参考資料

COSEL

TEST DATA OF LCA100S-36

(100V INPUT)

Regulated DC Power Supply

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COSEL CO.,LTD.

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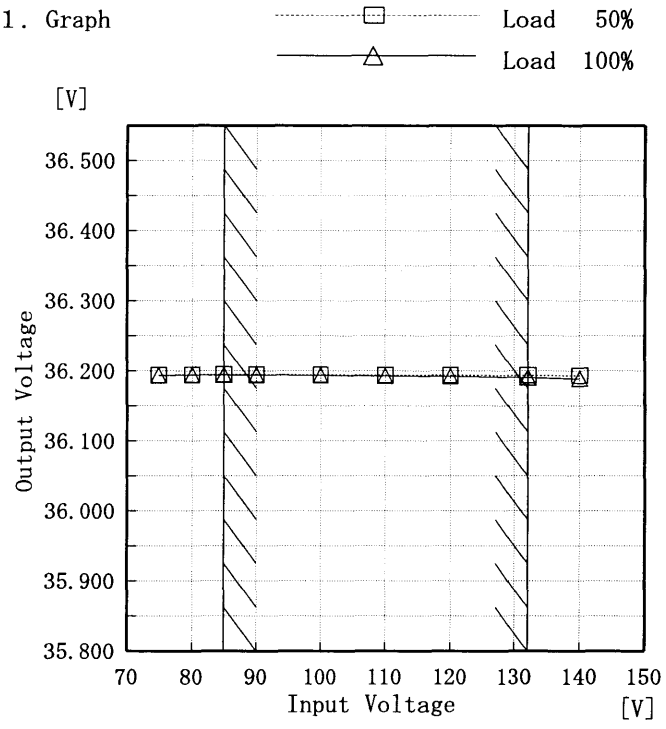
Model	LCA100S-36
Item	Line Regulation 静的入力変動
Object	+36.0V3A

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]	Output Voltage [V]	
	Load 50%	Load 100%
75	36.194	36.194
80	36.195	36.194
85	36.195	36.194
90	36.195	36.194
100	36.195	36.194
110	36.195	36.193
120	36.194	36.192
132	36.194	36.190
140	36.193	36.189

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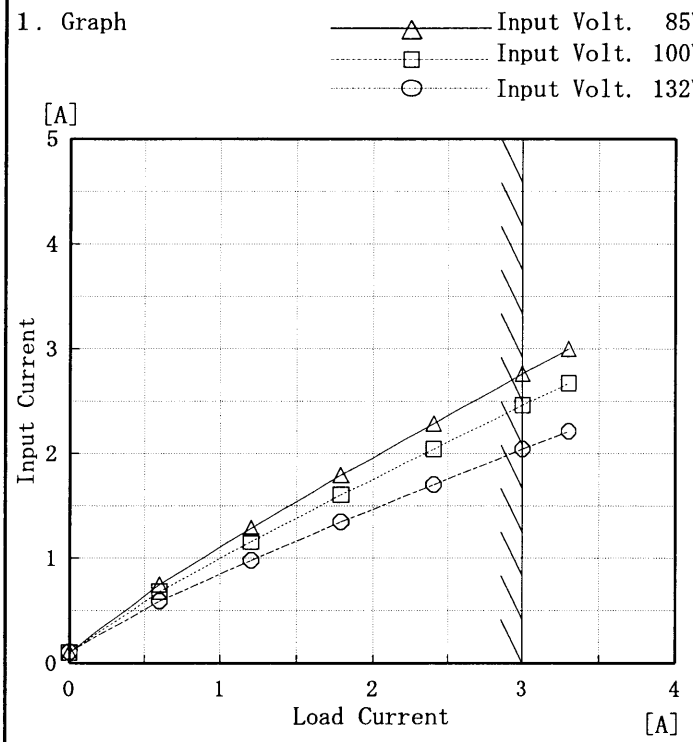
Model	LCA100S-36
Item	Input Current (by Load Current) 入力電流 (負荷特性)
Object	————

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

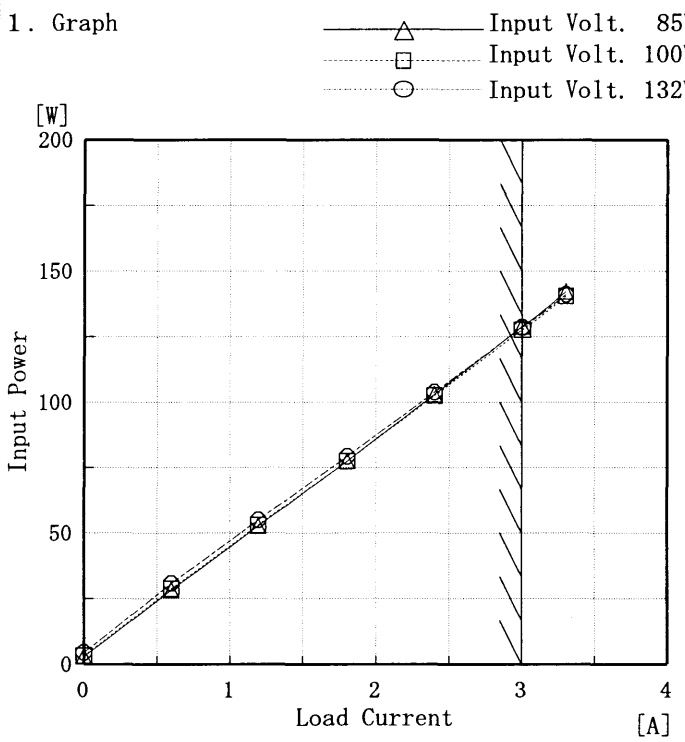
Load Current [A]	Input Current [A]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	0.100	0.101	0.107
0.6	0.750	0.682	0.591
1.2	1.288	1.160	0.981
1.8	1.794	1.606	1.346
2.4	2.286	2.042	1.701
3.0	2.762	2.463	2.043
3.3	2.999	2.673	2.213
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	LCA100S-36
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	2.89	3.29	4.40
0.6	28.22	28.82	30.85
1.2	52.72	53.09	55.00
1.8	77.50	77.50	79.30
2.4	103.00	102.50	103.90
3.0	128.90	127.70	128.60
3.3	142.20	140.60	141.10
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

