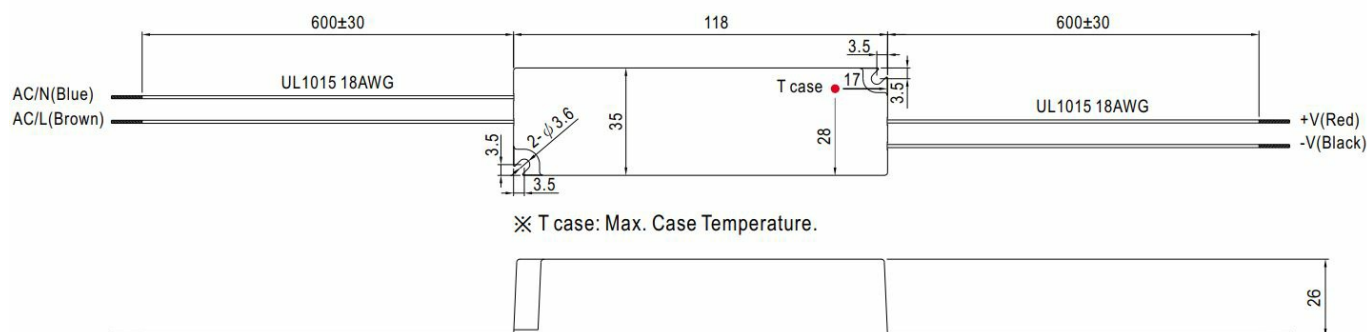
#### SPECIFICATION

MODEL		LPV-20-5	LPV-20-12	LPV-20-15	LPV-20-24
OUT PUT	DC VOLTAGE	5V	12V	15V	24V
	RATED CURRENT	3A	1.67A	1.33A	0.84A
	CURRENT RANGE	0 ~ 3A	0 ~ 1.67A	0 ~ 1.33A	0 ~ 0.84A
	RATED POWER	15W	20W	20W	20.2W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3	±5.0%			
	LINE REGULATION	±1.0%			
	LOAD REGULATION	±2.0%			

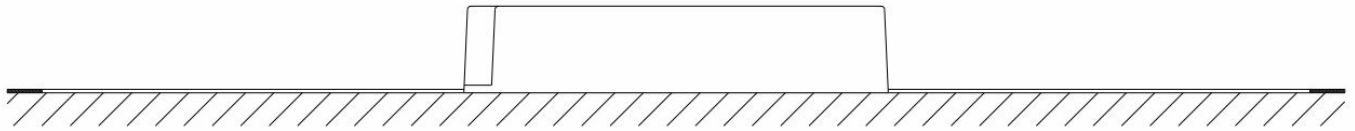
	SETUP, RISE TIME	Not e. 6	500ms, 20ms / 230VAC 500ms, 20ms / 115VAC at full load			
	HOLD UP TIME (Typ.)		50ms/230VAC 16ms/115VAC at full load			
INPUT	VOLTAGE RANGE	Not e. 4	90 ~ 264VAC 127 ~ 370VDC			
	FREQUENCY RANGE		47 ~ 63Hz			
	EFFICIENCY (Typ.)		77%	81%	83%	83%
	AC CURRENT (Typ.)		0.55A/115VAC 0.35A/230VAC			
	INRUSH CURRENT(Typ.)		COLD START 70A(twidth=215µs measured at 50% Ipeak) at 230VAC			
	MAX. No. of PSUs on 16A CIRCUIT BREAKER		8 units (circuit breaker of type B) / 14 units (circuit breaker of type C) at 230VAC			
	LEAKAGE CURRENT		0.25mA / 240VAC			
PROTECTION	OVER LOAD		110 ~ 150% 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	28 ~ 32V
		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	SAFETY STANDARDS		UI879, UL1310, CSA C22.2 No. 207-M89,CAN/CSA C22.2 No. 223-M91,IEC/BS EN/EN 62368-1, IS 15885(Part2/Sec13)(NOTE 12), EAC TP TC 004,IP67 approved			
	WITHSTAND VOLTAGE		I/P-O/P:3KVAC			

ETY & EMC	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C/ 70% RH		
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2 Class A, BS EN/EN61000-3-3,EAC TP TC 020		
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry level, EAC TP TC 020		
OTHERS	MTBF	6025.8K hrs min.      Telcordia SR-332 (Bellcore) ; 786.5Khrs min.	MIL-HDBK-217F (25 °C)	
	DIMENSION	118*35*26mm (L*W*H)		
	PACKING	0.22Kg; 60pcs/14.2Kg/0.72CUFT		
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>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.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Derating may be needed under low input voltage. Please check the static characteristics for more details.</p> <p>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.</p> <p>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.</p> <p>7. Suitable for indoor use or outdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minute.</p> <p>8. 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).</p> <p>9. Products sourced from the Americas regions may not have the TUV/BIS/CCC logo. Please contact your MEAN WELL sales for more information.</p> <p>10. For any application note and IP water proof function installation caution, please refer our user manual before using.</p> <p><a href="https://www.meanwell.com/Upload/PDF/LED_EN.pdf">https://www.meanwell.com/Upload/PDF/LED_EN.pdf</a></p> <p>11. This product is not intended for LED lighting luminaire applications in the EU.(In the EU the LPF/NPF/XLG series are recommended.)</p> <p>12. Products sourced from the China regions may not have the BIS logo, please contact your MEAN WELL sales for more information. <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>			

