



TEST DATA OF LEB225F-0512

(200V INPUT)

Regulated DC Power Supply

Mar. 21, 2000

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Design Manager

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コーセル株式会社

COSEL CO., LTD.



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<p>Model LEB225F-0512</p> <p>Item Line Regulation 静の入力変動</p> <p>Object V1: +5.0V5A</p>		<p>Temperature 25°C</p> <p>Testing Circuitry Figure A</p>																																
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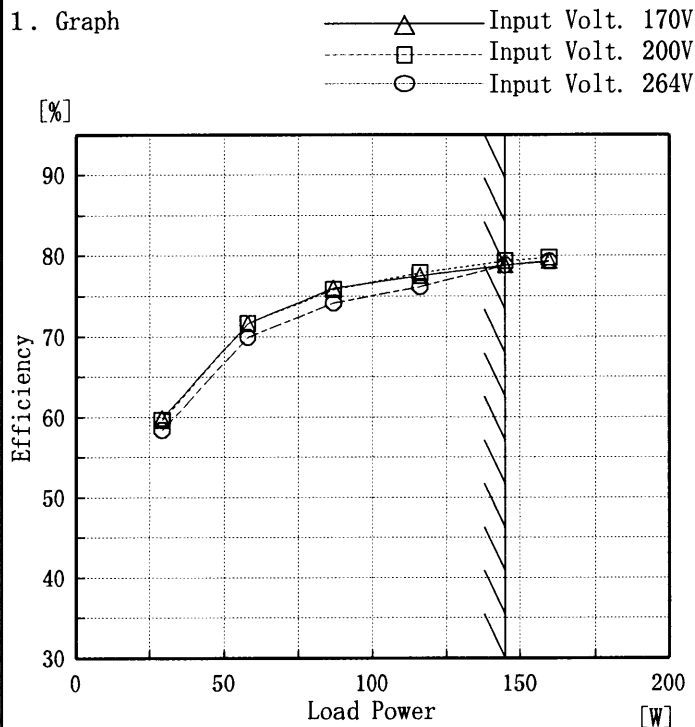


<p>Model LEB225F-0512</p> <p>Item Efficiency (by Input Voltage) 効率 (入力電圧特性)</p> <p>Object _____</p>		<p>Temperature 25°C</p> <p>Testing Circuitry Figure A</p>																																
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Model	LEB225F-0512	Temperature	25°C
Item	Efficiency (by Load Power) 効率 (負荷特性)	Testing Circuitry	Figure A
Output	_____		

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]
29.00	59.8	59.6	58.4
58.00	71.6	71.6	69.9
87.00	76.0	75.8	74.2
116.00	77.5	77.9	76.2
145.00	78.8	79.4	78.9
159.50	79.4	79.8	79.3
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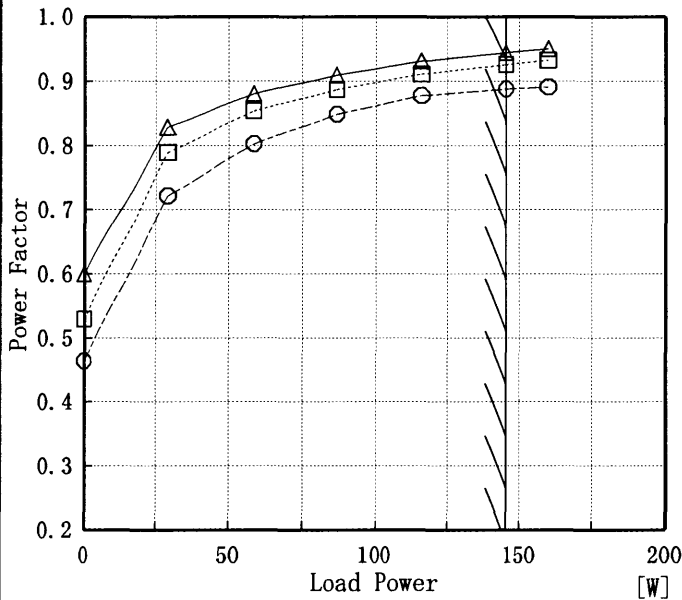
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Model	LEB225F-0512	Temperature	25°C
Item	Power Factor (by Load Power) 力率 (負荷特性)	Testing Circuitry	Figure A
Output	_____		

1. Graph

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



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

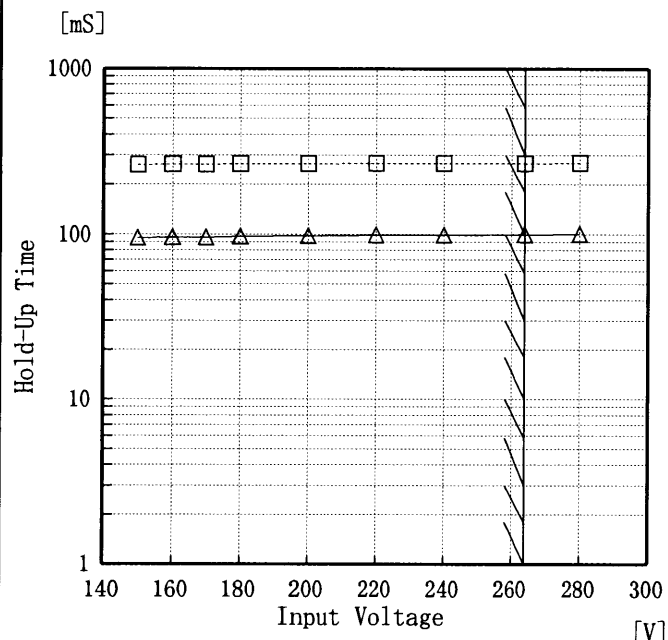
Load Power [W]	Power Factor		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0.00	0.60	0.53	0.46
29.00	0.83	0.79	0.72
58.00	0.88	0.85	0.80
87.00	0.91	0.89	0.85
116.00	0.93	0.91	0.88
145.00	0.94	0.93	0.89
159.50	0.95	0.93	0.89
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



Model	LEB225F-0512	Temperature	25°C
Item	Hold-Up Time 出力保持時間	Testing Circuitry	Figure A
Object	V1: +5.0V5A		

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	263	95
160	264	96
170	265	96
180	266	97
200	267	98
220	268	99
240	269	99
264	269	100
280	269	100



COSEL																																		
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Item	Hold-Up Time 出力保持時間	Temperature 25°C Testing Circuitry Figure A																																
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Input Voltage [V]	Hold-Up Time [mS]																																	
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<p>Model LEB225F-0512</p> <p>Item Ripple Voltage (by Load Current) リップル電圧(負荷特性)</p> <p>Object V1: +5.0V5A</p>		<p>Temperature 25°C</p> <p>Testing Circuitry Figure A</p>																																					
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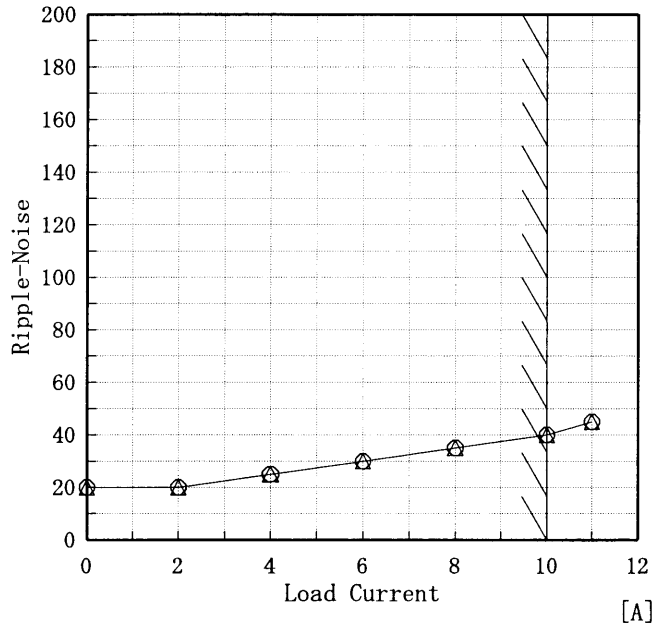


<p>Model LEB225F-0512</p>		<p>Temperature 25°C</p> <p>Testing Circuitry Figure A</p>																																						
<p>Item リプルノイズ</p>	<p>Ripple-Noise</p>																																							
<p>Object V1:+5.0V5A</p>	<p>2. Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="2">Ripple-Noise [mV]</th> </tr> <tr> <th>Input Volt. 170 [V]</th> <th>Input Volt. 264 [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>35</td><td>35</td></tr> <tr><td>0.8</td><td>35</td><td>35</td></tr> <tr><td>1.6</td><td>35</td><td>35</td></tr> <tr><td>2.4</td><td>40</td><td>40</td></tr> <tr><td>3.2</td><td>40</td><td>40</td></tr> <tr><td>4.0</td><td>45</td><td>45</td></tr> <tr><td>4.8</td><td>45</td><td>45</td></tr> <tr><td>5.0</td><td>50</td><td>50</td></tr> <tr><td>5.5</td><td>55</td><td>55</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>		Load Current [A]	Ripple-Noise [mV]		Input Volt. 170 [V]	Input Volt. 264 [V]	0.0	35	35	0.8	35	35	1.6	35	35	2.4	40	40	3.2	40	40	4.0	45	45	4.8	45	45	5.0	50	50	5.5	55	55	—	—	—	—	—	—
Load Current [A]	Ripple-Noise [mV]																																							
	Input Volt. 170 [V]	Input Volt. 264 [V]																																						
0.0	35	35																																						
0.8	35	35																																						
1.6	35	35																																						
2.4	40	40																																						
3.2	40	40																																						
4.0	45	45																																						
4.8	45	45																																						
5.0	50	50																																						
5.5	55	55																																						
—	—	—																																						
—	—	—																																						
<p>1. Graph —△— Input Volt. 170V</p> <p> -○- Input Volt. 264V</p> <p>[mV]</p> <p>Ripple-Noise</p> <p>Load Current [A]</p> <p>Ripple-Noise is shown as p-p in the figure below. Note: Slanted line shows the range of the rated load current.</p> <p>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。</p> <p>T1: Due to AC Input Line 入力商用周期</p> <p>T2: Due to Switching スイッチング周期</p> <p>Fig. Complex Ripple Wave Form 図 リプル波形詳細図</p>																																								



