参考資料

COSEL

TEST DATA OF MMB75A-1
(100V INPUT)

Regulated DC Power Supply

Date : June 7, 1999

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コーセル株式会社

COSEL CO.,LTD.

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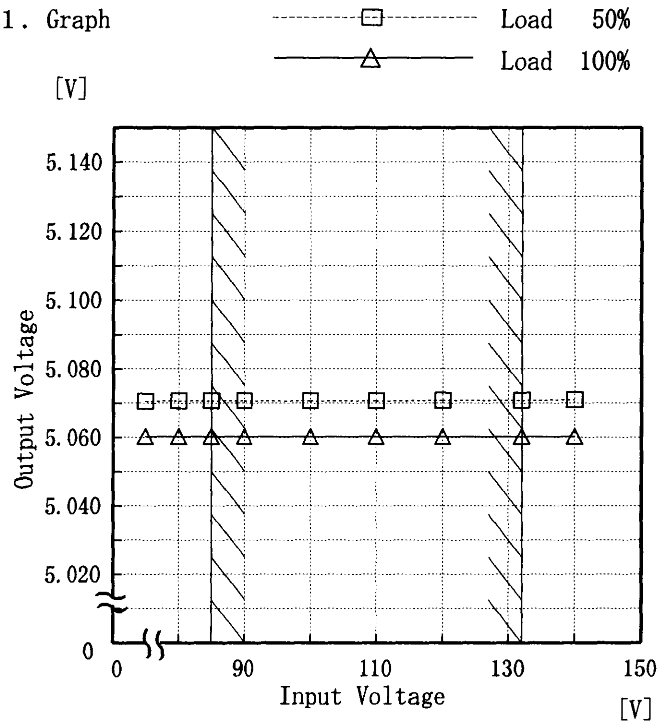
Model	MMB75A-1	Temperature	25℃
Item	Line Regulation 静的入力変動	Testing Circuitry	Figure A
Object	+5.0V5.00A		

1. Graph

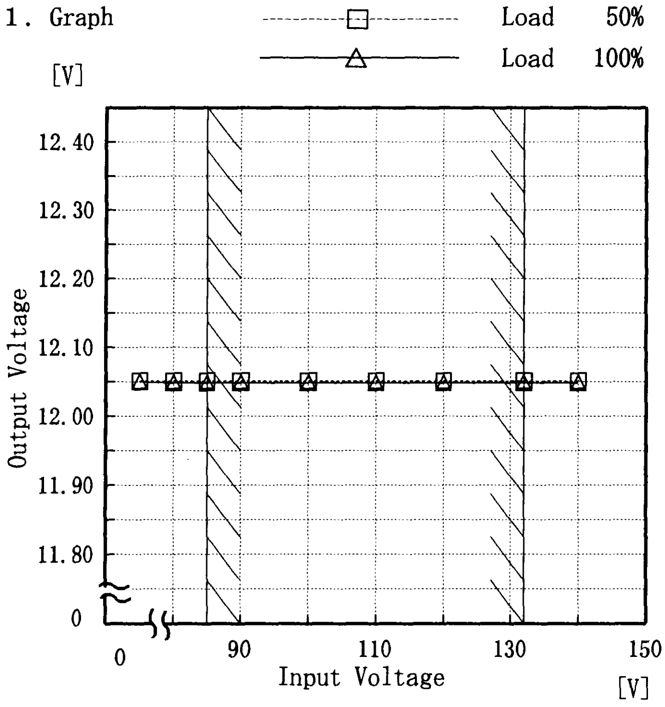


2. Values

Input Voltage [V]	Load 50% Output Volt. [V]	Load 100% Output Volt. [V]
75	5.071	5.060
80	5.071	5.060
85	5.071	5.060
90	5.071	5.060
100	5.071	5.060
110	5.071	5.060
120	5.071	5.060
132	5.071	5.060
140	5.071	5.060
—	—	—
—	—	—
—	—	—

