MEAN WELL LPS-50 50W Single Output Switching Power Supply Instruction Manual

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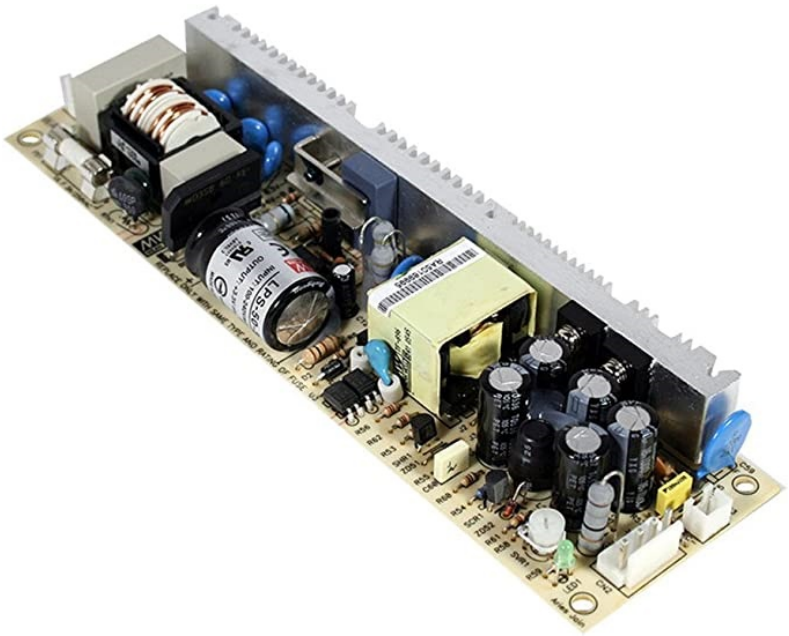


Contents

Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Small and compact size
- Built-in remote ON-OFF control
- LED indicator for power on
- 100% full load burn-in test
- Low profile:23mm thickness
- 2 years warranty

GTIN CODE

MW Search: **https://www.meanwell.com/serviceGTIN.aspx**

SPECIFICATION

MODEL		LPS-50-3.3	LPS-50-5	LPS-50-12	LPS-50-15	LPS-50-24	LPS-50-48
	DC VOLTAGE	3.3V	5V	12V	15V	24V	48V
	RATED CURRENT	10A	10A	4.2A	3.4A	2.1A	1.1A
	CURRENT RANGE	0 ~ 12A	0 ~ 12A	0 ~ 5A	0 ~ 4.1A	0 ~ 2.5A	0 ~ 1.3A
	RATED POWER	33W	50W	50.4W	51W	50.4W	52.8W
	PEAK LOAD(10sec.) Note.4	39.6W	60W	60W	61.5W	60W	62.4W

