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REPORT

On

POWER CIRCUIT AND MOTOR-MOUNTED APPARATUS - POWER SUPPLY

***TDK-Lambda Americas Inc.**

San Diego, CA

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DESCRIPTION

PRODUCT COVERED:

USL, CNL - Power Circuit and Motor-Mounted Apparatus - Open Type Switching Power Supplies, Models LZS-A500-3, LZS-A1000-3, LZS-A1000-2, **LZS-A1000-2-009**, LZS-A1500-3, LZS-A1500-3-001 and LZS-A1500-4, may be followed by any 4 alpha-numeric characters.

GENERAL:

These are open type, switching power supply modules that are intended for use in pollution degree 2 environment. These were evaluated to UL 508, Standard for Industrial Control Equipment, Seventeenth Edition and are intended for use in Industrial Control Applications.

ELECTRICAL RATINGS:

Model(s)	Input Rating	Maximum Output Rating (dc)			Surrounding Air Temp
		V	A	W	
LZS-A500-3	100-240 V ac, 7.3 A, 47-63 Hz Operating Range 85-265 V ac	18.0-29.4 18.0-29.4	21 12.6	504 302	60°C 70°C
LZS-A1000-2	100-240 V ac, 15 A, 47-63 Hz Operating Range 85-265 V ac	10.0-15.75 10.0-15.75	84 50.4	1008 605	60°C 70°C
LZS-A1000-2-009	100-240 V ac, 15 A, 47-63 Hz Operating Range 85-265 V ac	9.2-15.75 9.2-15.75	84 50.4	1008 605	60°C 70°C
LZS-A1000-3	100-240 V ac, 15 A, 47-63 Hz Operating Range 85-265 V ac	18.0-29.4 18.0-29.4	42 25.2	1008 605	60°C 70°C
* LZS-A1500-3	100-240 V ac, 15 A, 47-63 Hz Operating Range 85-265 V ac	18.0-29.4 18.0-29.4	63 **	1512 907	60°C 70°C
* LZS-A1500-3-001	100-240 V ac, 17.6 A, 47-63 Hz Operating Range 85-265 V ac	18.0-29.4 18.0-29.4	63 **	1512 907	60°C 70°C
* LZS-A1500-4	100-240 V ac, 18 A, 47-63 Hz Operating Range 85-265 V ac	36.0-56.0 36.0-56.0	31.25 **	1512 907	60°C 70°C

NOTE: ** See Output De-Rating Table

TABLE I - De-Rating Table for LZS-A1500-3:

Input Voltage, (Vac)	Output Voltage, (Vdc)	Max. Output Current, (A)	Max. Output Power, (W)	Surrounding Air Temp, °C
85	18	56	1008	60
	24	42	1008	
	29.4	34.3	1008	
85	18	33.6	605	70
	24	25.2	605	
	29.4	20.6	605	
100	18	61.4	1104	60
	24	46	1104	
	29.4	37.6	1004	
100	18	36.8	662	70
	24	27.6	662	
	29.4	22.5	662	
120	18	63	1134	60
	24	50	1200	
	29.4	40.9	1200	
120	18	40	720	70
	24	30	720	
	29.4	24.5	720	
180 to 265	18	63	1134	60
	24	63	1512	
	29.4	51.5	1512	
180 to 265	18	50.4	907	70
	24	37.8	907	
	29.4	30.9	907	

TABLE II- LZS-A1500-3-001 Output De-rating

Input Voltage (V ac)	Output Voltage (V dc)	Max Output Current (A) @ 50°C max ambient	Max Output Power (W) @ 50°C max ambient	Max Output Current (A) @ 60°C max ambient	Max Output Power (W) @ 60°C max ambient	Max Output Current (A) @ 70°C max ambient	Max Output Power (A) @ 70°C max ambient
85	18	63	1134	62.5	1125	37.5	675
	24	50	1200	46.9	1125	28.2	675
	29.4	40.8	1200	38.3	1125	23.0	675
90	18	63	1134	63	1134	40	720
	24	54.2	1300	50	1200	30	720
	29.4	44.2	1300	40.8	1200	24.5	720
95	18	63	1134	63	1134	42.5	765
	24	58.4	1400	53.1	1275	31.9	765
	29.4	47.6	1400	43.4	1275	26.1	765
100	18	63	1134	63	1134	45	810
	24	63	1512	56.3	1350	33.8	810
	29.4	51.4	1512	46.0	1350	27.6	810
105	18	63	1134	63	1134	47.5	855
	24	63	1512	59.4	1425	35.7	855
	29.4	51.4	1512	48.5	1425	29.1	855
110 - 265	18	63	1134	63	1134	50.4	907
	24	63	1512	63	1512	37.8	907
	29.4	51.42	1512	51.42	1512	30.9	907

TABLE III - LZS-A1500-4 Output De-rating

Input Voltage (V ac)	Output Voltage (V dc)	Max Output Current (A) @ 50°C max ambient	Max Output Power (W) @ 50°C max ambient	Max Output Current (A) @ 60°C max ambient	Max Output Power (W) @ 60°C max ambient	Max Output Current (A) @ 70°C max ambient	Max Output Power (A) @ 70°C max ambient
85	36	31.5	1134	31.25	1125	18.75	675
	48	25	1200	23.45	1125	14.1	675
	56	21.45	1200	20.1	1125	12.05	675
90	36	31.5	1134	31.5	1134	20	720
	48	27.1	1300	25	1200	15	720
	56	23.25	1300	21.45	1200	12.9	720
95	36	31.5	1134	31.5	1134	21.25	765
	48	29.2	1400	26.6	1275	15.95	765
	56	25	1400	22.8	1275	13.7	765
100	36	31.5	1134	31.5	1134	22.5	810
	48	31.5	1512	28.15	1350	16.9	810
	56	27	1512	24.15	1350	14.5	810
105	36	31.5	1134	31.5	1134	23.75	855
	48	31.5	1512	29.7	1425	17.85	855
	56	27	1512	25.45	1425	15.3	855
110 - 265	36	31.5	1134	31.5	1134	25.2	907
	48	31.5	1512	31.5	1512	18.9	907
	56	27	1512	27	1512	16.2	907

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

Special Considerations - The following items are considerations that were used when evaluating this product.

USL: Indicates investigation to the U.S. Standard UL 508, 17th Edition.

*CNL: Indicates investigation to the Canadian National Standard(s) CSA C22.2 no. 107.1-01, **3rd** Edition.

Note: CNL = Canadian National Standards - Listed.

USL = United States Standards - Listed.

NOMENCLATURE BREAKDOWN:

The significance of the power supply's nomenclature is as follows:

LZS-A500-3	XXXX
I	II

I - Basic Series Designation

LZS-A500-3
LZS-A1000-2
LZS-A1000-2-009
LZS-A1000-3
LZS-A1500-3
LZS-A1500-3-001
LZS-A1500-4

II - Denoting cosmetic/packaging variations