参考資料

COSEL

TEST DATA OF LEB100F-0524

(200V INPUT)

Regulated DC Power Supply

Mar. 16, 2000

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Design Engineer

コーセル株式会社

COSEL CO.,LTD.

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Model	LEB100F-0524
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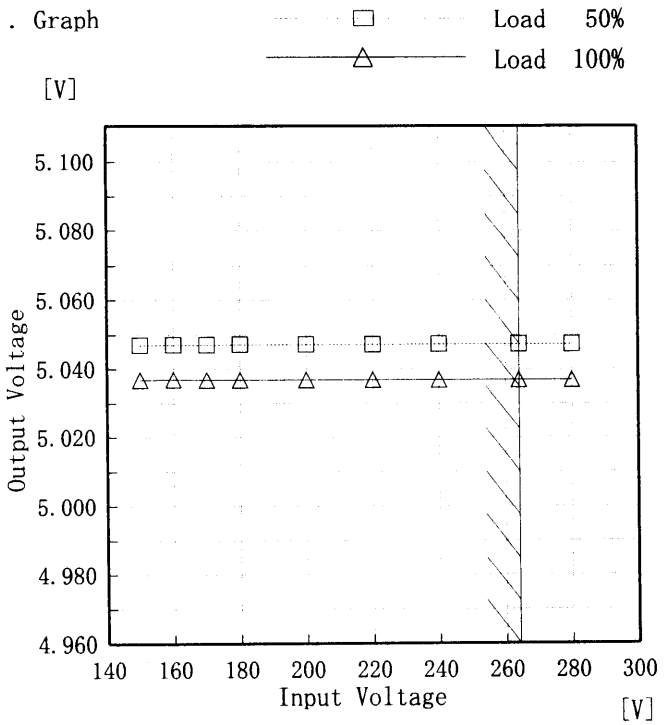
Temperature 25℃
Testing Circuitry Figure A

Object V1:+5.0V5A

1. Graph

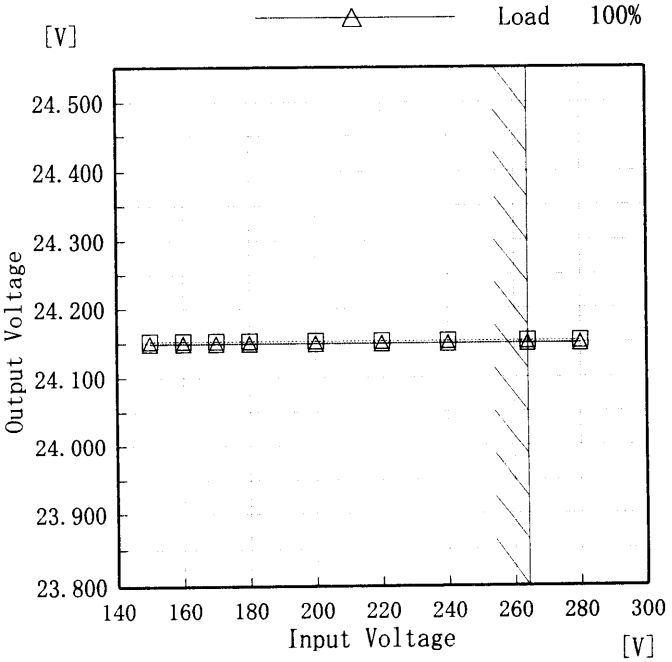


2. Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
150	5.047	5.037
160	5.047	5.037
170	5.047	5.037
180	5.047	5.037
200	5.047	5.037
220	5.047	5.037
240	5.047	5.037
264	5.047	5.037
280	5.047	5.037

Object V2:+24.0V4A

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%
150	24.153	24.149
160	24.153	24.149
170	24.153	24.149
180	24.153	24.149
200	24.153	24.149
220	24.153	24.149
240	24.153	24.149
264	24.153	24.149
280	24.153	24.149

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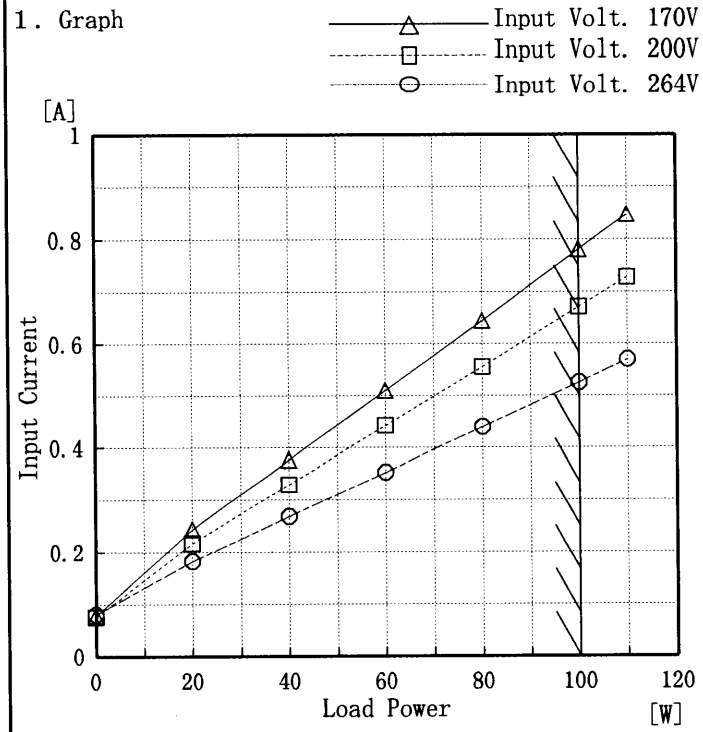
Model	LEB100F-0524
Item	Input Current (by Load Power) 入力電流 (負荷特性)
Output	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

(注)斜線は定格出力電力範囲を示す。

2. Values

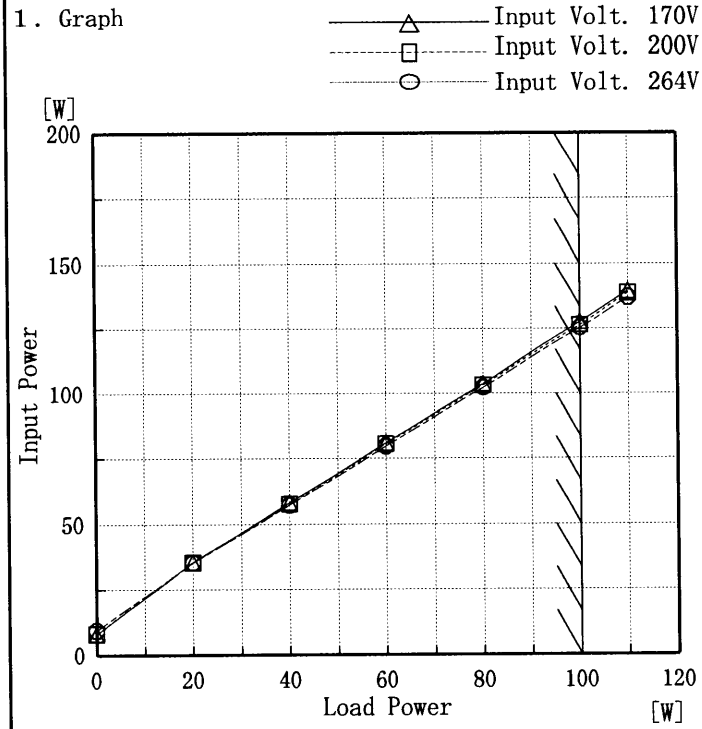
Load Power [W]	Input Current [A]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0	0.077	0.075	0.081
20	0.244	0.217	0.182
40	0.377	0.330	0.268
60	0.510	0.443	0.353
80	0.644	0.556	0.440
100	0.781	0.671	0.526
110	0.847	0.728	0.570
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	LEB100F-0524
Item	Input Power (by Load Power) 入力電力 (負荷特性)
Output	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

(注)斜線は定格出力電力範囲を示す。

2. Values

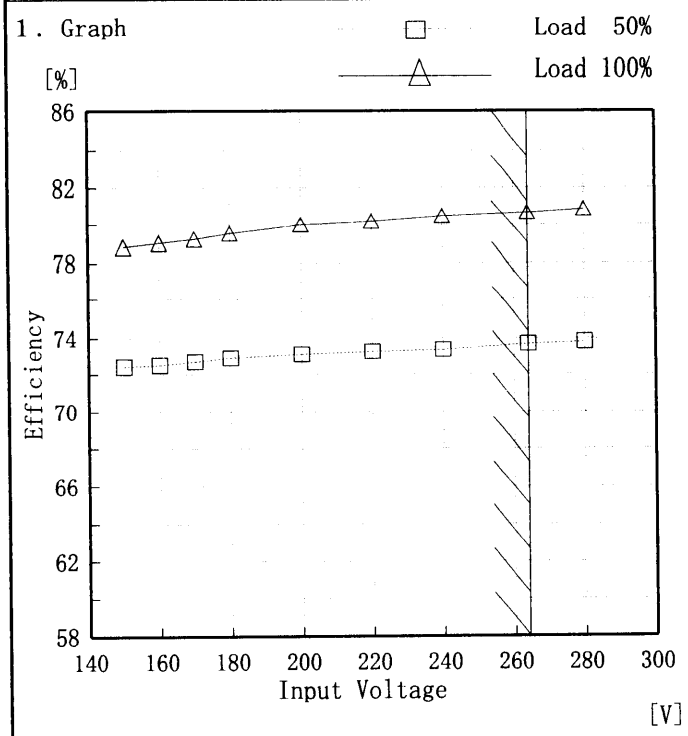
Load Power [W]	Input Power [W]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0	8.00	8.10	9.30
20	35.40	35.30	35.20
40	58.10	57.70	57.30
60	80.90	80.50	79.60
80	103.90	103.40	102.40
100	127.70	126.50	125.40
110	139.20	138.50	136.80
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	LEB100F-0524
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

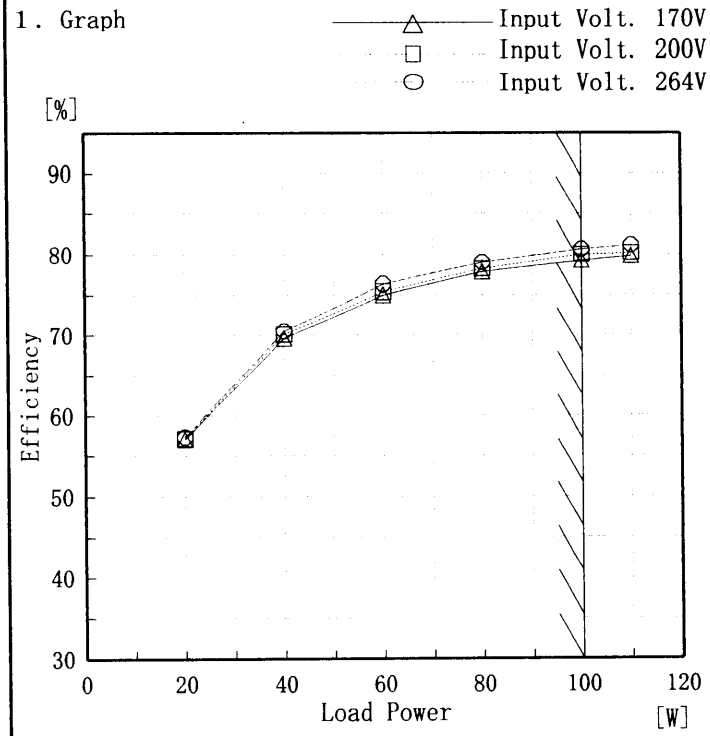
Input Voltage [V]	Efficiency [%]	
	Load 50%	Load 100%
150	72.4	78.8
160	72.5	79.0
170	72.7	79.2
180	72.9	79.5
200	73.1	80.0
220	73.3	80.2
240	73.4	80.5
264	73.7	80.7
280	73.8	80.9

COSEL

Model	LEB100F-0524
Item	Efficiency (by Load Power) 効率 (負荷特性)
Output	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

(注)斜線は定格出力電力範囲を示す。

2. Values

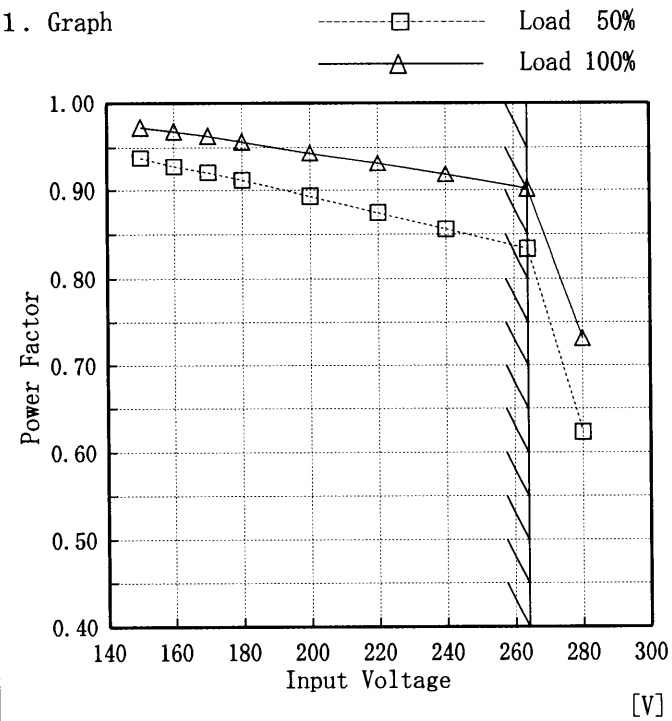
Load Power [W]	Efficiency [%] Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
20	57.1	57.2	57.4
40	69.6	70.1	70.5
60	75.0	75.4	76.3
80	77.8	78.2	79.0
100	79.2	80.0	80.7
110	79.8	80.2	81.2
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	LEB100F-0524
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%
150	0.94	0.97
160	0.93	0.97
170	0.92	0.96
180	0.91	0.96
200	0.89	0.94
220	0.88	0.93
240	0.86	0.92
264	0.83	0.90
280	0.62	0.73