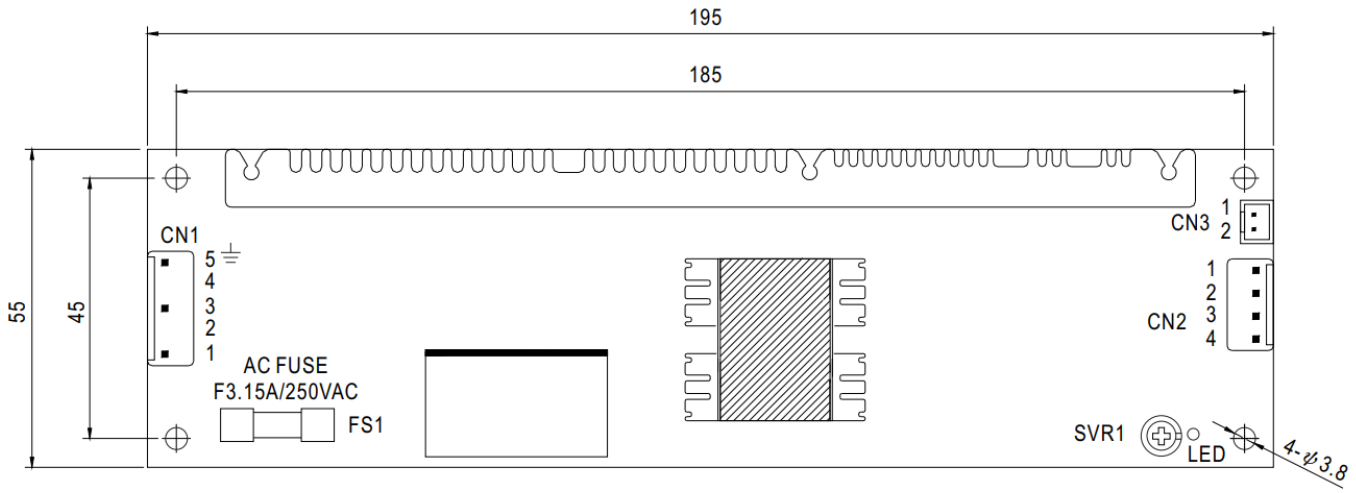
OUTPUT	**RIPPLE & NOISE (max.) Note.2**	50mVp-p	50mVp-p	80mVp-p	80mVp-p	80mVp-p	100mVp-p
	VOLTAGE ADJ. RANGE	3 ~ 3.6V	4.5 ~ 5.5V	10.8 ~ 13.2 V	13.5 ~ 16.5 V	21.6 ~ 27.2 V	43.2 ~ 52.8 V
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±2.0%	±2.0%	±1.0%	±1.0%
	LINE REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LOAD REGULATION	±3.0%	±3.0%	±2.0%	±2.0%	±1.0%	±1.0%
	SETUP, RISE TIME	100ms, 40ms/230VAC 100ms, 40ms/115VAC at full load					
	HOLD UP TIME (Typ.)	70ms/230VAC 12ms/115VAC at full load					
	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY(Typ.)	75%	81%	82%	84%	85%	86%

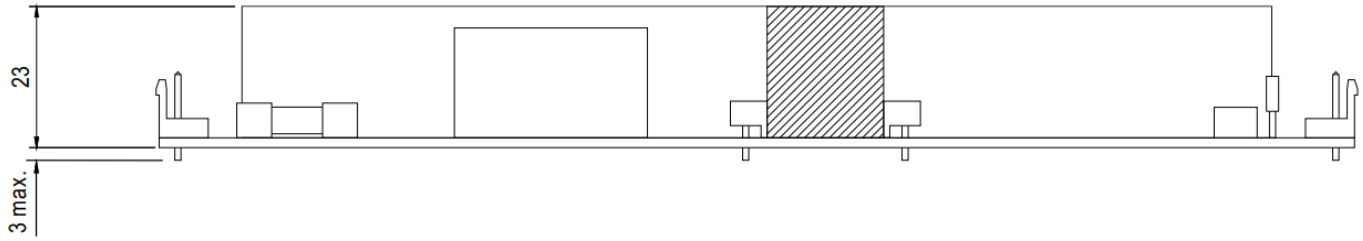
INPUT	**AC CURRENT (Typ.)**	115V AC	0.9A	1.2A				
		230V AC	0.6A	0.8A				
	INRUSH CURRENT (Typ.)		COLD START 18A/115VAC 35A/230VAC					
	LEAKAGE CURRENT		<1mA / 240VAC					
PROTECTION	**OVERLOAD**		122 ~ 160% rated output power					
			Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE		3.8 ~ 4.45V	5.75 ~ 6.75 V	13.8 ~ 16.2 V	17.25 ~ 20.25V	27.6 ~ 32.4 V	57.6 ~ 67.2 V
			Protection type : Hiccup mode, recovers automatically after fault condition is removed					
FUNCTION	**REMOTE ON/OFF**		RC+/RC- : 0 ~ 0.8V power on ; 4 ~ 10V power off					
	WORKING TEMP.		-20 ~ +70℃ (Refer to “Derating Curve”)					

