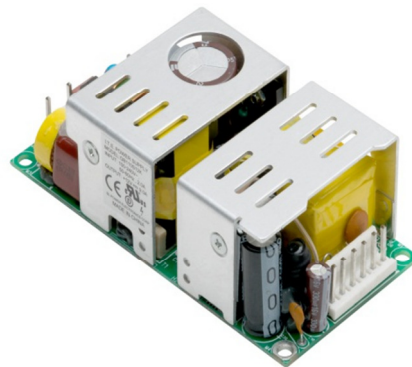


Features

- Small size of 2" x 4" x 1.3"
- 75W convection cooled/115 Watts with 200 LFM
- Universal Input 90-264Vac
- Meets EN55015 Conducted EMI
- Meets IEC61000-3-2 Class C for less than 1 Watt to full power
- Approved to UL/CSA/IEC/EN60950-1, 2nd Edition
- Level V Efficiency Compliant
- -40°C start up
- -20°C to 70°C Operating temperature Range
- 3 Year Warranty
- Optional LED indicator for power-on



Description

The LB115S LED Series provide a reliable power source with high power density in 2" x 4" x 1.3" package. Fully compliant to the applicable safety and Global Lighting EMC standards, these models will allow easy integration into many Lighting fixtures and other industrial applications. All 4 models are CE marked to low voltage directive and approved to standards of UL/CSA/IEC/EN60950-1 2nd edition.

Model Selection

| Model | | Output Current | Output Current | Ripple & | Total | OVP |
|-----------|-------|-------------------|--------------------------------------|------------------------|------------|-------------|
| Number | Volts | Convection Cooled | Forced air(200 LFM) (Total Power) | Noise* | Regulation | Threshold |
| LB115S12K | 12 V | 6.25 A | 9.00A (108 Watts) | 0.5%RMS, 1.5% pk-pk | ±2% | 14.0 ± 1.1V |
| LB115S24K | 24 V | 3.13A | 4.58A (110 Watts) | 0.5%RMS, 1% pk-pk | ±2% | 28.0 ± 2.5V |
| LB115S48K | 48 V | 1.56A | 2.40A (115 Watts) | 0.5%RMS, 1% pk-pk | ±2% | 55.0 ± 4.0V |
| LB115S56K | 56 V | 1.34A | 2.05A (115 Watts) | 0.5%RMS, 1% pk-pk | ±2% | 63.0 ± 4.0V |

Notes:

* At -20C, the noise and ripple is 2% of the output.

General & Input Specifications

| PARAMETER | SPECIFICATION | NOTES |
|---|--------------------------------------|-----------------------------|
| AC Input Voltage: | 90-264Vac, single phase | |
| AC Input Frequency: | 47-63Hz | |
| AC Input Current: | 115Vac: 2A, 230Vac: 1A | |
| Inrush Current: | 65A maximum @ 25C | |
| Earth Leakage Current (Input–Earth): | <350 μ A@264Vac, 60 Hz input, NC | |
| Input Fuse: | F1:4A, 250VAC | Fuse provided on all models |

| Efficiency | Typical | Measured @ 25°C |
|------------------------------|---|---|
| LB115S12K | 89% @230V ac, full load | 86.5%@115V ac, full load |
| LB115S24K | 89% @230V ac, full load | 87%@115V ac, full load |
| LB115S48K | 90% @230V ac, full load | 88%@115V ac, full load |
| LB115S56K | 90% @230V ac, full load | 88%@115V ac, full load |
| Operating Temperature | -20°C to 70°C | -40°C start up (full load) For 12V output, the maximum load is 75% |
| Storage Temperature | -40°C to 85°C | |
| Turn-on Time: | <2 Seconds @115Vac(<3S for 12V output) | <5 Seconds @115Vac for -20°C ambient |
| Hold-up Time: | 12mS minimum from loss of ac input at 115 Vac | |