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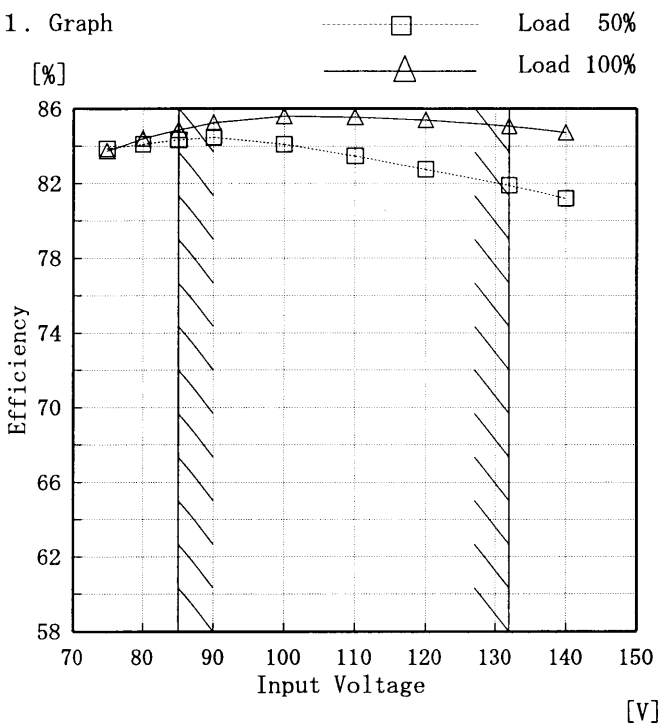
Model	LCA100S-36
Item	Efficiency (by Input Voltage) 効率 (入力電圧特性)
Object	———————————

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

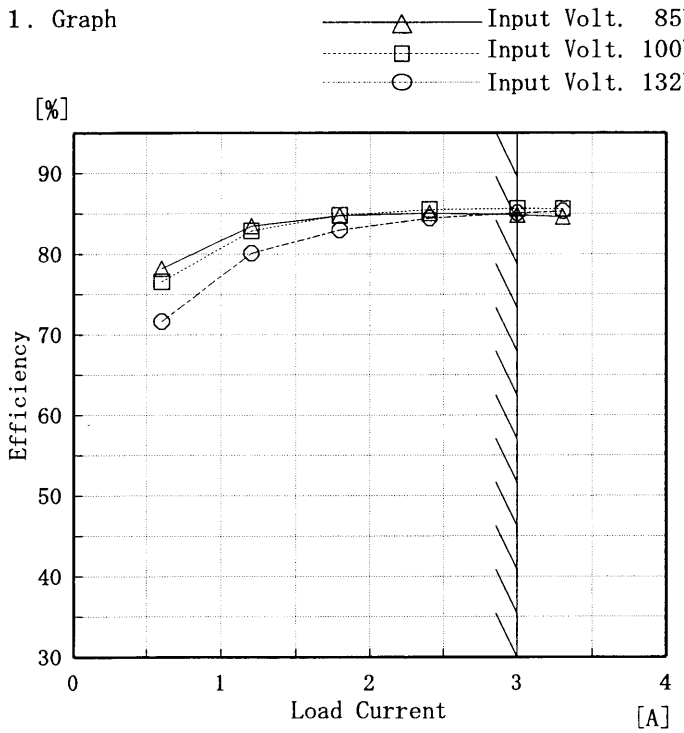
Input Voltage [V]	Efficiency [%]	
	Load 50%	Load 100%
75	83.9	83.7
80	84.1	84.4
85	84.3	84.9
90	84.5	85.3
100	84.1	85.6
110	83.5	85.5
120	82.7	85.4
132	81.9	85.1
140	81.2	84.7

COSEL

Model	LCA100S-36
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]
0.6	78.2	76.6	71.6
1.2	83.4	82.9	80.1
1.8	84.8	84.8	83.0
2.4	85.1	85.5	84.5
3.0	84.8	85.6	85.1
3.3	84.6	85.6	85.3
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

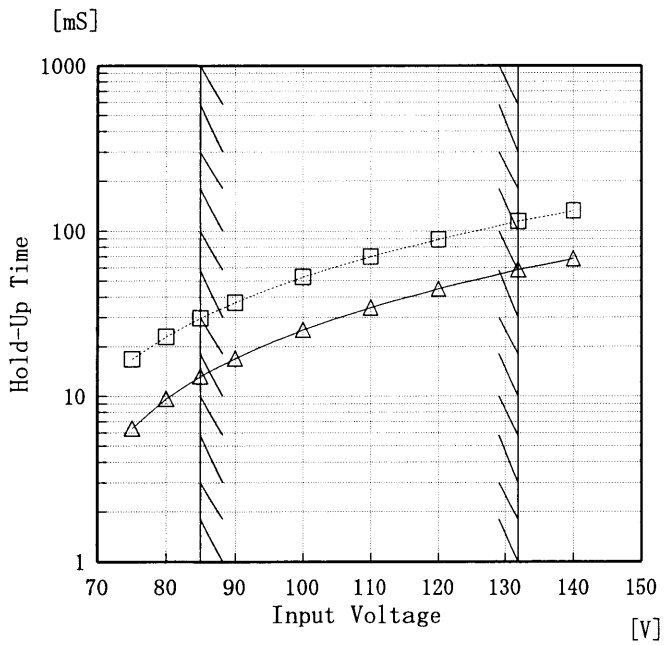
COSEL

Model	LCA100S-36
Item	Hold-Up Time 出力保持時間
Object	+36.0V3A

Temperature 25℃
Testing Circuitry Figure A

1. Graph

Load 50%
Load 100%



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	17	6
80	23	10
85	30	13
90	37	17
100	53	25
110	70	35
120	89	45
132	115	58
140	133	68