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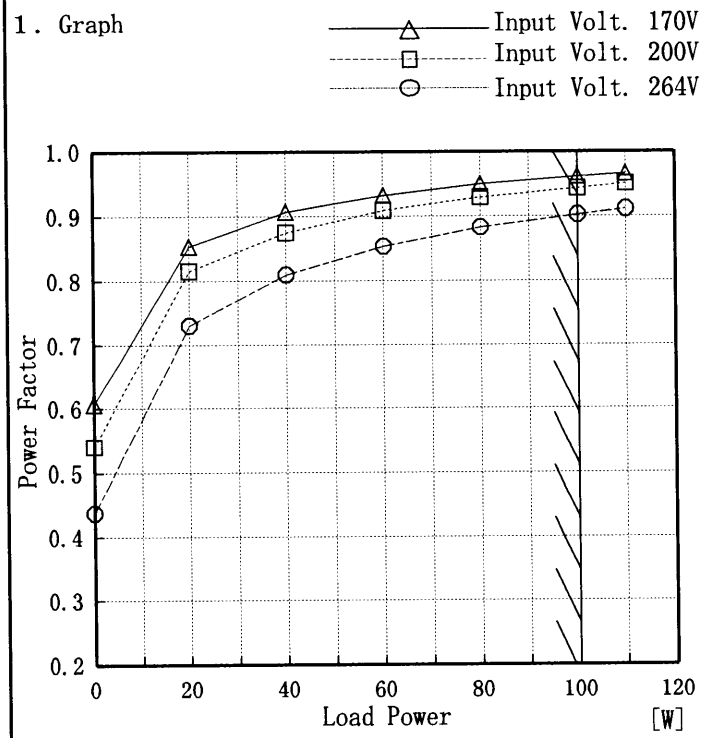
Model	LEB100F-0524
Item	Power Factor (by Load Power) 力率 (負荷特性)
Output	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

(注)斜線は定格出力電力範囲を示す。

2. Values

Load Power [W]	Power Factor		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0	0.61	0.54	0.44
20	0.85	0.82	0.73
40	0.91	0.87	0.81
60	0.93	0.91	0.85
80	0.95	0.93	0.88
100	0.96	0.94	0.90
110	0.97	0.95	0.91
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

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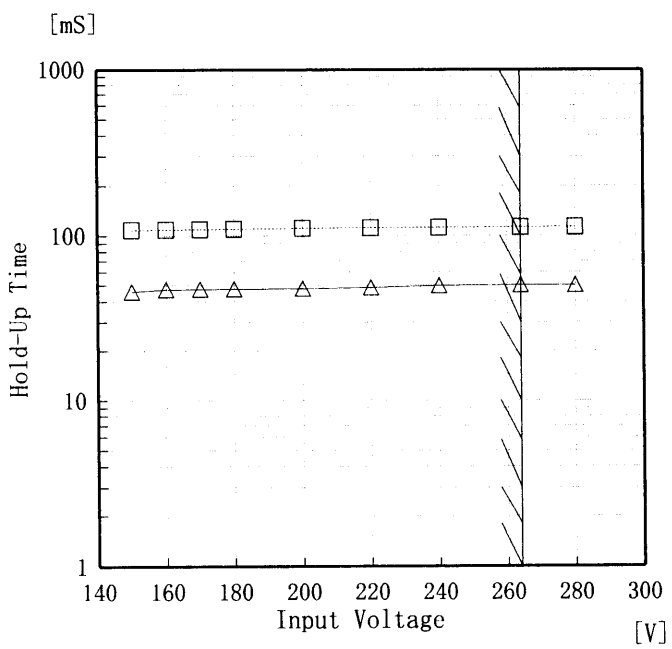
COSEL

Model	LEB100F-0524
Item	Hold-Up Time 出力保持時間
Object	V1:+5.0V5A

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%
150	108	46
160	109	47
170	110	47
180	110	48
200	111	48
220	111	48
240	112	50
264	112	50
280	113	50

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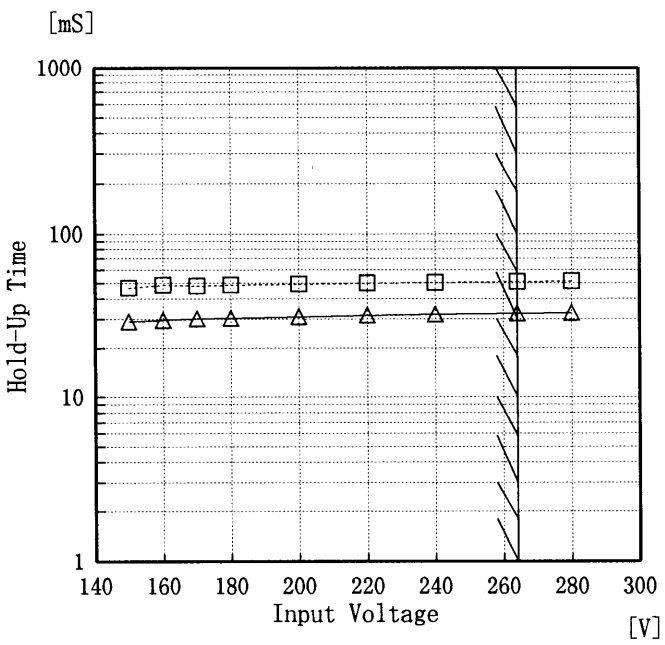
Model	LEB100F-0524
Item	Hold-Up Time 出力保持時間
Object	V2:+24.0V4A

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%
150	47	29
160	49	30
170	48	30
180	49	31
200	49	31
220	50	32
240	50	32
264	51	32
280	51	33

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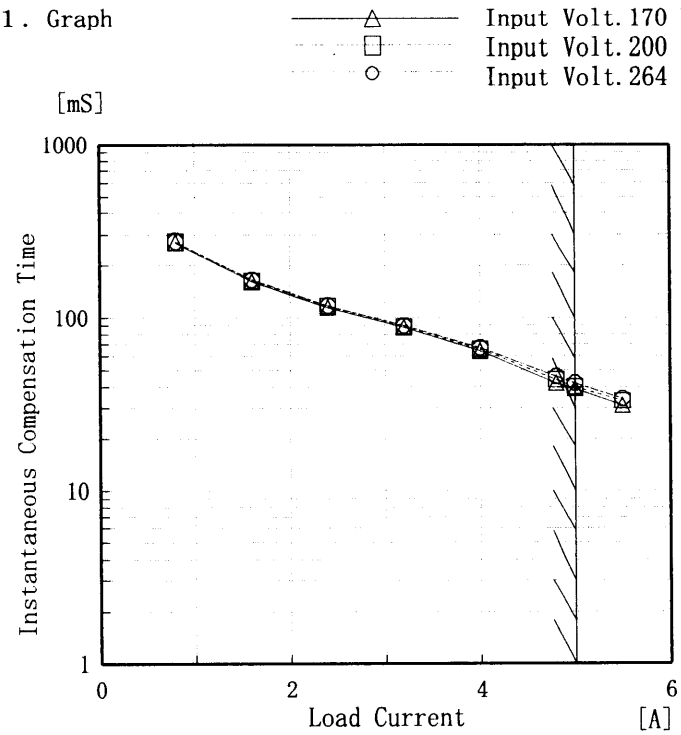
Model	LEB100F-0524
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	V1:+5.0V5A

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. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0.0	—	—	—
0.8	273	275	277
1.6	160	162	164
2.4	115	117	118
3.2	88	89	90
4.0	64	66	67
4.8	42	44	46
5.0	39	40	42
5.5	31	33	34
—	—	—	—
—	—	—	—

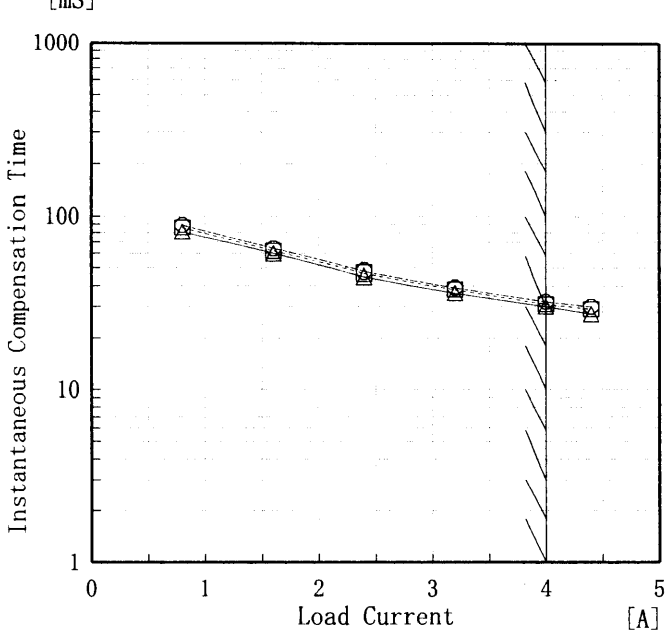
COSEL

Model	LEB100F-0524
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	V2:＋24.0V4A

Temperature 25℃
Testing Circuitry Figure A

1. Graph

△ Input Volt. 170 V
□ Input Volt. 200 V
○ Input Volt. 264 V



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. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0.0	—	—	—
0.8	81	86	89
1.6	60	62	64
2.4	45	47	48
3.2	36	38	39
4.0	30	31	32
4.4	27	29	30
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

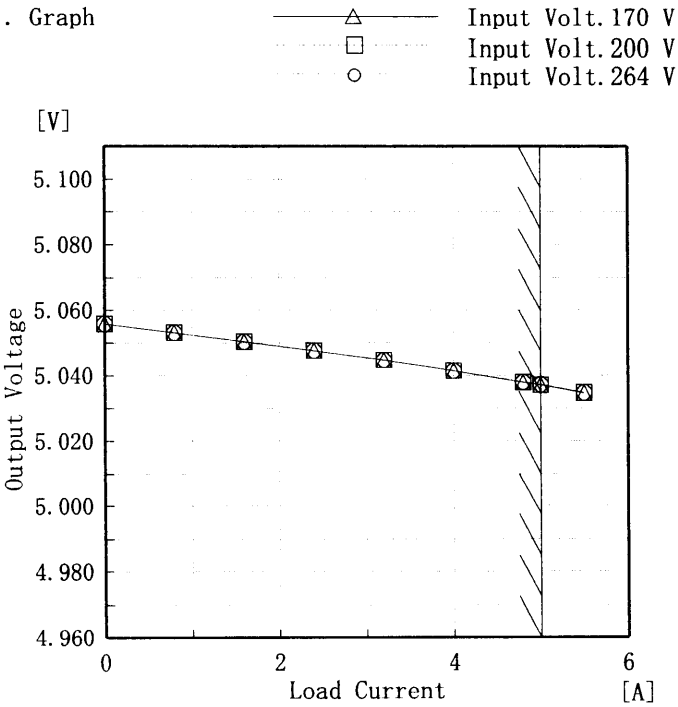
COSEL

Model	LEB100F-0524
Item	Load Regulation 静的負荷変動

Temperature 25℃
Testing Circuitry Figure A

Object V1:+5.0V5A

1. Graph

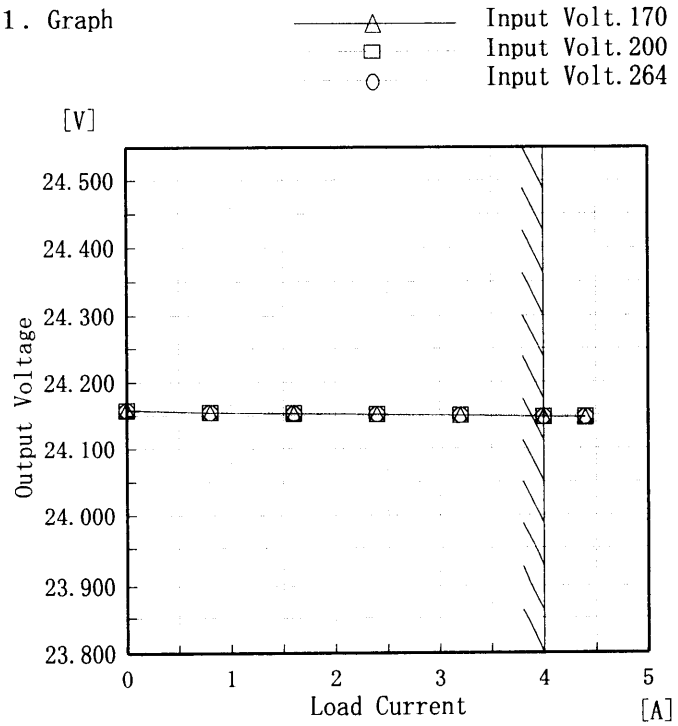


2. Values

Load Current [A]	Output Voltage [V] Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0.0	5.056	5.056	5.056
0.8	5.053	5.053	5.053
1.6	5.050	5.050	5.050
2.4	5.048	5.048	5.048
3.2	5.045	5.045	5.045
4.0	5.041	5.041	5.041
4.8	5.038	5.038	5.038
5.0	5.037	5.037	5.037
5.5	5.035	5.035	5.035
—	—	—	—