DC Output Specifications

| PARAMETER | SPECIFICATION | NOTES |
|------------------------------------|---|--|
| Output Power: | Max of 75 Watts for Convection cooled | Maximum 108 Watts for 12V output -20 to 50°C ambient |
| | Max of 115 Watts for fan cooled (48 & 56V Models) | |
| Cooling: | Convection | |
| | Forced Air of 200 LFM | |
| Total Regulation: | ±2% for all models | Total regulation is the maximum deviation from nominal voltage for all loading conditions |
| Overload Protection: | 120% - 180% of rated output current value, Hiccup Mode | For 12V output, it is 110 to 180% |
| Short Circuit Protection: | Short across the output terminals will not cause damage to the unit. Hiccup Mode | |
| Overvoltage Protection: | OVP firing reduces output voltage to <50% of nominal in <50mS. See chart for trip range | |
| Overtemperature Protection: | Automatic Power Shutdown | Thermistor temperature is 130°C |
| Minimum Load: | No minimum load is required | |
| Ripple and Noise: | 0.5% RMS, 1% pk-pk for all models. | 20 MHz Bandwidth, differential mode. Measured with noise probe directly across output terminals, and load terminated with 0.1µF ceramic and 10µF low ESR capacitors |
| Transient Response: | 500µs typ. response time for return to within 0.5% of final value for a 50% load change, $\Delta i/\Delta t < 0.2A/\mu s$. Max. voltage deviation is 3.5%. | Measured @ 25°C |
| Overshoot: | 5% overshoot at turn-on, 5% overshoot at turn-off, under all conditions. | 6% for 12V output |

Safety Standard Compliance

| Agency | CONDITIONS |
|-----------------|--|
| UL | EN/CSA/UL/IEC 60950-1, 2 nd Edition |
| CSA | CSA 60950-1, 2 nd |
| Demko | EN 60950-1, 2nd |
| CB Report | IEC 60950-1, 2nd |
| Isolation Type: | Double/Reinforced between Input and Output |

Isolation Specifications

| PARAMETER | CONDITIONS | Rating | NOTES |
|---------------------------------|------------------|-------------------|-------|
| Insulation Safety Rating: | Input to Ground | Basic Insulation | |
| | Input to Output | Double/Reinforced | |
| Electric Strength Test Voltage: | Input to Ground | 1900Vac | |
| | Input to Output | 3000Vac | |
| | Output to Ground | 500Vac | |

Environmental Specifications

| PARAMETER | SPECIFICATION | NOTES |
|------------------------|---|---------------------------|
| Operating Temperature: | -20 °C to +70 °C | -40 °C Startup guaranteed |
| Temperature Derating: | 60% derating at 70 °C | |
| Cooling: | Convection/ Airflow | 75 Watts convection |
| Storage Temperature: | -40 °C to +85 °C | |
| Altitude: | Operating: -500 to 3,000 meter Non-operating: -500 to 40,000 ft. | |
| Relative Humidity: | 5% to 95%, non-condensing | |
| Shock: | Non-Operating: Half-sine, 40 gpk, 10mS, 3 axes, 6 shocks total | |
| Vibration: | Random vibration per MIL-STD-810E, Method 514.4, Cat. 1, Figure 514.4-1, 1 hr in each of three axes | |

Reliability Specifications

| PARAMETER | SPECIFICATION | NOTES |
|------------|--------------------------------------|---|
| MTBF: | 574K hours, 25 °C ambient, full load | Calculation is done based on Telcordia. Reports for each model is available |
| Warranty: | 3 Years | Limited |
| HALT Data: | Per SL Power Halt procedure | Report is available |

