RATINGS AND SPECIFICATIONS:*

I. Maximum Ratings:

	Units	LZS-1000-1	LZS1000-2	LZS1000-3
Output Voltage *Range*	V	4.75 – 6.30	11.4 – 15.75	19.0 – 29.4
Output Current(Power) @ 40°C**	A(W)	200 (1050)	83 (1050)	50 (1050)
Output Current(Power) @ 50°C**	A(W)	190 (998)	80 (998)	48 (998)
Output Current(Power) @ 60°C**	A(W)	160 (840)	67 (840)	40 (840)
Output Current(Power) @ 71°C**	A(W)	120 (630)	50 (630)	30 (630)
Operating Temperature	°C	Continuous duty from –30 to +71		

II. Input Specifications:

	Units	
Input Voltage Range		Autoselectable: 85 – 132 or 170 - 265 VAC (47 - 440 Hz), or 220 - 380 VDC.***
Input Current (RMS, maximum)	A	22, at 85 VAC input.
Inrush Current (Peak, at cold start.)	A	40, at 115 VAC input 80, at 230 VAC input
Input Power (maximum)	W	1428, at 85 VAC input
Input Surge Protection		Meets IEEE 587-1980 Class A for branch circuits and outlets.
Input EMI Conducted Emissions		FCC Part 15 Subpart J (Class B) VDE 0871 (Class B) MIL-STD-461C, CE-03
Efficiency (at maximum output power)	% %	73.5% minimum, at 85 VAC input 75% typical, at 115 VAC input

III. Output Performance Specifications:

	Units	LZS-1000-1	LZS-1000-2	LZS-1000-3
Voltage Line Regulation	%	0.1% of Vo		
Voltage Load Regulation	%	0.1% of Vo		
Ripple and Noise @ 20 MHz measurement Bandwidth.	mV	10 (RMS) 35 (pk. To pk.)	10(RMS) 50 (pk. To pk.)	I0(RMS) 100 (pk. To pk.)
Temperature Coefficient	%/°C	0.025		
Startup Time (at 110 VAC input)	ms	1500 max.		
Overshoot	mv	No overshoots at turn on, turn off, power failure or removal of short circuit.		
Holdup Time (al 115 VAC, 5.25 VDC output and 200 A load)	ms	26	N/A	N/A
Load Transient Response 50% to 100% load change)		Recovery to within regulation limits within 50 ms. Maximum output voltage excursion less than 7.5% for -1 model and less than 5% for -2 and -3 models.		

* Refer to figures 1-7 for supply-load connection information.

** Output current and power, as measured at output terminals, must be less than or equal to quoted maximum values for a given ambient temperature.

*** For DC input, the source voltage must reach 220 VDC within 750 ms. Or the autoselect circuit may activate the voltage doubler and cause the input capacitor overvoltage protection circuit to blow the line fuse.

RATINGS AND SPECIFICATIONS:* (CONT'D)

IV. Operating Modes:

Series Operation	Yes (see Fig. 7)
Parallel Operation (with current sharing)	Two or more identical units (see Fig. 6). (Use of TB201 Terminal 5 will provide current sharing to within 3% nominal of rated 40°C current.)

(Refer to figures 1-7 for supply-load connection information.

FEATURES:

I. DC Output Controls and Indicators:

Output Voltage Adjust	Screwdriver adjustment over entire range. (Multi-turn potentiometer accessible from terminal end of chassis.)
Overvoltage Protection Adjust	Screwdriver adjustment over entire range. (Multi-turn potentiometer accessible from terminal end of chassis.)
Output Good Indicator	Green colored LED illuminates when output is within specified operating range.
Fault Indicator	Red colored LED illuminates if overvoltage or overtemperature shutdown occurs. (Loss of illumination after removal of AC power indicates that OV/OT shutdown circuit has fully reset.)

