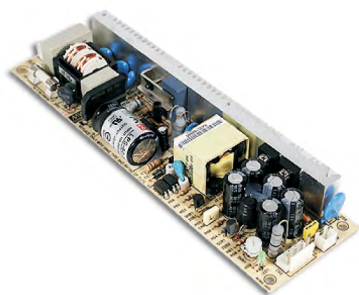


50W Single Output Switching Power Supply

LPS50 series



- Universal AC input
- Protections: Short circuit/Over load/Over voltage
- Cooling by free air convection
- LED indicator for power on
- Small and compact size
- Built-in remote ON-OFF control
- Low profil: 23mm thickness



Model Number	Output Volts	Output Amps	Ripple & Noise	Min Load	DC Volt Adjust	Peak Load	Volt Tolerance
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SINGLE OUTPUT

LPS50-3.3	3.3 Volts(DC)	10 Amps	50mV pk-pk	0~12Amps	3~3.6Volt(DC)	39.6W	±3.0%
LPS50-5	5 Volts(DC)	10 Amps	50mV pk-pk	0~12Amps	4.5~5.5Volt(DC)	60W	±3.0%
LPS50-12	12 Volts(DC)	4.2 Amps	80mV pk-pk	0~5.0Amps	10.8~13.2Volt(DC)	60W	±2.0%
LPS50-15	15 Volts(DC)	3.4 Amps	80mV pk-pk	0~4.1Amps	13.5~16.5Volt(DC)	61.5W	±2.0%
LPS50-24	24 Volts(DC)	2.1 Amps	80mV pk-pk	0~2.5Amps	21.6~27.2Volt(DC)	60W	±1.0%
LPS50-48	48 Volts(DC)	1.1 Amps	100mV pk-pk	0~1.3Amps	43.2~52.8Volt(DC)	62.4W	±1.0%

50W Single Output Switching Power Supply

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INPUT SPECIFICATIONS

Input Voltage Range	90 ~ 264 VAC; 127~370 Volts(DC)
Frequency Range	47-63 Hz
Inrush Current, typ: (cold start)	18Amps@115VAC / 35Amps@230VAC
Input Current, typ.	
3.3Volts(DC)	0.9Amps@115VAC / 0.6Amps@230VAC
5~48Volts(DC)	1.2Amps@115VAC / 0.8Amps@230VAC
Leakage current	< 1mAmps /240VAC
Min Load	See Selection Chart

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation	±1.0%
Load Regulation	±3.0%: 3.3~5Volts(DC) ±2.0%: 12~15Volts(DC) ±1.0%: 24~48Volts(DC)
Voltage Tolerance (Note2)	See Selection Chart
Ripple/Noise (Note 1)	See Selection Chart
Hold Up Time @ FL	70mS/230VAC 12mS/115VAC
Setup, Rise Time @ FL	100ms, 40m/230VAC 100mS, 40mS/115VAC
Over Voltage Protection	3.8 ~ 4.45Volt(DC): 3.3Volts(DC) 5.75 ~ 6.75Volt(DC): 5Volts(DC) 13.8 ~ 16.2Volt(DC): 12Volts(DC) 17.25 ~ 20.25Volt(DC): 15Volts(DC) 27.6~ 32.4Volt(DC): 24Volts(DC) 57.6~ 67.2Volt(DC): 48Volts(DC) Hiccup mode, auto recover
Over Current Protection	122 ~ 160% rated output power Hiccup mode, auto recover
DC Volt Adjust	See Selection Chart
Peak Load, 10S(Note 3)	See Selection Chart

GENERAL SPECIFICATIONS

Safety	UL60950-1, TUV EN60950-1 Approved
Insulation Resistance	≥ 100MΩ / 500Volts(DC)
EMI	Compliance to EN55022B (CISPR22B)

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

Harmonic Current	Compliance to EN61000-3-2,-3
Efficiency, typ.	75% (LPS-50-3.3) 81% (LPS-50-5) 82% (LPS-50-12) 84% (LPS-50-15) 85% (LPS-50-24) 86%(LPS-50-48)
Isolation	3000VAC Input - Output 1500VAC Input - Ground 500VAC Output - Ground
EMS	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; ENV50204, EN61000-6-2(EN50082-2) heavy Industry Level, Criteria A
Remote ON/OFF	RC+/RC-: 0~0.8Volts(DC)= power On 4~10Volts(DC)= power Off

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-20°C to +70°C (See Derate Curve)
Storage Temperature	-20°C to +85°C, 10~95% RH
Relative Humidity	20~90% RH non cond
Temperature Coefficient	±0.04% / °C (0-50°C)
MTBF	341.7KHrs min, MIL-HDBK-217F(25°C)
Vibration	10~500Hz, 2G10min./1cycle, period for 60min. each along X, Y, Z axes

