## LB130S Family

# 130W Single Output LED Supply















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



130 Watts

(Conduction Cooled)

Approved to EN/CSA/IEC/UL62368-1

Class B Conducted EMI

3 Year Warranty

70°C Ambient Operation with No Derating **RoHS Compliant** 







Universal Input 90-264Vac

## **MODEL SELECTION**

| Model Number | Volts | Maximum<br>Output Current | Minimum<br>Load | Ripple &<br>Noise* | Total<br>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<br>Protection | Sensing transformer temperature, 165°C latching type, requires input power recycling to reset |
|-------------------------------|---|
| Overload Protection           | Hiccup Mode   |
| Short Circuit<br>Protection   | Hiccup Mode, auto recovery  |
| Overvoltage Protection        | OVP latch   |

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### **OUTPUT**

| Hold-up Time             | 20mSec at 130W, 120Vac/60Hz  |
|--------------------------|--|
| Turn On Time             | Less than 3 sec. @115Vac, Full Load  |
| Switching<br>Frequency   | PFC: Fixed, 65kHz<br>Main Converter: Variable 35-200kHz, 65-70kHz<br>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,<br>Δi/Δt: <0.2A/μS. Max Voltage Deviation = 3%<br>Test Conditions:<br>a) 5% to 50% load change<br>b) 50% to 100% load change<br>c) 100% to 50%<br>d) 50% to 5% |
| Voltage<br>Adjustability | Fixed Output   |
| Minimum Load             | Not required   |
| Total Regulation         | +/- 3% combined line, load and initial setting   |

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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<br>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<br>Magnetic Field Immunity | EN61000-4-8, 3A/m  |
| Voltage Dip Immunity                       | EN61000-4-11, 100%, 10ms; 30%, 275ms;<br>60%, 100ms;<br>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,<br>6 shocks total<br>Non-Operating: Half-sine, 40 gpk, 10 ms, 3axes,<br>6 shocks total |

The specification above is based on 25°C ambient.

## **ISOLATION SPECIFICATIONS**

The specification above is based on 25°C ambient.

## **ENVIRONMENT**

| Operating Temperature | Conduction Cooled: -10°C to +70°C Full Load<br>Convection Cooled: -10°C to +50°C Full Load, 110 Watts @ 60°C, 90 Watts @70C<br>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<br>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<br>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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