Model	LEB225F-0512	Temperature	25°C
Item	Ripple-Noise リップルノイズ	Testing Circuitry	Figure A
Object	V2: +12.0V10A		

1. Graph
 [mV]
 —△— Input Volt. 170V
 - - -○- - - Input Volt. 264V



2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 170 [V]	Input Volt. 264 [V]
0.0	20	20
2.0	20	20
4.0	25	25
6.0	30	30
8.0	35	35
10.0	40	40
11.0	45	45
—	—	—
—	—	—
—	—	—
—	—	—

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
 スイッチング周期

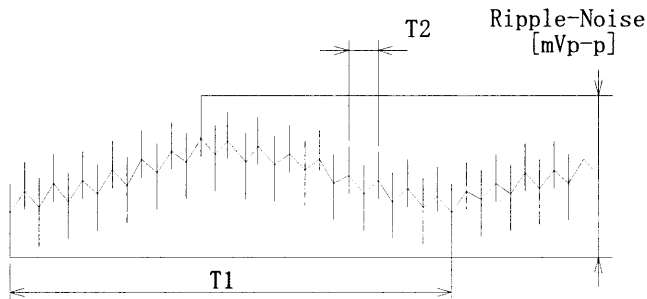


Fig. Complex Ripple Wave Form
 図 リップル波形詳細図

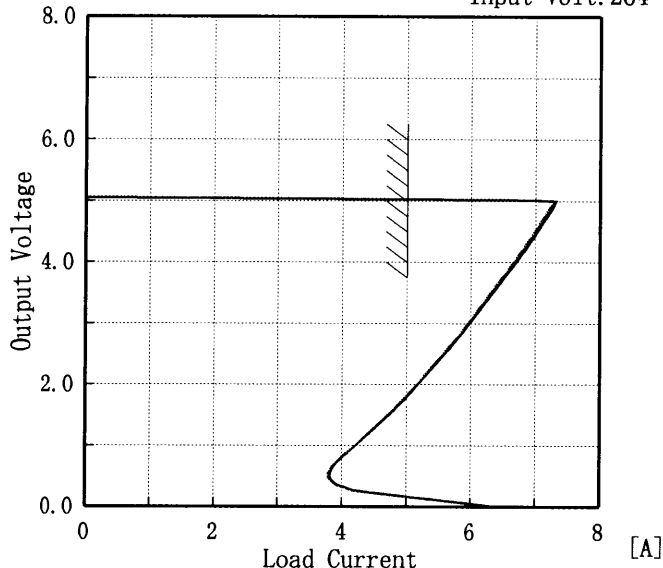


Model	LEB225F-0512
Item	Overcurrent Protection 過電流保護
Object	V1: +5.0V5A

Temperature 25°C
Testing Circuitry Figure A

1. Graph
[V]

Input Volt. 170 V
 Input Volt. 200 V
 Input Volt. 264 V



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

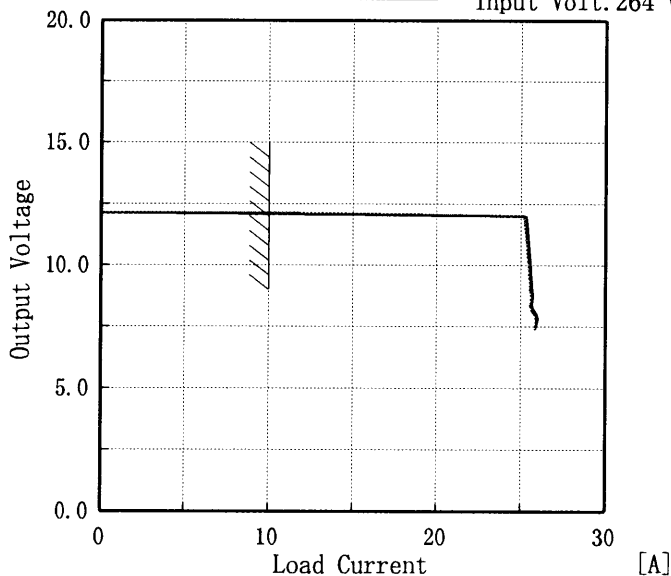
2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
5.00	7.28	7.31	7.33
4.75	7.13	7.15	7.18
4.50	7.00	7.02	7.04
4.00	6.67	6.69	6.71
3.50	6.32	6.34	6.36
3.00	5.96	5.97	5.99
2.50	5.57	5.58	5.60
2.00	5.18	5.19	5.21
1.50	4.75	4.76	4.77
1.00	4.24	4.25	4.26
0.50	3.79	3.80	3.81
0.00	6.31	6.33	6.35

Object	V2: +12.0V10A
--------	---------------

1. Graph
[V]

Input Volt. 170 V
 Input Volt. 200 V
 Input Volt. 264 V



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

Intermittent operation occurs when the output voltage is from 7.4V to 0V.

2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
12.00	25.18	25.27	25.29
11.40	25.27	25.35	25.37
10.80	25.34	25.41	25.43
9.60	25.48	25.54	25.56
8.40	25.56	25.60	25.61
7.20	—	—	—
6.00	—	—	—
4.80	—	—	—
3.60	—	—	—
2.40	—	—	—
1.20	—	—	—
0.00	—	—	—