Object	+12.0V4.00A

1. Graph



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

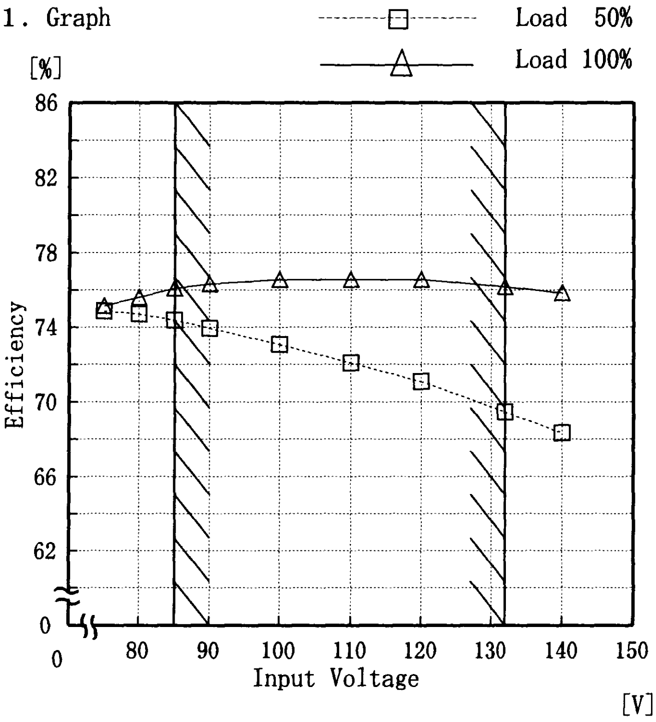
(注)斜線は定格入力電圧範囲を示す。

2. Values

Input Voltage [V]	Load 50% Output Volt. [V]	Load 100% Output Volt. [V]
75	12.052	12.050
80	12.052	12.049
85	12.052	12.049
90	12.052	12.049
100	12.052	12.049
110	12.052	12.049
120	12.052	12.049
132	12.052	12.049
140	12.052	12.049
—	—	—
—	—	—
—	—	—

Model	MMB75A-1	Temperature 25℃
Item	Efficiency 効率	Testing Circuitry Figure A
Object	――――――――――	

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]	Load 50% Efficiency [%]	Load 100% Efficiency [%]
75	74.9	75.1
80	74.7	75.6
85	74.4	76.1
90	73.9	76.3
100	73.1	76.6
110	72.1	76.6
120	71.1	76.6
132	69.5	76.2
140	68.3	75.8

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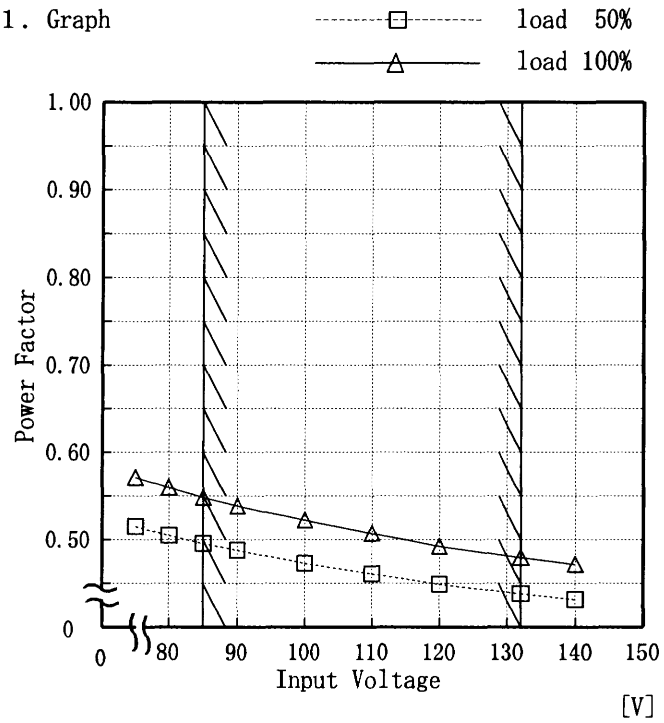
Model	MMB75A-1
Item	Power Factor (by Input Voltage) 力率（入力電圧特性）
Object	———————

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]	load 50% Power Factor	load 100% Power Factor
75	0.52	0.57
80	0.50	0.56
85	0.50	0.55
90	0.49	0.54
100	0.47	0.52
110	0.46	0.51
120	0.45	0.49
132	0.44	0.48
140	0.43	0.47

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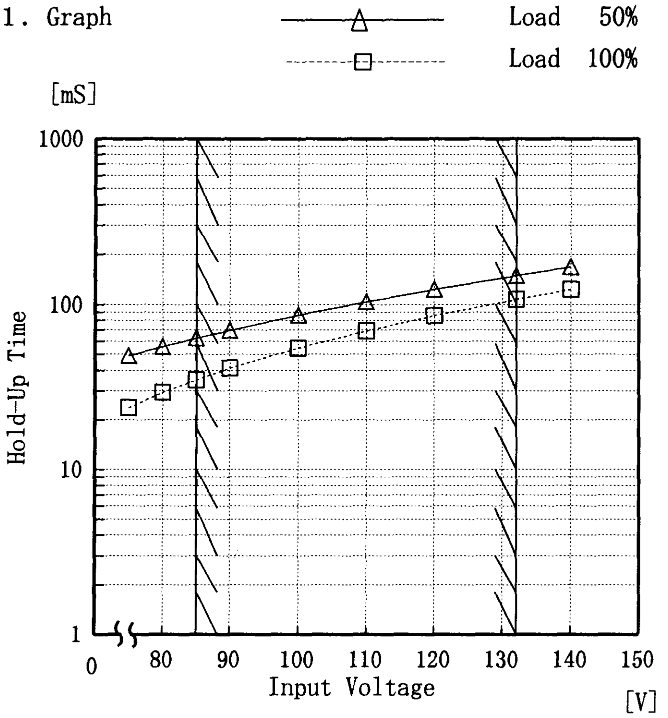
Model	MMB75A-1
Item	Hold-Up Time 出力保持時間
Object	+5.0V5.00A

