参考資料

COSEL

TEST DATA OF LDA30F-3

(100V INPUT)

Regulated DC Power Supply

Nov. 28, 2001

Approved by : K. Shibutani
Design Manager

Prepared by : M. Hamaguchi
Design Engineer

コーセル株式会社

COSEL CO.,LTD.

参考資料

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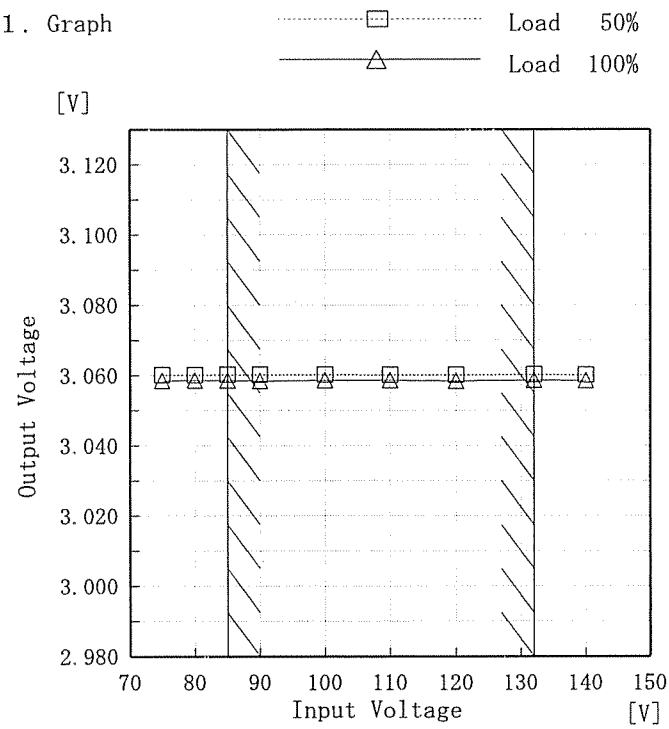
1. Graph



Note: Slanted line shows the range of the rated input voltage.

(注)斜線は定格入力電圧範囲を示す。

2. Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
75	3.060	3.059
80	3.060	3.059
85	3.060	3.059
90	3.060	3.058
100	3.060	3.059
110	3.060	3.059
120	3.060	3.058
132	3.060	3.059
140	3.060	3.059

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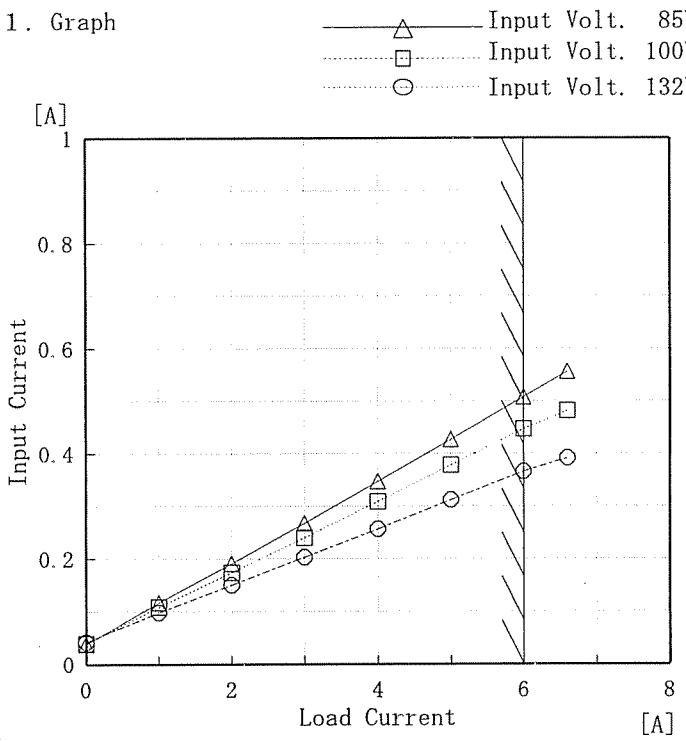
Model	LDA30F-3
Item	Input Current (by Load Current) 入力電流（負荷特性）
Object	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated load current.

(注)斜線は定格負荷電流範囲を示す。

2. Values

Load Current [A]	Input Current [A]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	0.038	0.039	0.042
1.0	0.117	0.109	0.098
2.0	0.192	0.174	0.151
3.0	0.268	0.241	0.203
4.0	0.347	0.309	0.257
5.0	0.427	0.378	0.312
6.0	0.508	0.447	0.366
6.6	0.557	0.481	0.392
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

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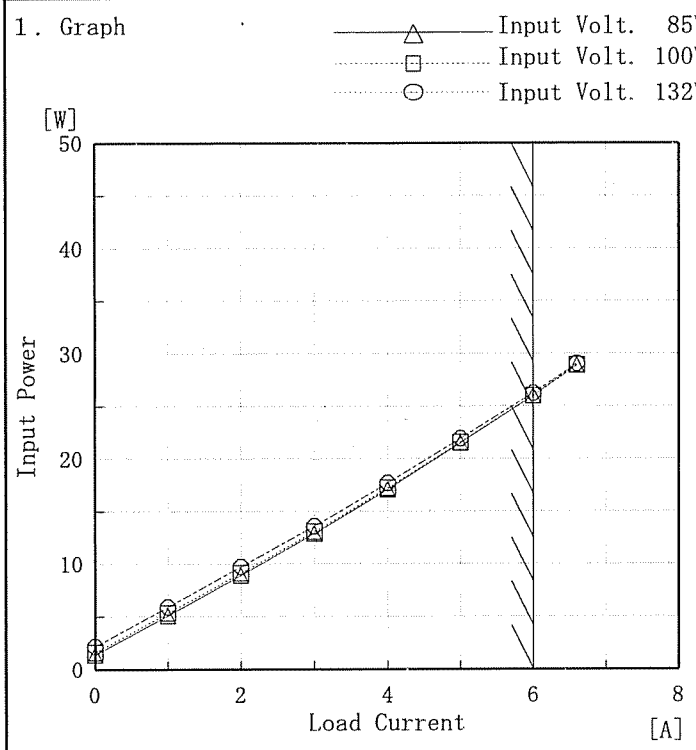
Model	LDA30F-3
Item	Input Power (by Load Current) 入力電力（負荷特性）
Object	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated load current.