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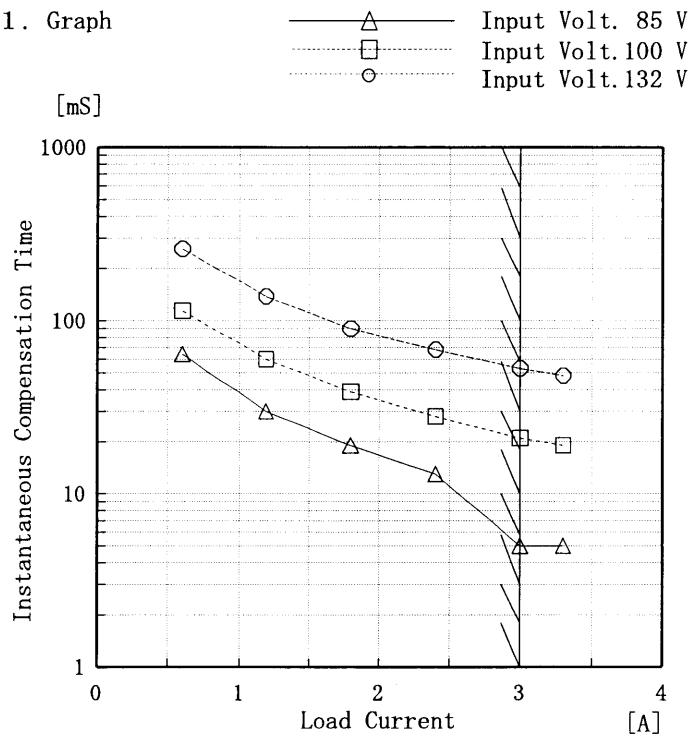
Model	LCA100S-36
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	+36.0V3A

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

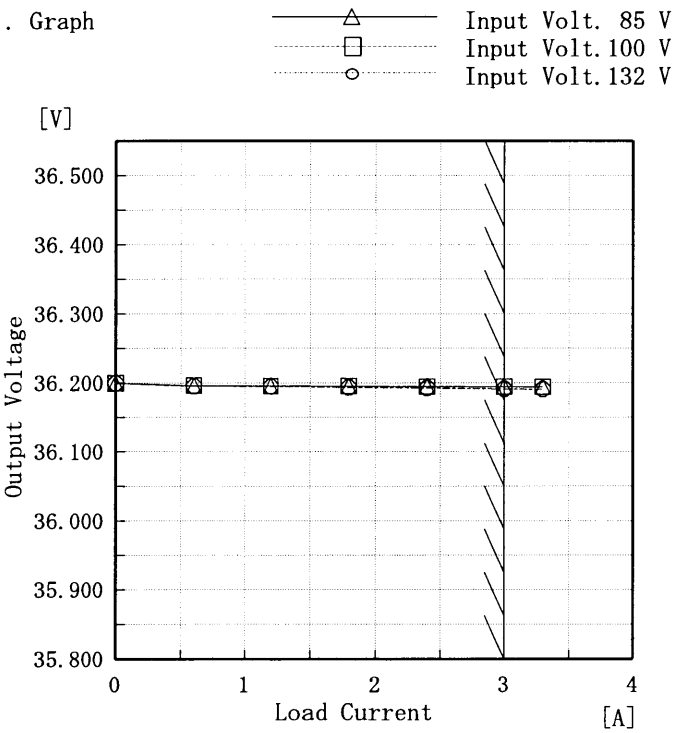
Load Current [A]	Time [mS]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	—	—	—
0.6	64	114	259
1.2	30	60	138
1.8	19	39	90
2.4	13	28	68
3.0	5	21	53
3.3	5	19	48
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	LCA100S-36
Item	Load Regulation 静的負荷変動
Object	+36.0V3A

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

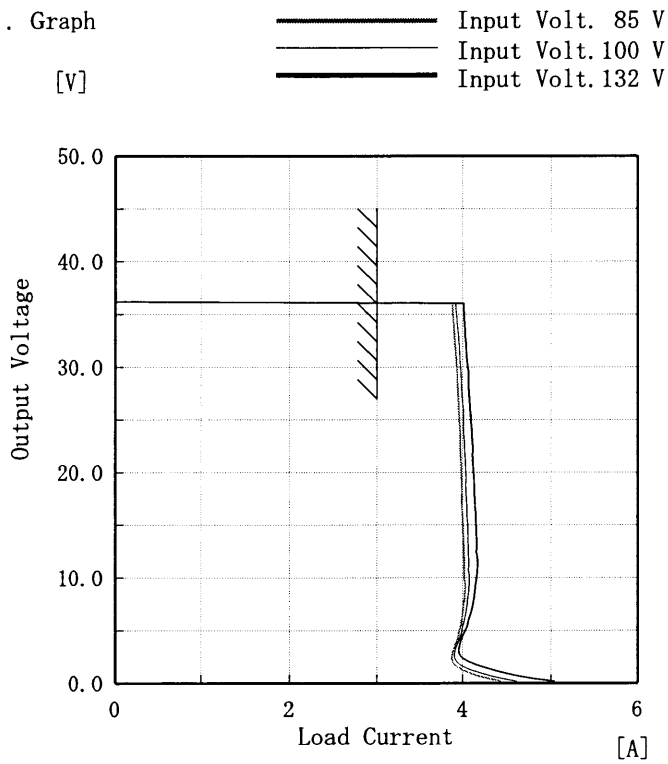
Load Current [A]	Output Voltage [V]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	36.199	36.200	36.199
0.6	36.196	36.196	36.195
1.2	36.196	36.195	36.195
1.8	36.195	36.195	36.193
2.4	36.195	36.194	36.192
3.0	36.194	36.194	36.191
3.3	36.194	36.194	36.191
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	LCA100S-36
Item	Overcurrent Protection 過電流保護
Object	+36.0V3A