Object V2:+24.0V4A

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. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0.0	24.159	24.158	24.158
0.8	24.155	24.155	24.155
1.6	24.153	24.154	24.153
2.4	24.152	24.152	24.152
3.2	24.150	24.150	24.150
4.0	24.148	24.148	24.148
4.4	24.147	24.148	24.148
—	—	—	—
—	—	—	—
—	—	—	—

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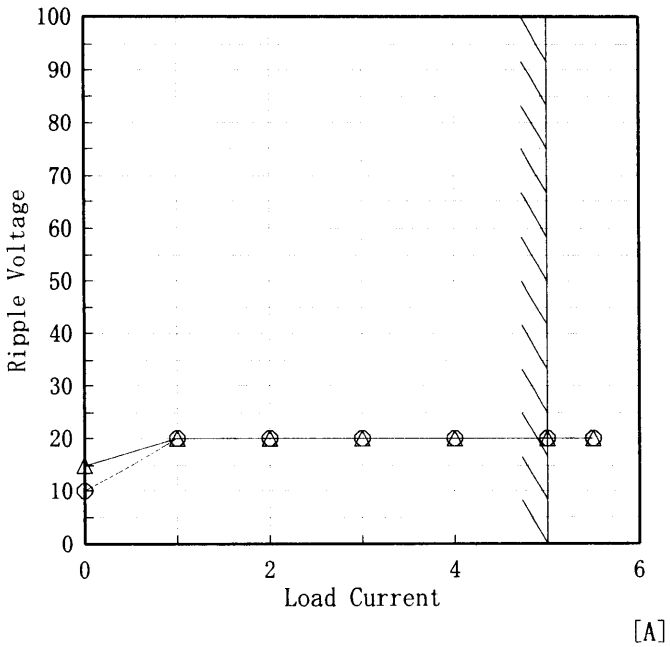
Model	LEB100F-0524
Item	Ripple Voltage(by Load Current) リップル電圧(負荷特性)
Object	V1:+5.0V5A

Temperature 25℃
Testing Circuitry Figure A

1. Graph

△ Input Volt. 170V
○ Input Volt. 264V



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

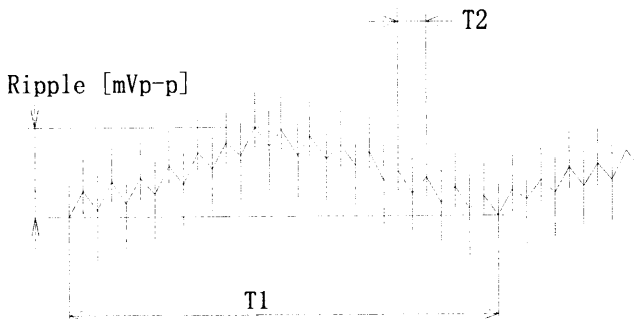


Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

Load Current [A]	Ripple Output Voltage [mV]	
	Input Volt. 170 [V]	Input Volt. 264 [V]
0.0	15	10
1.0	20	20
2.0	20	20
3.0	20	20
4.0	20	20
5.0	20	20
5.5	20	20
—	—	—
—	—	—
—	—	—
—	—	—

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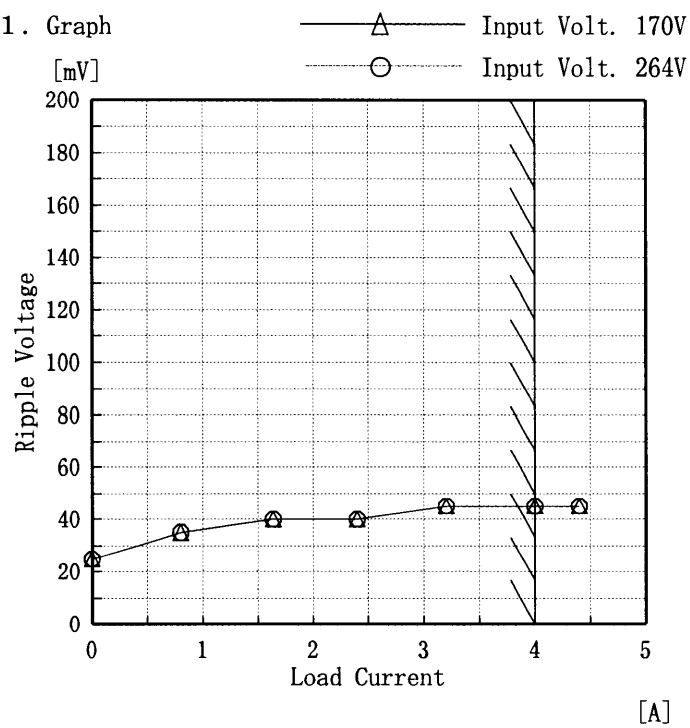
COSEL

Model	LEB100F-0524
Item	Ripple Voltage(by Load Current) リップル電圧(負荷特性)
Object	V2:+24.0V4A

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

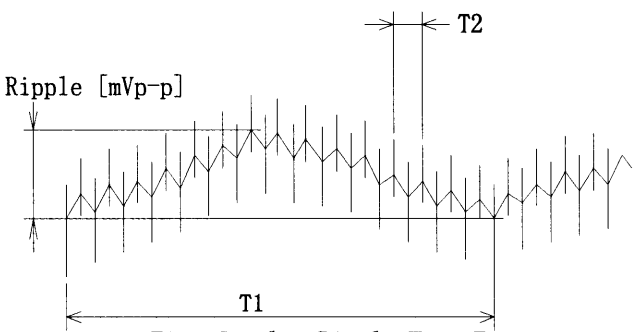


Fig. Complex Ripple Wave Form
図　リップル波形詳細図

2.Values

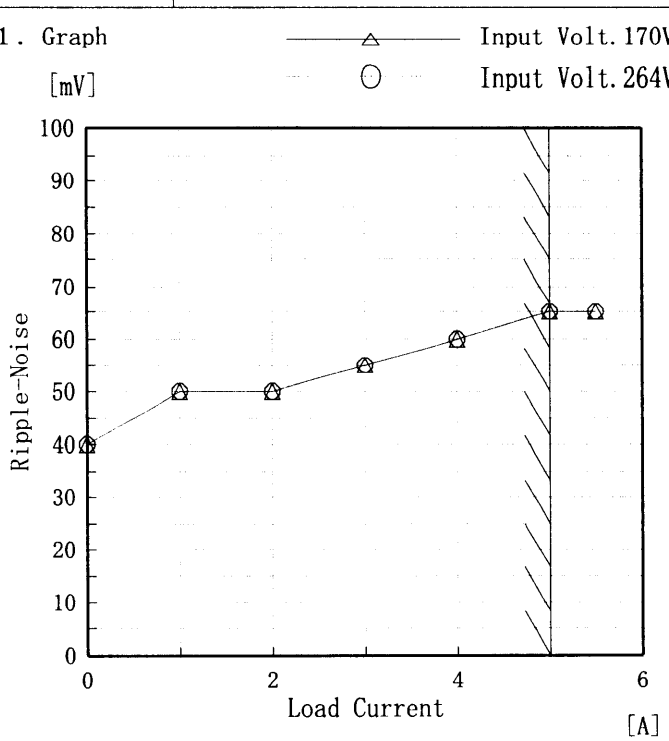
Load Current [A]	Ripple Output Voltage [mV]	
	Input Volt. 170 [V]	Input Volt. 264 [V]
0.0	25	25
0.8	35	35
1.6	40	40
2.4	40	40
3.2	45	45
4.0	45	45
4.4	45	45
—	—	—
—	—	—
—	—	—
—	—	—

COSEL

Model	LEB100F-0524
Item	Ripple-Noise　リップルノイズ
Object	V1:+5.0V5A

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

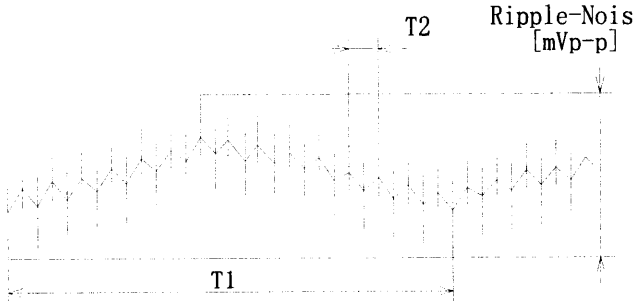


Fig. Complex Ripple Wave Form
図　リップル波形詳細図

2. Values

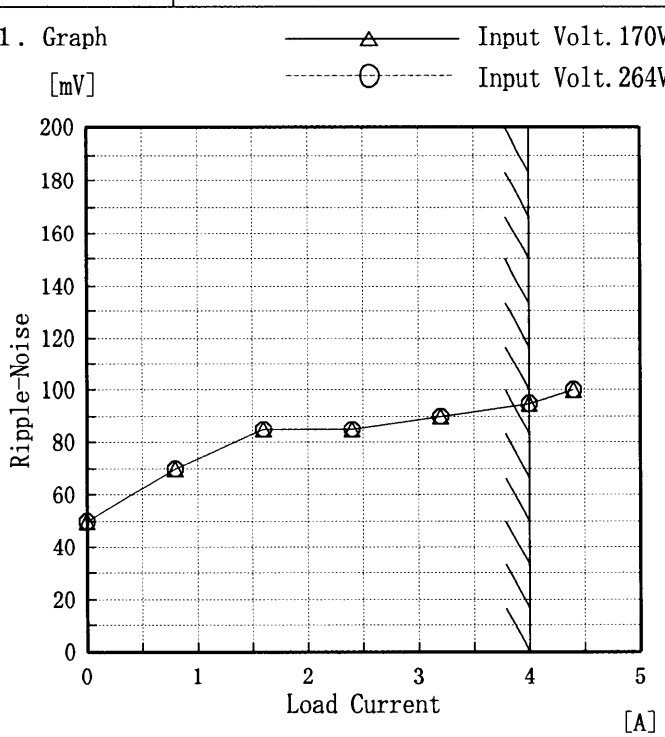
Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 170 [V]	Input Volt. 264 [V]
0.0	40	40
1.0	50	50
2.0	50	50
3.0	55	55
4.0	60	60
5.0	65	65
5.5	65	65
—	—	—
—	—	—
—	—	—
—	—	—

COSEL

Model	LEB100F-0524
Item	Ripple-Noise リップルノイズ
Object	V2:+24.0V4A

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

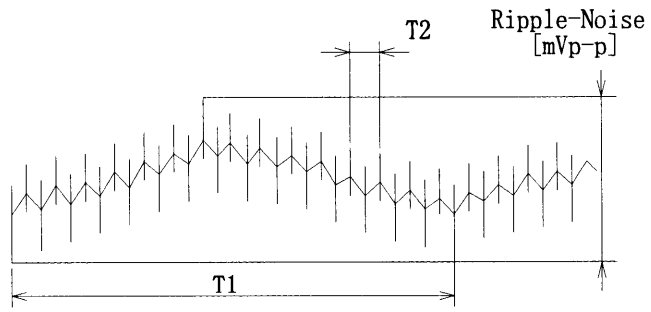


Fig. Complex Ripple Wave Form
図　リップル波形詳細図

2. Values

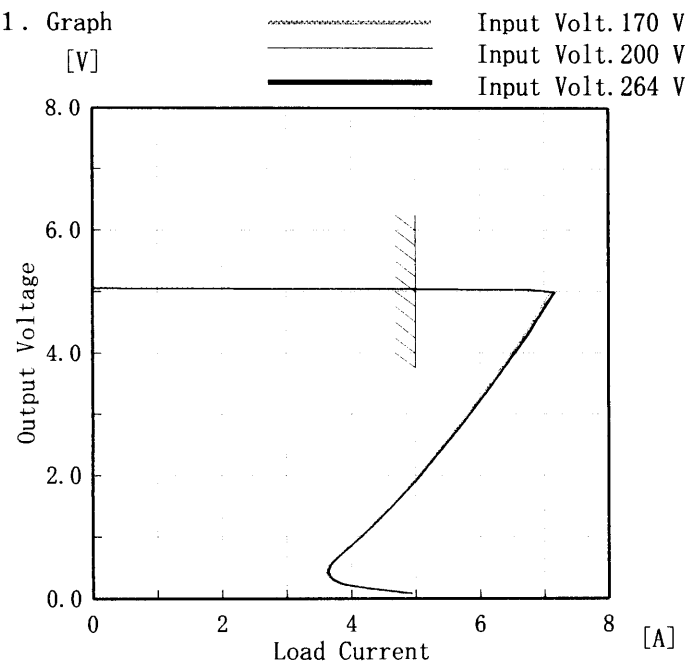
Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 170 [V]	Input Volt. 264 [V]
0.0	50	50
0.8	70	70
1.6	85	85
2.4	85	85
3.2	90	90
4.0	95	95
4.4	100	100
—	—	—
—	—	—
—	—	—
—	—	—

COSEL

Model	LEB100F-0524	Temperature	25℃
Item	Overcurrent Protection 過電流保護	Testing Circuitry	Figure A

Object: V1:+5.0V5A

1. Graph



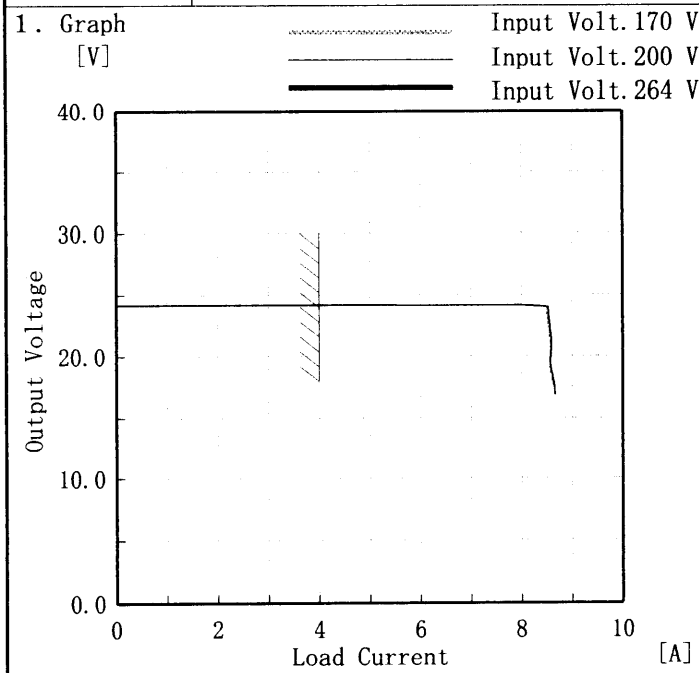
Note: Slanted line shows the range of the rated load current.