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。

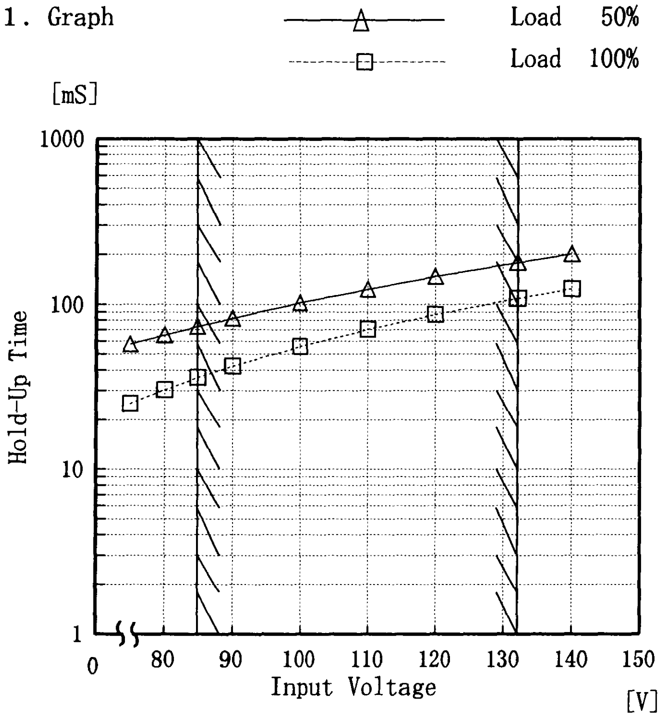
(注)斜線は定格入力電圧範囲を示す。

2. Values

Input Voltage [V]	Load 50% Hold-Up Time [mS]	Load 100% Hold-Up Time [mS]
75	49	24
80	56	29
85	62	35
90	70	41
100	86	54
110	104	69
120	124	86
132	150	107
140	168	123

Model	MMB75A-1		
Item	Hold-Up Time 出力保持時間	Temperature Testing Circuitry	25℃ Figure A
Object	+12.0V4.00A		

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]	Load 50% Hold-Up Time [mS]	Load 100% Hold-Up Time [mS]
75	57	25
80	65	30
85	74	36
90	82	42
100	102	56
110	124	70
120	147	87
132	178	109
140	201	124

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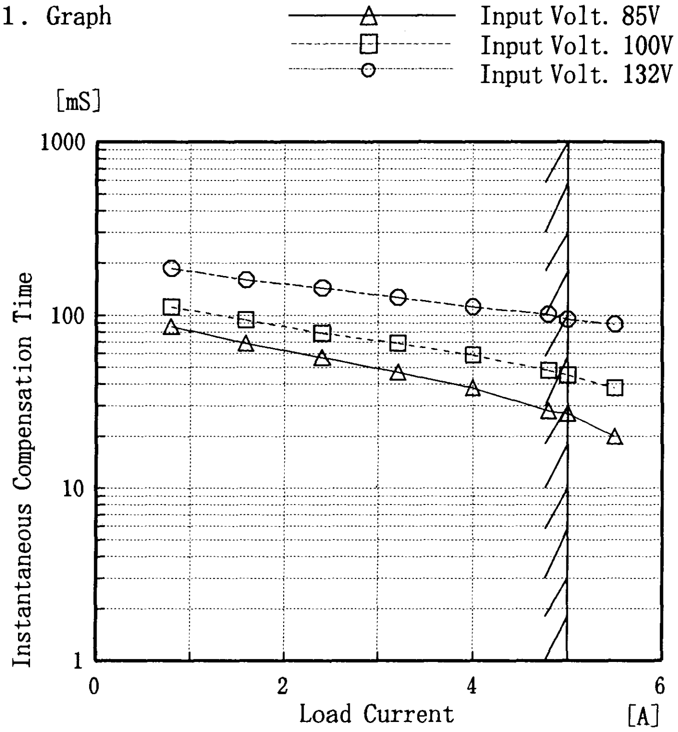
Model	MMB75A-1
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	+5.0V5.00A

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

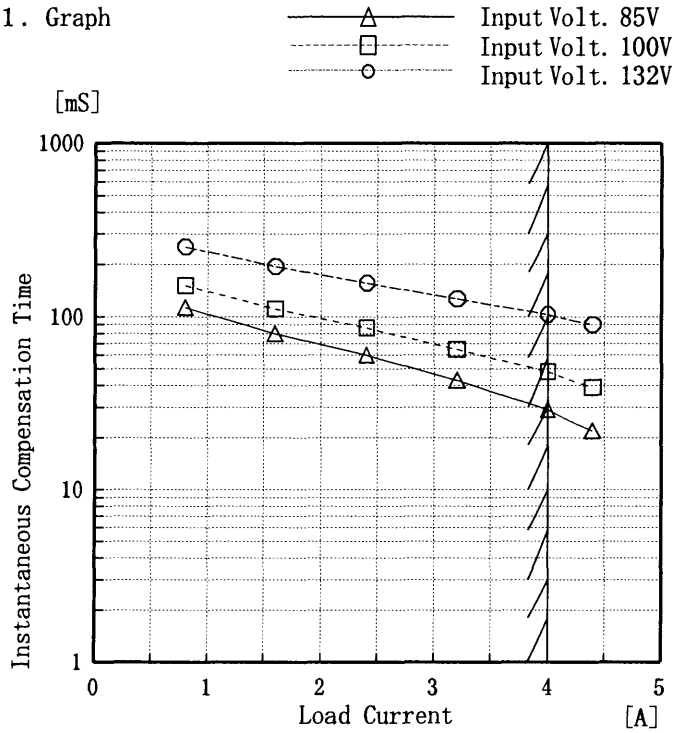
Load Current [A]	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
	Time [mS]		
0.0	—	—	—
0.8	86	112	187
1.6	69	94	161
2.4	57	79	144
3.2	47	69	127
4.0	38	59	112
4.8	28	48	102
5.0	27	45	95
5.5	20	38	89
—	—	—	—
—	—	—	—