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

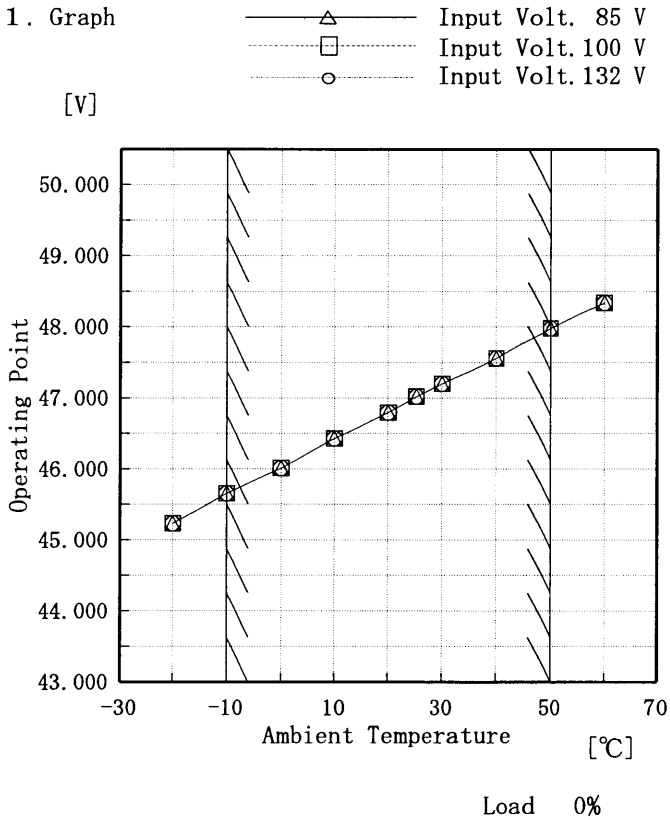
Output Voltage [V]	Load Current [A]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
36.00	3.88	3.92	4.01
34.20	3.89	3.94	4.02
32.40	3.91	3.95	4.03
28.80	3.94	3.98	4.07
25.20	3.96	4.01	4.09
21.60	3.97	4.02	4.11
18.00	3.99	4.04	4.13
14.40	4.00	4.05	4.15
10.80	4.02	4.06	4.16
7.20	4.01	4.04	4.10
3.60	3.92	3.94	3.97
0.00	4.43	4.61	5.05

COSEL

Model	LCA100S-36
Item	Overvoltage Protection 過電圧保護
Object	+36.0V3A

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	45.23	45.23	45.23
-10	45.65	45.65	45.65
0	46.01	46.01	46.01
10	46.43	46.43	46.43
20	46.79	46.79	46.79
25	47.02	47.02	47.02
30	47.20	47.20	47.20
40	47.56	47.56	47.56
50	47.98	47.98	47.98
60	48.34	48.34	48.34
—	—	—	—

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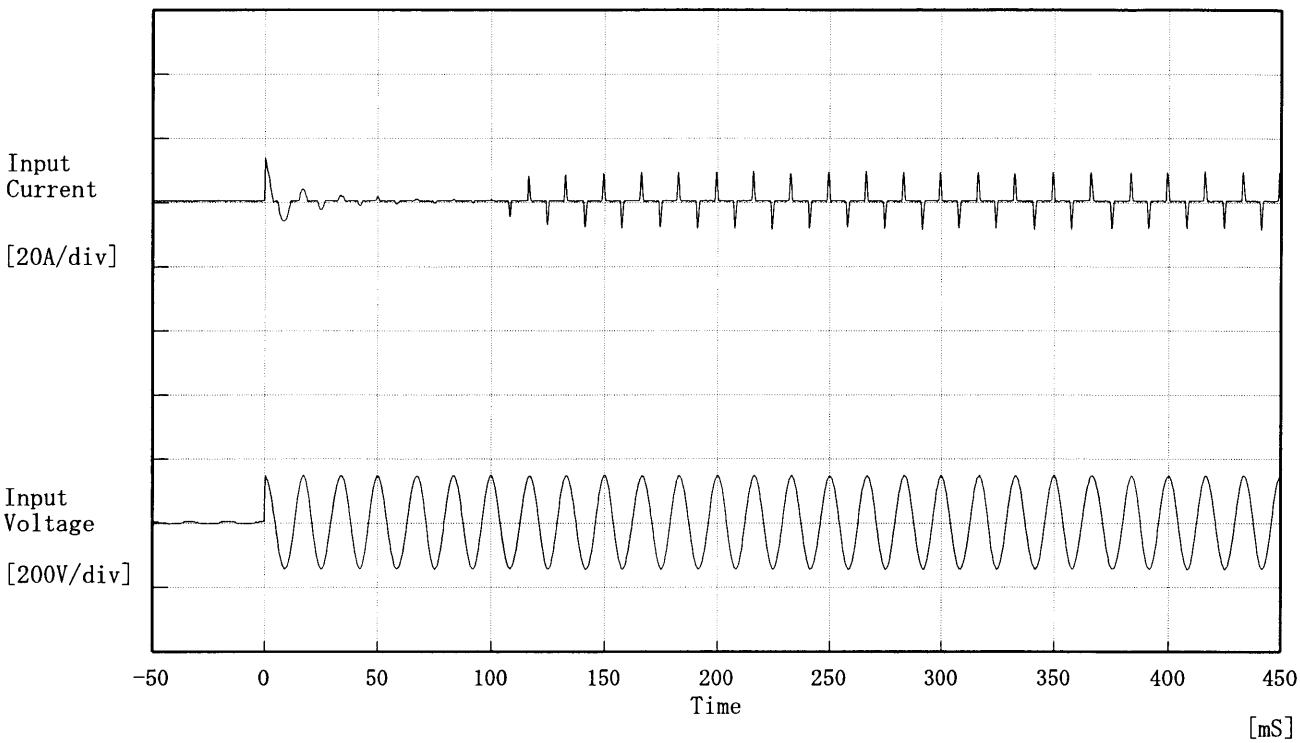
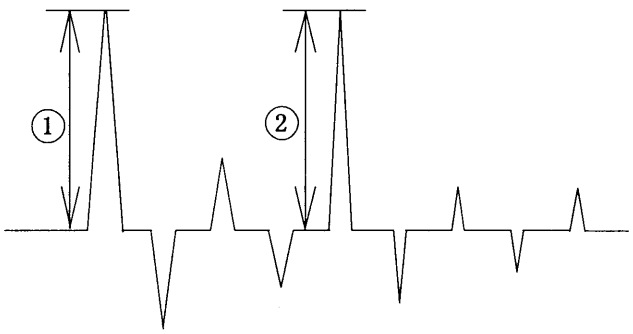
Model	LCA100S-36
Item	Inrush Current 突入電流
Object	――――――――――