PHYSICAL SPECIFICATIONS

Size	
Millimeters	195 x 55 x 23
Inches	7.68" x 2.17" x 0.91"
Weight	8.47 oz (240g)

NOTE

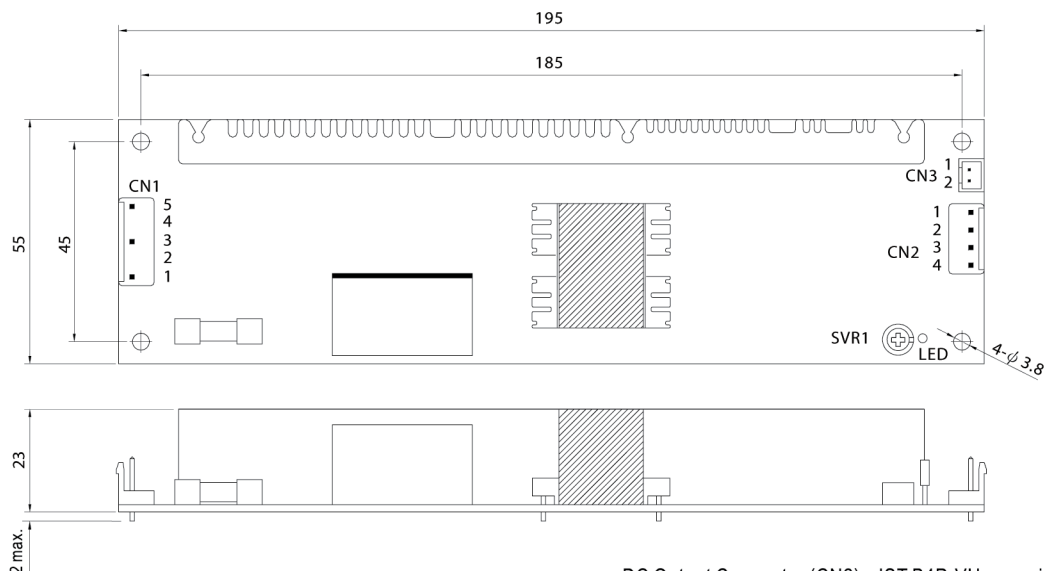
1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
2. Tolerance : includes set up tolerance, line regulation and load regulation.
3. 33.3% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.

50W Single Output Switching Power Supply

LPS50 series

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 $\perp$		

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

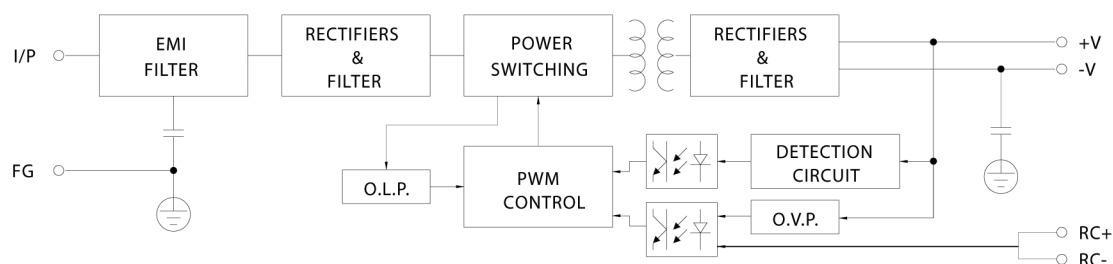
Pin No.	Assignment	Mating Housing	Terminal
1,2	-V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3,4	+V		

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

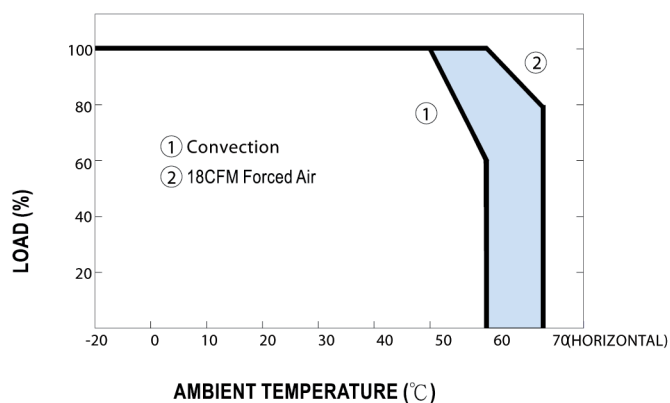
Pin No.	Assignment	Mating Housing	Terminal
1	RC+	JST XHP or equivalent	JST SXH-001T-P0.6 or equivalent
2	RC-		

Block Diagram

fosc : 60KHz



■ Derating Curve



■ Static Characteristics (15V)