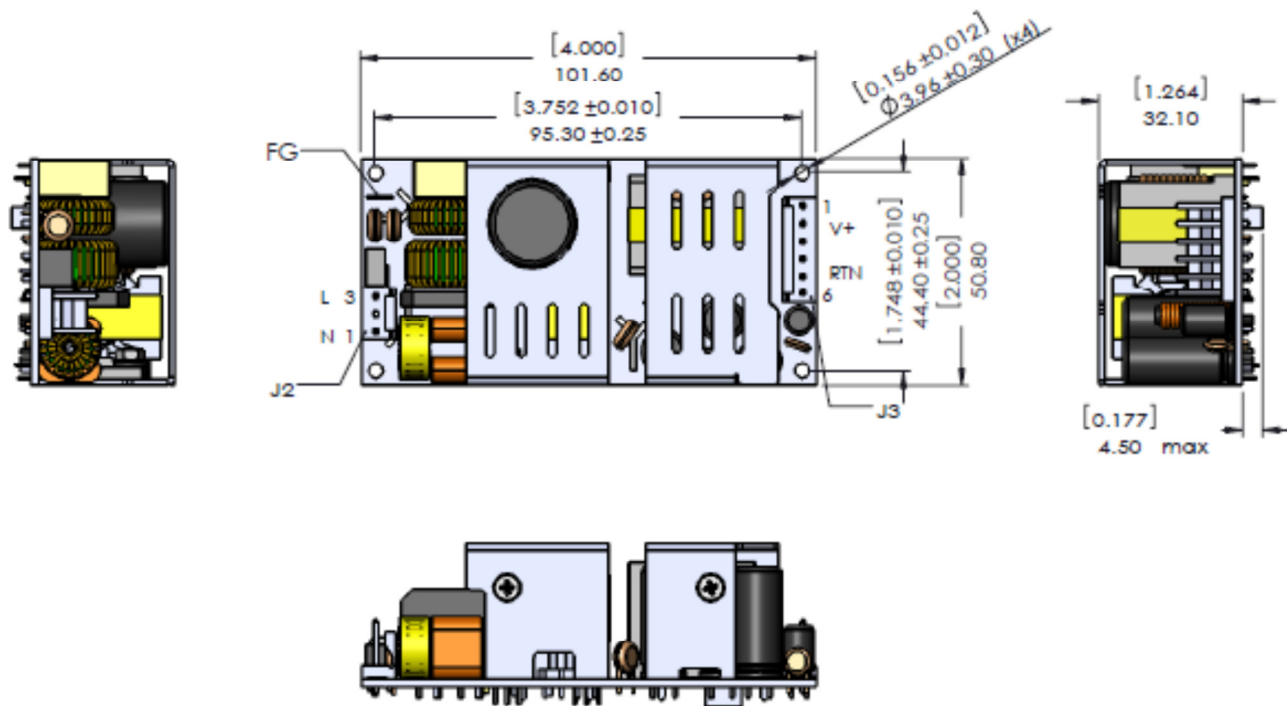
EMI/EMC Compliance

| PARAMETER | SPECIFICATION | NOTES |
|--|---|---|
| Conducted Emissions: | EN55011/22 Class B; FCC Part 15 | Also meets EN55015 Class B |
| Radiated Emissions: | EN55011/22 Class A; FCC Part 15 | |
| Harmonic Current Emissions | EN61000-3-2, Class A,B,C &D | Meets class C from 5 to 115 Watts. This is based on limits set @ 115 Watt |
| Voltage Fluctuations & Flicker | EN61000-3-3 | |
| Static Discharge Immunity: | EN61000-4-2, Level 4: 6kV contact, 8kV air, Criteria A | Performance criteria are defined as following: A – Normal performance during and after the test B – Temporary degradation, self-recoverable C – Temporary degradation, operator intervention required to recover the operation |
| RF Field Susceptibility | EN61000-4-3, Level 3 (3V/m), Criteria A | |
| Fast Transients/Bursts | EN61000-4-4, Level 3 (PS: 2kV-40A, other lines 1kV-20A), Criteria A | |
| Surge susceptibility | EN61000-4-5, Installation Class 3 (1kV diff. mode, 2kV common mode), Criteria A | |
| Conducted RF susceptibility | EN61000-4-6, Level 3 (3Vrms), Criteria A | |
| Power Frequency Magnetic Field Test | EN61000-4-8, Level 3 (3A/m), Criteria A | |
| Voltage Sags & Surges | EN61000-4-11, 95% dip/0.5 cycle (Criteria A), 60%/5cycles (Criteria B), 30%/25 cycles (Criteria A). loading is 70% of 100 watts with 100 Vac input. | |

Notes:

1. Specifications subject to change without notice.
2. Specifications are for convection rating at factory settings with 115Vac input and 25°C ambient unless otherwise stated.