2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
5.00	7.10	7.14	7.17
4.75	6.96	6.99	7.02
4.50	6.79	6.82	6.85
4.00	6.49	6.52	6.54
3.50	6.15	6.17	6.19
3.00	5.81	5.83	5.85
2.50	5.43	5.45	5.46
2.00	5.03	5.04	5.06
1.50	4.62	4.63	4.64
1.00	4.12	4.13	4.14
0.50	3.64	3.65	3.67
0.00	4.86	4.90	4.94

Object: V2:+24.0V4A

1. Graph



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

Intermittent operation occurs when the output voltage is from 16.8V to 0V.

2. Values

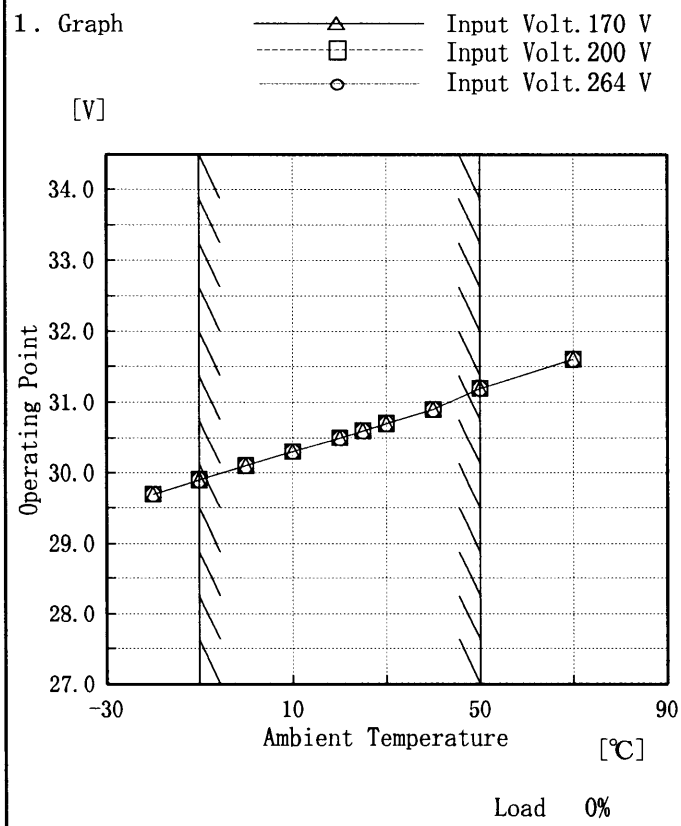
Output Voltage [V]	Load Current [A]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
24.00	8.49	8.53	8.52
22.80	8.52	8.55	8.55
21.60	8.56	8.58	8.58
19.20	8.56	8.57	8.57
16.80	8.66	8.67	8.67
14.40	—	—	—
12.00	—	—	—
9.60	—	—	—
7.20	—	—	—
4.80	—	—	—
2.40	—	—	—
0.00	—	—	—

COSEL

Model	LEB100F-0524
Item	Overvoltage Protection 過電圧保護
Object	V2:＋24.0V4A

Testing Circuitry Figure A

1. Graph



Load 0%

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

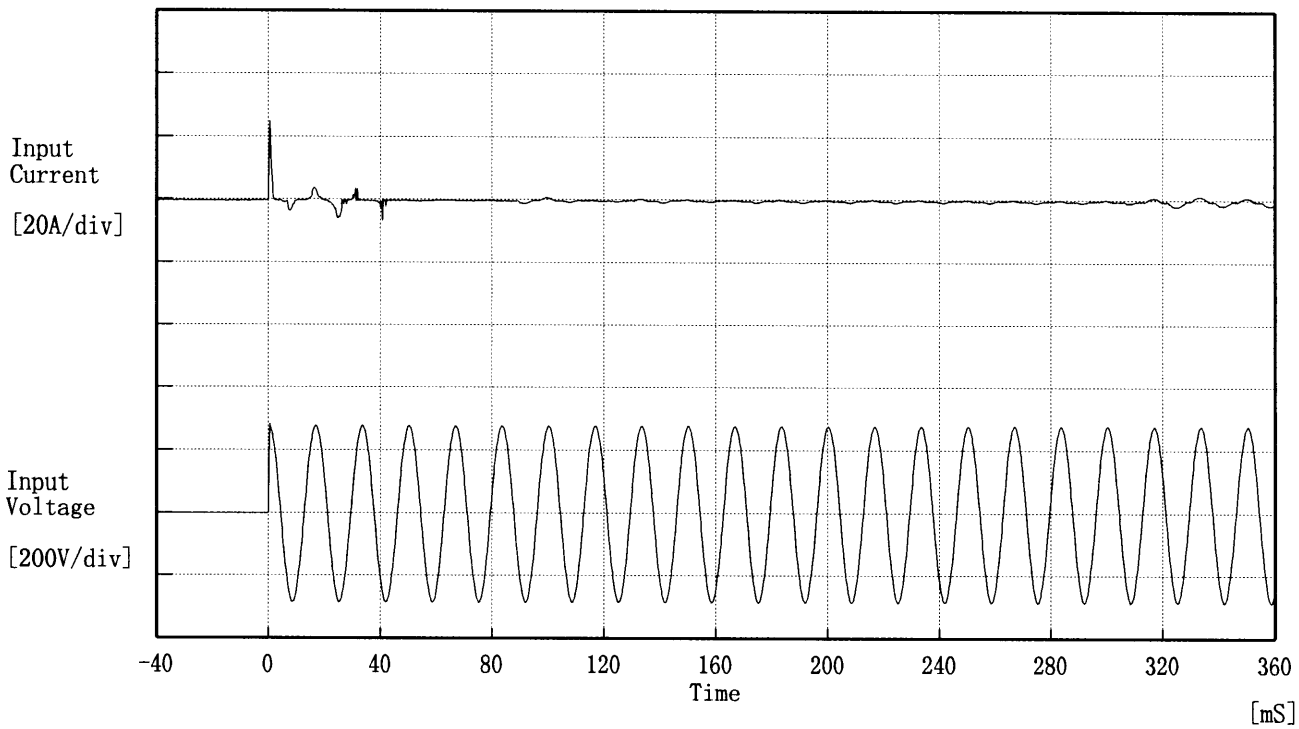
(注)斜線は定格周囲温度範囲を示す。

2. Values

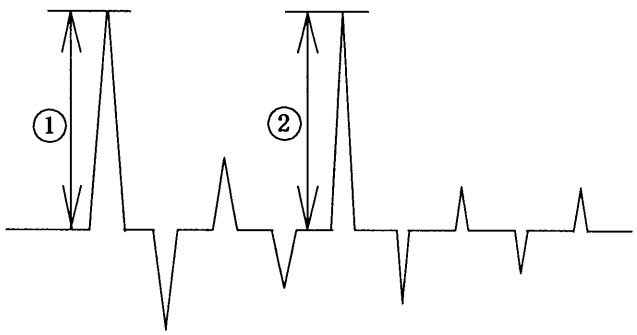
Ambient Temperature [℃]	Operating Point [V]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
-20	29.7	29.7	29.7
-10	29.9	29.9	29.9
0	30.1	30.1	30.1
10	30.3	30.3	30.3
20	30.5	30.5	30.5
25	30.6	30.6	30.6
30	30.7	30.7	30.7
40	30.9	30.9	30.9
50	31.2	31.2	31.2
70	31.6	31.6	31.6
—	—	—	—

COSEL

Model	LEB100F-0524		
Item	Inrush Current 突入電流	Temperature Testing Circuitry	25℃ Figure A
Object	――――――		



Input Voltage 200 V
Frequency 60 Hz
Load 100 %
Inrush Current
① 24.90 [A]
② 6.64 [A]



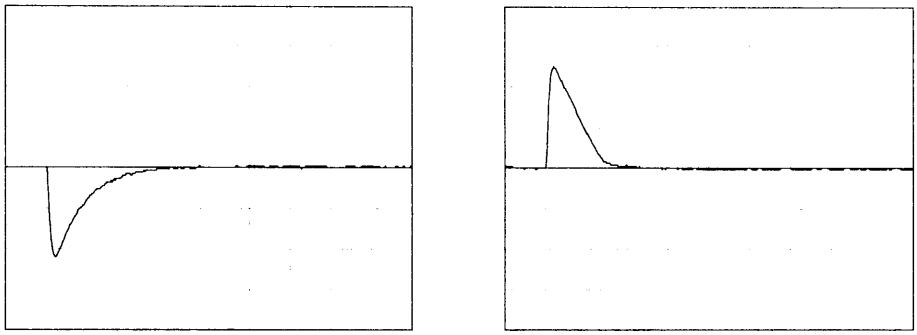
COSEL

Model	LEB100F-0524
Item	Dynamic Load Responce 動的負荷変動
Object	V1:+5.0V5A

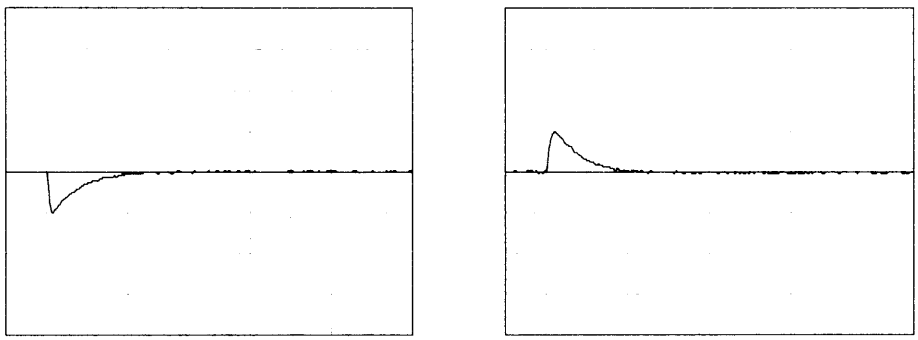
Temperature 25℃
Testing Circuitry Figure A

Input Volt. 200 V
Cycle 1000 mS

Min. Load ←→
Load 100 %



Min. Load ←→
Load 50 %



COSEL

Model	LEB100F-0524		
Item	Dynamic Load Responce 動的負荷変動	Temperature Testing Circuitry	25℃ Figure A
Object	V2:+24.0V4A		