ENVIRONMENT	**WORKING HUMIDITY**	20 ~ 90% RH non-condensing
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH
	TEMP. COEFFICIENT	±0.04%/℃ (0 ~ 50℃)
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes
SAFETY & EMC (Note 5)	**SAFETY STANDARDS**	UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004 approved
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024, BS EN/EN61000-6-2 (BS EN/EN50082-2), heavy industry level, criteria A, EAC TP TC 020
	MTBF	3138.2K hrs min. Telcordia SR-332 (Bellcore) ; 491.4K hrs min. MIL-HDBK-217F (25℃)

OTHERS	**DIMENSION**	195*55*23mm (L*W*H)
	PACKING	0.24Kg; 48pcs/12.5Kg/0.87CUFT
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. 33.3% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power. 5. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to EMI testing of component power supplies.(as available on **http://www.meanwell.com**) 6. 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). ※ Product Liability Disclaimer For detailed information, please refer to https://**www.meanwell.com/serviceDisclaimer.aspx**	

Mechanical Specification





AC Input Connector (CN1) : JST B5P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2,4	No Pin		
3	AC/N		
5	FG ⏚		

DC Output Connector (CN2) : JST B4P-VH or equivalent

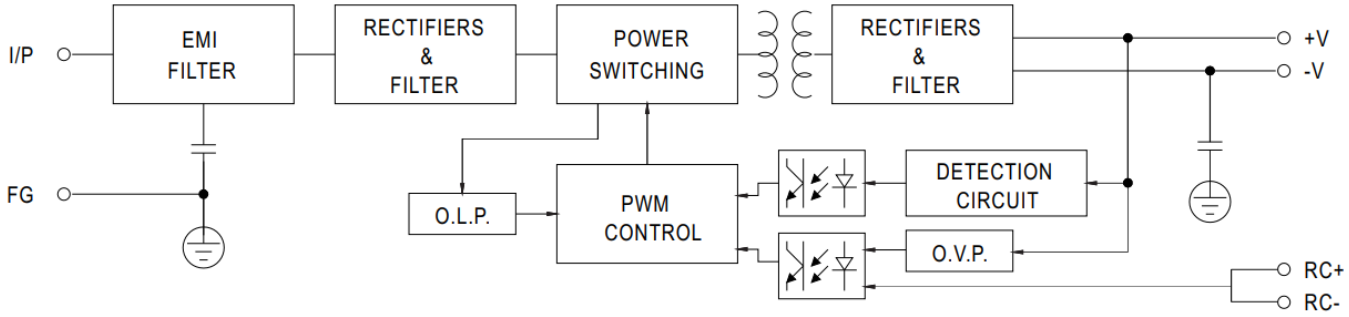
Pin No.	Assignment	Mating Housing	Terminal
1,2	-V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3,4	+V		

Remote ON/OFF Connector(CN3):JST B2B-XH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	RC+	JST XHP or equivalent	JST SXH-001T-P0.6 or equivalent
2	RC-		

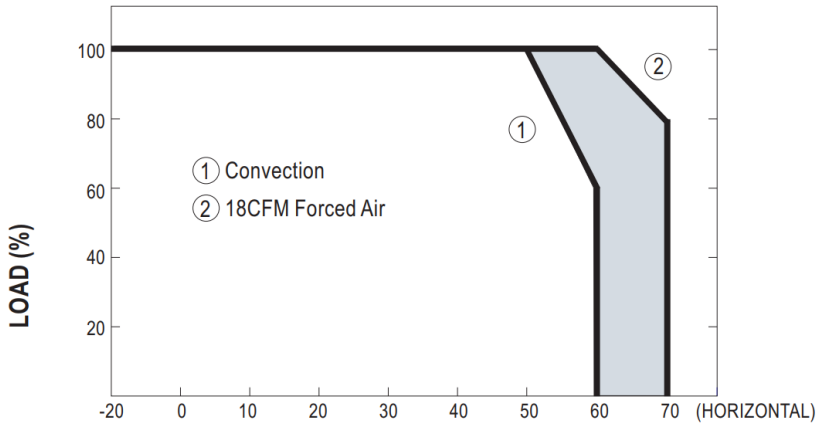
⏚ : Grounding Required
CN1:Pin 5 is safety ground