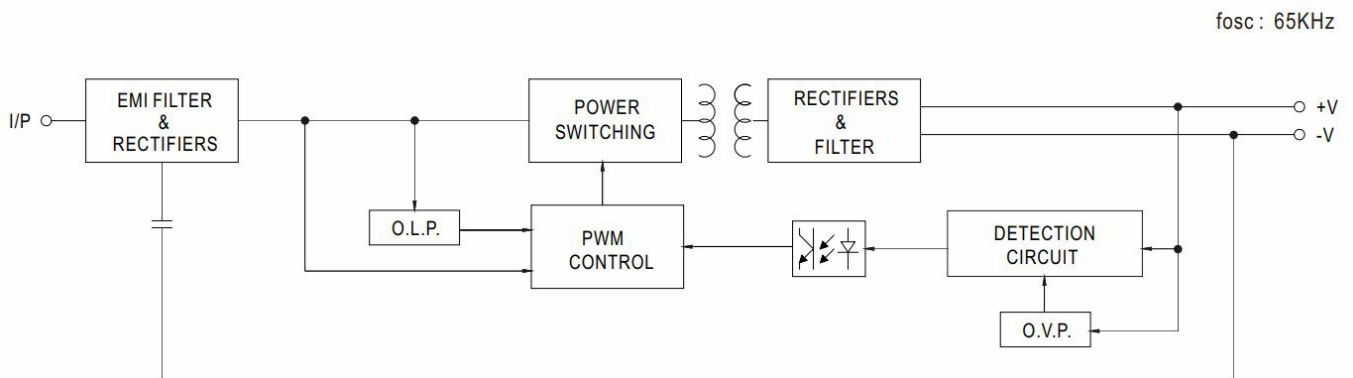
## Mechanical Specification



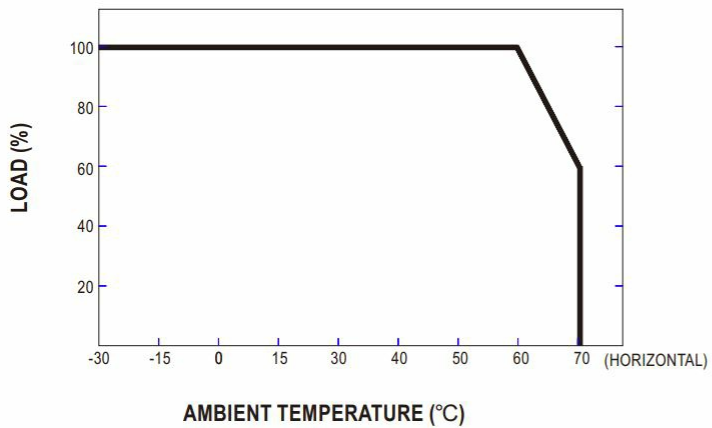
## Recommend Mounting Direction



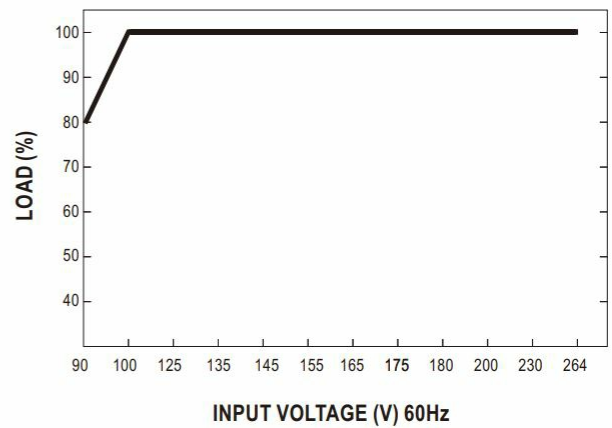
## Block Diagram



### Derating Curve



### Static Characteristics



## Documents / Resources



[MEAN WELL LPV-20 series 20W Single Output Switching Power Supply](#) [pdf] Owner's Manual  
 LPV-20 series 20W Single Output Switching Power Supply, LPV-20 series, 20W Single Output Switching Power Supply, Single Output Switching Power Supply, Switching Power Supply, Power Supply, Supply

## References

- [Global Trade Item Number \(GTIN\)-MEAN WELL Switching Power Supply Manufacturer](#)
- [User Manual](#)

