LB130S Family

130W Single Output LED Supply





Test & Measurement	Display & Signage
Audio Visual	Renewable
Automation	ITE & Comms
Broadcast	Lighting
	*

Military COTS

FEATURES AND BENEFITS

3" x 5" x 1.3" Package

130 Watts

Class B Conducted EMI

70°C Ambient Operation with No Derating (Conduction Cooled)

Universal Input 90-264Vac

Meets IEC61000-3-2 Class C for 0% to 100% LED	
Dimming Applications (5 Watts to 130 Watts)	

Approved to EN/CSA/IEC/UL62368-1

3 Year Warranty

RoHS Compliant

MODEL SELECTION

Model Number	Volts	Maximum Output Current	Minimum Load	Ripple & Noise*	Total Regulation	OVP Threshold
LB130S56K	56V	2.32	0A	560mV pk-pk	±3%	66V± 4V

Notes : * Ripple is 800mV pk-pk @ -10°C.

INPUT	
AC Input	100-240Vac, ±10%, 47-63Hz, 1Ø
Input Current	Max. 115Vac: 1.8A, 230Vac: 0.9A
Inrush Current	< 55A peak, 264Vac, cold start, turn on at AC zero crossing
Input Fuses	F1, F2: 4A, 250Vac fuses provided on all models
Earth Leakage Current	<500µA@264Vac, 60Hz, NC
Efficiency	Minimum of 90%

The specification above is based on 25°C ambient.

PROTECTION

Overtemperature Protection	Sensing transformer temperature, 165°C latching type, requires input power recycling to reset
Overload Protection	Hiccup Mode
Short Circuit Protection	Hiccup Mode, auto recovery
Overvoltage Protection	OVP latch

The specification above is based on 25°C ambient.

OUTPUT	
001101	



Hold-up Time	20mSec at 130W, 120Vac/60Hz		
Turn On Time	Less than 3 sec. @115Vac, Full Load		
Switching Frequency	PFC: Fixed, 65kHz Main Converter: Variable 35-200kHz, 65-70kHz at full load		
Output Power	Maximum of 130 Watts conduction at 70°C 200 Watts of peak for minimum of 60 Sec @ 50°C		
Output Voltage	56V		
Ripple and Noise	0.5%rms, 1% pk-pk, see chart		
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Voltage Adjustability	Fixed Output		
Minimum Load	Not required		
Total Regulation	+/- 3% combined line, load and initial setting		

The specification above is based on 25°C ambient.



EMI/EMC COMPLIANCE

Conducted Emissions	EN55015 Class B, FCC Part 15, Subpart B, Class B
Radiated Emissions	EN55022 Class A, FCC Part 15, Subpart B, Class A w/6db margin
Static Discharge Immunity	EN61000-4-2, 6kV Contact Discharge, 8kV air discharge
Radiated RF Immunity	EN61000-4-3, 3V/m
EFT/Burst Immunity	EN61000-4-4, 2kV/5kHz
Line Surge Immunity	EN61000-4-5, 1kV differential, 2kV common-mode
Conducted RF Immunity	EN61000-4-6, 3Vrms
Power Frequency Magnetic Field Immunity	EN61000-4-8, 3A/m
Voltage Dip Immunity	EN61000-4-11, 100%, 10ms; 30%, 275ms; 60%, 100ms; Performance Criteria A, A, & A at 70% load
Line Harmonic Emissions	EN61000-3-2, Class C from no load to 100% load
Flicker Test	EN61000-3-3, Complies (dmax<6%)

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RELIABILITY

50,000 Hrs at 70°C, 130 Watts of output, 115Vac or 230Vac input Voltage

The specification above is based on 25°C ambient.

SAFETY	
Safety Standards	EN/CSA/IEC/UL62368-1
Shock	Operating: Half-sine, 20gpk, 10ms, 3 axes, 6 shocks total Non-Operating: Half-sine, 40 gpk, 10 ms, 3axes, 6 shocks total

The specification above is based on 25°C ambient.

ISOLATION SPECIFICATIONS

The specification above is based on 25°C ambient.

Isolation

Input-Output: 3,000Vac Input-Ground: 1,800Vac Output-Ground: 1,500Vac

The specification above is based on 25°C ambient.

ENVIRONMENT

Operating Temperature	Conduction Cooled : -10°C to +70°C Full Load Convection Cooled : -10°C to +50°C Full Load, 110 Watts @ 60°C, 90 Watts @70C Start Up at -40°C
Heat-Sink Temperature	To maintain Safety approval & life expectancy, heat-sink temperature should not exceed 85°C
Storage Temperature	-40°C to +85°C
Altitude	Operating: -457 to 3000m Non-operating: -457 to 12,192m
Relative Humidity	5% to 95%, non-condensing
Vibration	Operating: 0.003g²/Hz, 1.5grms overall, 3 axes, 10 min/axis Non-Operating: 0.026g²/Hz, 5.0grms overall, 3 axes, 1 hr/axis
Dimensions	W: 3.0" x L: 5.0" x H: 1.3"
Weight	380g

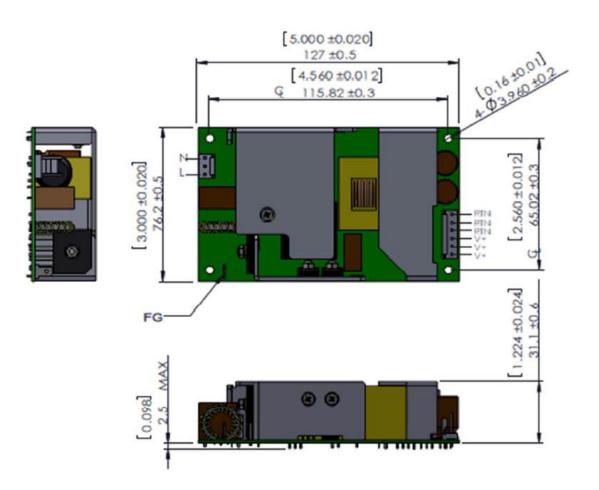
The specification above is based on 25°C ambient.



CONNECTOR INFORMATION

Input Connector J100	Ground (FG)	DC Output Connector J300
PIN 1) AC LINE PIN 2) EMPTY PIN 3) AC NEUTRAL	0.25" FASTON TAB	Term. 1,2,3: RTN Term. 4,5,6: +Vout
Mating Connector: AMP Molex 640250-3 Pins: 640252-2	Mating Connector: Molex 190020001	Mating Connector: AMP 640250-6 Pins: 640252-2

MECHANICAL DRAWING



Notes : 1. All dimensions in inches (mm), tolerances are mentioned for each measurement.

- 2. Mounting holes should be grounded for EMI purposes.
- 3. FG is safety ground connection.
- 4. The power supply requires mounting on metal standoffs 0.20" (5mm) in height, min.

Mouser Electronics

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SL Power: LB130S56K