Block Diagram



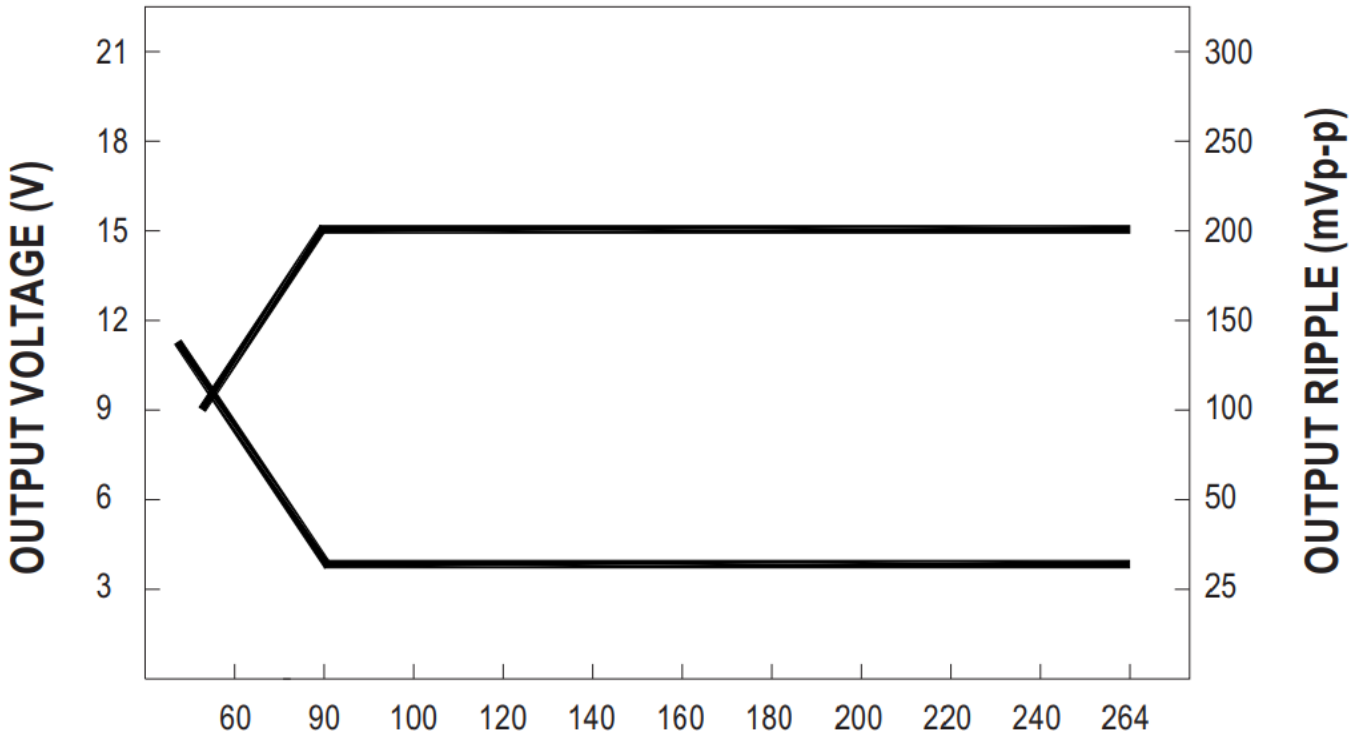
Derating Curve

AMBIENT TEMPERATURE (°C)



Static Characteristics (15V)

INPUT VOLTAGE (V) 60Hz



UL62368-1 BS EN/EN62368-1 IEC62368-1 TPTC004

Documents / Resources

	MEAN WELL LPS-50 50W Single Output Switching Power Supply [pdf] Instruction Manual LPS-50, 50W Single Output Switching Power Supply, LPS-50 50W Single Output Switching Power Supply, Single Output Switching Power Supply, Output Switching Power Supply, Switching Power Supply, Power Supply, Supply

References

- TÜV Rheinland - Home | US | TÜV Rheinland
- MEAN WELL Switching Power Supply Manufacturer
- Product Liability Disclaimer-MEAN WELL Switching Power Supply Manufacturer