



Single Output Industrial Power Supplies

- ◆ -40°C to +71°C operation
- ◆ MIL-STD-810E Vibration / Shock
- ◆ Input transient protected
- ◆ Wide range output adjustment
- ◆ Single wire current share
- ◆ Conducted EMI Class B
- ◆ 5 Year Warranty

Key Market Segments & Applications

Factory Automation Process Control, NC-Machining,
Automotive, Packaging Equipment,
Materials Handling,
Chemical Processing, Robots

Features and Benefits

Feature

- ◆ Rugged mechanical design
- ◆ Superior thermal design
- ◆ Wide range adjustment of output
- ◆ Input voltage transient protected

Benefit

- ◆ High reliability in harsh conditions
- ◆ Longer life even at 71°C operation
- ◆ Reduces need for custom outputs
- ◆ Reduced system filtering

Specifications

| ITEMS | MODELS | 5V Output Models | 12V Output Models | 24V Output Models |
|-------------------------------|--------|--|----------------------|-----------------------|
| | | (-1) | (-2) | (-3) |
| AC Input Voltage | - | LZS: 85-132 / 170-265VAC Auto select, SE: 105-140VAC (170VAC for 1min.) | | |
| AC Input Frequency | - | LZS: 47 - 440Hz, SE: 47 - 63Hz | | |
| DC Input Voltage Range | - | LZS: 220 - 380VDC | | |
| Inrush Current (110 / 220VAC) | A | 250W & 500W: 20 / 40A. 750W, 1000W & 1500W: 40 / 80A | | |
| Efficiency (typical) | % | 75%, (72% on 250W models) | | |
| Ripple & Noise | - | 10mV RMS, 35mV Pk-Pk | 10mV RMS, 50mV Pk-Pk | 10mV RMS, 100mV Pk-Pk |
| Line Regulation | % | 0.1% from low AC line to high AC line | | |
| Load Regulation | % | 0.1% from no load to full load | | |
| Transient Response | - | Recovers to within 50ms, max deviation 7.5% -1 models, 5% -2 & -3 models | | |
| Overcurrent Protection | - | ~ 110% of rated current, auto recovery | | |
| Overvoltage Protection | V | User adjustable from front panel | | |
| Thermal Protection | - | Internal thermostat. Recycle AC to reset | | |
| Hold Up Time (Typical) | ms | 26ms (at 115VAC) | | |
| Remote Sense | - | Compensates for a total of 1.0V cable drop | | |
| Remote Adjust | - | Using front panel potentiometer, Resistance (1k/V), or Voltage (1V/V) | | |
| Remote On / Off | - | TTL compatible, active high | | |
| Signals | - | Optocoupled transistor for AC Fail, DC Good, Inverter OK | | |
| Indicators | - | Green LED indicates output good, red LED indicates overvoltage or over temperature | | |
| Parallel Connection | - | Single wire current share | | |
| Operating Temperature | °C | -40~+71°C, derate as shown in model selector, 20 minute warm up period needed for <-30°C | | |
| Storage Temperature | °C | -55 to +85°C | | |
| Temperature Coefficient | - | 0.025%/°C | | |
| Humidity (non condensing) | %RH | 5 - 95%RH | | |
| Cooling | - | Internal fan | | |
| Withstand Voltage | - | Input - Ground 1.5kVAC, Input - Output 3kVAC, Output - Ground 500VAC | | |
| Vibration | - | MIL-STD-810E, Method 516.4 Proc. I, II, IV, VI | | |
| Shock | - | MIL-STD-810E, Method 514.4, Category 1, 9 | | |
| Safety Agency Approvals | - | UL60950, CSA60950, EN60950, & CE Mark (LVD) | | |
| Conducted & Radiated EMI | - | VDE0871 Curve B, FCC Part 15, subpart J, Class B, MIL-STD-461D, CE102 | | |
| Weight (Net / Shipping) | lbs | 250: 7/9; 500: 10/12; 750: 11/14; 1000: 15.5/19.5; 1500: 22/26 | | |
| Size (WxHxD) | - | See outline drawings | | |
| Warranty | - | 5 years | | |

Notes: (Consult Installation Manual for detailed specifications, test methods and application notes)

