LB130S

130W Single Output LED Supply

Features

- 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)
- EN60950 2nd Edition
- 3 Year Warranty
- RoHS Compliant

Description

The LB130 model is the highest density conduction cooled power supply in a compact 3X5 package. Providing 130 Watts of power at 70°C ambient, the LB130 is designed to meet global lighting requirements and has a built-in EMI filter to meet EN55015 class B. With over 50,000 hours of life expectancy at 70°C, the LB130 supports the requirements of the Design Lighting Consortium (DLC) standard.

Model Chart

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**

* Ripple is 800mV pk-pk @ -10°C

General Specifications

AC Input	100-240Vac, ±10%, 47-63Hz, 1∅	**Turn On Time**	Less than 3 sec. @115Vac, Full Load
Input Current	Max. 115Vac: 1.8A, 230Vac: 0.9A	**Hold-up Time**	20mSec at 130W, 120Vac/60Hz
Inrush Current	< 55A peak, 264Vac, cold start, turn on at AC zero crossing	**Overtemperature Protection**	Sensing transformer temperature, 165°C latching type, requires input power recycling to reset.
Input Fuses	F1, F2: 4A, 250Vac fuses provided on all models	**Overload Protection**	Hiccup Mode
Earth Leakage Current	<500µA@264Vac, 60Hz, NC	**Short Circuit Protection**	Hiccup Mode, auto recovery.
Efficiency	Minimum of 90%	**Overvoltage Protection**	OVP latch

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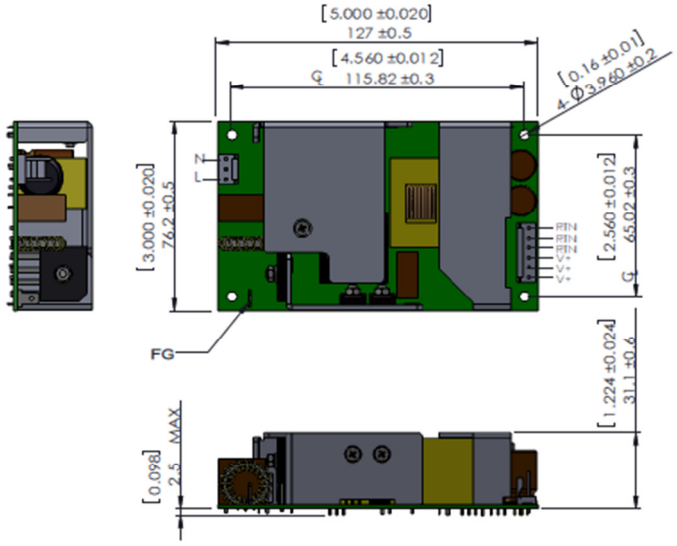
Output Power	Maximum of 130 Watts conduction at 70℃ 200 Watts of peak for minimum of 60 Sec @ 50℃	**Switching Frequency**	PFC: Fixed, 65kHz Main Converter: Variable 35-200kHz, 65-70kHz at full load
Transient Response	500µS typical, return to 0.5% of nominal, $\Delta i/\Delta t$: <0.2A/µS. Max Voltage Deviation = 3% Test Conditions: a)5% to 50% load change b)50% to 100% load change c)100% to 50% d)50% to 5%	**Isolation**	Input-Output: 3,000Vac Input-Ground: 1,800Vac Output-Ground: 1,500Vac
Ripple and Noise	0.5%rms, 1% pk-pk, see chart.	**Operating Temperature**	**Conduction Cooled**: -10℃ to +70℃ Full Load **Convection Cooled**: -10℃ to +50℃ Full Load, 110 Watts @ 60℃, 90 Watts @70C Start Up at -40℃
Output Voltage	56V	**Heat-Sink Temperature**	To maintain Safety approval & life expectancy, heat-sink temperature should not exceed 85℃
Voltage Adjustability	Fixed Output	**Storage Temperature**	-40℃ to +85℃
Minimum Load	Not required	**Altitude**	Operating: -457 to 3000 m Non-operating: -457 to 12,192m.
Total Regulation	+/- 3% combined line, load and initial setting.	**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	**Shock**	Operating: Half-sine, 20gpk, 10ms, 3 axes, 6 shocks total Non-Operating: Half-sine, 40 gpk, 10 ms, 3axes, 6 shocks total
Dimensions	W: 3.0” x L: 5.0” x H: 1.3”	**Safety Standards**	EN/CSA/UL/IEC 60950-1, 2nd Edition
Weight	380g	**Life**	50,000 Hrs at 70℃, 130 Watts of output, 115Vac or 230Vac input Voltage

The specification above is based on 25℃ 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%)

Mechanical Drawing



Notes: 1. *All dimension*s 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.

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	