(注)斜線は定格負荷電流範囲を示す。

2. Values

Load Current [A]	Input Power [W]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	1.38	1.59	2.17
1.0	5.09	5.33	5.93
2.0	8.91	9.14	9.73
3.0	12.91	13.09	13.60
4.0	17.10	17.24	17.70
5.0	21.49	21.55	21.91
6.0	26.00	26.00	26.25
6.6	28.87	28.94	29.07
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

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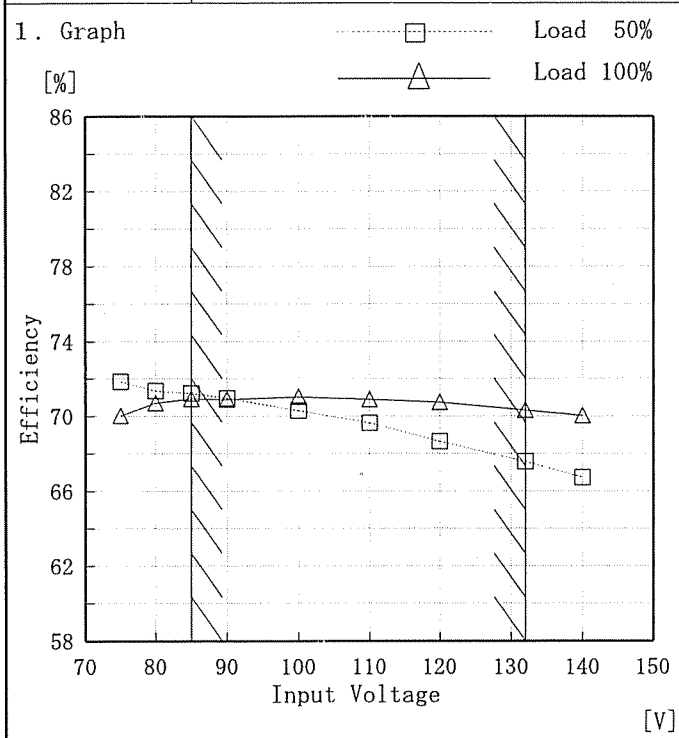
Model	LDA30F-3
Item	Efficiency (by Input Voltage) 効率 (入力電圧特性)
Object	———————————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated input voltage.

(注)斜線は定格入力電圧範囲を示す。

2. Values

Input Voltage [V]	Efficiency [%]	
	Load 50%	Load 100%
75	71.9	70.0
80	71.4	70.7
85	71.2	70.9
90	71.0	70.9
100	70.3	71.0
110	69.6	70.9
120	68.6	70.7
132	67.6	70.3
140	66.7	70.0

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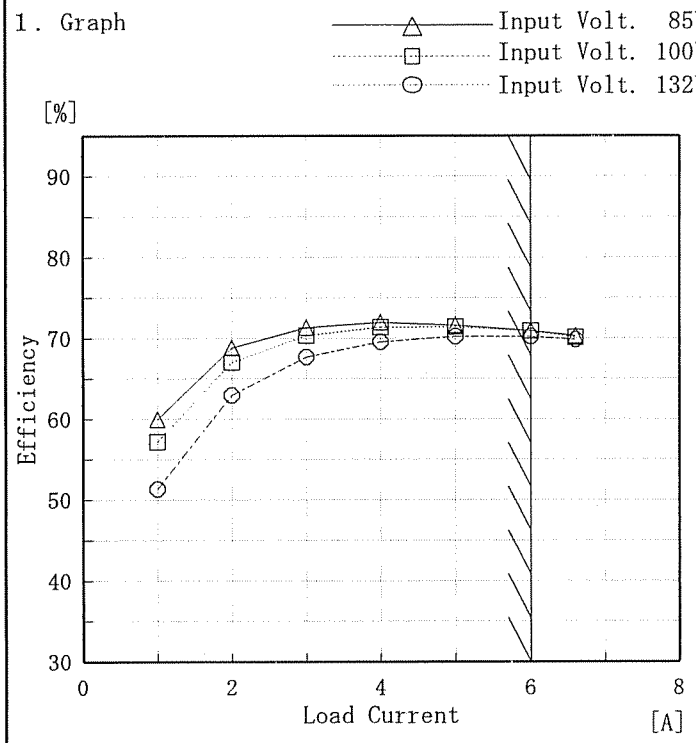
Model	LDA30F-3
Item	Efficiency (by Load Current) 効率 (負荷特性)
Object	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated load current.

(注)斜線は定格負荷電流範囲を示す。

2. Values

Load Current [A]	Efficiency [%]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
1.0	60.0	57.2	51.4
2.0	68.8	67.0	63.0
3.0	71.3	70.4	67.7
4.0	72.0	71.4	69.5
5.0	71.6	71.4	70.2
6.0	70.9	70.9	70.2
6.6	70.3	70.1	69.8
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

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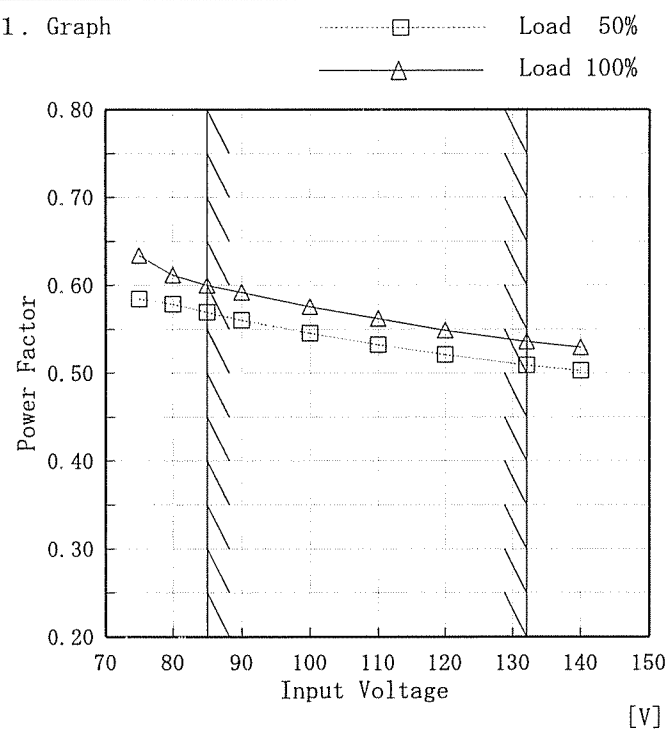
Model	LDA30F-3
Item	Power Factor (by Input Voltage) 力率（入力電圧特性）
Object	————————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated input voltage.