COSEL

Model	MMB75A-1
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	+12.0V4.00A

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]	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
	Time [mS]		
0.0	—	—	—
0.8	113	152	254
1.6	80	111	195
2.4	60	86	157
3.2	43	65	127
4.0	29	48	103
4.4	22	39	90
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

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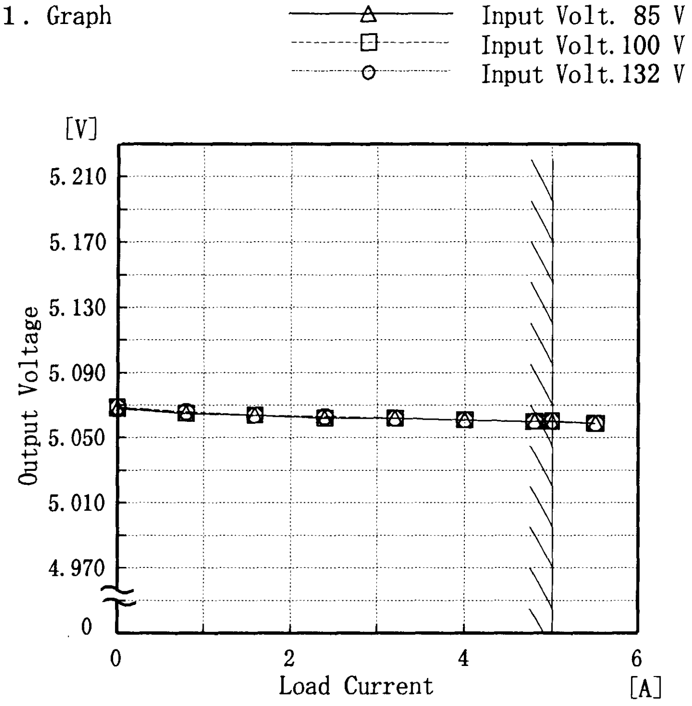
Model	MMB75A-1		
Item	Load Regulation 静的負荷変動	Temperature Testing Circuitry	25℃ Figure A

Object	+5.0V5.00A

1. Graph

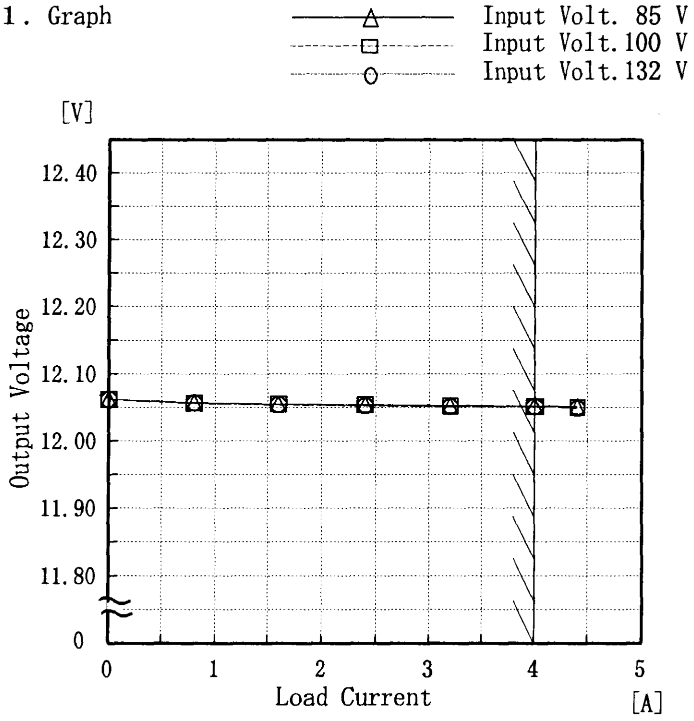


2. Values

Load Current [A]	Input Volt. 85[V] Output Volt. [V]	Input Volt. 100[V] Output Volt. [V]	Input Volt. 132[V] Output Volt. [V]
0.0	5.068	5.069	5.069
0.8	5.065	5.065	5.066
1.6	5.064	5.064	5.064
2.4	5.062	5.062	5.063
3.2	5.062	5.062	5.062
4.0	5.061	5.061	5.061
4.8	5.060	5.060	5.060
5.0	5.060	5.060	5.060
5.5	5.059	5.059	5.059
—	—	—	—