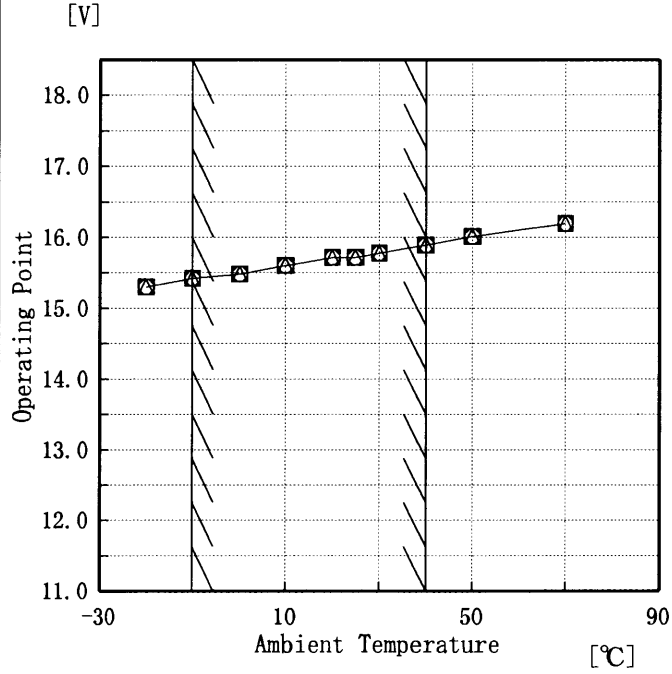


Model	LBB225F-0512
Item	Overvoltage Protection 過電圧保護
Object	V2: +12.0V10A

Testing Circuitry Figure A

1. Graph

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



Load 0%

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

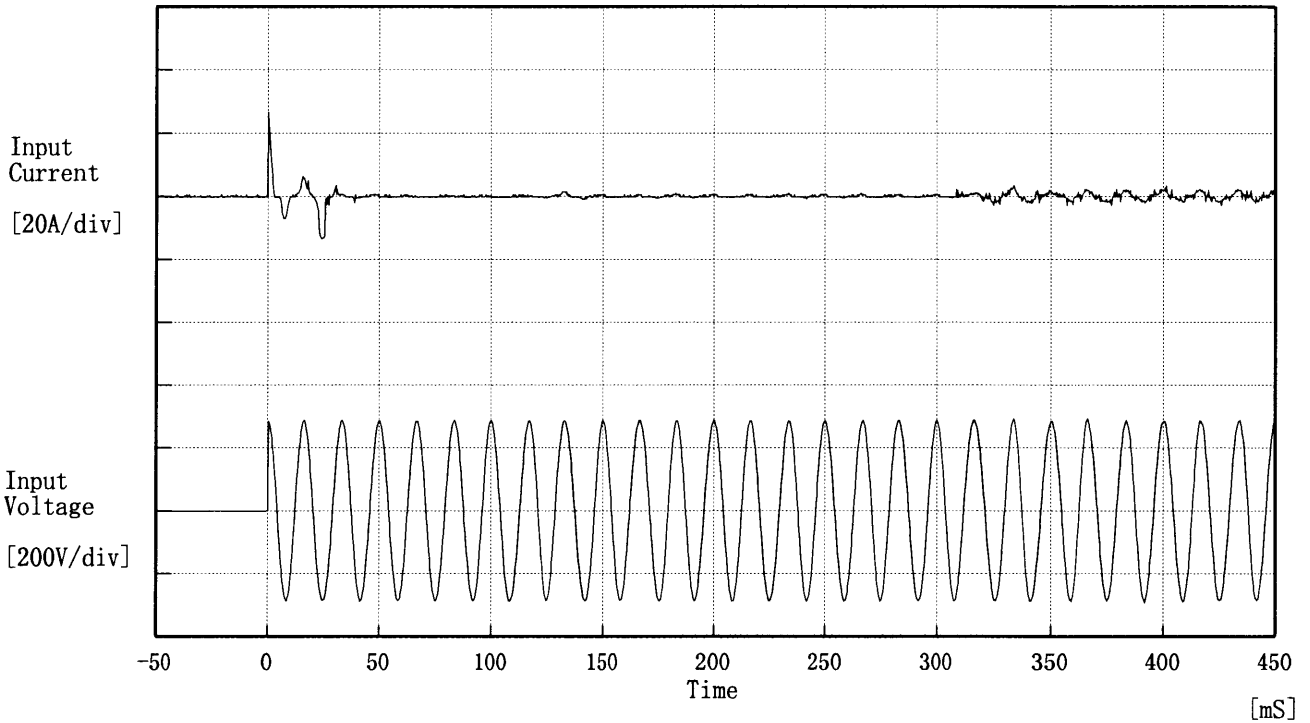
(注)斜線は定格周囲温度範囲を示す。

2. Values

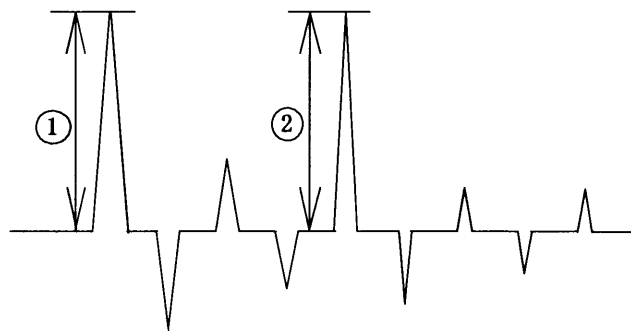
Ambient Temperature [°C]	Operating Point [V]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
-20	15.3	15.3	15.3
-10	15.4	15.4	15.4
0	15.5	15.5	15.5
10	15.6	15.6	15.6
20	15.7	15.7	15.7
25	15.7	15.7	15.7
30	15.8	15.8	15.8
40	15.9	15.9	15.9
50	16.0	16.0	16.0
70	16.2	16.2	16.2
—	—	—	—



Model	LEB225F-0512	Temperature	25°C
Item	Inrush Current 突入電流	Testing Circuitry	Figure A
Object	_____		



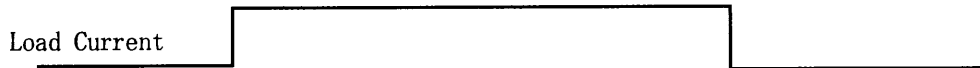
Input Voltage 200 V
 Frequency 60 Hz
 Load 100 %
 Inrush Current
 ① 26.65 [A]
 ② 3.45 [A]





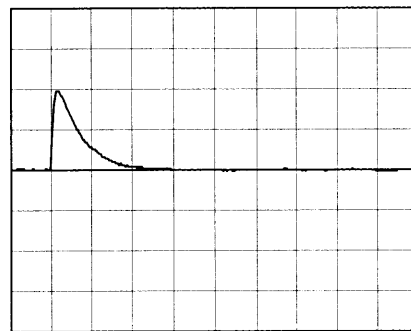
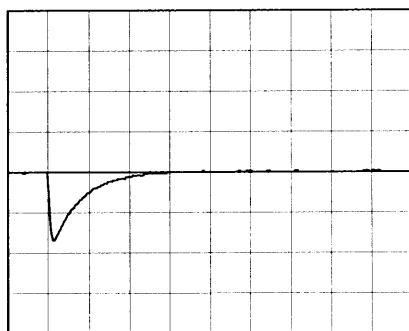
Model		LEB225F-0512	
Item	Dynamic Load Responce 動的負荷変動	Temperature	25°C
Object	V1:+5V5A	Testing Circuitry	Figure A

Input Volt. 200 V
Cycle 1000 mS



Min. Load ↔

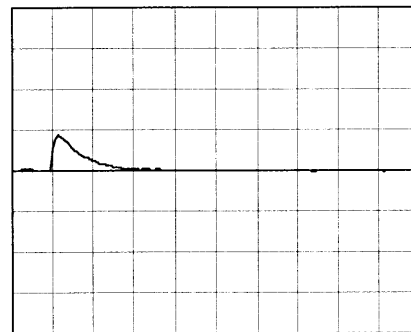
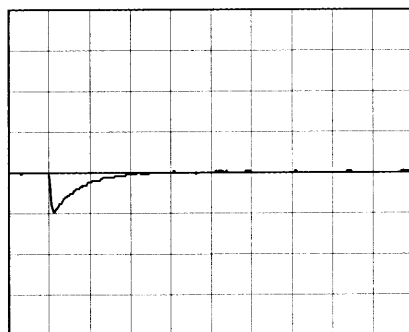
Load 100 %



Min. Load ↔

Load 50 %

100 mV/div



10 ms/div

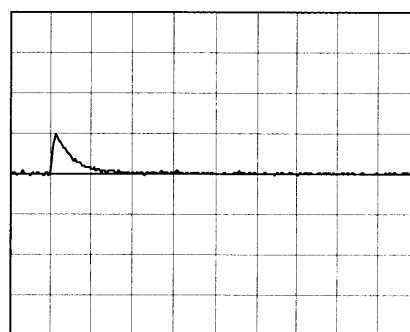
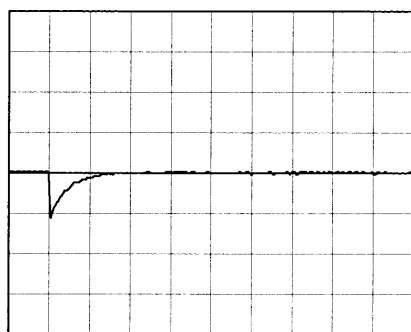
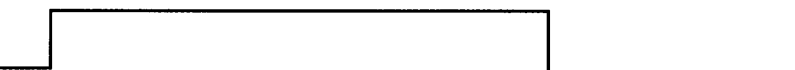


Model		LEB225F-0512	
Item		Dynamic Load Responce 動的負荷変動	
Object		V2: +12V10A	
		Temperature	25°C
		Testing Circuitry	Figure A

Input Volt. 200 V
Cycle 1000 mS

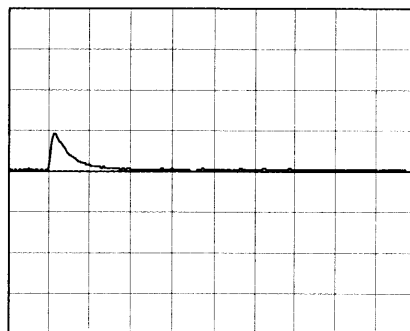
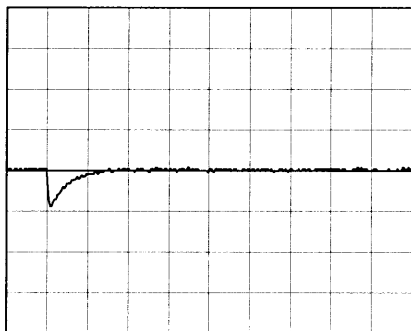
Load Current