Temperature 25℃
Testing Circuitry Figure A



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



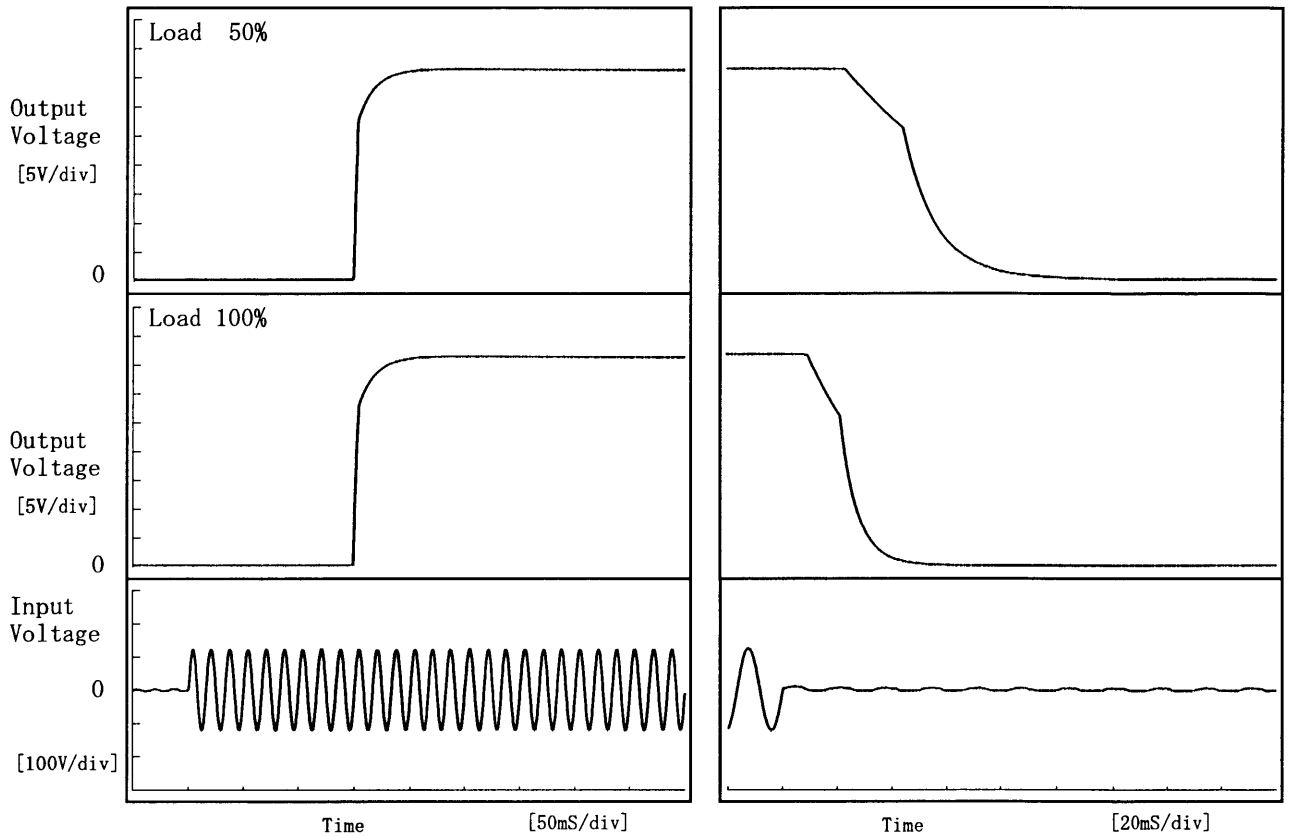
COSEL

Model	LCA100S-36
Item	Rise and Fall Time 立上り、立下り時間
Object	+36.0V3A

Temperature 25℃
Testing Circuitry Figure A

1. Graph

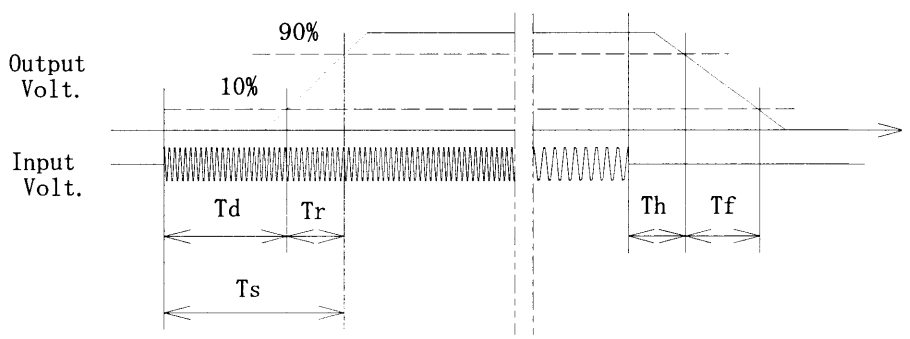
Input Volt. 85 V



2. Values

[mS]

Load \ Time	T d	T r	T s	T h	T f
50 %	149.0	16.3	165.3	30.3	38.5
100 %	149.0	16.5	165.5	13.3	20.4

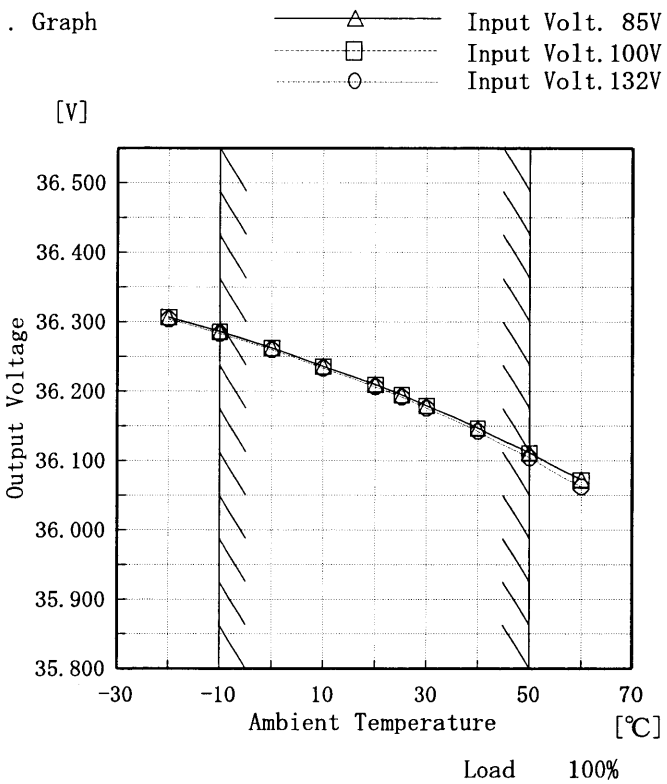


COSEL

Model	LCA100S-36
Item	Ambient Temperature Drift 周囲温度変動
Object	+36.0V3A