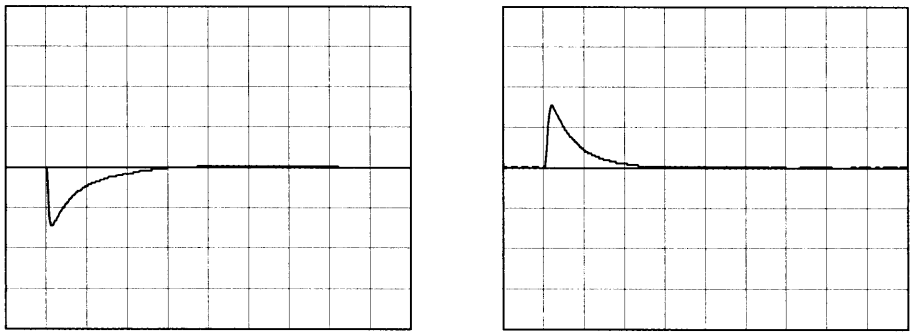
Input Volt. 200 V

Cycle 1000 mS

Load Current

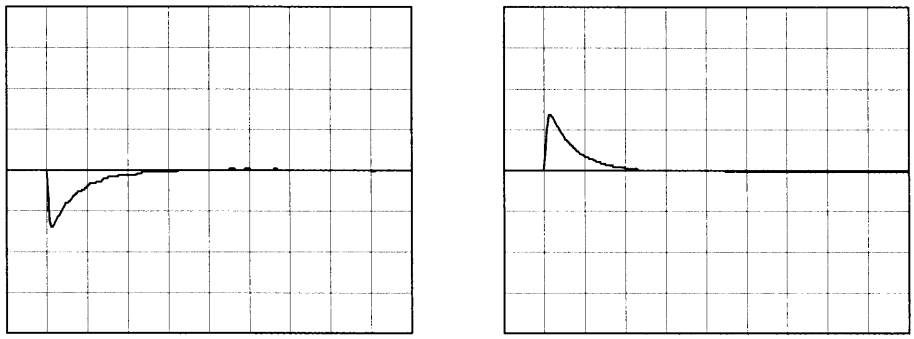
Min. Load ←→

Load 100 %



Min. Load ←→

Load 50 %



100 mV/div

10 ms/div

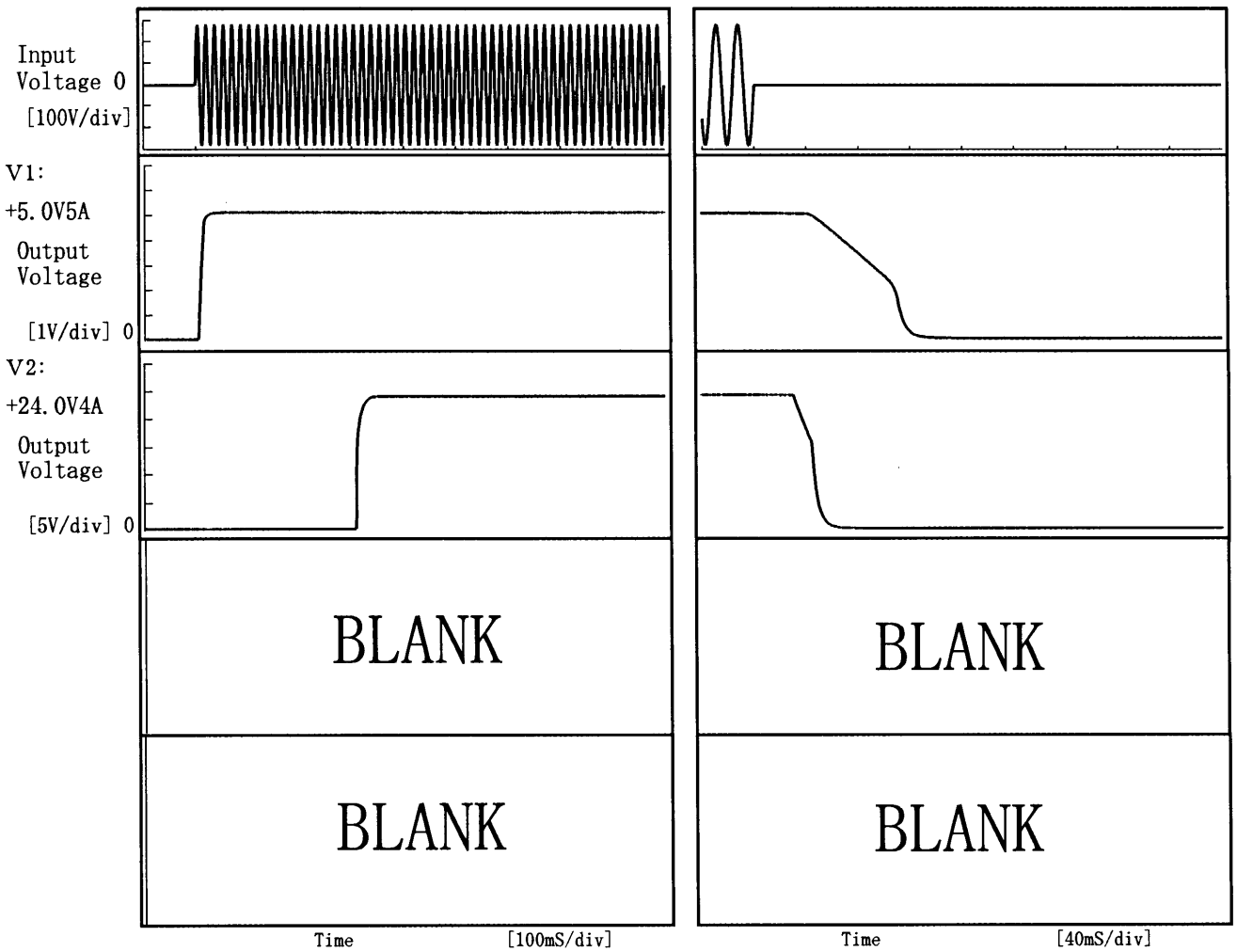
COSEL

Model	LEB100F-0524		
Item	Rise and Fall Time 立上り、立下り時間	Temperature Testing Circuitry	25℃ Figure A
Object	————		

Load Power 100 %

Input Volt. 200 V

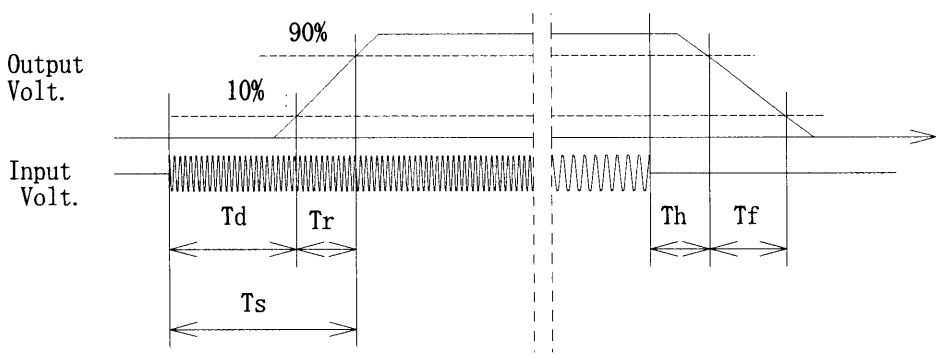
1. Graph



2. Values

[mS]

Output \ Time	T d	T r	T s	T h	T f
V1	3.5	10.0	13.5	56.8	60.6
V2	305.5	12.5	318.0	34.0	19.0
—	—	—	—	—	—
—	—	—	—	—	—



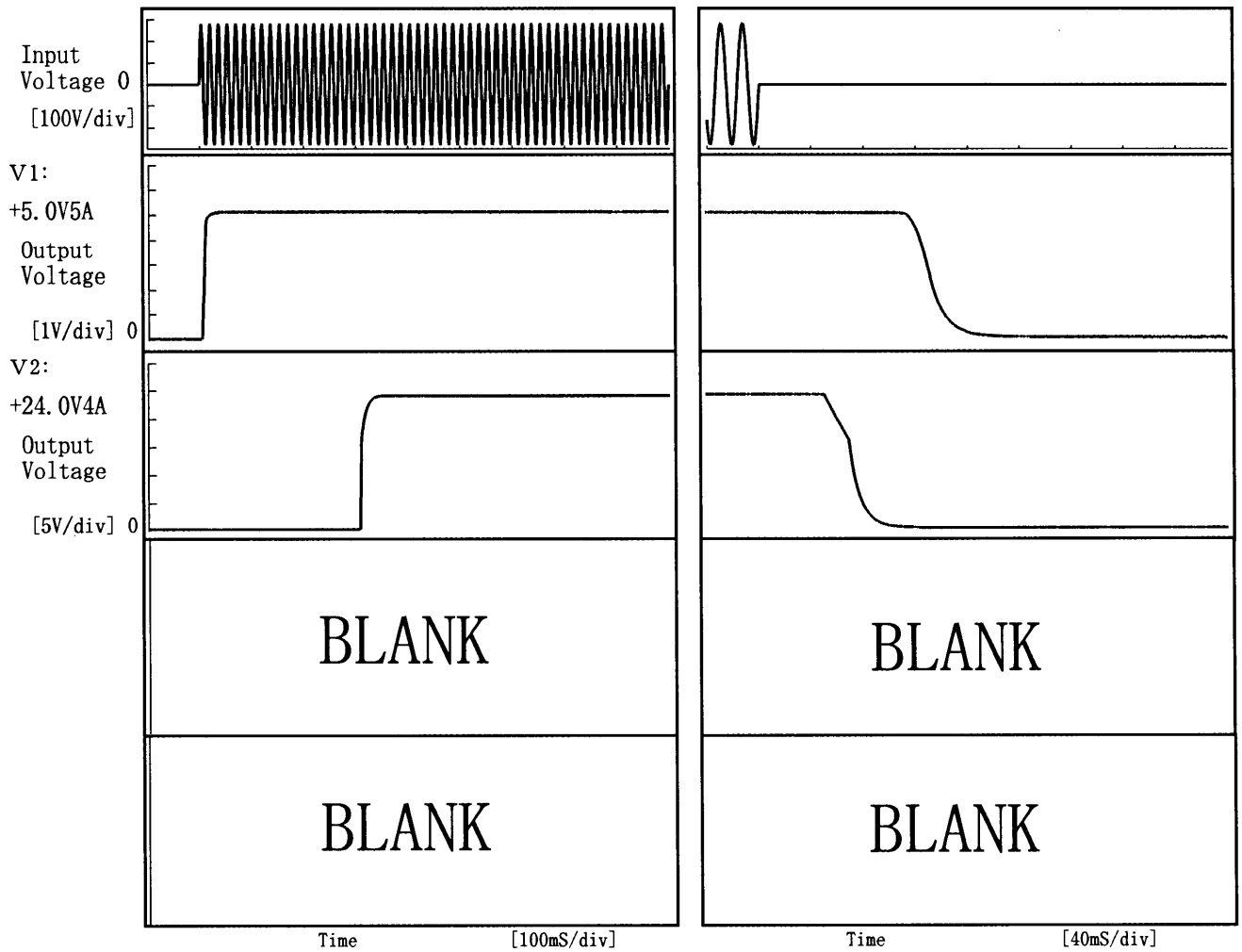
COSEL

Model	LEB100F-0524		
Item	Rise and Fall Time 立上り、立下り時間	Temperature Testing Circuitry	25℃ Figure A
Object	————		

Load Power 50 %

Input Volt. 200 V

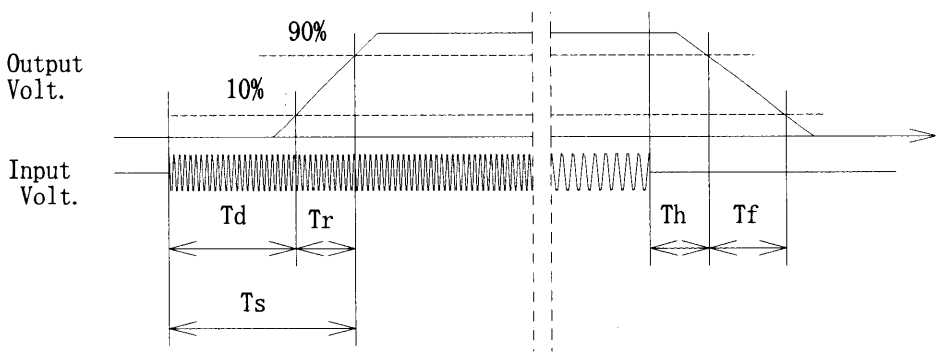
1. Graph



2. Values

[mS]

Output \ Time	T d	T r	T s	T h	T f
V1	3.5	6.5	10.0	120.0	31.0
V2	306.0	12.5	318.5	55.6	31.0
—	—	—	—	—	—
—	—	—	—	—	—



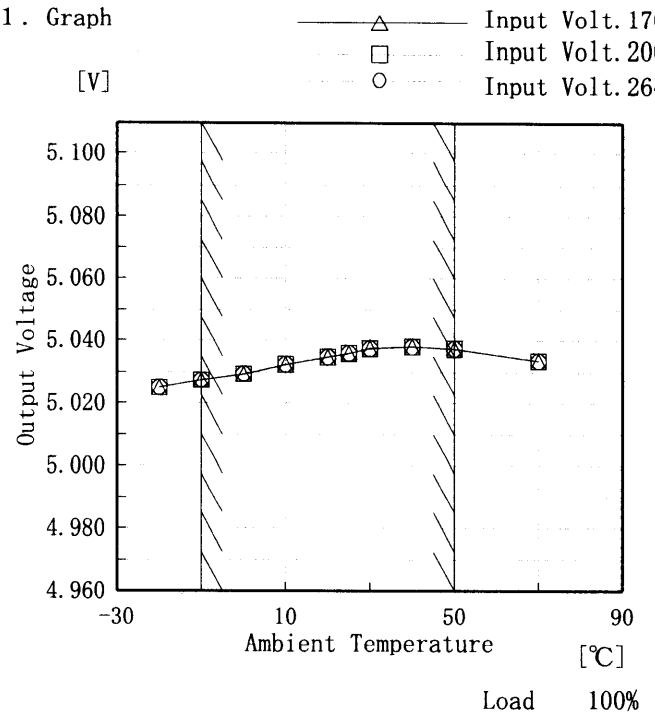
COSEL

Model	LEB100F-0524
Item	Ambient Temperature Drift 周囲温度変動

Testing Circuitry Figure A

Object V1:+5.0V5A

1. Graph

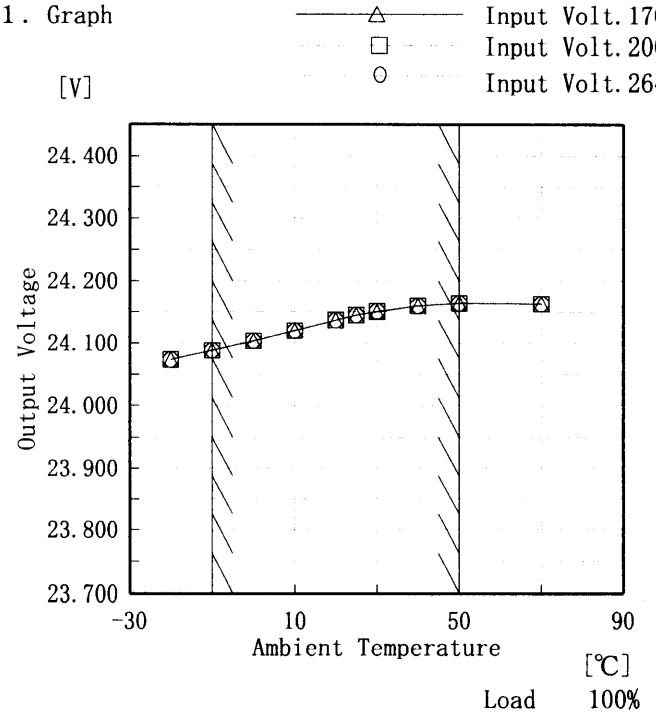


2. Values

Ambient Temperature [℃]	Output Voltage [V]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
-20	5.025	5.025	5.025
-10	5.027	5.027	5.027
0	5.029	5.029	5.030
10	5.032	5.033	5.033
20	5.035	5.035	5.035
25	5.036	5.036	5.036
30	5.038	5.038	5.038
40	5.038	5.038	5.038
50	5.037	5.038	5.038
70	5.034	5.034	5.034
—	—	—	—