Output Ratings

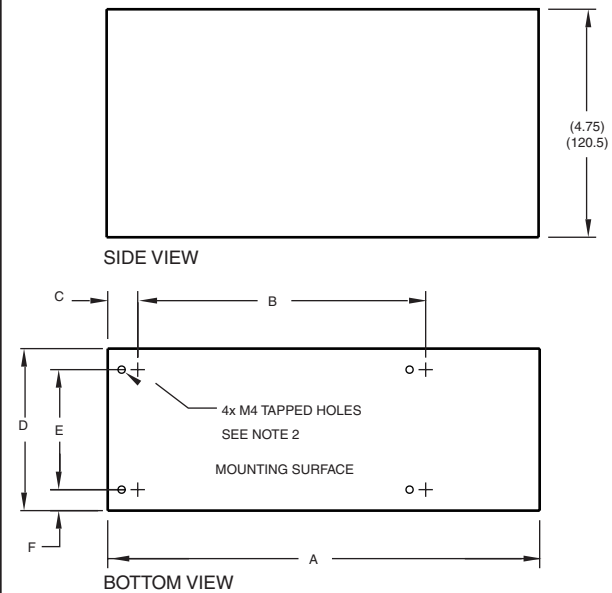
| Model | Nominal Adjustment | | Maximum Current (A) | | | |
|-----------|--------------------|------------|---------------------|-------|------|------|
| | Voltage (V) | Range (V) | 40°C | 50°C | 60°C | 71°C |
| LZS250-1 | 5 | 4.5 - 6.3 | 50 | 45 | 40 | 30 |
| LZS500-1 | 5 | 4.5 - 6.3 | 100 | 90 | 80 | 60 |
| LZS750-1 | 5 | 4.5 - 6.3 | 150 | 135 | 120 | 90 |
| LZS1000-1 | 5 | 4.5 - 6.3 | 200 | 190 | 160 | 120 |
| LZS1500-1 | 5 | 4.5 - 6.3 | 300 | 270 | 240 | 180 |
| LZS250-2 | 12 | 10 - 15.75 | 21 | 18.9 | 16.8 | 12.6 |
| LZS500-2 | 12 | 10 - 15.75 | 42 | 37.5 | 33.5 | 27 |
| LZS750-2 | 12 | 10 - 15.75 | 63 | 56.5 | 50 | 37.5 |
| LZS1000-2 | 12 | 10 - 15.75 | 83 | 80 | 67 | 50 |
| LZS1500-2 | 12 | 10 - 15.75 | 125 | 112.5 | 100 | 75 |
| LZS250-3 | 24 | 18 - 29.4 | 12.5 | 11.3 | 10 | 7.5 |
| SE250-3 | 24 | 18 - 29.4 | 12.5 | 11.3 | 10 | 7.5 |
| LZS500-3 | 24 | 18 - 29.4 | 25 | 22.5 | 20 | 16.5 |
| SE500-3 | 24 | 18 - 29.4 | 25 | 22.5 | 20 | 16.5 |
| LZS750-3 | 24 | 18 - 29.4 | 37.5 | 33.5 | 30 | 22.5 |
| SE750-3 | 24 | 18 - 29.4 | 37.5 | 33.5 | 30 | 22.5 |
| LZS1000-3 | 24 | 18 - 29.4 | 50 | 48 | 40 | 30 |
| SE1000-3 | 24 | 18 - 29.4 | 50 | 48 | 40 | 30 |
| LZS1500-3 | 24 | 18 - 29.4 | 75 | 67.5 | 60 | 45 |
| SE1500-3 | 24 | 18 - 29.4 | 75 | 67.5 | 60 | 45 |

Other Lambda Industrial Products

| | |
|---------------|-----------------------------------|
| LZSa | 500W to 1500W RoHS compliant |
| HWS | 15W to 1500W Single output |
| JFS | 500W to 2000W Single output |
| DPP, DLP, DHP | 15 to 960W DIN Rail single output |

For Additional Information, please visit
www.lambdapower.com/products/lzs-series.htm

Outline Drawings



DIMENSIONS:

| MODEL | A | B | C | D | E | F |
|-------------------|------------------|------------------|---------------|-----------------|-----------------|----------------|
| LZS,SE250 | 9.00 (228.6) | 6.000 (152.4) | .62 (15.8) | 3.37 (85.7) | 2.500 (63.5) | .43 (11.0) |
| LZS,SE500 | 10.25 (260.3) | 6.500 (165.1) | .62 (15.8) | 4.25 (107.9) | 3.000 (76.2) | .62 (15.8) |
| LZS,SE750 | 10.37 (263.5) | 7.000 (177.8) | .62 (15.8) | 5.00 (127.0) | 3.500 (88.9) | .62 (15.8) |
| LZS,SE1000 | 10.50 (266.7) | 8.500 (215.9) | .75 (19.0) | 5.62 (142.8) | 3.500 (88.9) | 1.06 (26.9) |
| LZS,SE1500 | 11.00 (279.4) | 8.000 (203.2) | .75 (19.0) | 8.00 (203.2) | 3.500 (88.9) | 2.12 (54.0) |

WEIGHT:

| MODEL | NET LBS | SHIP LBS |
|-------------------|---------|----------|
| LZS,SE250 | 7.0 | 9.0 |
| LZS,SE500 | 10.0 | 12.0 |
| LZS,SE750 | 11.0 | 14.0 |
| LZS,SE1000 | 15.5 | 19.5 |
| LZS,SE1500 | 22.0 | 26.0 |

NOTE:

1. DIMENSIONS ARE IN INCHES EXCEPT DIMENSIONS () ARE IN MM.
2. 4 x M4 TAPPED HOLES FOR CUSTOMER MTG. SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN .25 (6.3).
3. CUSTOMER MUST PROVIDE CLEARANCE AROUND VENT HOLES TO ALLOW FOR AIR FLOW.