(注)斜線は定格入力電圧範囲を示す。

2. Values

Input Voltage [V]	Power Factor	
	Load 50%	Load 100%
75	0.58	0.63
80	0.58	0.61
85	0.57	0.60
90	0.56	0.59
100	0.55	0.58
110	0.53	0.56
120	0.52	0.55
132	0.51	0.54
140	0.50	0.53

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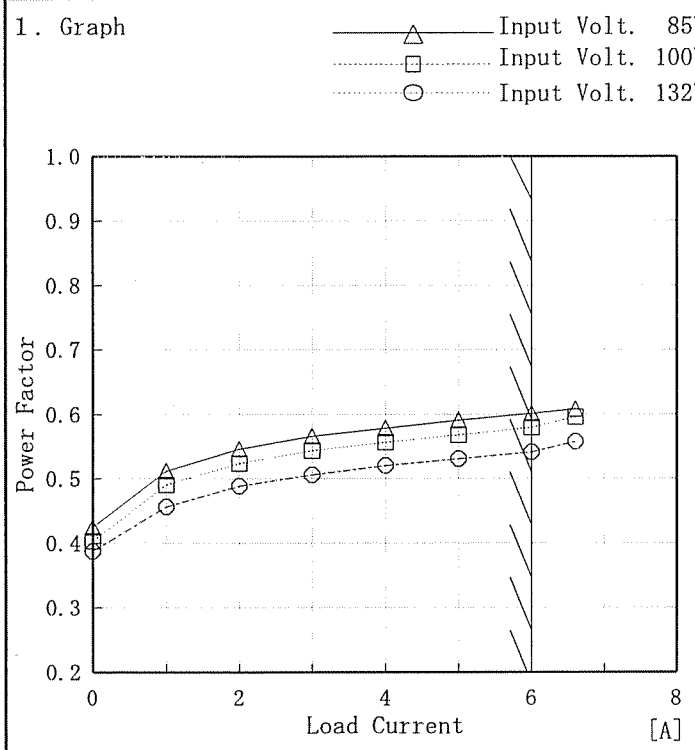
Model	LDA30F-3
Item	Power Factor (by Load Current) 力率 (負荷特性)
Object	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated load current.

(注)斜線は定格負荷電流範囲を示す。

2. Values

Load Current [A]	Power Factor		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	0.42	0.40	0.39
1.0	0.51	0.49	0.46
2.0	0.55	0.52	0.49
3.0	0.57	0.54	0.51
4.0	0.58	0.56	0.52
5.0	0.59	0.57	0.53
6.0	0.60	0.58	0.54
6.6	0.61	0.60	0.56
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

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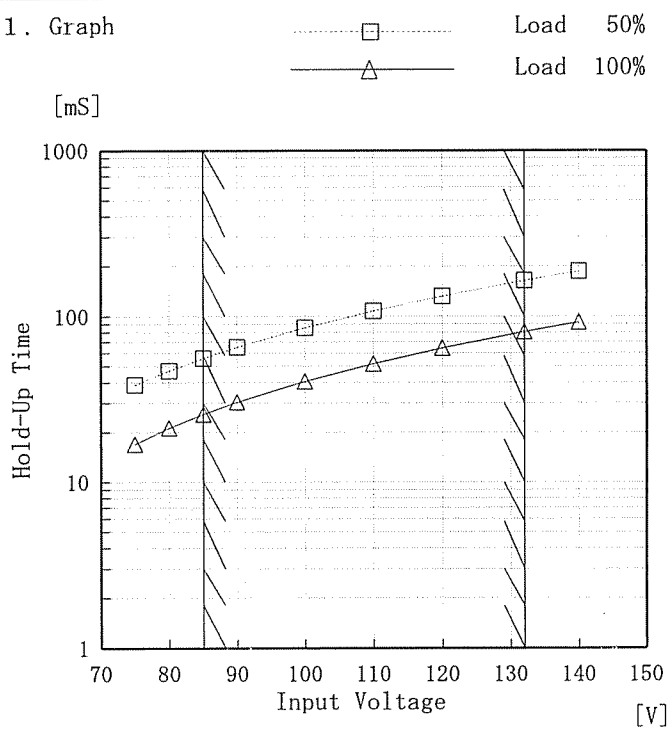
Model	LDA30F-3
Item	Hold-Up Time 出力保持時間
Object	+3.0V6A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.

Note: Slanted line shows the range of the rated input voltage.

出力保持時間とは、入力電圧断から出力電圧が、定電圧精度の規格範囲を保持しているところまでの時間。

(注)斜線は定格入力電圧範囲を示す。

2. Values

Input Voltage [V]	Hold-Up Time [mS]	
	Load 50%	Load 100%
75	39	17
80	47	21
85	56	26
90	65	30
100	86	41
110	108	52
120	132	64
132	164	81
140	187	92

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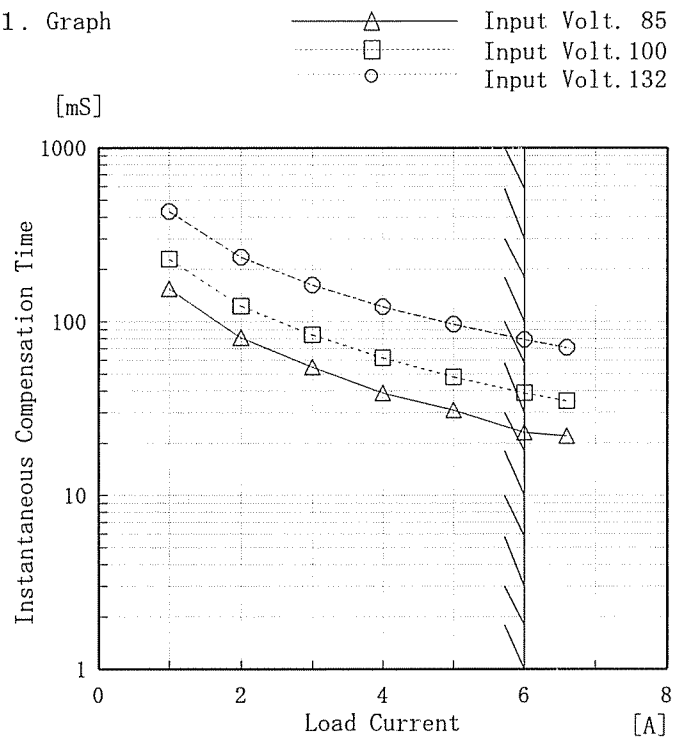
Model	LDA30F-3
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	+3.0V6A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.
Note:Slanted line shows the range of the rated load current.