Mechanical Drawing



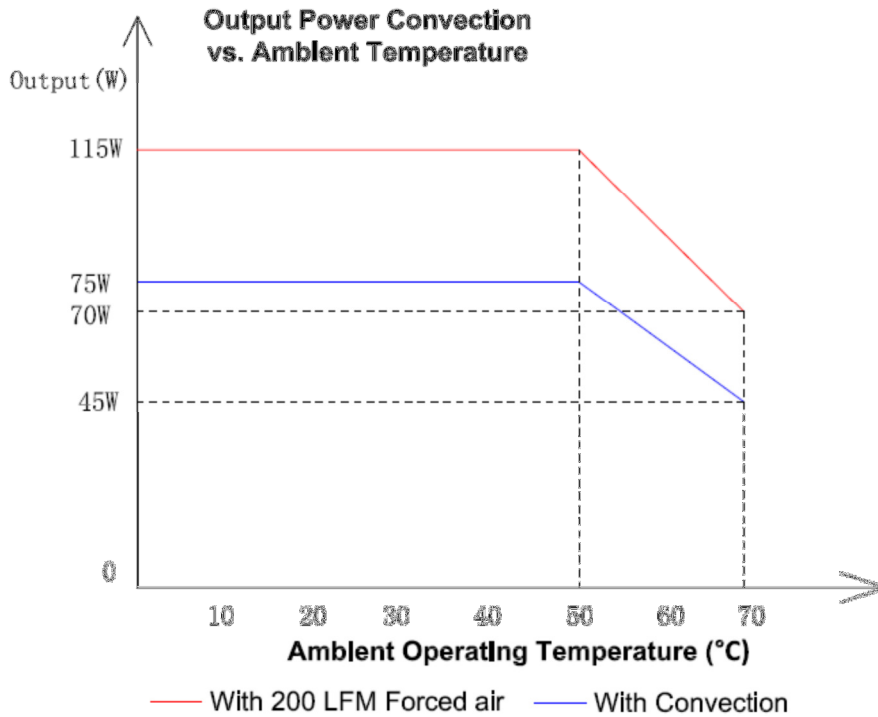
Connector Information

| Input Connector J2 | DC Output Connector J3 | Ground (FG)J1 |
|---|--|--|
| PIN 1) AC NEUTRAL PIN 2) EMPTY PIN 3) AC LINE | PIN 1) +Vout PIN 2) +Vout PIN 3) +Vout PIN 4) -Vout PIN 5) -Vout PIN 6) -Vout | 19-30258-0187 (Keystone 1285) (Zierick 895)(.187*0.020) |
| Mating Connector: Tyco/AMP 640250-3 Terminals : 3-640252-1 | Mating Connector: AMP 640250-6 Terminals : 3-640252-1 | Mating Connector Molex 190020005 |

1. All dimensions in inches (mm) undefined tolerance is ±.02" (0.5mm).
2. Mounting holes should be connected together for EMI purpose
3. FG is safety ground connection
4. This power supply requires mounting on metal standoffs 0.20" (5mm) Min. in height