Object V2:+24.0V4A

1. Graph



2. Values

Ambient Temperature [℃]	Output Voltage [V]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
-20	24.073	24.073	24.073
-10	24.088	24.088	24.088
0	24.103	24.103	24.103
10	24.120	24.120	24.120
20	24.137	24.137	24.137
25	24.145	24.145	24.145
30	24.150	24.151	24.151
40	24.160	24.160	24.160
50	24.164	24.164	24.164
70	24.163	24.163	24.163
—	—	—	—

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。

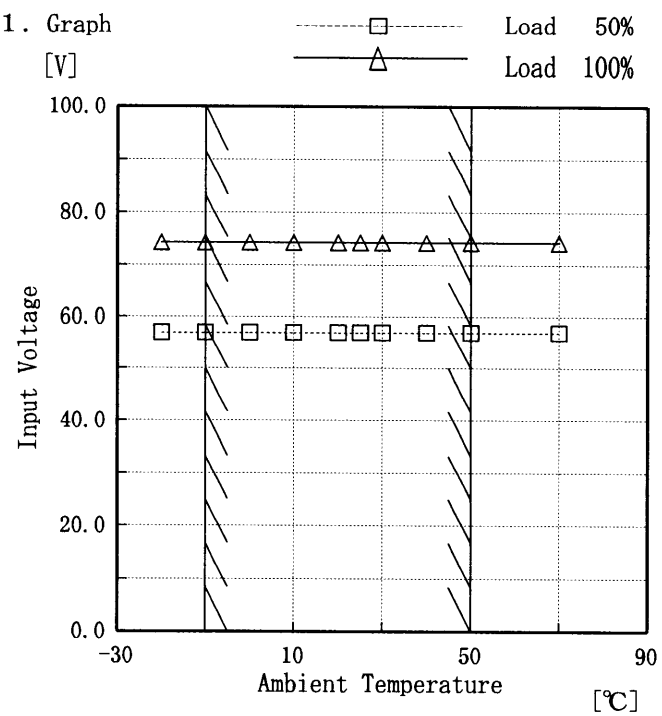
COSEL

Model	LEB100F-0524
Item	Minimum Input Voltage for Regulated Output Voltage 最低レギュレーション電圧

Testing Circuitry Figure A

Object V1:+5.0V5A

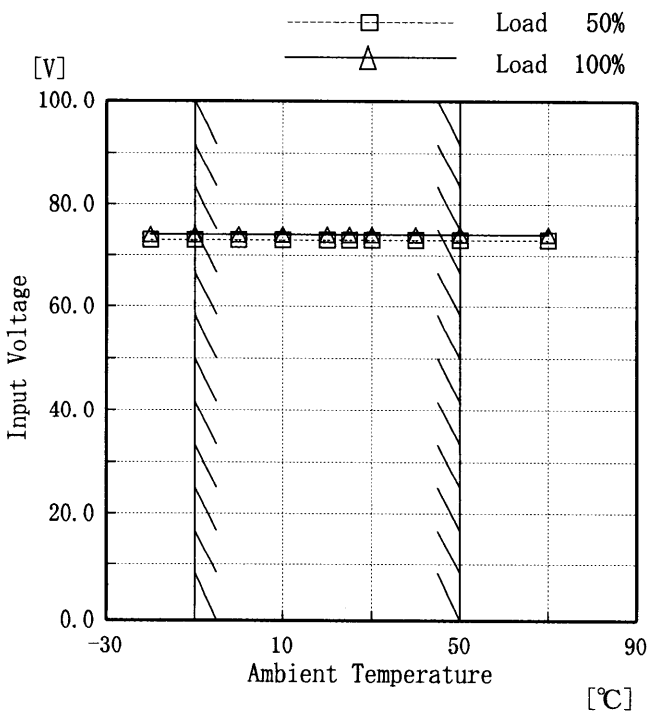
1. Graph



2. Values

Ambient Temperature [℃]	Input Voltage [V]	
	Load 50%	Load 100%
-20	57	74
-10	57	74
0	57	74
10	57	74
20	57	74
25	57	74
30	57	74
40	57	74
50	57	74
70	57	74
—	—	—

Object V2:+24.0V4A



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	73	74
-10	73	74
0	73	74
10	73	74
20	73	74
25	73	74
30	73	74
40	73	74
50	73	74
70	73	74
—	—	—

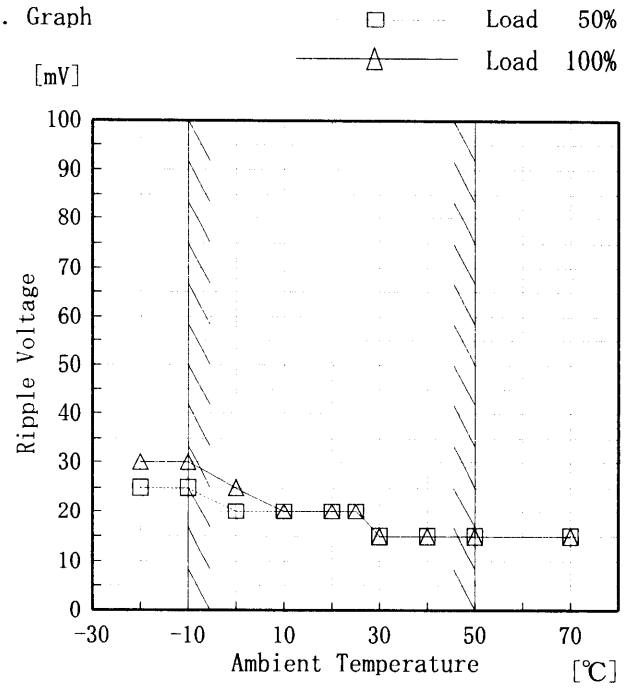
COSEL

Model	LEB100F-0524
Item	Ripple Voltage (by Ambient Temp.) リップル電圧 (周囲温度特性)

Testing Circuitry Figure A

Object V1:+5.0V5A

1. Graph



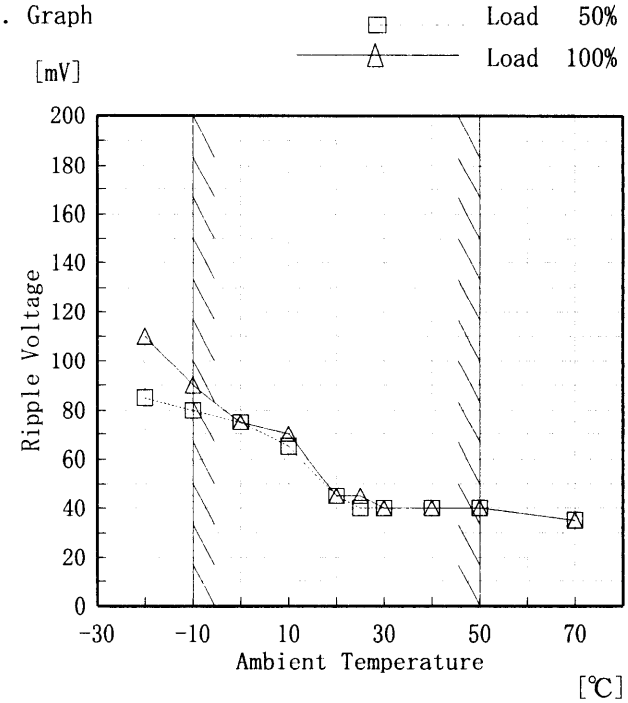
Input Volt. 200 V

2. Values

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

Object V2:+24.0V4A

1. Graph



Input Volt. 200 V

2. Values

Ambient Temperature [℃]	Ripple Output Voltage [mV]	
	Load 50%	Load 100%
-20	85	110
-10	80	90
0	75	75
10	65	70
20	45	45
25	40	45
30	40	40
40	40	40
50	40	40
70	35	35
—	—	—

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。

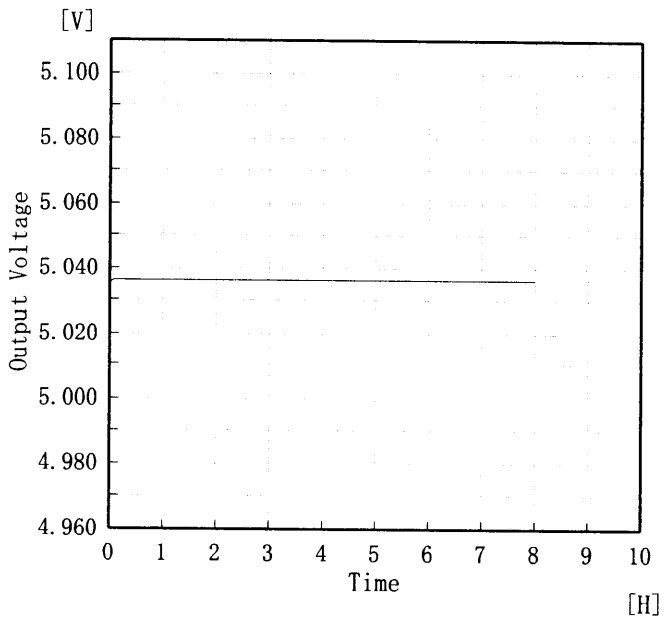
COSEL

Model	LEB100F-0524
Item	Time Lapse Drift 経時ドリフト

Temperature 25℃
Testing Circuitry Figure A

Object V1:+5.0V5A

1. Graph



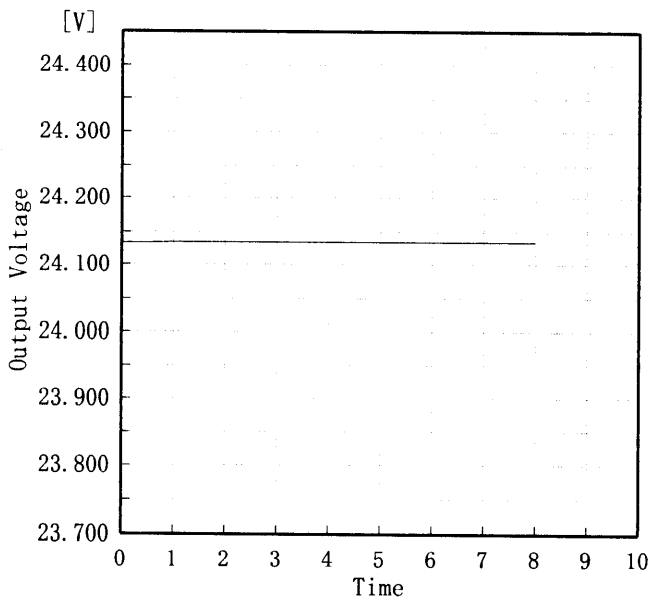
Input Volt. 200V
Load 100%

2. Values

Time since start [H]	Output Voltage [V]
0.0	5.035
0.5	5.036
1.0	5.036
2.0	5.036
3.0	5.036
4.0	5.036
5.0	5.036
6.0	5.036
7.0	5.036
8.0	5.036

Object V2:+24.0V4A

1. Graph



Input Volt. 200V
Load 100%

2. Values

Time since start [H]	Output Voltage [V]
0.0	24.131
0.5	24.134
1.0	24.135
2.0	24.135
3.0	24.135
4.0	24.135
5.0	24.135
6.0	24.135
7.0	24.135
8.0	24.135

COSEL

Model	LEB100F-0524	
Item	Output Voltage Accuracy 定電圧精度	Testing Circuitry Figure A

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 : 170～264 V

Load Current (V1) : 0～5 A

(V2) : 0～4 A

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

* Output Voltage Accuracy (Ration) = $\frac{\text{Output Voltage Accuracy}}{\text{Rated Output Voltage}}$ ×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 170～264 V

負荷電流 (V1) 0～5 A

(V2) 0～4 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

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

2. Values

Object	V1:+5.0V5A

Item	Temperature [℃]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	50	264	0	5.057	±15	±0.3
Minimum Voltage	-10	170	5	5.028		

Object	V2:+24.0V4A

Item	Temperature [℃]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	50	170	0	24.173	±42	±0.2
Minimum Voltage	-10	170	4	24.090		