Object	+12.0V4.00A

1. Graph



2. Values

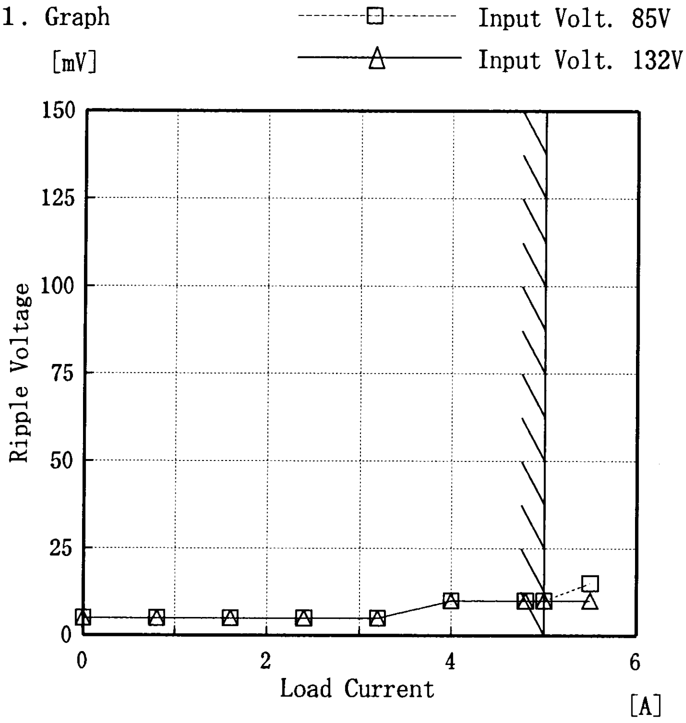
Load Current [A]	Input Volt. 85[V] Output Volt. [V]	Input Volt. 100[V] Output Volt. [V]	Input Volt. 132[V] Output Volt. [V]
0.0	12.062	12.062	12.062
0.8	12.057	12.056	12.056
1.6	12.055	12.055	12.054
2.4	12.054	12.054	12.053
3.2	12.053	12.052	12.051
4.0	12.052	12.051	12.051
4.4	12.051	12.050	12.049
—	—	—	—
—	—	—	—
—	—	—	—

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。

Model	MMB75A-1		
Item	Ripple Voltage(by Load Current) リップル電圧(負荷電流特性)	Temperature Testing Circuitry	25℃ Figure A
Object	+5.0V5.00A		

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

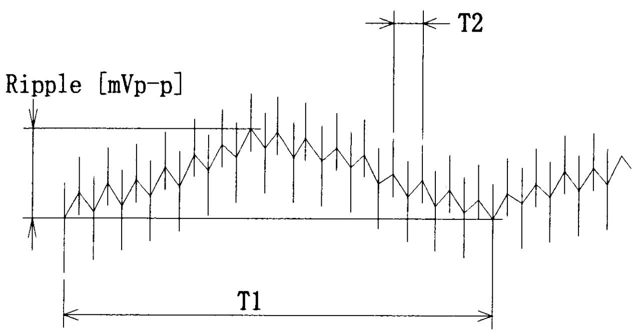


Fig. Complex Ripple Wave Form
図　リップル波形詳細図

2.Values

Load Current [A]	Input Volt. 85 [V]	Input Volt. 132 [V]
	Ripple Output Volt. [mV]	Ripple Output Volt. [mV]
0.0	5	5
0.8	5	5
1.6	5	5
2.4	5	5
3.2	5	5
4.0	10	10
4.8	10	10
5.0	10	10
5.5	15	10
—	—	—
—	—	—

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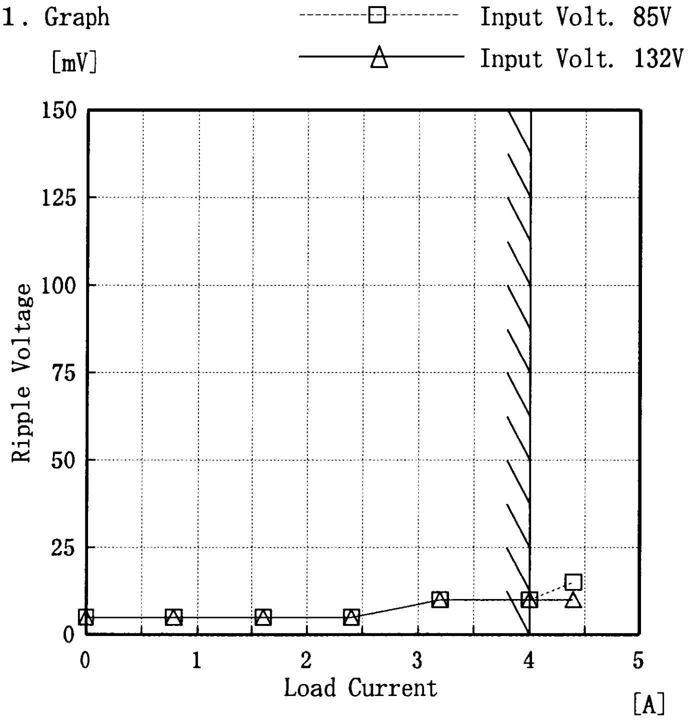
Model	MMB75A-1		
Item	Ripple Voltage(by Load Current) リップル電圧(負荷電流特性)	Temperature Testing Circuitry	25℃ Figure A
Object	+12.0V4.00A		