Min. Load ↔
Load 100 %



Min. Load ↔
Load 50 %

100 mV/div

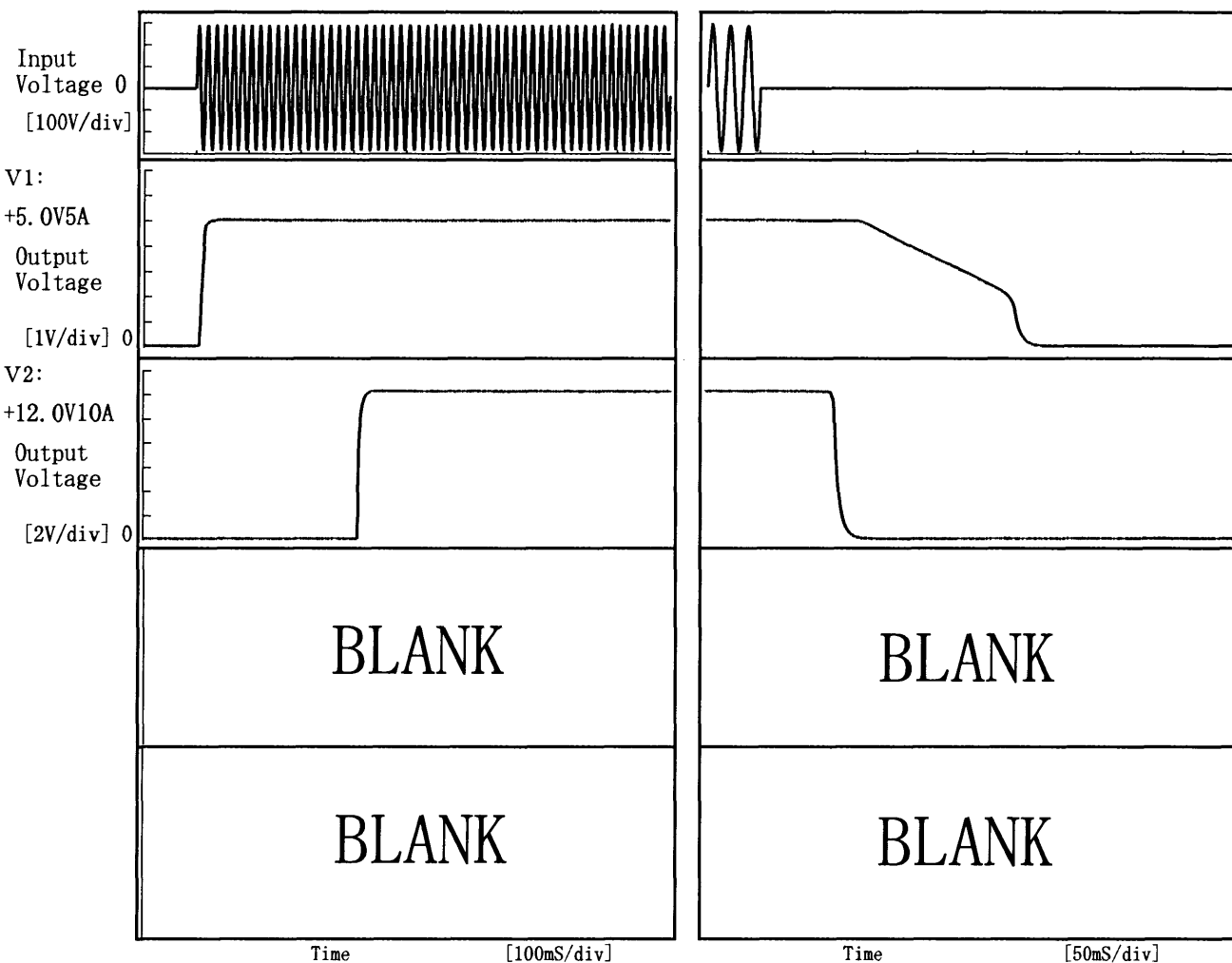


10 ms/div

COSEL

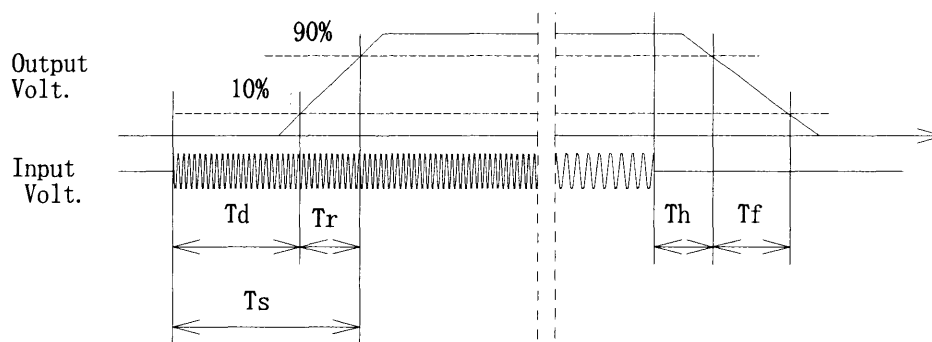
Model	LEB225F-0512	Temperature	25°C
Item	Rise and Fall Time 立上り、立下り時間	Testing Circuitry	Figure A
Object	_____	Load Power	100 %
		Input Volt.	200 V

1. Graph



2. Values

Output	Time	T _d	T _r	T _s	T _h	T _f
V1		5.0	10.0	15.0	120.0	125.5
V2		306.5	8.0	314.5	71.8	10.5
—		—	—	—	—	—
—		—	—	—	—	—

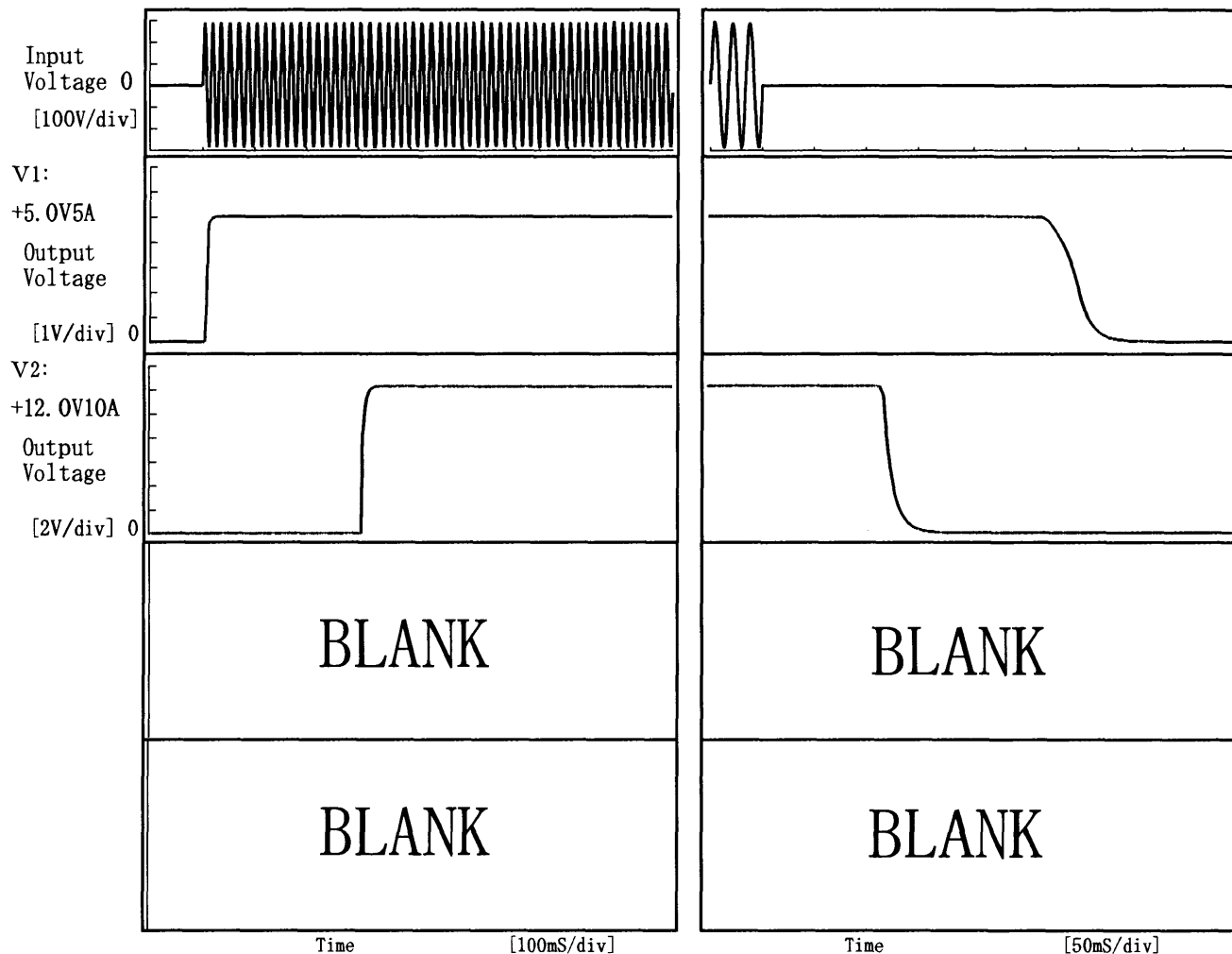


COSEL

Model	LEB225F-0512		
Item	Rise and Fall Time 立上り、立下り時間	Temperature	25°C
Object	_____	Testing Circuitry	Figure A

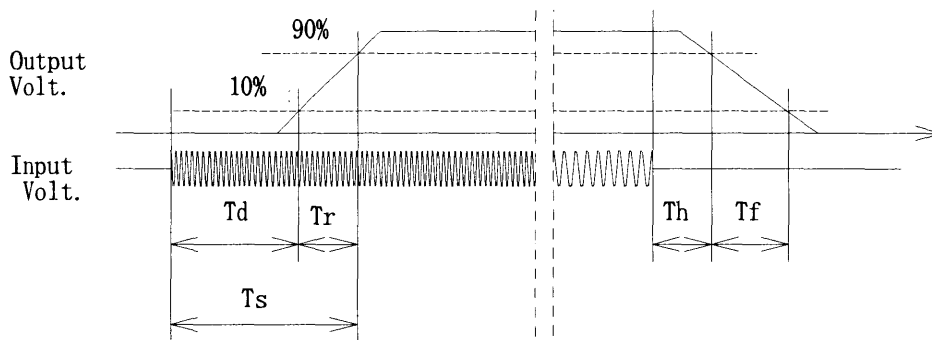
Load Power 50 %
Input Volt. 200 V

1. Graph



2. Values

Output	Time	T d	T r	T s	T h	T f
V1		5.0	6.5	11.5	277.8	39.0
V2		306.5	8.0	314.5	118.5	20.5
—		—	—	—	—	—
—		—	—	—	—	—