瞬時停電保障時間とは、出力電圧が定電圧精度の規格範囲を保持している瞬時停電時間をいう。
(注)斜線は定格負荷電流範囲を示す。

2. Values

Load Current [A]	Time [mS]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	—	—	—
1.0	155	229	431
2.0	81	123	235
3.0	55	84	163
4.0	39	62	122
5.0	31	48	97
6.0	23	39	79
6.6	22	35	71
—	—	—	—
—	—	—	—
—	—	—	—

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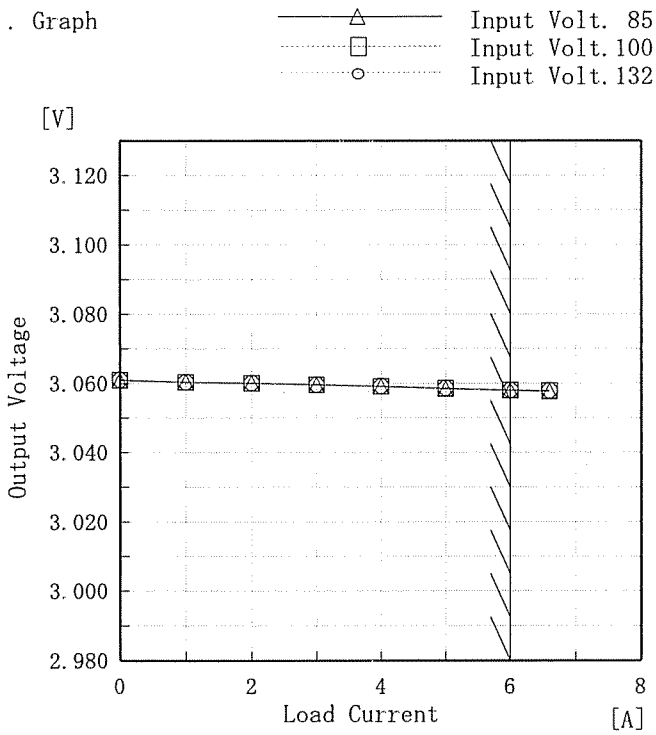
Model	LDA30F-3
Item	Load Regulation 静的負荷変動
Object	+3.0V6A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated load current.

(注)斜線は定格負荷電流範囲を示す。

2. Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	3.061	3.061	3.061
1.0	3.060	3.060	3.060
2.0	3.060	3.060	3.060
3.0	3.060	3.060	3.060
4.0	3.059	3.059	3.059
5.0	3.058	3.059	3.059
6.0	3.058	3.058	3.058
6.6	3.058	3.058	3.058
—	—	—	—
—	—	—	—

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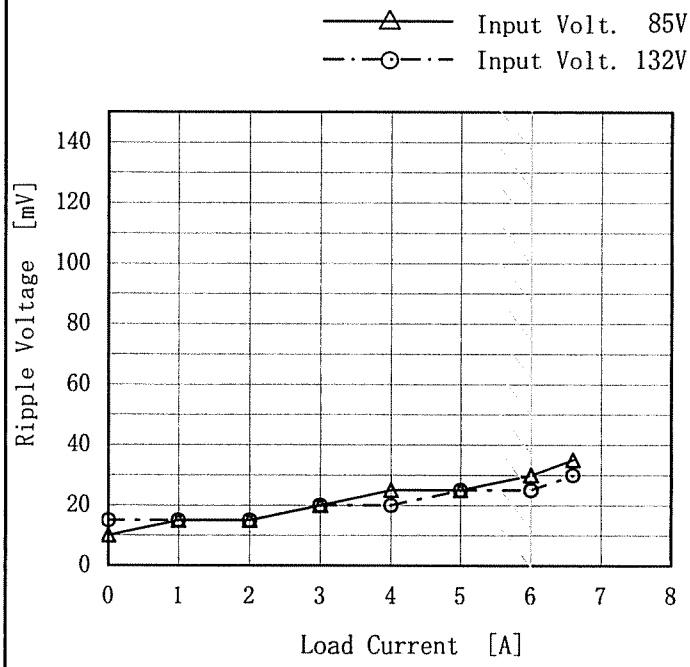
Model	LDA30F-3
Item	Ripple Voltage (by Load Current) リップル電圧（負荷特性）
Object	+3V6A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Ripple Voltage is shown as p-p in the figure below.
Note: Slanted line shows the range of the rated load current.

リップル電圧は、下図ｐ－ｐ値で示される。
（注）斜線は定格負荷電流範囲を示す。

T1: Due to AC Input Line
入力商用周期
T2: Due to Switching
ｽｲｯﾁﾝｸﾞ周期

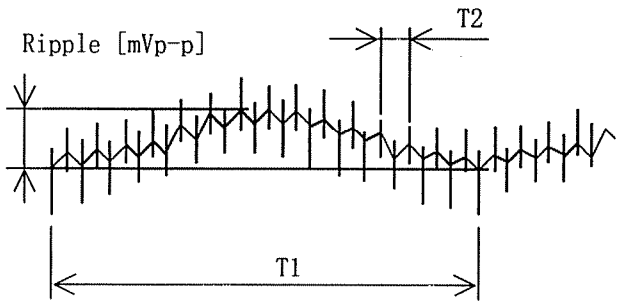


Fig. Complex Ripple Wave Form
図　リップル波形詳細図

2. Values

Load Current [A]	Ripple Voltage [mV]	
	Input Volt. 85 [V]	Input Volt. 132 [V]
0.0	10	15
1.0	15	15
2.0	15	15
3.0	20	20
4.0	25	20
5.0	25	25
6.0	30	25
6.6	35	30
—	—	—
—	—	—
—	—	—

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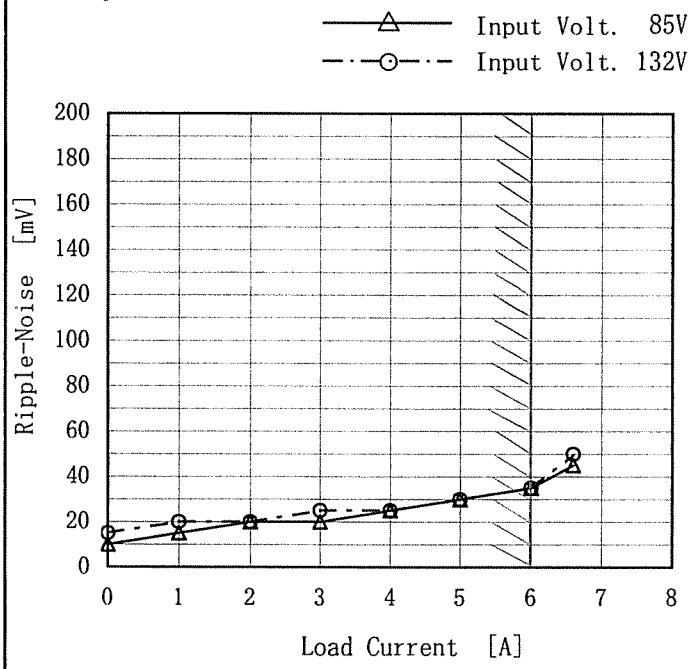
Model	LDA30F-3
Item	Ripple-Noise リップルノイズ
Object	+3V10A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Ripple-Noise is shown as p-p in the figure below.
Note: Slanted line shows the range of the rated load current.