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

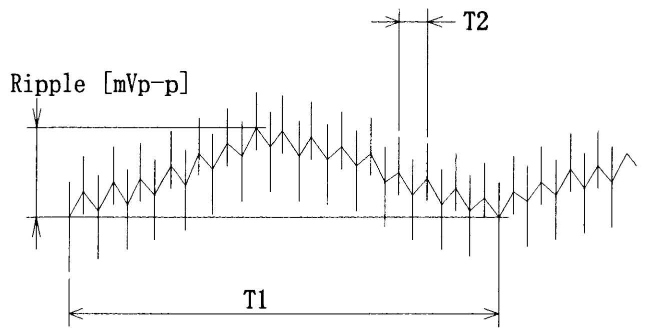


Fig. Complex Ripple Wave Form

図 リップル波形詳細図

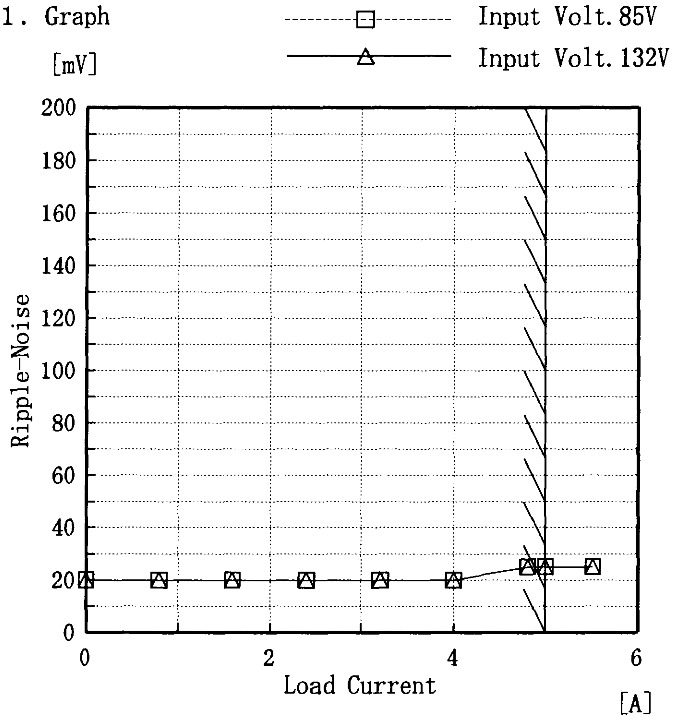
2.Values

Load Current [A]	Input Volt. 85 [V] Ripple Output Volt. [mV]	Input Volt. 132 [V] Ripple Output Volt. [mV]
0.0	5	5
0.8	5	5
1.6	5	5
2.4	5	5
3.2	10	10
4.0	10	10
4.4	15	10
—	—	—
—	—	—
—	—	—
—	—	—

Model	MMB75A-1
Item	Ripple-Noise リップルノイズ
Object	+5.0V5.00A

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

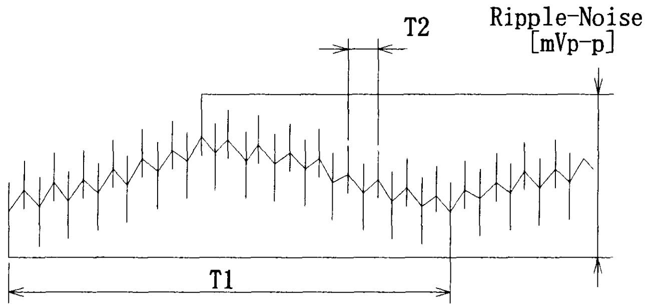


Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

Load current [A]	Input Volt. 85 [V] Ripple-Noise [mV]	Input Volt. 132 [V] Ripple-Noise [mV]
0.0	20	20
0.8	20	20
1.6	20	20
2.4	20	20
3.2	20	20
4.0	20	20
4.8	25	25
5.0	25	25
5.50	25	25
—	—	—
—	—	—

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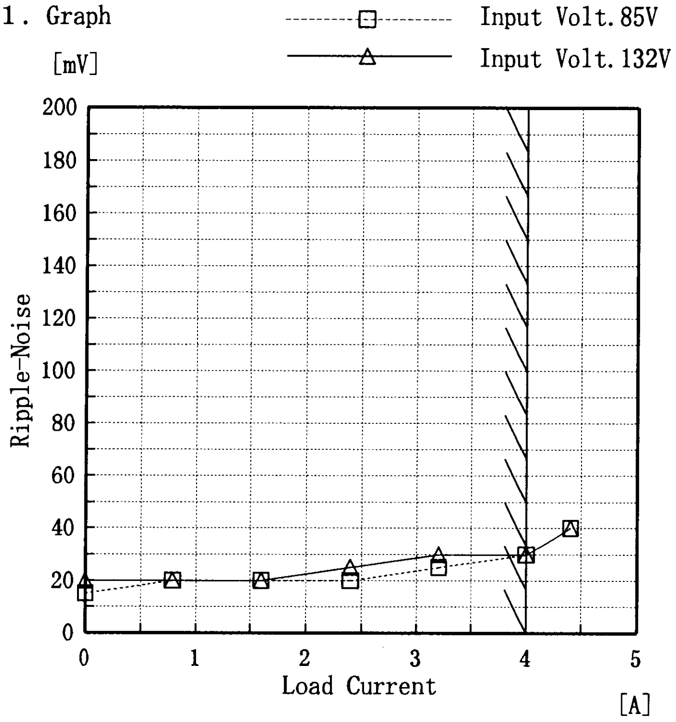
Model	MMB75A-1
Item	Ripple-Noise リップルノイズ
Object	+12.0V4.00A
Temperature	25℃
Testing Circuitry	Figure A