Model	LBB225F-0512
Item	Ambient Temperature Drift 周囲温度変動
Object	V1: +5.0V5A

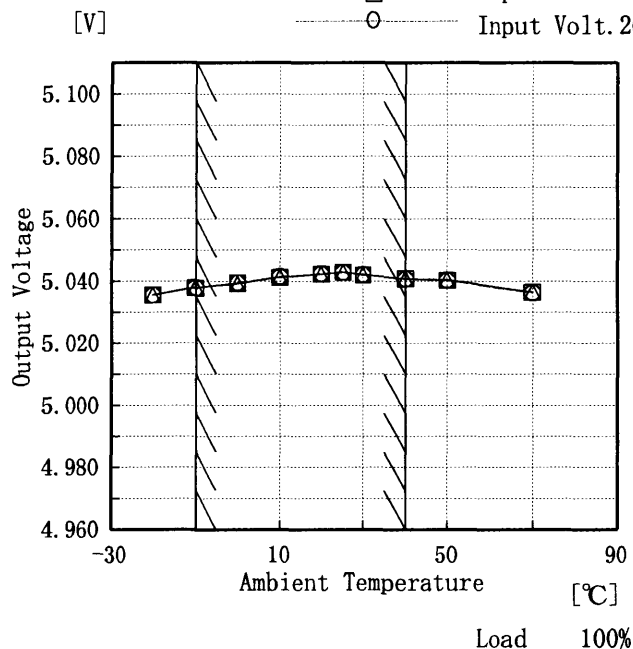
Testing Circuitry Figure A

1. Graph

Input Volt. 170V

 Input Volt. 200V

 Input Volt. 264V



2. Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
-20	5.036	5.036	5.035
-10	5.038	5.038	5.038
0	5.039	5.039	5.039
10	5.041	5.041	5.041
20	5.042	5.042	5.042
25	5.043	5.043	5.043
30	5.042	5.042	5.042
40	5.041	5.041	5.041
50	5.040	5.040	5.040
70	5.036	5.036	5.036
—	—	—	—

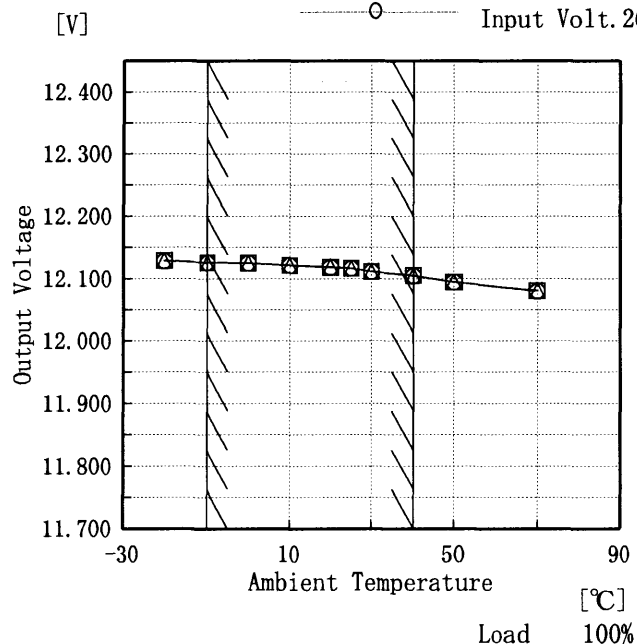
Object	V2: +12.0V10A
--------	---------------

1. Graph

Input Volt. 170V

 Input Volt. 200V

 Input Volt. 264V



2. Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
-20	12.128	12.129	12.128
-10	12.126	12.125	12.125
0	12.125	12.125	12.125
10	12.121	12.121	12.121
20	12.118	12.118	12.118
25	12.117	12.117	12.117
30	12.111	12.111	12.111
40	12.105	12.105	12.104
50	12.094	12.094	12.094
70	12.080	12.080	12.080
—	—	—	—

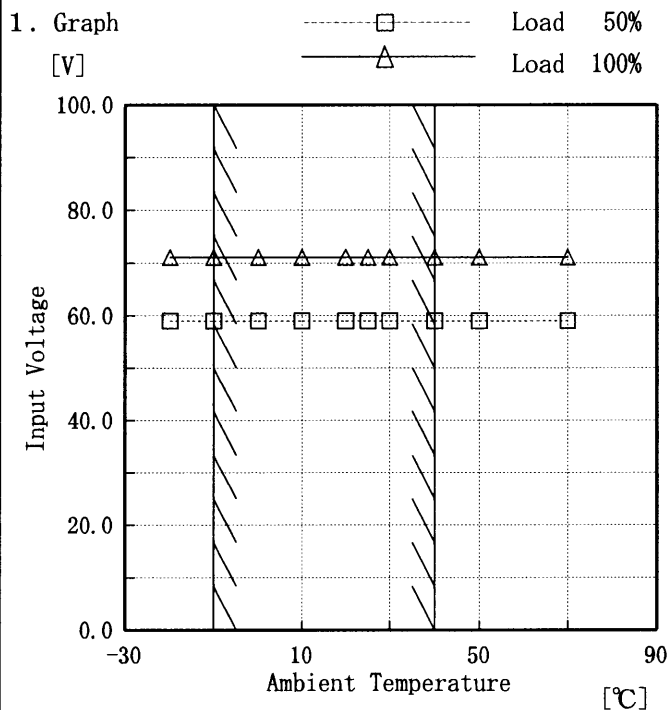
Note: Slanted line shows the range of the rated ambient temperature.

(注)斜線は定格周囲温度範囲を示す。



Model	LEB225F-0512
Item	Minimum Input Voltage for Regulated Output Voltage 最低レギュレーション電圧
Object	V1: +5.0V5A

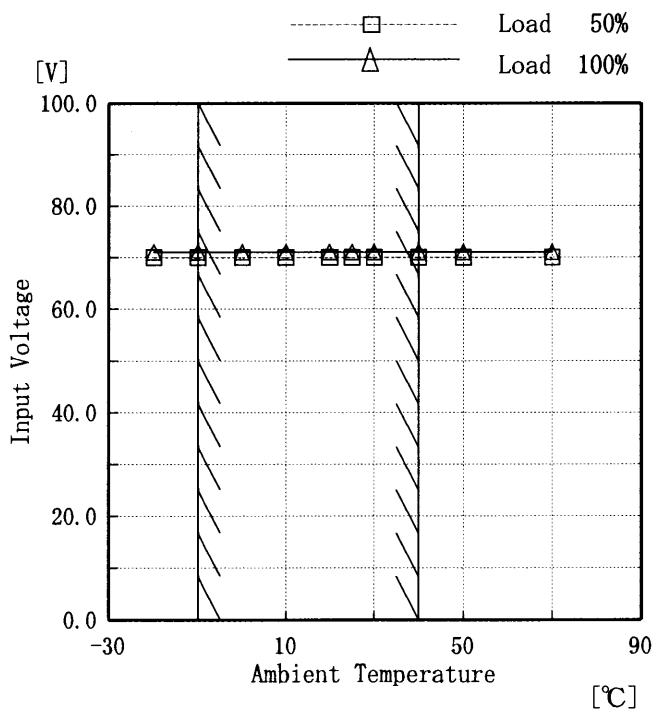
Testing Circuitry Figure A



2. Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-20	59	71
-10	59	71
0	59	71
10	59	71
20	59	71
25	59	71
30	59	71
40	59	71
50	59	71
70	59	71
—	—	—

Object	V2: +12.0V10A
--------	---------------



Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-20	70	71
-10	70	71
0	70	71
10	70	71
20	70	71
25	70	71
30	70	71
40	70	71
50	70	71
70	70	71
—	—	—

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

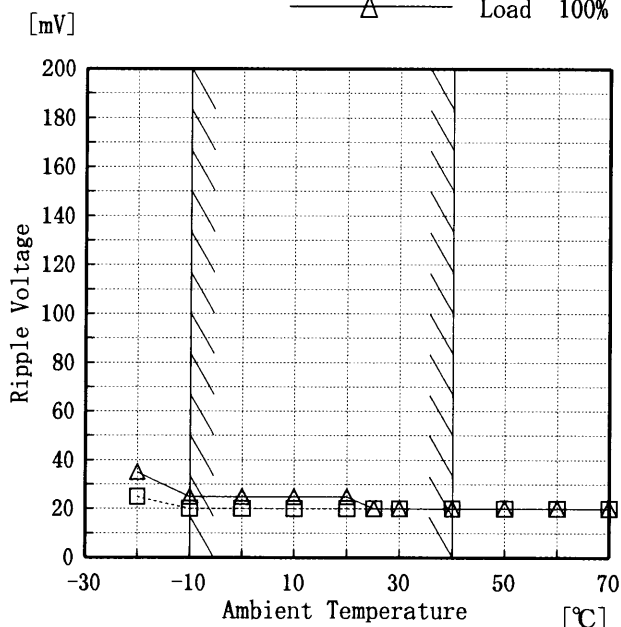
(注)斜線は定格周囲温度範囲を示す。



Model	LEB225F-0512
Item	Ripple Voltage (by Ambient Temp.) リップル電圧 (周囲温度特性)
Object	V1: +5.0V5A

Testing Circuitry Figure A

1. Graph
 -----□----- Load 50%
 -----△----- Load 100%



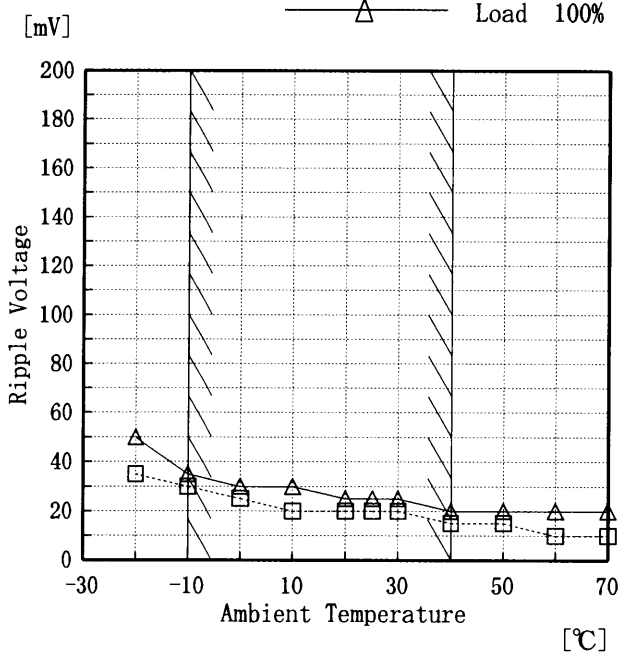
Input Volt. 200 V

2. Values

Ambient Temperature [°C]	Ripple Output Voltage [mV]	
	Load 50%	Load 100%
-20	25	35
-10	20	25
0	20	25
10	20	25
20	20	25
25	20	20
30	20	20
40	20	20
50	20	20
60	20	20
70	20	20