Testing Circuitry Figure A

1. Graph



Load 100%

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

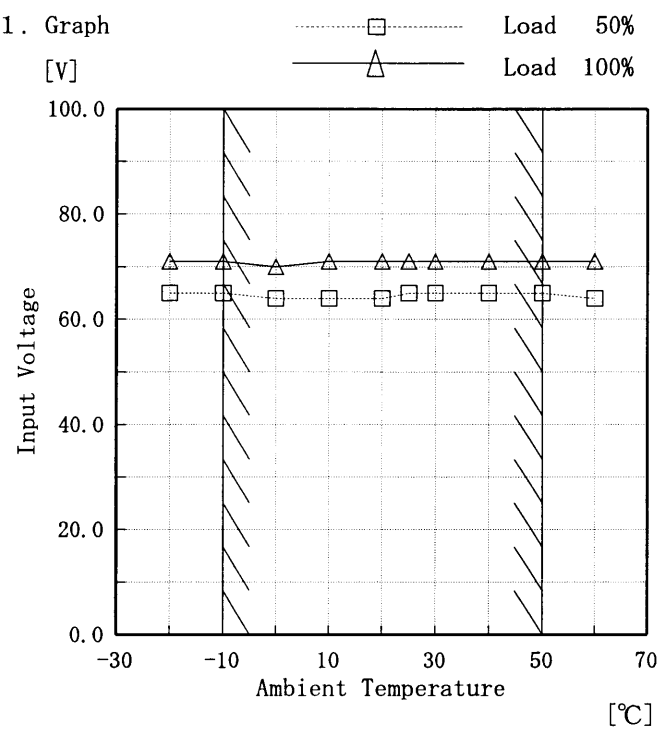
Ambient Temperature [℃]	Output Voltage [V]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	36.306	36.306	36.303
-10	36.286	36.285	36.283
0	36.262	36.262	36.259
10	36.236	36.235	36.233
20	36.210	36.209	36.206
25	36.195	36.194	36.191
30	36.179	36.179	36.176
40	36.147	36.146	36.142
50	36.111	36.111	36.104
60	36.073	36.072	36.062
—	—	—	—

COSEL

Model	LCA100S-36
Item	Minimum Input Voltage for Regulated Output Voltage 最低レギュレーション電圧
Object	+36.0V3A

