

500-1500W Single Output Industrial Power Supplies

Features

- ◆ 5 Year Warranty
- ◆ -40°C to +71°C Operation
- ◆ MIL-STD-810E Vibration / Shock
- ◆ Input transient protected
- ◆ UL508, SEMIF47, Factory Mutual (Class 1, Division 2)
- ◆ Rugged mechanical design with coating on pcbs
- ◆ Superior thermal design
- ◆ Wide range adjustment of output



Key Market Segments & Applications



Specifications				
Model		LZSA500	LZSA1000	LZSA1500
Input Voltage (47-440Hz) (*)	-	85 - 265VAC (LZSA1500 - see output derating graphs on page 2), 100-380VDC (1)		
Inrush Current (110 / 220VAC)	A	25 / 45A	30 / 40A	
Power Factor	-	EN61000-3-2 Class A		
Efficiency (typical)	%	84%		
Ripple & Noise (Pk-Pk)(max)	-	75mV	75mV	24V: 75mV; 48V: 150mV
Line Regulation	%	0.1%		
Load Regulation	%	0.1%		
Transient Response	-	±1% deviation, recovering to ±0.2% in <1.25ms (25% load change)		
Overcurrent Protection	-	110 - 130%		
Overvoltage Protection	V	User adjustable from front panel		
Thermal Protection	-	Internal thermostat. Recycle AC to reset		
Hold Up Time at 110VAC	ms	20ms Hold Up, 20ms Ride Through		
Remote Sense	-	Compensates for a total of 1V 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. 200kHz sync signal (Ref-sense)		
Indicators	-	Green LED indicates output good, red LED indicates overvoltage or over temperature		
Parallel Connection	-	Single wire current share		
Operating Temperature	°C	-40° to +71°C, derate linearly to 60% load from 60°C~71°C (20 min warm up period needed for <-30°C)		
Storage Temperature	°C	-40° to +85°C		
Temperature Coefficient	-	0.01%/°C		
Humidity (non condensing)	%RH	10 - 90%RH		
Cooling	-	Internal fan		
Withstand Voltage	-	Input - Ground 2,121VDC, Input - Output 4,242VDC, Output - Ground 500VDC		
Vibration	-	MIL-STD-810E, Method 514.4, Category 1, 9		
Shock	-	MIL-STD-810E, Method 516.4 Proc. I, II, IV, VI		
Safety Agency Certifications	-	UL/CSA60950-1, UL508, EN60950-1, FM 3600, 3611, 3810, & CE Mark. SEMIF47(>100VAC)		
Leakage current	uA	<500uA at 265VAC, 60Hz		
Emissions	-	EN55022/EN55011 Class B, EN61000-3-3, MIL STD 461/462D CE102		
Immunity	-	EN61000-4-2, -3, -4, -5, -6, -8, -11. IEEE C62.41 (6kV/30 Ohm, Criteria A)		
Altitude	m	3,000m operating, 12,000m non operating		
Weight	lbs	6.5	8.1	
Size (WxHxD)(w/o bus bars)	ins	4.25 x 4.75 x 10.25	5.62 x 4.75 x 10.5	
Warranty	yrs	Five Years		

(1) Startup > 110VDC

Notes: (Consult Installation Manual for detailed specifications, test methods and application notes) (*) Reduced power factor above 63Hz

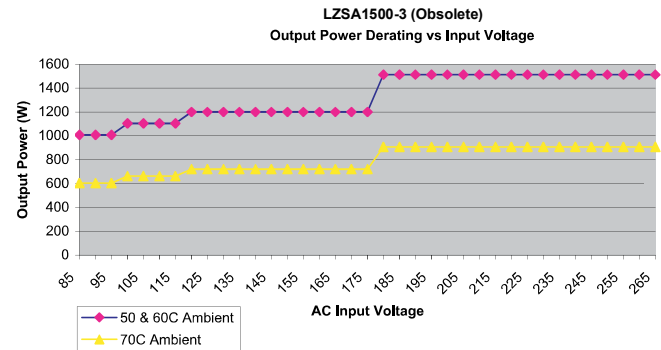
LZSA1500-3-001 & LZSA1500-4
Output Power Derating vs Input Voltage

The graph plots Output Power (W) on the Y-axis (0 to 1600) against AC Input Voltage (V) on the X-axis (85 to 265). Three data series are shown for different ambient temperatures:

- 50C Ambient (Blue diamonds):** Output power increases from approximately 1150W at 85V to a peak of about 1500W at 110V, then remains constant at 1500W up to 265V.
- 60C Ambient (Pink squares):** Output power increases from approximately 1050W at 85V to a peak of about 1450W at 110V, then remains constant at 1450W up to 265V.
- 70C Ambient (Yellow triangles):** Output power increases from approximately 650W at 85V to a peak of about 850W at 110V, then remains constant at 850W up to 265V.

Legend:

- 50C Ambient
- 60C Ambient
- 70C Ambient



FRONT VIEW

Labels: REMOTE ON/OFF ENABLE SWITCH, 4 POSITION OUTPUT TERMINAL BLOCK, 0.28 (.14mm) DIA. (2 HOLES PER BUS BAR), 1.00 (.254mm) 2X, 0.63 (.15mm), 2.00 (.50mm), 12 PIN SIGNAL CONNECTOR OPTION BOARD, 15 PIN "D" CONNECTOR RECEPTACLE, 2 POSITION AC INPUT TERMINAL BLOCK SCREW SIZE #6-32, #6-32 SCREW FOR LINE CORD CLAMP, #6-32 GROUND STANDOFF, INDICATOR LIGHTS, V OUT ADJ., OV ADJ.

SIDE VIEW

Labels: 1.28 (.32mm) 2X, 10.50 (.266.7mm)

REAR VIEW

Labels: 4.75 (.120mm), 5.62 (.142mm)

BOTTOM VIEW

Labels: 1.00 (.254mm), 0.75 (.190mm), 5.00 (.127mm), AIRFLOW (SEE NOTE 1), 1/4 THREADED INSERTS .25" (6MM) MAXIMUM SCREW PENETRATION (4 PLACES)

NOTES:

1. CUSTOMER MUST PROVIDE ADEQUATE CLEARANCE (50MM MIN.) AT FRONT, SIDES, AND TOP SURFACES FOR AIR FLOW.
2. CUSTOMER MOUNTING SCREWS (M4x0.7) MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 1/4" (6MM).
3. SEE INSTRUCTION MANUAL FOR ADDITIONAL INFORMATION.
4. DIMENSIONS ARE IN INCHES, EXCEPT DIMENSIONS IN [] ARE IN MM.

Model	Nominal Voltage (V)	Adjustment Range (V)	Maximum Current (A)	Maximum Power (W)
LZSA1000-2	12	10 - 15.75	84	1008
LZSA500-3	24	18 - 29.4	21	504
LZSA1000-3	24	18 - 29.4	42	1008
LZSA1500-3	24	18 - 29.4	63	1512
LZSA1500-3-001	24	18 - 29.4	63	1512
LZSA1500-4	48	36 - 56	31.5	1512

HWS	15W to 1800W Single Output
DLP, DPP, DSP	15W to 960W DIN Rail
PFE	300W to 1000W Power Modules

For Additional Information, please visit
us.tdk-lambda.com/lp/products/lzsa-series.htm



*Model highlighted in blue is obsolete. Please use LZSA1500-3-001.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TDK-Lambda:](#)

[LZSA10003](#) [LZSA15003001](#) [LZSA1500-4](#) [LZSA5003](#) [LZSA-1000-2](#)