



Single Output Industrial Power Supplies

- ◆ 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)

RoHS

Key Market Segments & Applications

Factory Automation	Military
Process & Controls	Harsh Environments

Features and Benefits

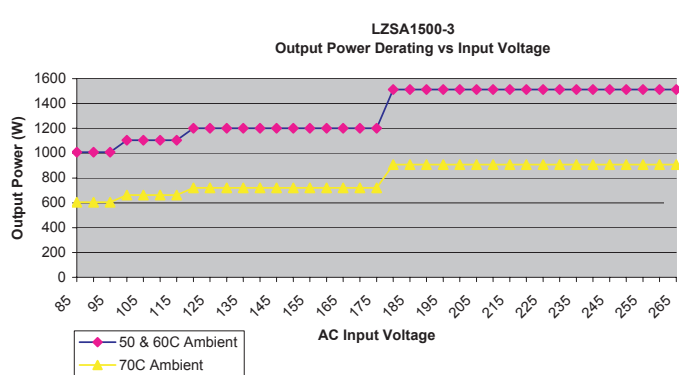
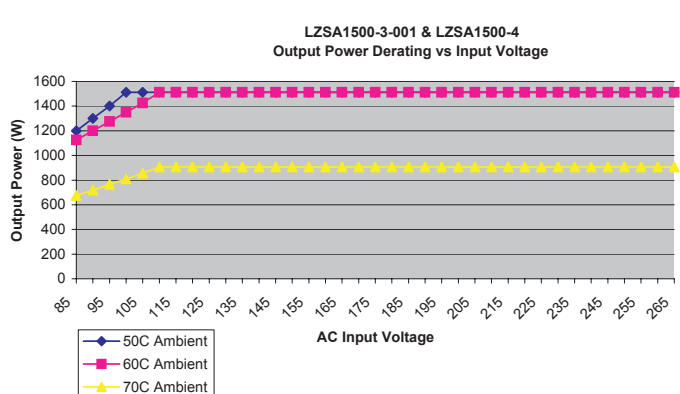
Feature	Benefit
◆ Rugged mechanical design with coating on pcbs	◆ High reliability in harsh conditions
◆ Superior thermal design	◆ Longer life even at 71°C operation
◆ Wide range adjustment of output	◆ Reduces need for custom outputs
◆ Input voltage transient protected	◆ Reduced system filtering

Specifications

MODELS		LZSA500	LZSA1000	LZSA1500
ITEMS				
Input Voltage (47-440Hz)*	-	85 - 265VAC (LZSA1500 - see output derating graphs on page 2), 100-400VDC		
Inrush Current (110 / 220VAC)	A	20 / 40A	40 / 80A	
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	-	UL60950-1, 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		

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

Derating Charts



Output Ratings

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

Note: Models highlighted in green are not recommended for new designs.

Other Industrial Products

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

Outline Drawing (LZSA1500)