リップルノイズは、下図ｐ－ｐ値で示される。
（注）斜線は定格負荷電流範囲を示す。

T1: Due to AC Input Line
入力商用周期
T2: Due to Switching
ｽｲｯﾁﾝｸﾞ周期

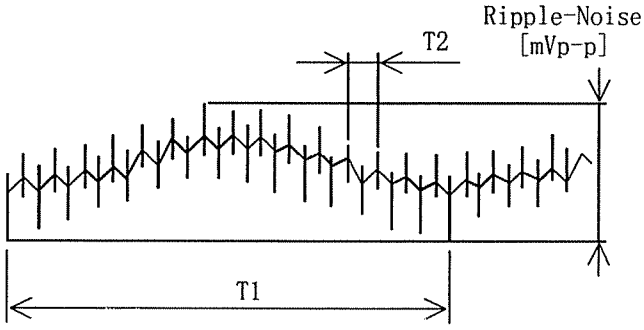


Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 85 [V]	Input Volt. 132 [V]
0.0	10	15
1.0	15	20
2.0	20	20
3.0	20	25
4.0	25	25
5.0	30	30
6.0	35	35
6.6	45	50
--	—	—
--	—	—
--	—	—

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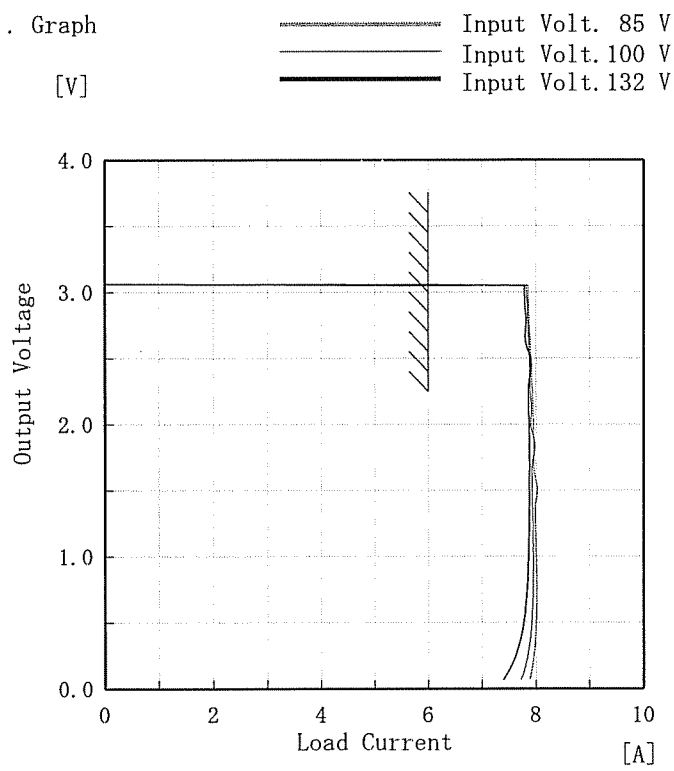
Model	LDA30F-3
Item	Overcurrent Protection 過電流保護
Object	+3.0V6A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated load current.

(注)斜線は定格負荷電流範囲を示す。

2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
3.00	7.85	7.82	7.78
2.85	7.87	7.84	7.80
2.70	7.88	7.86	7.81
2.40	7.92	7.89	7.90
2.10	7.95	7.91	7.87
1.80	7.97	7.97	7.88
1.50	8.02	7.93	7.88
1.20	7.99	7.94	7.87
0.90	8.01	7.95	7.85
0.60	8.01	7.93	7.80
0.30	7.97	7.86	7.65
0.00	7.88	7.72	7.39

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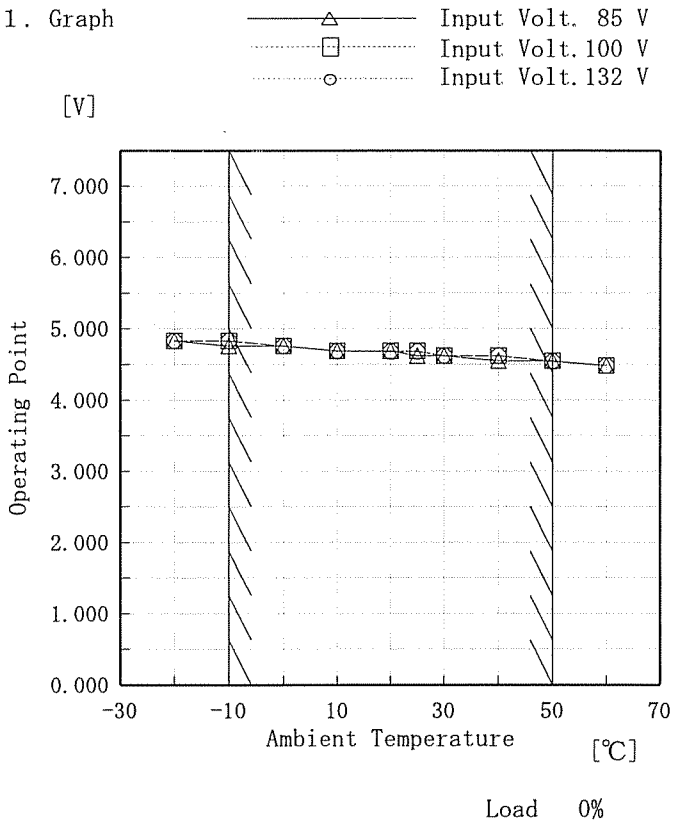
Model	LDA30F-3
Item	Overvoltage Protection 過電圧保護
Object	+3.0V6A

Testing Circuitry Figure A

1. Graph



Load 0%

Note: Slanted line shows the range of the rated ambient temperature.