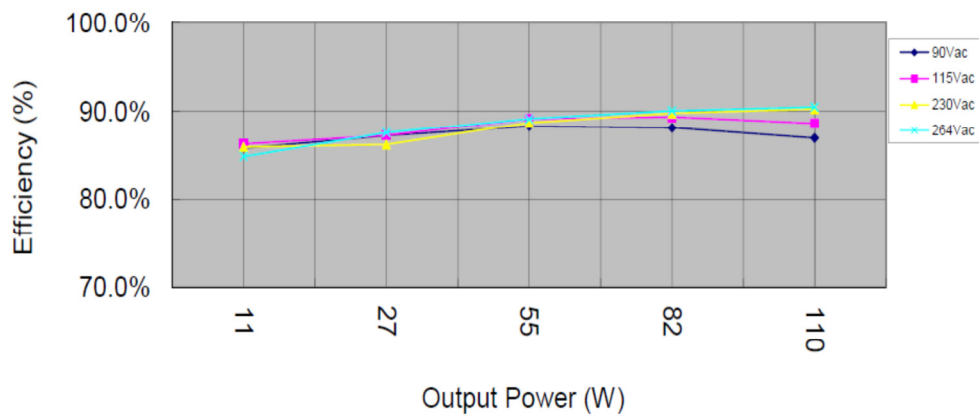
Characteristic Curves

Output Power vs. Temperature

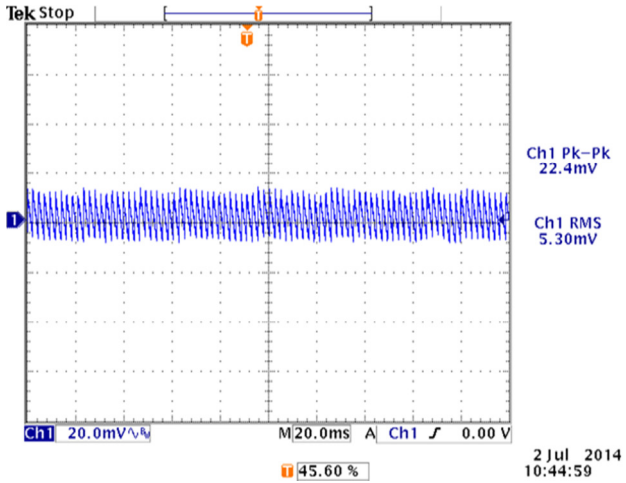


Efficiency vs. Loading

Efficiency vs. Output Power

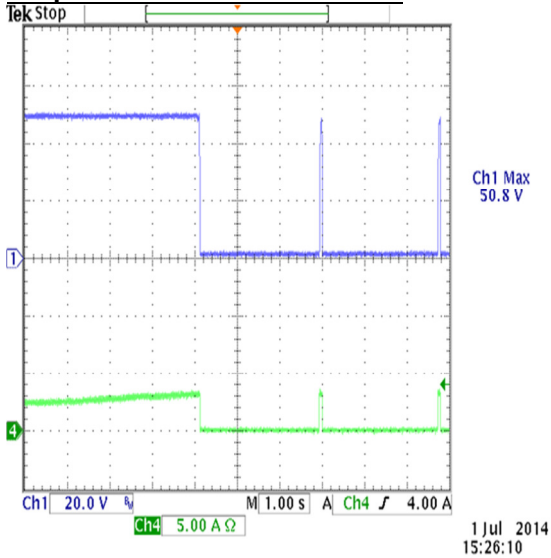


Ripple & Noise

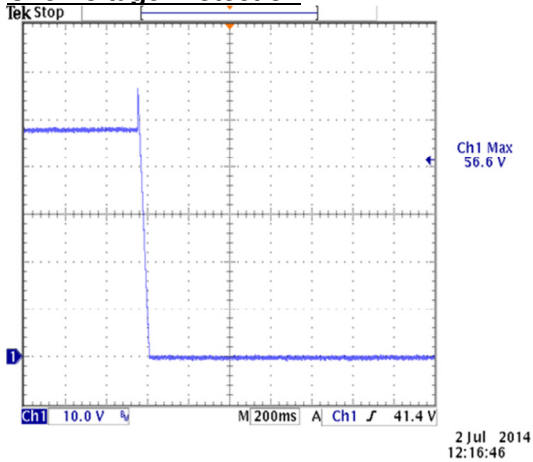


To verify that the output ripple and noise does not exceed the level specified in the product specification, measured using a scope probe socket with 0.1uF ceramic and a 10uF electrolytic capacitor connected in parallel across it, 20MHz BW.

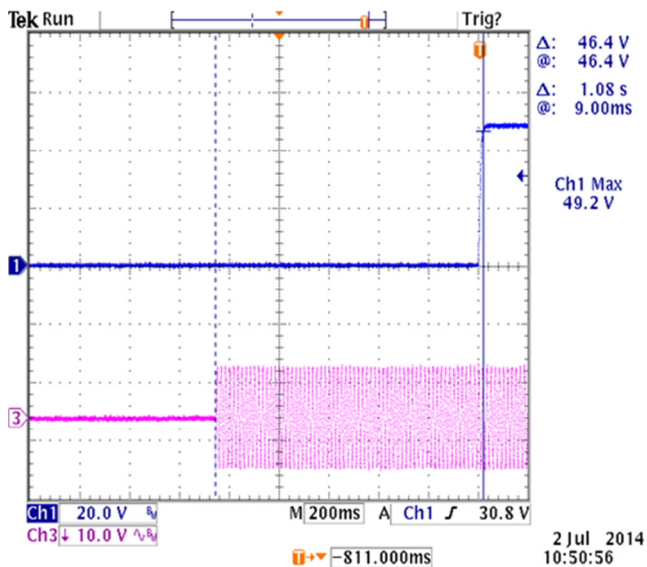
Output Overload Characteristic



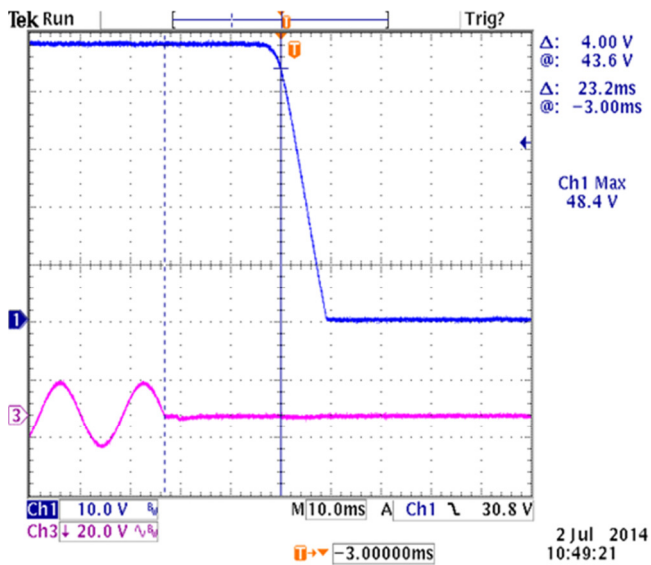
Overvoltage Protection



Turn On Time



Hold Up Time



| | | | | |
|------------|------|-------|------|------|
| CH1: | Vout | Vin: | 115 | Vac |
| CH3: | Vin | Iout: | 2.40 | Amps |
| Min_Limit: | 16 | Meas: | 23.2 | mS |

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

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- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
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- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
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Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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