Object	V2: +12.0V10A
--------	---------------

1. Graph
 -----□----- Load 50%
 -----△----- Load 100%



Input Volt. 200 V

2. Values

Ambient Temperature [°C]	Ripple Output Voltage [mV]	
	Load 50%	Load 100%
-20	35	50
-10	30	35
0	25	30
10	20	30
20	20	25
25	20	25
30	20	25
40	15	20
50	15	20
60	10	20
70	10	20

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	LEB225F-0512	Temperature	25°C																						
Item	Time Lapse Drift 経時ドリフト	Testing Circuitry	Figure A																						
Object	V1: +5.0V5A	<p>2. Values</p> <table border="1"> <thead> <tr> <th>Time since start [H]</th> <th>Output Voltage [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>5.037</td></tr> <tr><td>0.5</td><td>5.037</td></tr> <tr><td>1.0</td><td>5.038</td></tr> <tr><td>2.0</td><td>5.038</td></tr> <tr><td>3.0</td><td>5.038</td></tr> <tr><td>4.0</td><td>5.038</td></tr> <tr><td>5.0</td><td>5.038</td></tr> <tr><td>6.0</td><td>5.038</td></tr> <tr><td>7.0</td><td>5.038</td></tr> <tr><td>8.0</td><td>5.038</td></tr> </tbody> </table>		Time since start [H]	Output Voltage [V]	0.0	5.037	0.5	5.037	1.0	5.038	2.0	5.038	3.0	5.038	4.0	5.038	5.0	5.038	6.0	5.038	7.0	5.038	8.0	5.038
Time since start [H]	Output Voltage [V]																								
0.0	5.037																								
0.5	5.037																								
1.0	5.038																								
2.0	5.038																								
3.0	5.038																								
4.0	5.038																								
5.0	5.038																								
6.0	5.038																								
7.0	5.038																								
8.0	5.038																								
<p>1. Graph</p> <p style="text-align: right;">Time [H]</p> <p style="text-align: center;">Input Volt. 200V Load 100%</p>																									
Object	V2: +12.0V10A	<p>2. Values</p> <table border="1"> <thead> <tr> <th>Time since start [H]</th> <th>Output Voltage [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>12.120</td></tr> <tr><td>0.5</td><td>12.105</td></tr> <tr><td>1.0</td><td>12.106</td></tr> <tr><td>2.0</td><td>12.106</td></tr> <tr><td>3.0</td><td>12.106</td></tr> <tr><td>4.0</td><td>12.106</td></tr> <tr><td>5.0</td><td>12.106</td></tr> <tr><td>6.0</td><td>12.106</td></tr> <tr><td>7.0</td><td>12.106</td></tr> <tr><td>8.0</td><td>12.106</td></tr> </tbody> </table>		Time since start [H]	Output Voltage [V]	0.0	12.120	0.5	12.105	1.0	12.106	2.0	12.106	3.0	12.106	4.0	12.106	5.0	12.106	6.0	12.106	7.0	12.106	8.0	12.106
Time since start [H]	Output Voltage [V]																								
0.0	12.120																								
0.5	12.105																								
1.0	12.106																								
2.0	12.106																								
3.0	12.106																								
4.0	12.106																								
5.0	12.106																								
6.0	12.106																								
7.0	12.106																								
8.0	12.106																								
<p>1. Graph</p> <p style="text-align: right;">Time [H]</p> <p style="text-align: center;">Input Volt. 200V Load 100%</p>																									



COSEL		
Model	LEB225F-0512	
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 : -10~40 °C

Input Voltage : 170~264 V

Load Current (V1) : 0~5 A

(V2) : 0~10 A

* Output Voltage Accuracy = $\pm(\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

* 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 -10~40 °C

入力電圧 170~264 V

負荷電流 (V1) 0~5 A

(V2) 0~10 A

* 定電圧精度(変動値) = $\pm(\text{出力電圧の最高値} - \text{出力電圧の最低値}) / 2$

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

2. Values

Object	V1: +5.0V5A
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Item	Temperature [°C]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy (Ration) [%]
Maximum Voltage	25	200	0	5.056	±9	±0.2
Minimum Voltage	-10	170	5	5.039		

Object	V2: +12.0V10A
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Item	Temperature [°C]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy (Ration) [%]
Maximum Voltage	-10	264	0	12.146	±22	±0.2
Minimum Voltage	40	264	10	12.103		

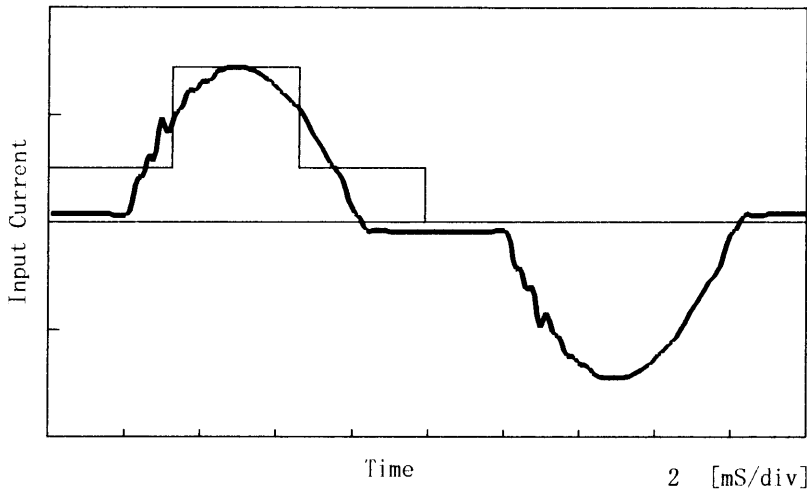


Model		LEB225F-0512	
Item		Harmonic Current 高調波電流	
Object		Temperature 25°C Testing Circuitry Figure E	

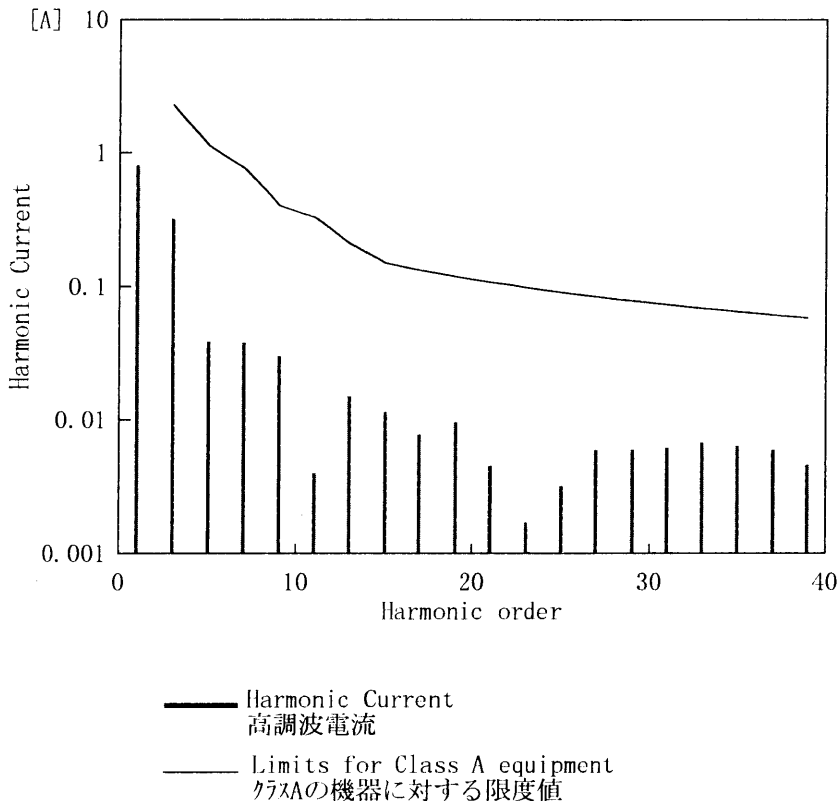
1. Input Current Waveform

— 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

1 A/div



2. Harmonic Current



Conditions	Values
Input Voltage [V]	230.5
Input Current [A]	0.871
Active Power [W]	183.9
Apparent Power [VA]	201
Frequency [Hz]	50
Power Factor	0.915
Output Power [W]	145

Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	0.80620
2	—	0.00050
3	2.29501	0.32280
4	—	0.00010
5	1.13753	0.03870
6	—	0.00000
7	0.76833	0.03800
8	—	0.00010
9	0.39913	0.03020
10	—	0.00010
11	0.32928	0.00400
12	—	0.00010
13	0.20954	0.01500
14	—	0.00010
15	0.14967	0.01140
16	—	0.00000
17	0.13207	0.00780
18	—	0.00010
19	0.11816	0.00960
20	—	0.00010
21	0.10691	0.00450
22	—	0.00010
23	0.09761	0.00170
24	—	0.00000
25	0.08980	0.00320
26	—	0.00010
27	0.08315	0.00590
28	—	0.00010
29	0.07742	0.00600
30	—	0.00010
31	0.07242	0.00620
32	—	0.00000
33	0.06803	0.00670
34	—	0.00000
35	0.06415	0.00640
36	—	0.00010
37	0.06068	0.00590
38	—	0.00010
39	0.05757	0.00460
40	—	0.00000