(注)斜線は定格周囲温度範囲を示す。

2. Values

Ambient Temperature [℃]	Operating Point [V]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	4.83	4.83	4.83
-10	4.76	4.83	4.83
0	4.76	4.76	4.76
10	4.69	4.69	4.69
20	4.69	4.69	4.68
25	4.62	4.69	4.68
30	4.62	4.62	4.62
40	4.55	4.62	4.62
50	4.55	4.55	4.54
60	4.48	4.48	4.48
—	—	—	—

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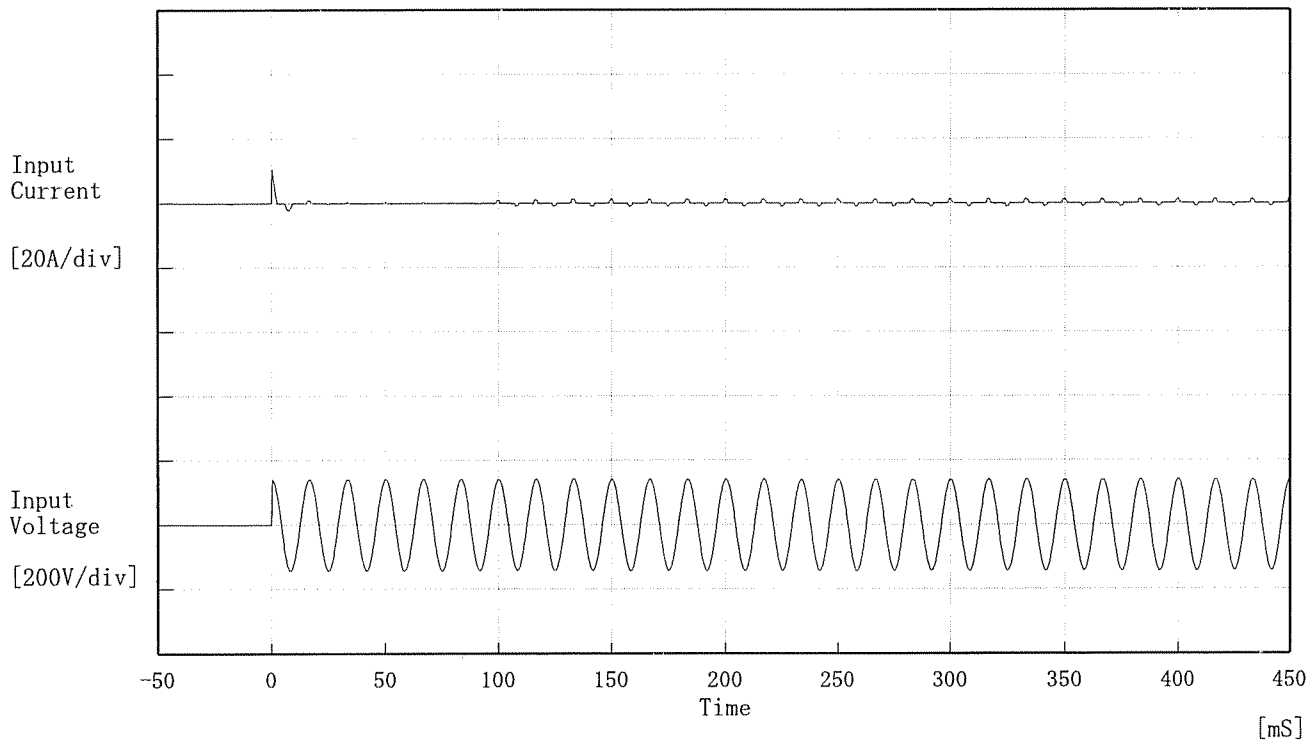
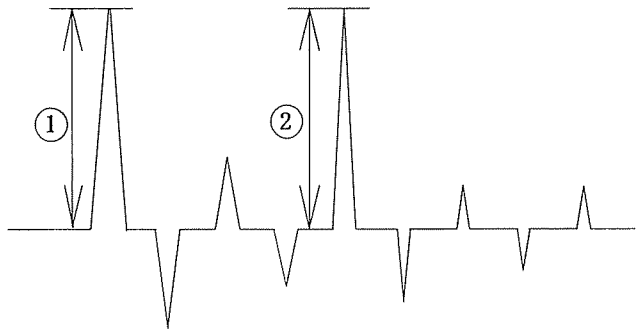
Model	LDA30F-3		
Item	Inrush Current 突入電流	Temperature Testing Circuitry	25℃ Figure A
Object	————————		



Input Voltage 100 V
Frequency 60 Hz
Load 100 %
Inrush Current
① 10.40 [A]
② 1.20 [A]



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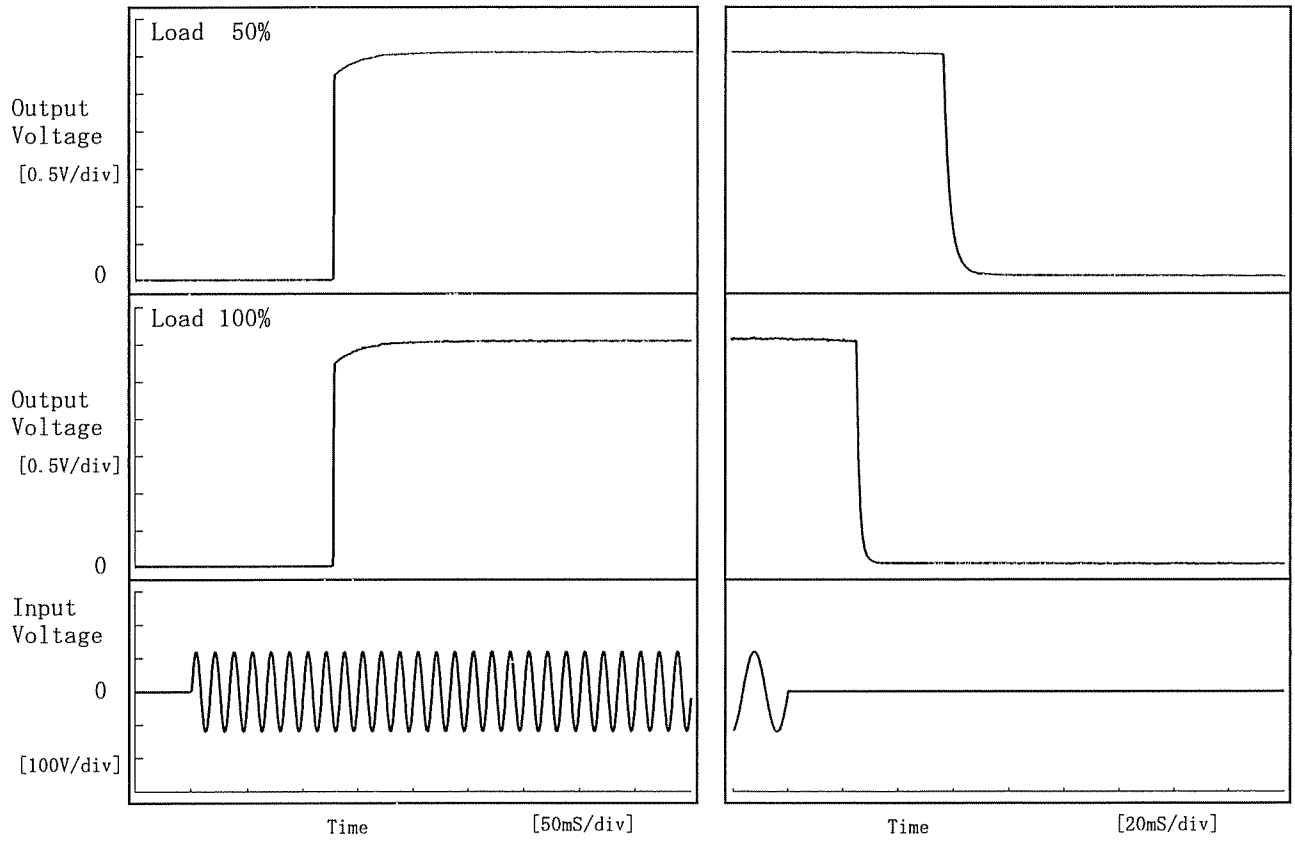
Model	LDA30F-3		
Item	Rise and Fall Time 立上り、立下り時間	Temperature Testing Circuitry	25℃ Figure A
Object	+3.0V6A		

