LB130S Family

130W Single Output LED Supply

























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

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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		

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OUTPUT

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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	
Transient Response	500μS typical, return to 0.5% of nominal, Δi/Δt: <0.2A/μS. Max Voltage Deviation = 3% Test Conditions: a) 5% to 50% load change b) 50% to 100% load change c) 100% to 50% d) 50% to 5%	
Voltage Adjustability	Fixed Output	
Minimum Load	Not required	
Total Regulation +/- 3% combined line, load and initial setti		

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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

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

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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

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

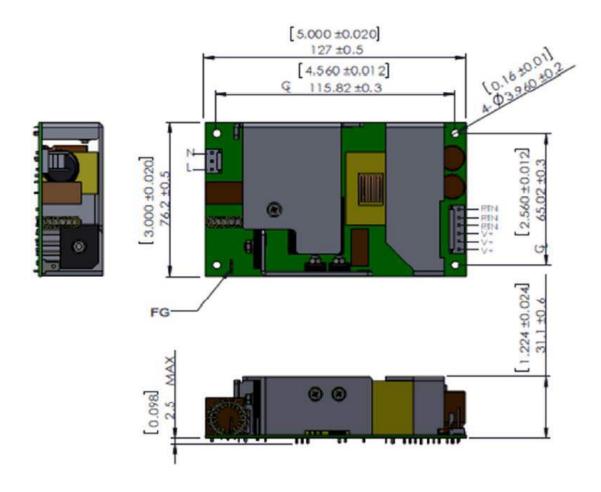
Operating Temperature	Conduction Cooled: -10°C to +70°C Full Load Convection Cooled: -10°C to +50°C Full Load, 110 Watts @ 60°C, 90 Watts @70C Start Up at -40°C
Heat-Sink Temperature	To maintain Safety approval & life expectancy, heat-sink temperature should not exceed 85°C
Storage Temperature	-40°C 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

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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.