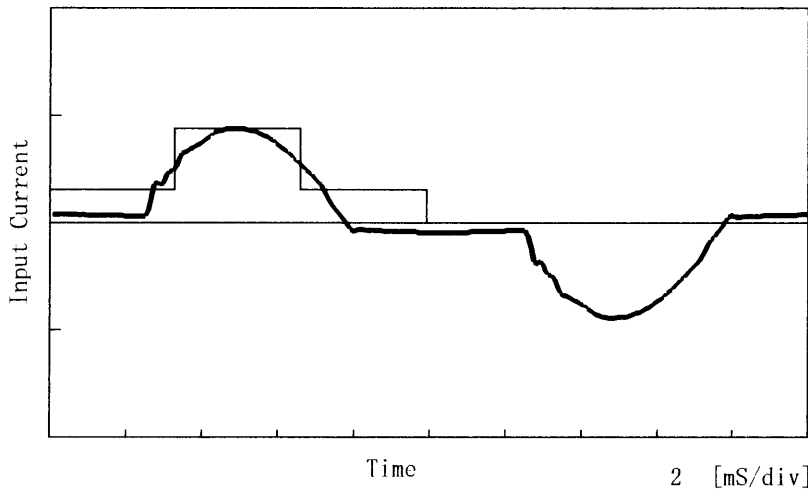


Model		LEB225F-0512	
Item		Harmonic Current	Temperature 25°C
Object		高調波電流	Testing Circuitry Figure E

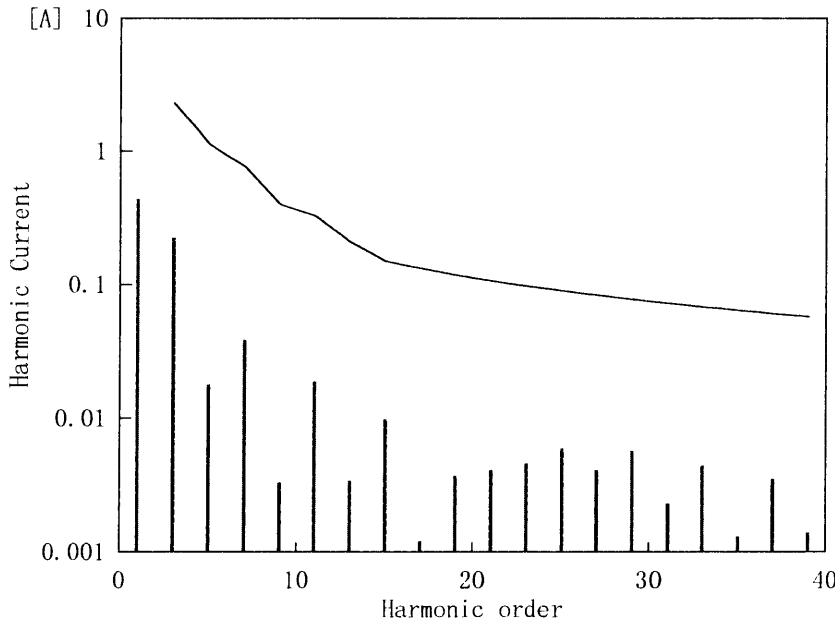
1. Input Current Waveform

— 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

1 A/div



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

Conditions	Values
Input Voltage [V]	230.7
Input Current [A]	0.5
Active Power [W]	100.2
Apparent Power [VA]	115.5
Frequency [Hz]	50
Power Factor	0.868
Output Power [W]	72.5

Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	0.44390
2	—	0.00020
3	2.29302	0.22480
4	—	0.00000
5	1.13654	0.01800
6	—	0.00000
7	0.76766	0.03860
8	—	0.00010
9	0.39879	0.00330
10	—	0.00010
11	0.32900	0.01890
12	—	0.00000
13	0.20936	0.00340
14	—	0.00010
15	0.14954	0.00990
16	—	0.00010
17	0.13195	0.00120
18	—	0.00010
19	0.11806	0.00370
20	—	0.00000
21	0.10682	0.00410
22	—	0.00010
23	0.09753	0.00460
24	—	0.00010
25	0.08973	0.00590
26	—	0.00000
27	0.08308	0.00410
28	—	0.00010
29	0.07735	0.00570
30	—	0.00010
31	0.07236	0.00230
32	—	0.00000
33	0.06797	0.00440
34	—	0.00000
35	0.06409	0.00130
36	—	0.00010
37	0.06063	0.00350
38	—	0.00000
39	0.05752	0.00140
40	—	0.00000

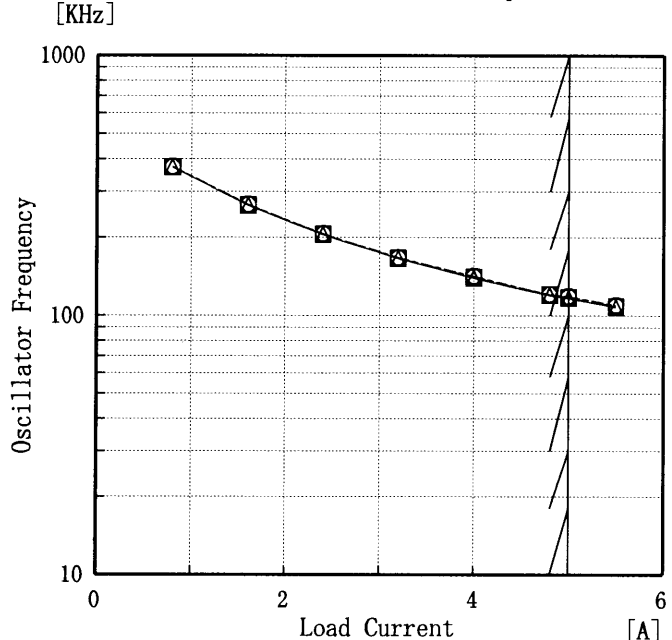


Model	LEB225F-0512	Temperature	25°C
Item	Oscillator Frequency 発振周波数	Testing Circuitry	Figure A

Object V1: +5.0V5A

1. Graph

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



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
—	—	—	—
—	—	—	—
—	—	—	—



COSEL		
Model	LEB225F-0512	Testing Circuitry Figure A
Item	Condensation 結露特性	

1. Condensation test

Testing procedure is as follows.

- ① Keeping and cooling the unit in a tank at -10°C 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°C 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
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Item	Data	Testing Conditions
Output Voltage [V]	5.044	Input Volt.: 200V, Load Current:5A
Line Regulation [mV]	1	Input Volt.: 170~264V, Load Current:5A
Load Regulation [mV]	12	Input Volt.: 200V, Load Current:0~5A

Object	V2: +12.0V10A
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Item	Data	Testing Conditions
Output Voltage [V]	12.166	Input Volt.: 200V, Load Current:10A
Line Regulation [mV]	1	Input Volt.: 170~264V, Load Current:10A
Load Regulation [mV]	15	Input Volt.: 200V, Load Current:0~10A



Model		LEB225F-0512		Temperature	25°C
Item		Leakage Current 漏洩電流			
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	0.31	0.43	0.51

2. Condition

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

交流入力 of 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。



Model		LEB225F-0512		Temperature 25°C Testing Circuitry Figure C
Item		Line Noise Tolerance 入力雑音耐量		
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		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
	POLARITY			
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:+12.0V10A
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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		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
	POLARITY			
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



Model		LEB225F-0512	
Item		Conducted Emission 雑音端子電圧	Temperature 25°C Testing Circuitry Figure D
Object			

1. Graph

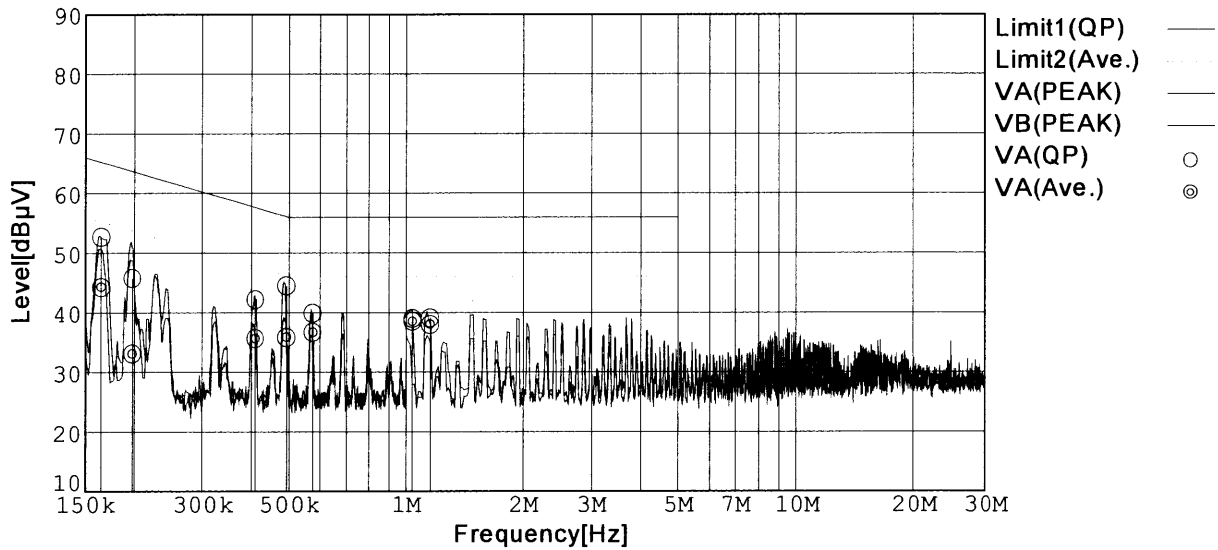
Remarks

Input Volt. 230 V (CISPR Pub22 Class B)