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

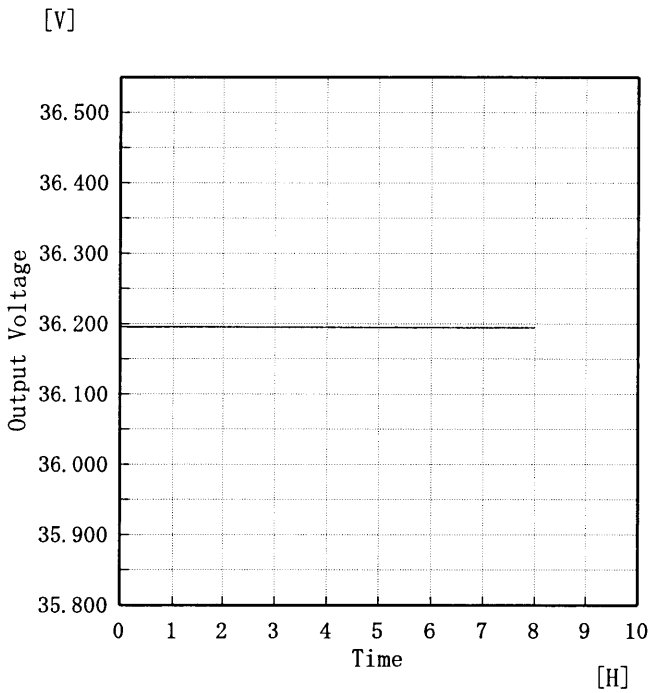
Ambient Temperature [℃]	Input Voltage [V]	
	Load 50%	Load 100%
-20	65	71
-10	65	71
0	64	70
10	64	71
20	64	71
25	65	71
30	65	71
40	65	71
50	65	71
60	64	71
—	—	—

COSEL

Model	LCA100S-36
Item	Time Lapse Drift 経時ドリフト
Object	+36.0V3A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



Input Volt. 100V
Load 100%

2. Values

Time since start [H]	Output Voltage [V]
0.0	36.203
0.5	36.196
1.0	36.195
2.0	36.195
3.0	36.195
4.0	36.195
5.0	36.195
6.0	36.195
7.0	36.195
8.0	36.195

COSEL

Model	LCA100S-36	
Item	Output Voltage Accuracy 定電圧精度	Testing Circuitry Figure A
Object	+36.0V3A	

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 : 0～3 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 0～3 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	36.291	±95	±0.3
Minimum Voltage	50	132	3	36.102		

COSEL

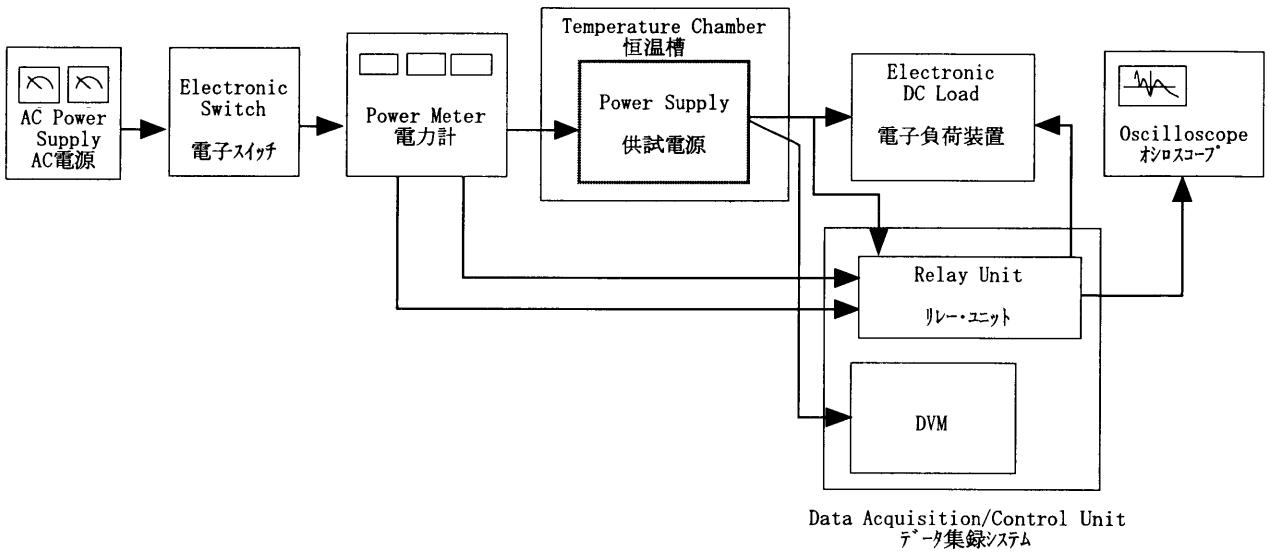


Figure A

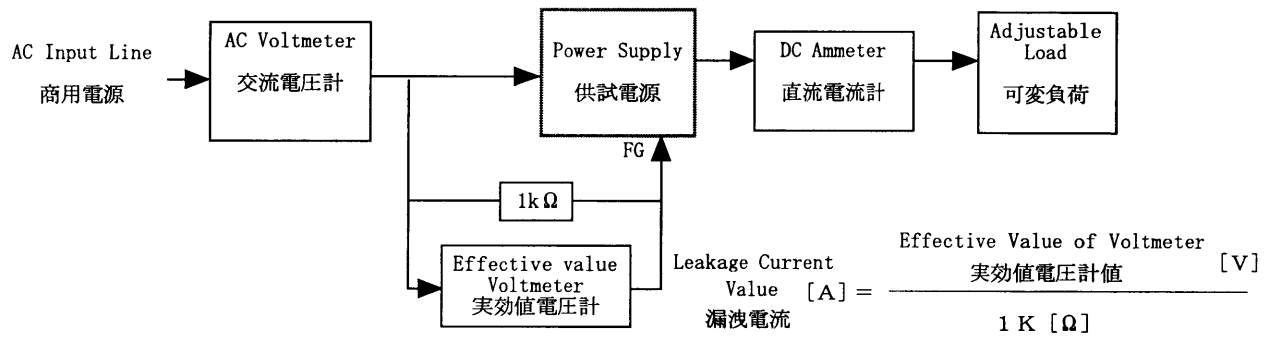


Figure B(DENTORI)