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

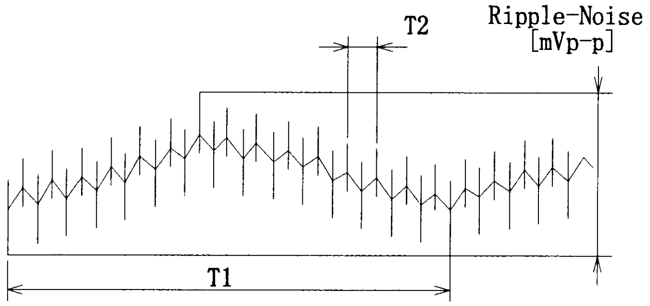


Fig. Complex Ripple Wave Form
図　リップル波形詳細図

2．Values

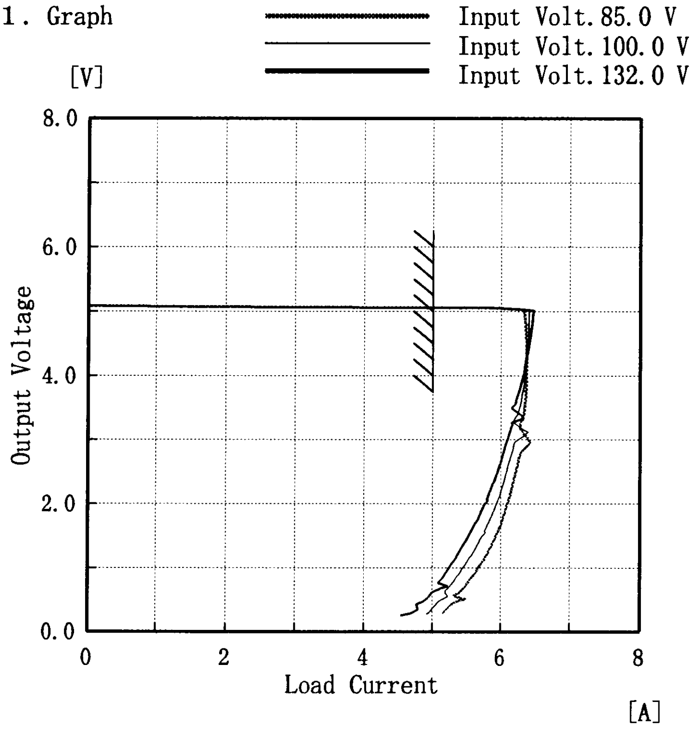
Load current [A]	Input Volt. 85 [V]	Input Volt. 132 [V]
	Ripple-Noise [mV]	Ripple-Noise [mV]
0.0	15	20
0.8	20	20
1.6	20	20
2.4	20	25
3.2	25	30
4.0	30	30
4.4	40	40
—	—	—
—	—	—
—	—	—
—	—	—

COSEL

Model	MMB75A-1	
Item	Overcurrent Protection 過電流保護	Temperature 25℃ Testing Circuitry Figure A