1. Graph

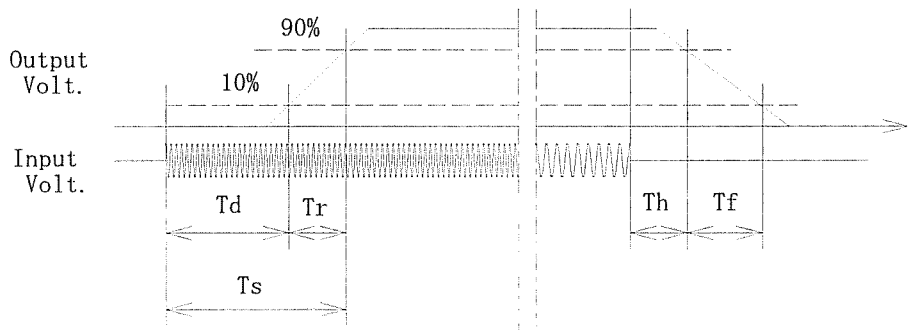
Input Volt. 85 V



2. Values

[mS]

Load \ Time	T d	T r	T s	T h	T f
50 %	127.0	1.3	128.3	56.6	6.0
100 %	127.3	1.3	128.5	25.4	2.8



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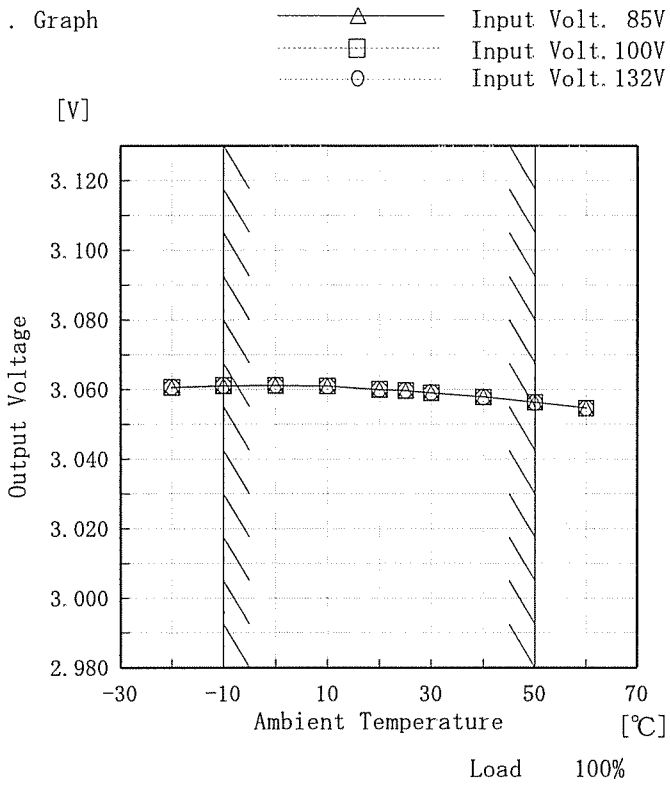
Model	LDA30F-3
Item	Ambient Temperature Drift 周囲温度変動
Object	+3.0V6A

Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated ambient temperature.

(注)斜線は定格周囲温度範囲を示す。

2. Values

Ambient Temperature [℃]	Output Voltage [V]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	3.061	3.061	3.061
-10	3.061	3.061	3.061
0	3.061	3.061	3.061
10	3.061	3.061	3.061
20	3.060	3.060	3.060
25	3.060	3.060	3.060
30	3.059	3.059	3.059
40	3.058	3.058	3.058
50	3.056	3.056	3.056
60	3.055	3.055	3.055
—	—	—	—

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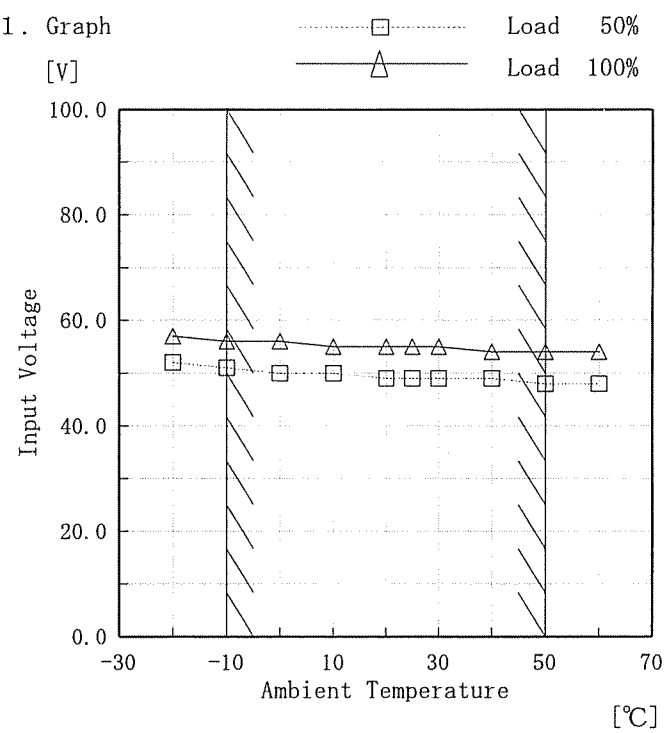
Model	LDA30F-3
Item	Minimum Input Voltage for Regulated Output Voltage 最低レギュレーション電圧
Object	+3.0V6A

Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated ambient temperature.

