



## 50W Single Output Switching Power Supply

## LPS-50 series



## ■ 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

User's Manual



UL62368-1



BS EN/EN62368-1



IEC62368-1

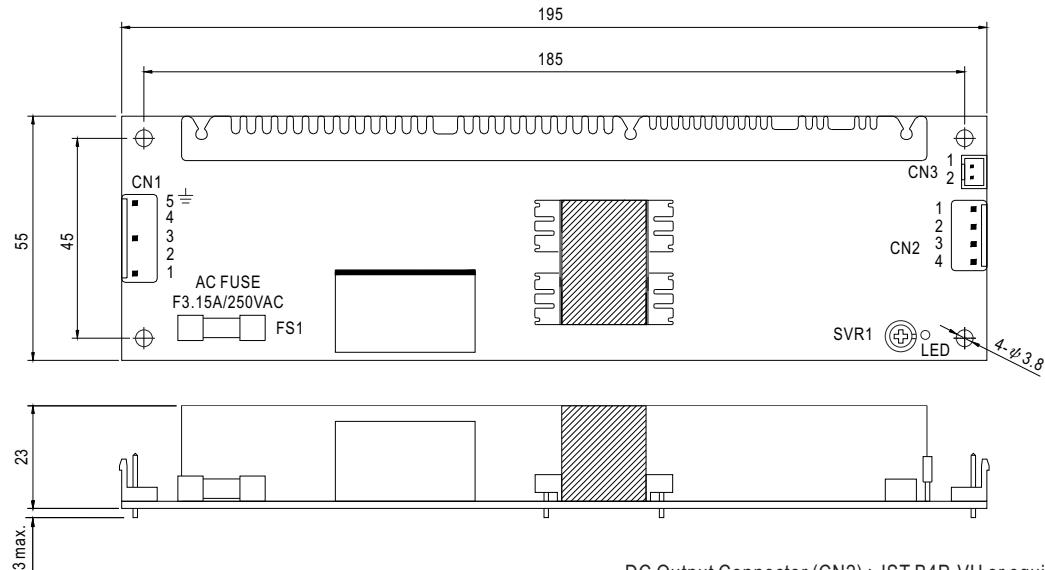


## SPECIFICATION

MODEL	LPS-50-3.3	LPS-50-5	LPS-50-12	LPS-50-15	LPS-50-24	LPS-50-48
OUTPUT	DC VOLTAGE	3.3V	5V	12V	15V	24V
	RATED CURRENT	10A	10A	4.2A	3.4A	2.1A
	CURRENT RANGE	0 ~ 12A	0 ~ 12A	0 ~ 5A	0 ~ 4.1A	0 ~ 2.5A
	RATED POWER	33W	50W	50.4W	51W	50.4W
	PEAK LOAD(10sec.) Note.4	39.6W	60W	60W	61.5W	60W
	RIPPLE & NOISE (max.) Note.2	50mVp-p	50mVp-p	80mVp-p	80mVp-p	100mVp-p
	VOLTAGE ADJ. RANGE	3 ~ 3.6V	4.5 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 27.2V
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±2.0%	±2.0%	±1.0%
	LINE REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LOAD REGULATION	±3.0%	±3.0%	±2.0%	±2.0%	±1.0%
INPUT	SETUP, RISE TIME	100ms, 40ms/230VAC	100ms, 40ms/115VAC at full load			
	HOLD UP TIME (Typ.)	70ms/230VAC	12ms/115VAC at full load			
PROTECTION	VOLTAGE RANGE	90 ~ 264VAC	127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz				
	EFFICIENCY(Typ.)	75%	81%	82%	84%	85%
	AC CURRENT (Typ.)	115VAC 0.9A	1.2A			
		230VAC 0.6A	0.8A			
	INRUSH CURRENT (Typ.)	COLD START 18A/115VAC	35A/230VAC			
FUNCTION	LEAKAGE CURRENT	<1mA / 240VAC				
	OVERLOAD	122 ~ 160% rated output power				
		Protection type : Hiccup mode, recovers automatically after fault condition is removed				
ENVIRONMENT	OVER VOLTAGE	3.8 ~ 4.45V	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V
		Protection type : Hiccup mode, recovers automatically after fault condition is removed				
SAFETY & EMC (Note 5)	REMOTE ON/OFF	RC+/RC- : 0 ~ 0.8V power on ; 4 ~ 10V power off				
ENVIRONMENT	WORKING TEMP.	-20 ~ +70°C (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.04%/°C (0 ~ 50°C)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
OTHERS	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°C / 70% RH				
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020				
NOTE	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	341.7Khrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	195*55*23mm (L*W*H)				
NOTE	PACKING	0.24Kg; 48pcs/12.5Kg/0.87CUFT				
		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 <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) 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 <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>				

## ■ Mechanical Specification

Unit:mm



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 $\pm$			

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		

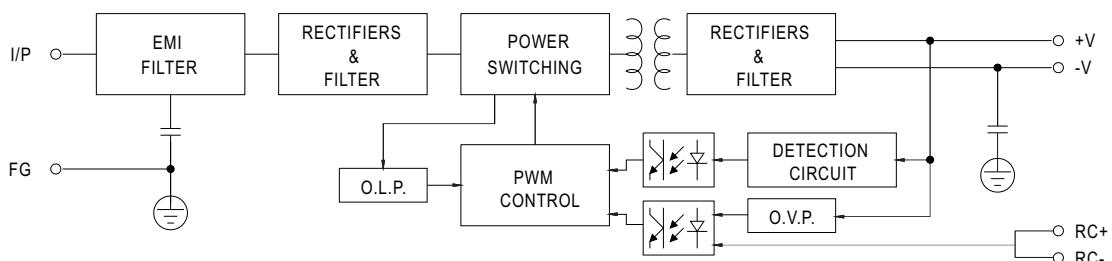
Remote ON/OFF Connector(CN3):JST B2B-XH or equivalent

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

 $\pm$  : Grounding Required  
CN1:Pin 5 is safety ground

## ■ Block Diagram

fosc : 60KHz



## ■ Derating Curve

## ■ Static Characteristics (15V)