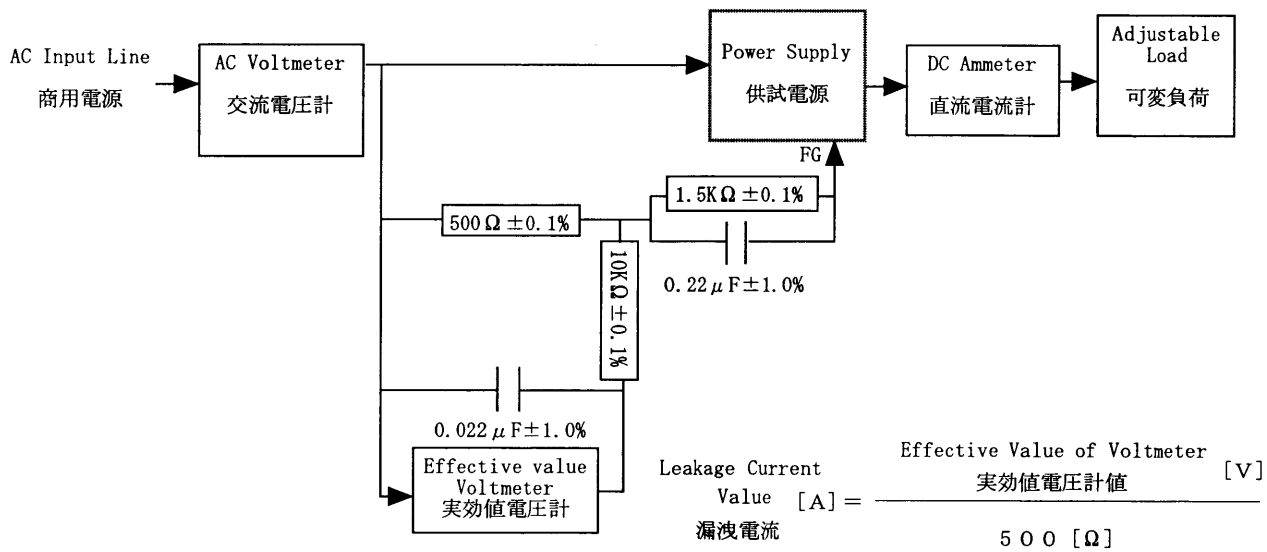


Figure B(IEC60950)

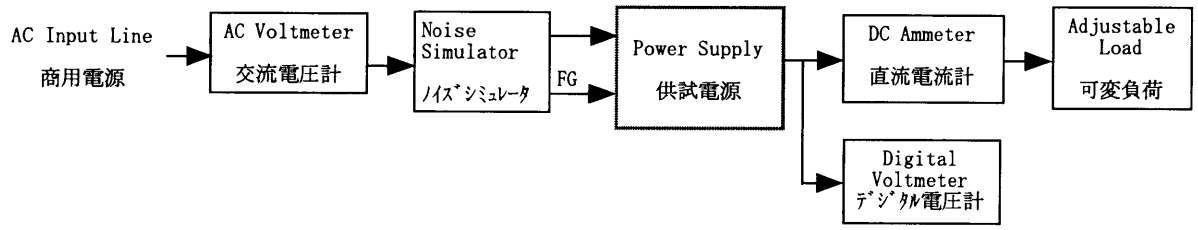


Figure C

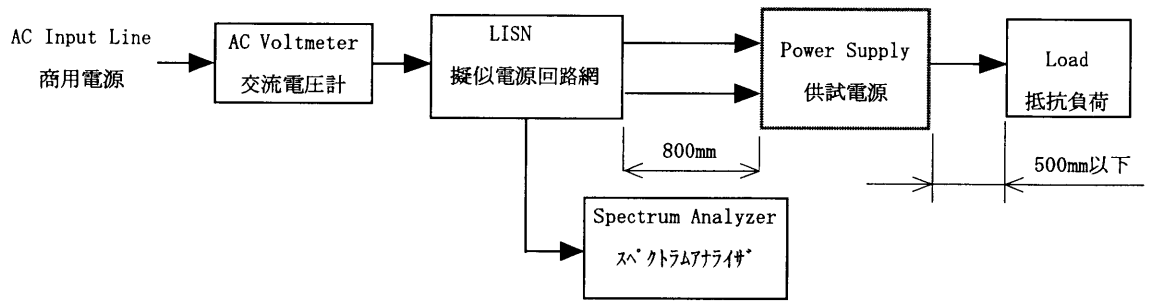


Figure D

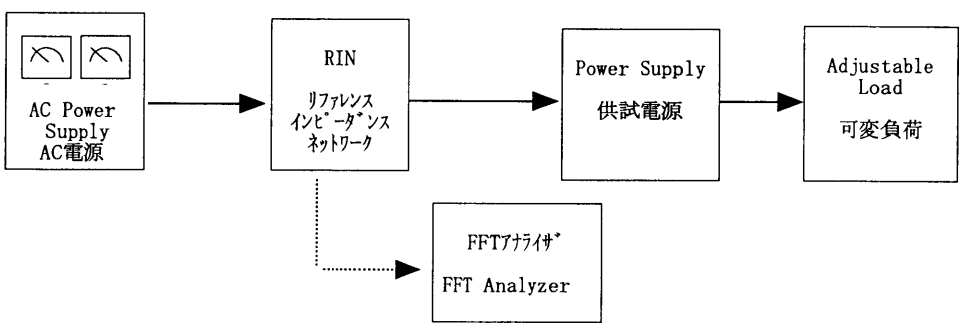


Figure E