II. Remote Control Features:

Remote Voltage Sensing	Provides precise regulation directly at load (see Fig. 3). (Maximum total DC voltage drop between output terminals and load must be limited to <1.0 V. In addition, the voltage at the output terminals must be limited to 6.3 V for -1, 15.75 V for -2, and 29.4 V for –3 models.)
Remote Voltage Programming via external resistor,	1000 ohms per volt for resistor connected between pins 1 and 2 on TB201 (see Figs. 4 and 5).
Remote Voltage Programming via external voltage source,	Volt per volt for voltage source connected between pins 1 and 2 on TB201 (see Figs. 4 and 5).
Remote On/Off Control.	Enable/Disable output via TTL voltage level compatible signal connected between pins 6 and 7 of TB201(or "D" connector).
Signal Isolation:	Pins 6 and 7 are fully isolated from all other power supply terminals.
Signal Logic:	Logic zero (below 0.7 V), short circuit or open circuit disables power supply output. Logic one (above 2.5 V) enables power supply output.
Signal Current draw:	Current draw from Logic 1 input is less than 4 mA.
Output Response Time:	Output will be within specified limits within 50 ms. of application of logic "1" signal on -1 models, 100 ms. on -2 and -3 models.
Signal Enable:	Remote on/off function must be enabled by moving "OUTPUT ENABLE" switch at terminal end of chassis from "LOCAL" to "REMOTE" position.

FEATURES: (CONT'D

III. Auxiliary Monitoring and Alarm Signals: Optically coupled, conductance outputs.
(Conduct up to 1 mA at a voltage of <0.4 V, when active.)

Input Power Good Signal	Conductance signal which indicates adequate input capacitor voltage to provide 6 ms holdup time when operating -1 model @ 5.25 V, 200 A; -2 model @ 12.6 V, 83 A; or -3 model @ 21 V, 50 A.
Output Good Alarm Signal	Conductance signal which indicates that delivered output voltage, as measured at the +V and -V terminals, is above its minimum specified value.
Inverter Good Signal	Conductance signal which indicates that the power supply's inverter is functional. At very light loads, this signal may be indeterminate.
Signal Isolation	Input power good, output good alarms, inverter good and remote on/off signals are isolated from power supply output and each other for voltages up to 500 volts, minimum. 3000 VAC isolation from AC input to all auxiliary signals.

IV. Protection Features:

	Units	LZS-1000-1	LZS-1000-2	LZS-1000-3
Overcurrent Protection	%	Current limiting to110% of max. rated 40°C load.		
Overvoltage Protection (adjustable)	V	6.5- 7.5	13.3- 17.5	22.1 -31.3
Nominal Factory Set Point:	V	6.8 - 6.9	16.9 - 17.0	30.9 - 31.0
Thermal Protection		Non-self-resetting thermostat.*		
Fusing (Replace only with same type and rating.)		F601: 30A/600 VAC (Line Fuse) F201, F202:0.5A/250V, F203:3A/250V F204: 15A/600V,		
Isolation Voltages	VAC VDC VAC	3000, Input to Output 500, Output to Chassis Ground 1500, Input to Chassis Ground		
Regulatory Agency Compliance **		UL1950 (SELV output) CSA E. B. 1402C, C22.2 No. 234-M90 (SELV output) IEC 950 (SELV output)		
Leakage current (AC line to chassis ground)	mA	less than 3.5 (when operated at 250 VAC (47 - 63 Hz), or lower voltages).		

* See "OVERTEMPERATURE AND OVERVOLTAGE SHUTDOWN" on page 7.
** Evaluation in process. Check unit chassis for appropriate logos to determine approval status of a given unit.

FEATURES: (CONT'D)

V. Mechanical Features:

	units	
Storage Temperature (non-operating)	°C	-40 to + 85
Weight	Lbs	15.0 Net 17.5 Shipping
Size	inches	4.75 x 5.63 x 10.5
Finish		Black, Fed. Std. No. 27038
Mounting		One mounting surface (mounting position not restricted) Maximum allowable penetration into power supply is 1/4". (Requires No M4 (metric) hardware - supplied with unit.)

VI. Input and Output Connections:

Input	Heavy duty, chassis mounted terminal block with safety cover. (Cable clamp provided to secure line cord.)
Chassis ground	6-32 tapped hole and screw provided in chassis.
DC output	Heavy-duty bus bars with ¼" clearance holes for load connections. (Connection hardware supplied with unit.)
Local/Remote voltage sensing, Remote on/off, Parallel operation	Seven-position lugless connector (TB201). See Fig. 1. (Accepts up to #14 AWG size stripped wire.)
Auxiliary Control and Alarm Signals	Connections for remote and local sensing, remote on/off parallel operation current sharing, input power good signal, output good alarm, Inverter good signal and chassis are available via chassis mounted, 15-pin, female, sub-miniature "D" connector (see Fig. 1).

VII. Other Features:

Guarantee	5 years, parts and labor.
Cooling	Fan cooled, using high quality, ball bearing fan.
Fungus Inert	All LZS power supplies are inherently fungus inert.