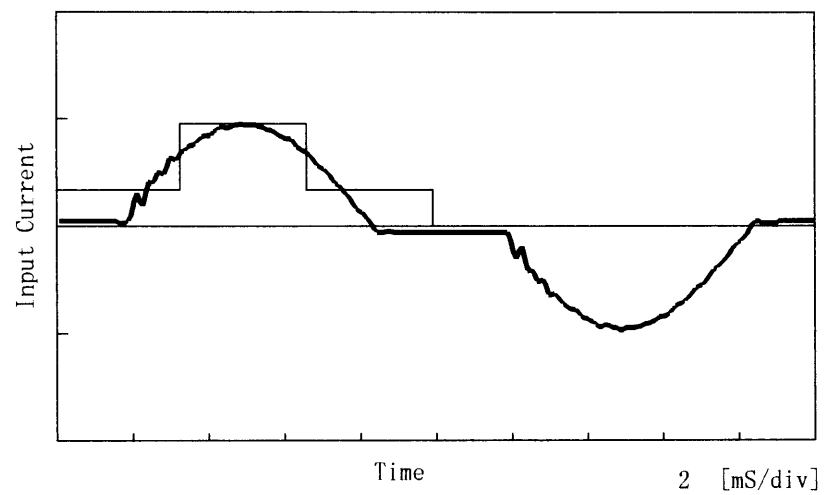
COSEL

Model	LEB100F-0524		
Item	Harmonic Current 高調波電流	Temperature Testing Circuitry	25℃ Figure E
Object	————		

1. Input Current Waveform

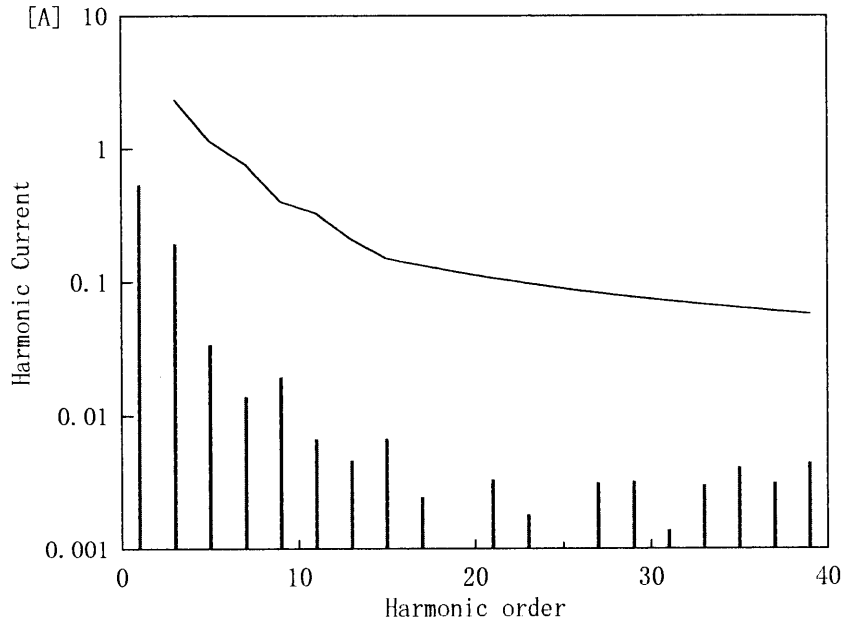
——— Input Current

——— Envelope of the input current to classify equipment as Class D
ｸﾗｽDの機器を決定するための入力電流包絡線



Conditions	Values
Input Voltage [V]	230.5
Input Current [A]	0.58
Active Power [W]	124.1
Apparent Power[VA]	133.9
Frequency [Hz]	50
Power Factor	0.927
Output Power [W]	100

2. Harmonic Current



——— Harmonic Current
高調波電流

——— Limits for Class A equipment
ｸﾗｽAの機器に対する限度値

Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	0.54460
2	—	0.00050
3	2.29501	0.19570
4	—	0.00010
5	1.13753	0.03410
6	—	0.00000
7	0.76833	0.01370
8	—	0.00010
9	0.39913	0.01910
10	—	0.00010
11	0.32928	0.00660
12	—	0.00010
13	0.20954	0.00460
14	—	0.00010
15	0.14967	0.00660
16	—	0.00000
17	0.13207	0.00240
18	—	0.00010
19	0.11816	0.00090
20	—	0.00010
21	0.10691	0.00330
22	—	0.00010
23	0.09761	0.00180
24	—	0.00010
25	0.08980	0.00060
26	—	0.00010
27	0.08315	0.00310
28	—	0.00000
29	0.07742	0.00320
30	—	0.00010
31	0.07242	0.00140
32	—	0.00000
33	0.06803	0.00300
34	—	0.00000
35	0.06415	0.00410
36	—	0.00000
37	0.06068	0.00310
38	—	0.00000
39	0.05757	0.00440
40	—	0.00000

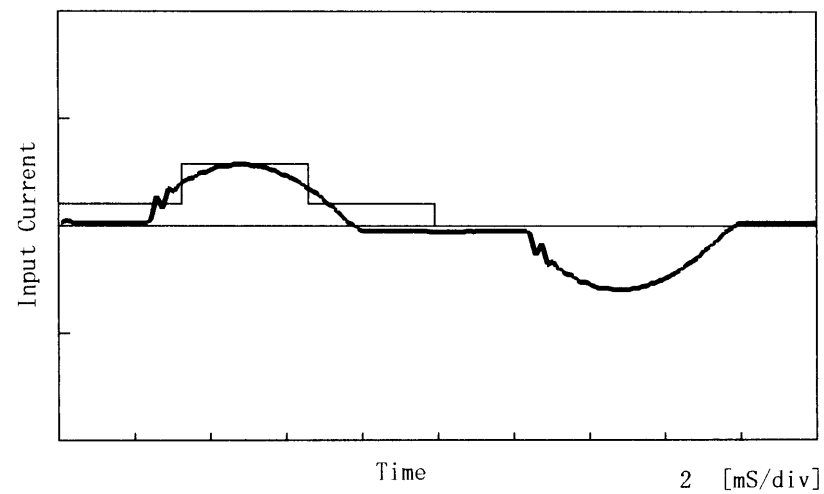
COSEL

Model	LEB100F-0524		
Item	Harmonic Current 高調波電流	Temperature Testing Circuitry	25℃ Figure E
Object	————		

1. Input Current Waveform

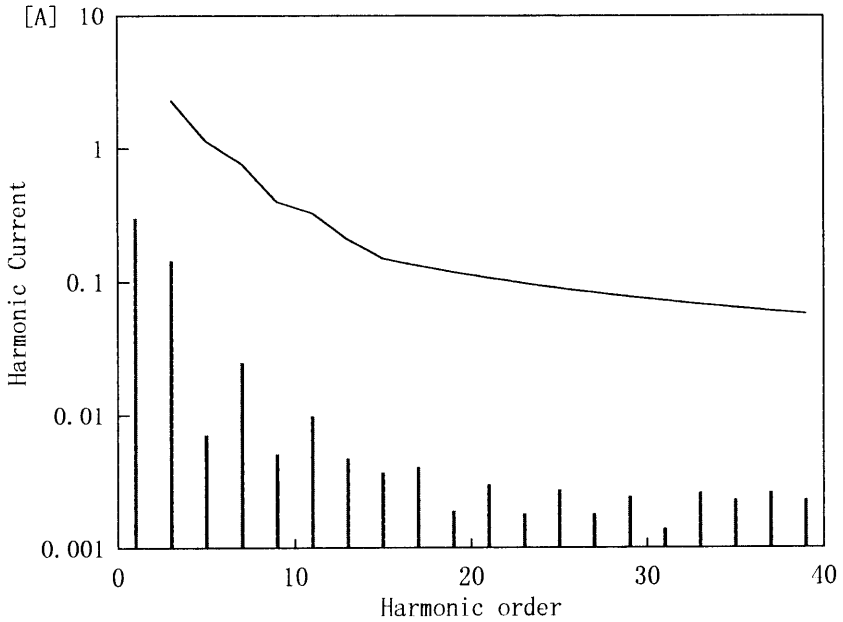
——— Input Current

——— Envelope of the input current to classify equipment as Class D
ｸﾗｽDの機器を決定するための入力電流包絡線



Conditions	Values
Input Voltage [V]	230.6
Input Current [A]	0.336
Active Power [W]	67.9
Apparent Power[VA]	77.6
Frequency [Hz]	50
Power Factor	0.875
Output Power [W]	50

2. Harmonic Current



——— Harmonic Current
高調波電流

——— Limits for Class A equipment
ｸﾗｽAの機器に対する限度値

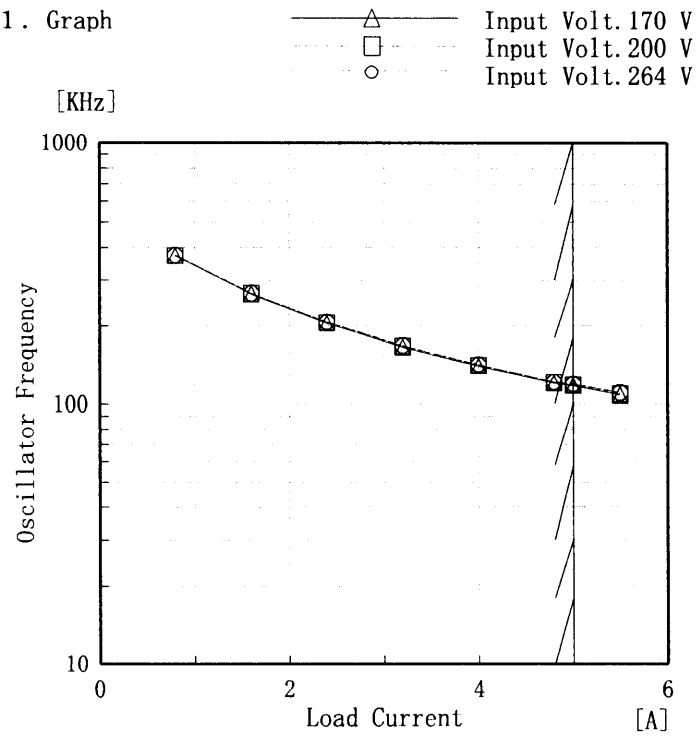
Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	0.30160
2	—	0.00040
3	2.29402	0.14510
4	—	0.00000
5	1.13703	0.00710
6	—	0.00010
7	0.76800	0.02450
8	—	0.00010
9	0.39896	0.00510
10	—	0.00010
11	0.32914	0.00990
12	—	0.00010
13	0.20945	0.00480
14	—	0.00010
15	0.14961	0.00370
16	—	0.00010
17	0.13201	0.00410
18	—	0.00010
19	0.11811	0.00190
20	—	0.00010
21	0.10686	0.00300
22	—	0.00000
23	0.09757	0.00180
24	—	0.00010
25	0.08977	0.00270
26	—	0.00000
27	0.08312	0.00180
28	—	0.00010
29	0.07738	0.00240
30	—	0.00010
31	0.07239	0.00140
32	—	0.00000
33	0.06800	0.00260
34	—	0.00010
35	0.06412	0.00230
36	—	0.00000
37	0.06065	0.00260
38	—	0.00010
39	0.05754	0.00230
40	—	0.00010

COSEL

Model	LEB100F-0524
Item	Oscillator Frequency 発振周波数
Object	V1:+5.0V5A

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]	Oscillator Frequency [KHz]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0.8	372	373	374
1.6	266	267	268
2.4	205	206	207
3.2	166	167	168
4.0	140	141	142
4.8	120	121	121
5.0	117	118	119
5.5	108	109	110
—	—	—	—
—	—	—	—
—	—	—	—

BC−3267

COSEL

Model	LEB100F-0524
Item	Condensation 結露特性

Testing Circuitry Figure A

1. Condensation test

Testing procedure is as follows.

① Keeping and cooling the unit in a tank at -10℃ for an hour with the input off.

② Taking it out of the tank and dewing itself in a room where the temperature is 25℃ and the humidity is 40%RH.

③ Testing electrical characteristics of the unit to confirm there be no fault.

1．結露特性試験

入力を切った状態で、恒温槽で－１０℃に冷却しておき、約１時間後に恒温槽から取り出し、室温２５℃、湿度４０%RHの状態におき結露させ、その電気的特性の測定を行い、異常のないことを確認する。

2．Values

Object	V1:＋5.0V5A

Item	Data	Testing Conditions
Output Voltage [V]	5.030	Input Volt.: 200V, Load Current:5A
Line Regulation [mV]	1	Input Volt.: 170～264V, Load Current:5A
Load Regulation [mV]	15	Input Volt.: 200V, Load Current:0～5A

Object	V2:＋24.0V4A

Item	Data	Testing Conditions
Output Voltage [V]	24.099	Input Volt.: 200V, Load Current:4A
Line Regulation [mV]	1	Input Volt.: 170～264V, Load Current:4A
Load Regulation [mV]	9	Input Volt.: 200V, Load Current:0～4A

COSEL

Model	LEB100F-0524		
Item	Leakage Current 漏洩電流	Temperature	25℃
		Testing Circuitry	Figure B
Object	————————		

1. Results

Standards	Leakage Current [mA]		
	Input Volt. 85 [V]	Input Volt. 100 [V]	Input Volt. 132 [V]
(A) DENTORI	—	—	—
(B) IEC60950	—	—	—

Standards	Leakage Current [mA]		
	Input Volt. 170 [V]	Input Volt. 230 [V]	Input Volt. 264 [V]
(B) IEC60950	0.36	0.42	0.56

2. Condition

Leakage current value is concluded after measuring both phases of AC input and by choosing the larger one.