Load 100 %

Limit1: [CISPR Pub22] Class B(QP)

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



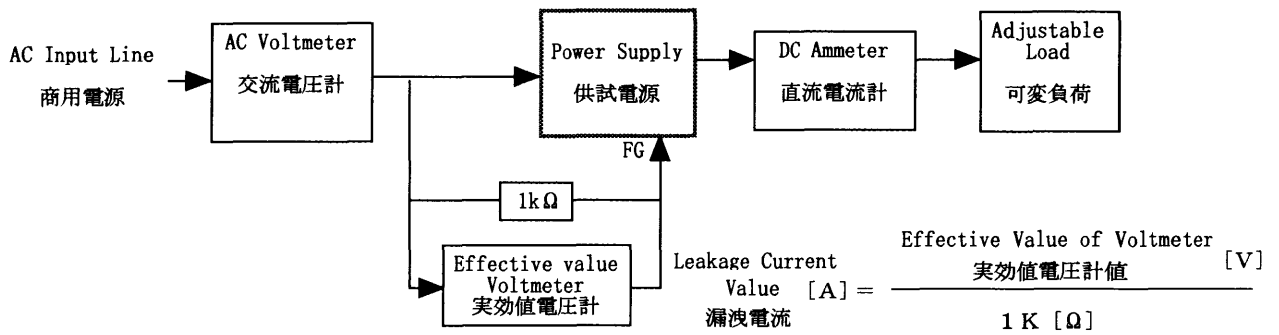
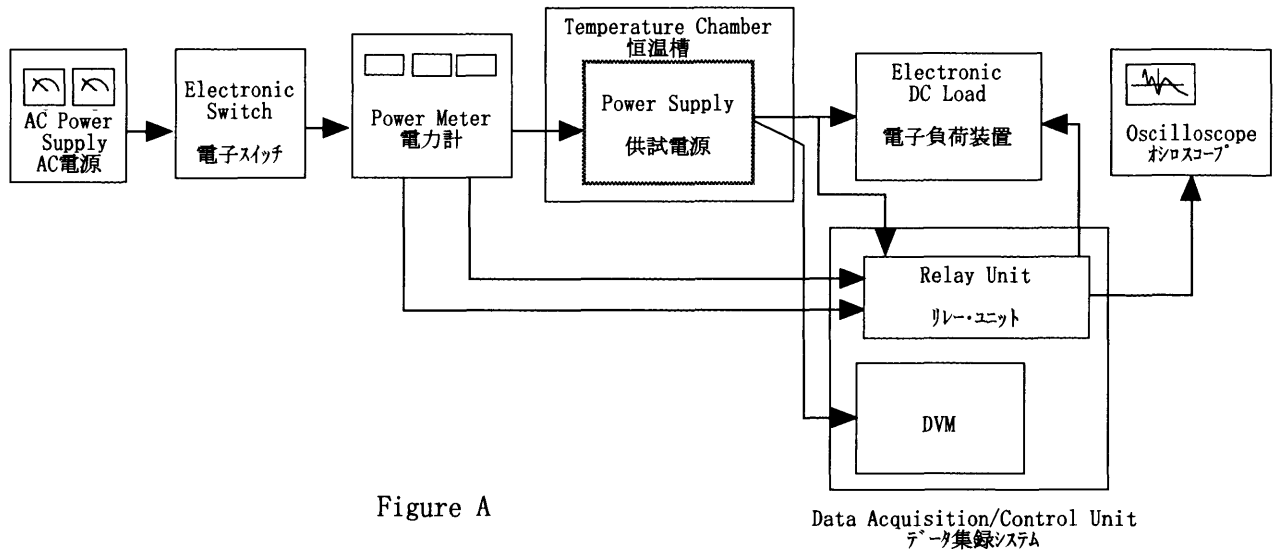


Figure B (DENTORI)

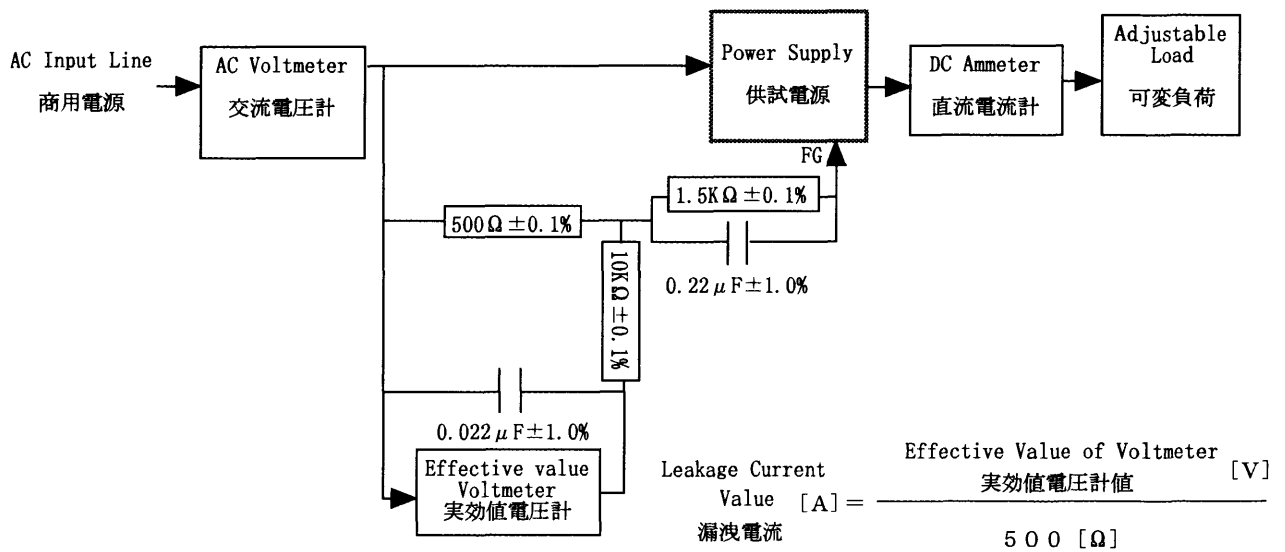


Figure B (IEC 60950)

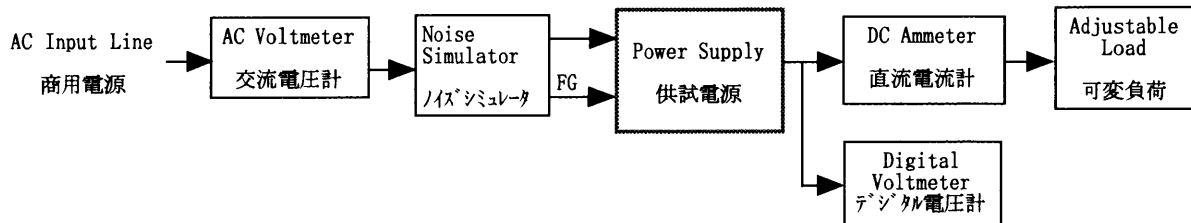


Figure C

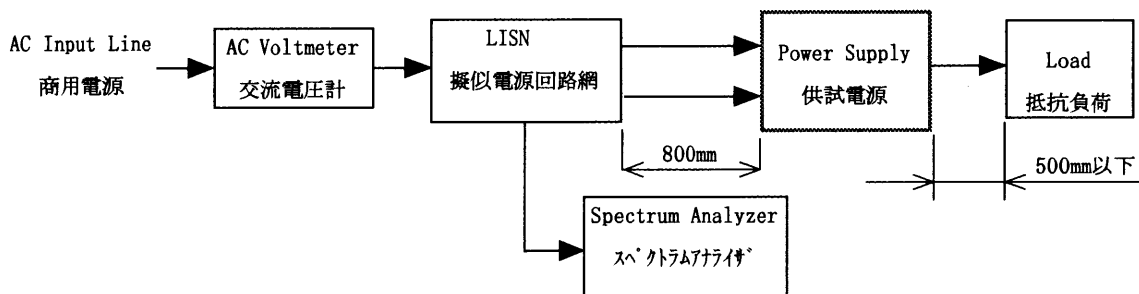


Figure D

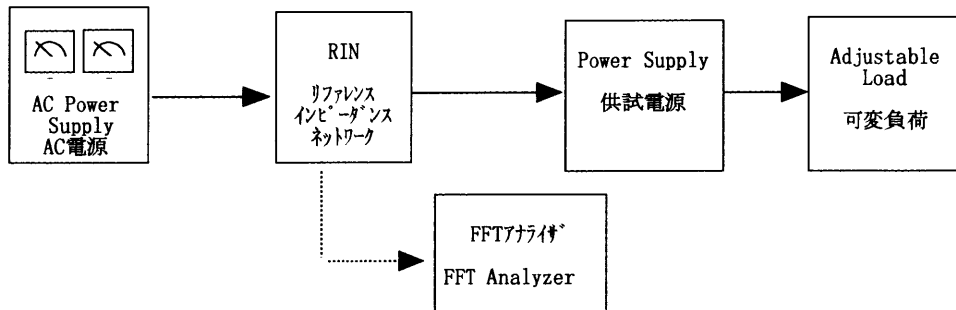


Figure E