(注)斜線は定格周囲温度範囲を示す。

2. Values

Ambient Temperature [℃]	Input Voltage [V]	
	Load 50%	Load 100%
-20	52	57
-10	51	56
0	50	56
10	50	55
20	49	55
25	49	55
30	49	55
40	49	54
50	48	54
60	48	54
—	—	—

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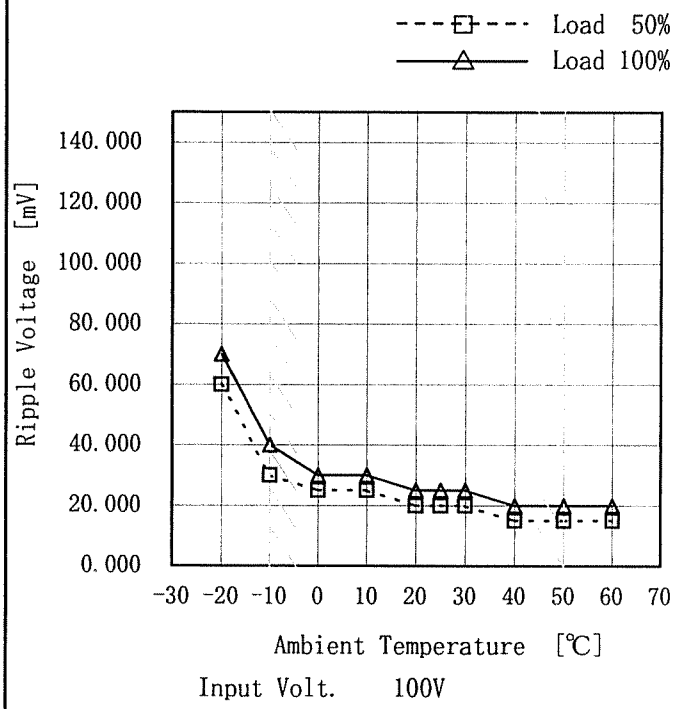
COSEL

Model	LDA30F-3
Item	Ripple Voltage (by Ambient Temp.) リップル電圧 (周囲温度特性)
Object	+3V6A

Testing Circuitry Figure A

1. Graph



Input Volt. 100V

Note: Slanted line shows the range of the rated ambient temperature.

(注) 斜線は定格周囲温度範囲を示す。

2. Values

Ambient Temperature [℃]	Ripple Voltage [mV]	
	Load 50%	Load 100%
-20	60	70
-10	30	40
0	25	30
10	25	30
20	20	25
25	20	25
30	20	25
40	15	20
50	15	20
60	15	20
—	—	—

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COSEL

Model	LDA30F-3	
Item	Output Voltage Accuracy 定電圧精度	Testing Circuitry Figure A
Object	+3.0V6A	

1. Output Voltage Accuracy

This is defined as the value of the output voltage, regulation load, ambient temperature and input voltage varied at random in the range as specified below.

Temperature : -10～50 ℃
Input Voltage : 85～132 V
Load Current : 0～6 A

* Output Voltage Accuracy = ±(Maximum of Output Voltage − Minimum of Output Voltage)／2

$$* \text{Output Voltage Accuracy (Ration)} = \frac{\text{Output Voltage Accuracy}}{\text{Rated Output Voltage}} \times 100$$

1. 定電圧精度

周囲温度、入力電圧、負荷電流を下記仕様内で、任意に変動させたときの出力電圧の変動をいう。

周囲温度 -10～50 ℃
入力電圧 85～132 V
負荷電流 0～6 A

* 定電圧精度(変動値) ＝ ±(出力電圧の最高値－出力電圧の最低値)／2

$$* \text{定電圧精度(変動率)} = \frac{\text{変動値}}{\text{定格出力電圧}} \times 100$$

2. Values

Item	Temperature [℃]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy (Ration) [%]
Maximum Voltage	-10	100	0	3.063	±4	±0.2
Minimum Voltage	50	132	6	3.056		

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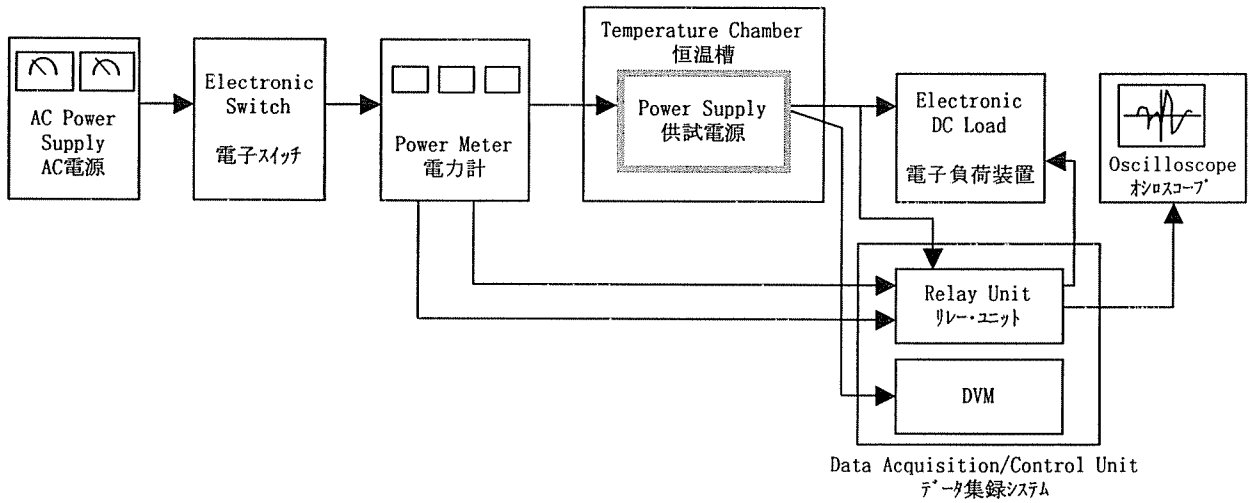

Figure A

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