交流入力の両相について測定し、その大きい方を漏洩電流測定値とする。

COSEL

Model	LEB100F-0524		
Item	Line Noise Tolerance 入力雑音耐量	Temperature Testing Circuitry	25℃ Figure C
Object	V1:+5.0V5A		

1. Results

Conditions

Input Voltage :200 V Pulse Input Duration:1 min. or more

Pulse Voltage :2000 V Load :100 %

Pulse Cycle :10 mS

Pulse Width [nS]	MODE	POLARITY	No protection failure should occur 保護回路の誤動作がない	DC-like Regulation of Output Voltage 出力電圧の直流的変動
50	COMMON	+	OK	no fluctuation
		−	OK	no fluctuation
	NORMAL	+	OK	no fluctuation
		−	OK	no fluctuation
1000	COMMON	+	OK	no fluctuation
		−	OK	no fluctuation
	NORMAL	+	OK	no fluctuation
		−	OK	no fluctuation

Object	V2:+24.0V4A

1. Results

Conditions

Input Voltage :200 V Pulse Input Duration:1 min. or more

Pulse Voltage :2000 V Load :100 %

Pulse Cycle :10 mS

Pulse Width [nS]	MODE	POLARITY	No protection failure should occur 保護回路の誤動作がない	DC-like Regulation of Output Voltage 出力電圧の直流的変動
50	COMMON	+	OK	no fluctuation
		−	OK	no fluctuation
	NORMAL	+	OK	no fluctuation
		−	OK	no fluctuation
1000	COMMON	+	OK	no fluctuation
		−	OK	no fluctuation
	NORMAL	+	OK	no fluctuation
		−	OK	no fluctuation

COSEL

Model	LEB100F-0524		
Item	Conducted Emission 雑音端子電圧	Temperature Testing Circuitry	25℃ Figure D
Object	――――――		

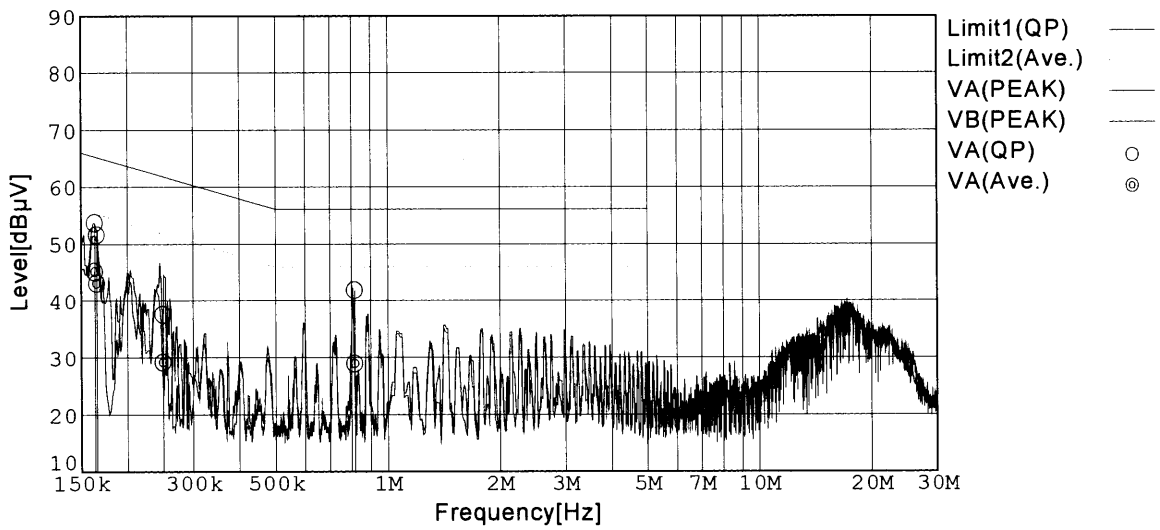
1. Graph

Remarks

Input Volt. 230 V (CISPR Pub22 Class B)

Load 100 %

Limit1: [CISPR Pub22] Class B(QP)
Limit2: [CISPR Pub22] Class B(Ave.)



COSEL

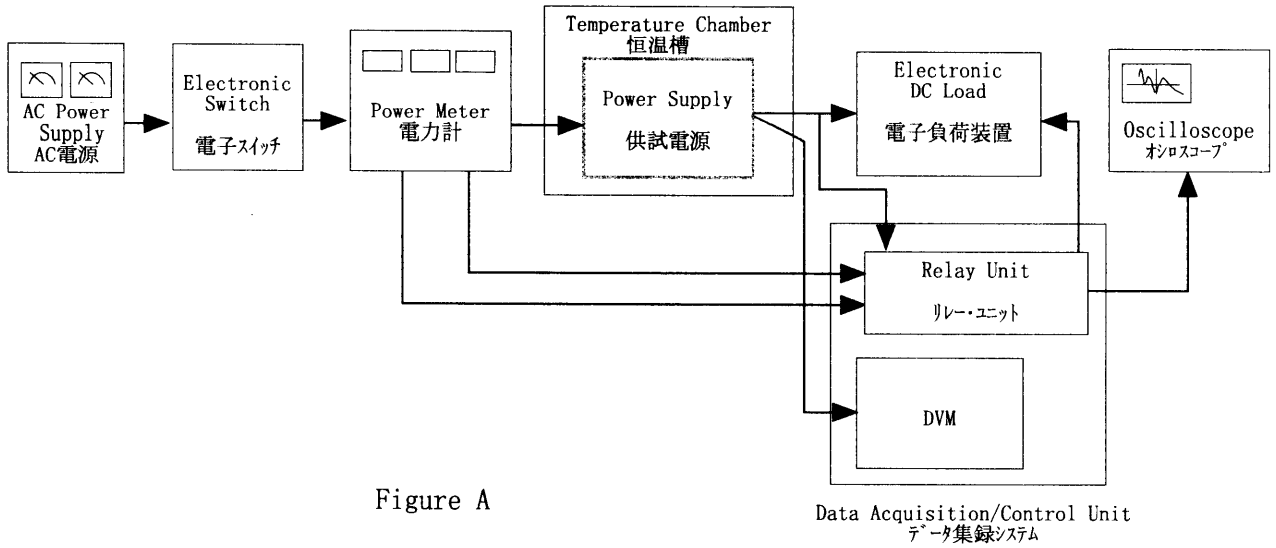


Figure A

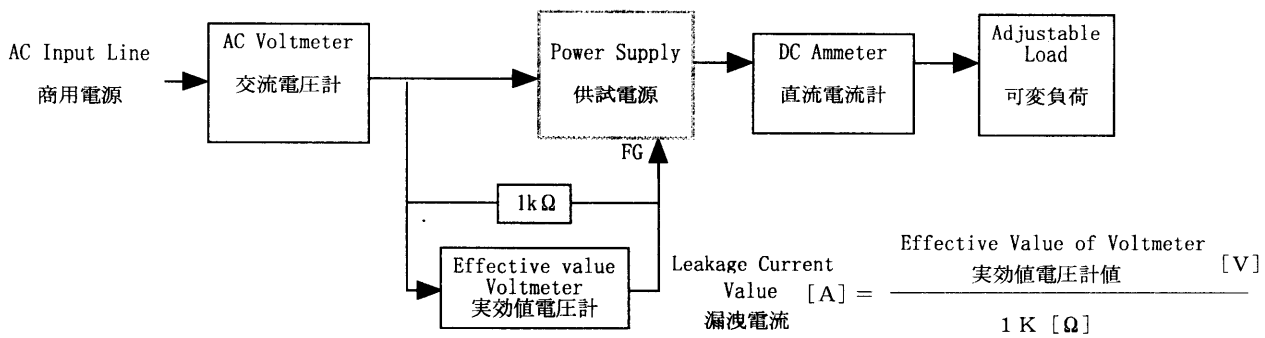


Figure B(DENTORI)

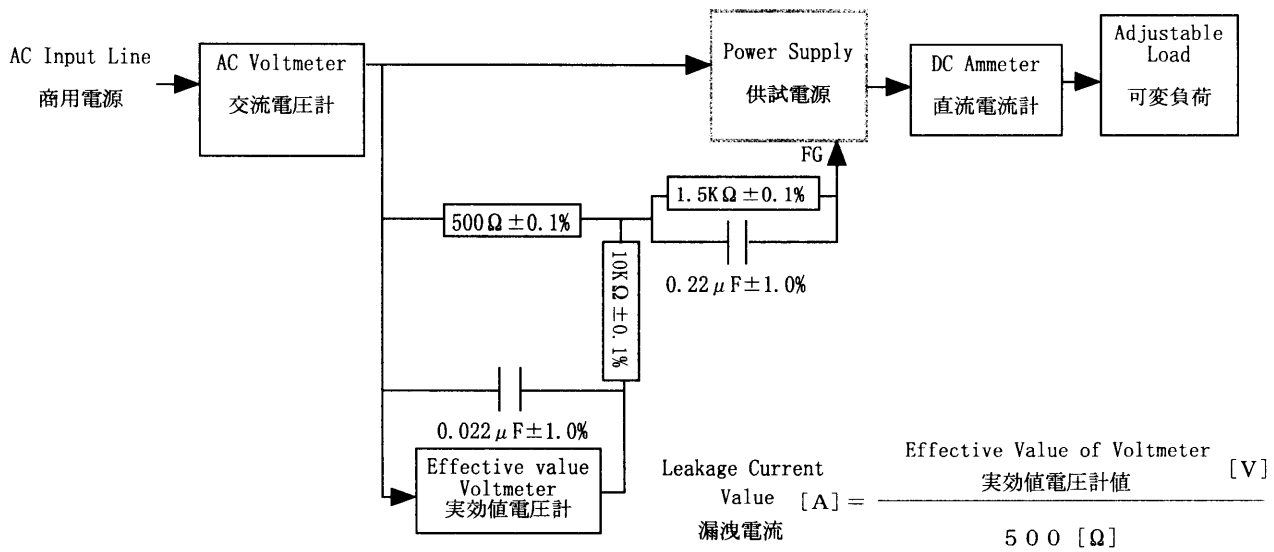


Figure B（IEC60950）

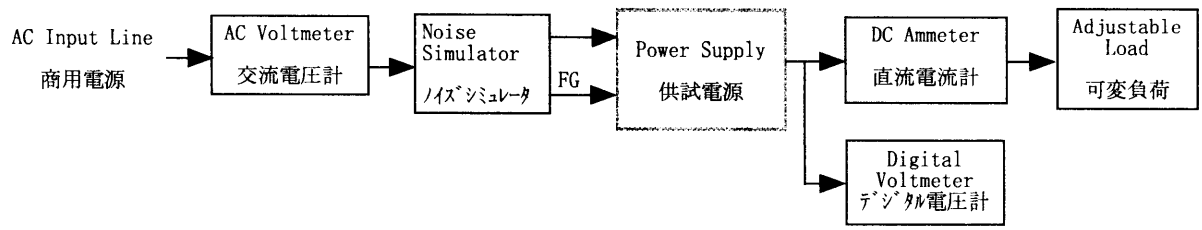


Figure C

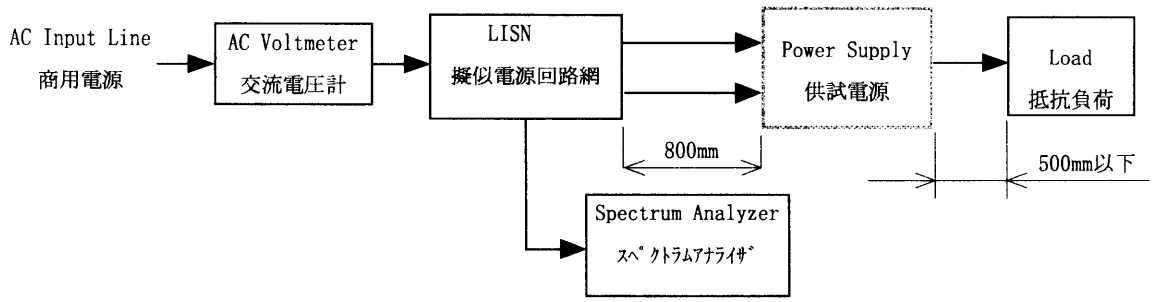


Figure D

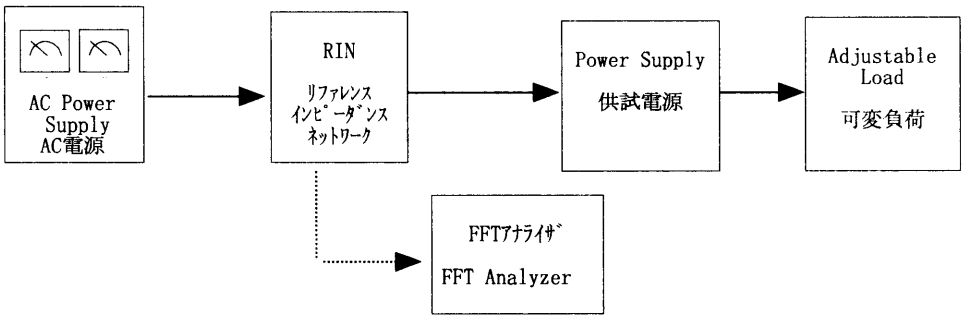


Figure E