Object	+5.0V5.00A

1. Graph

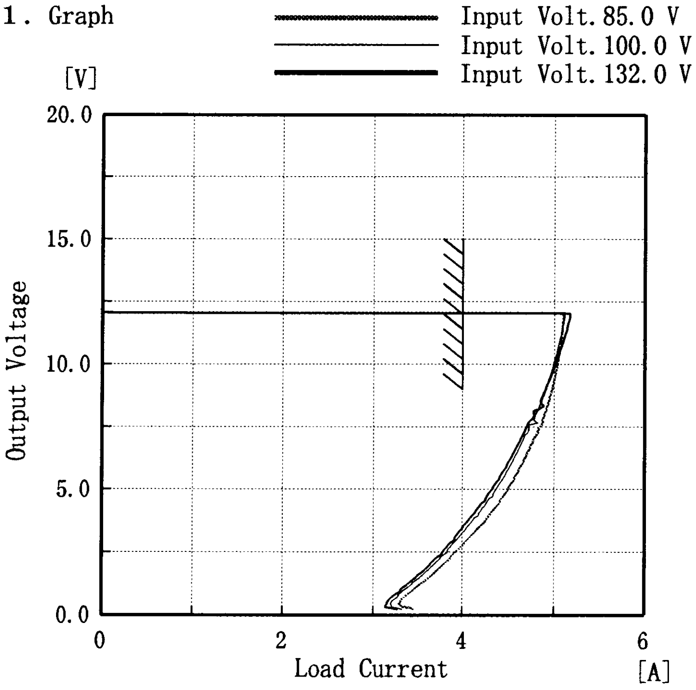


2. Values

Output Voltage [V]	Input Volt. 85.0[V]	Input Volt. 100.0[V]	Input Volt. 132.0[V]
	Load Current [A]	Load Current [A]	Load Current [A]
5.00	6.340	6.399	6.464
4.75	6.351	6.398	6.443
4.50	6.370	6.384	6.399
4.00	6.372	6.347	6.318
3.50	6.346	6.269	6.193
3.00	6.411	6.203	6.078
2.50	6.221	6.075	5.944
2.00	6.090	5.911	5.755
1.50	5.902	5.718	5.523
1.00	5.663	5.434	5.220
0.50	5.380	5.105	4.860
0.00	5.155	4.915	4.550

Object	+12.0V4.00A

1. Graph



2. Values

Output Voltage [V]	Input Volt. 85.0[V]	Input Volt. 100.0[V]	Input Volt. 132.0[V]
	Load Current [A]	Load Current [A]	Load Current [A]
12.00	5.104	5.116	5.181
11.40	5.091	5.090	5.144
10.80	5.073	5.047	5.086
9.60	5.014	4.949	4.967
8.40	4.926	4.839	4.890
7.20	4.808	4.689	4.662
6.00	4.644	4.515	4.476
4.80	4.446	4.323	4.259
3.60	4.197	4.068	4.016
2.40	3.888	3.770	3.744
1.20	3.478	3.398	3.350
0.00	3.512	3.409	3.356

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。

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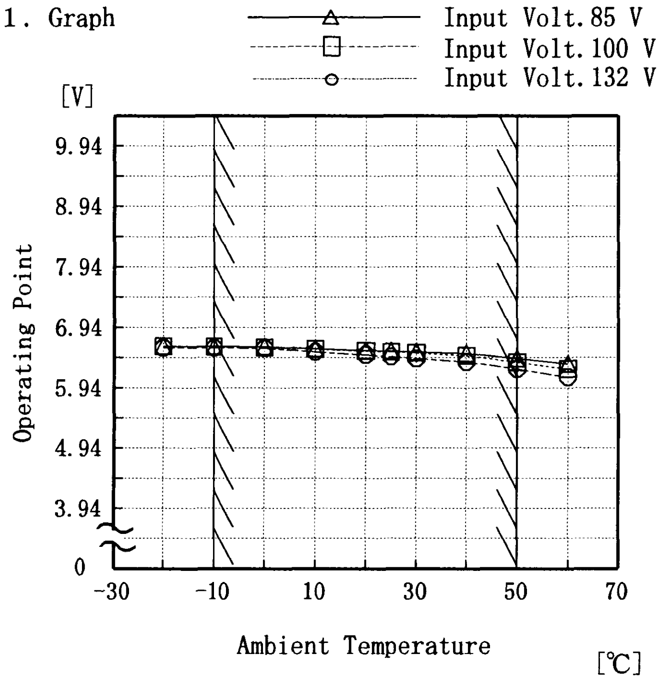
Model	MMB75A-1
Item	Overvoltage Protection 過電圧保護

Testing Circuitry Figure A

Object	+5.0V5.00A

1. Graph

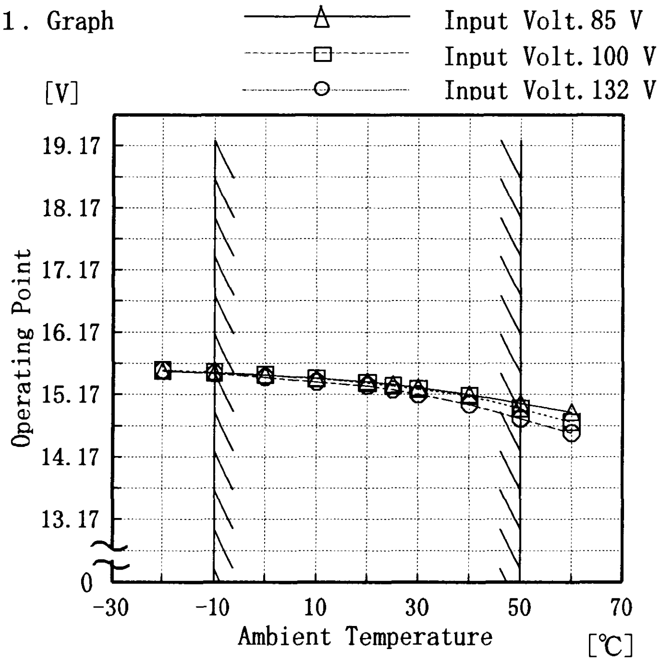


2. Values

Ambient Temp.	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
[℃]	Operating Point [V]		
-20	6.63	6.63	6.61
-10	6.63	6.62	6.61
0	6.62	6.61	6.60
10	6.59	6.58	6.54
20	6.56	6.55	6.49
25	6.55	6.54	6.46
30	6.54	6.52	6.43
40	6.51	6.47	6.37
50	6.43	6.36	6.25
60	6.34	6.25	6.12
−	−	−	−

Object	+12.0V4.00A

1. Graph



2. Values

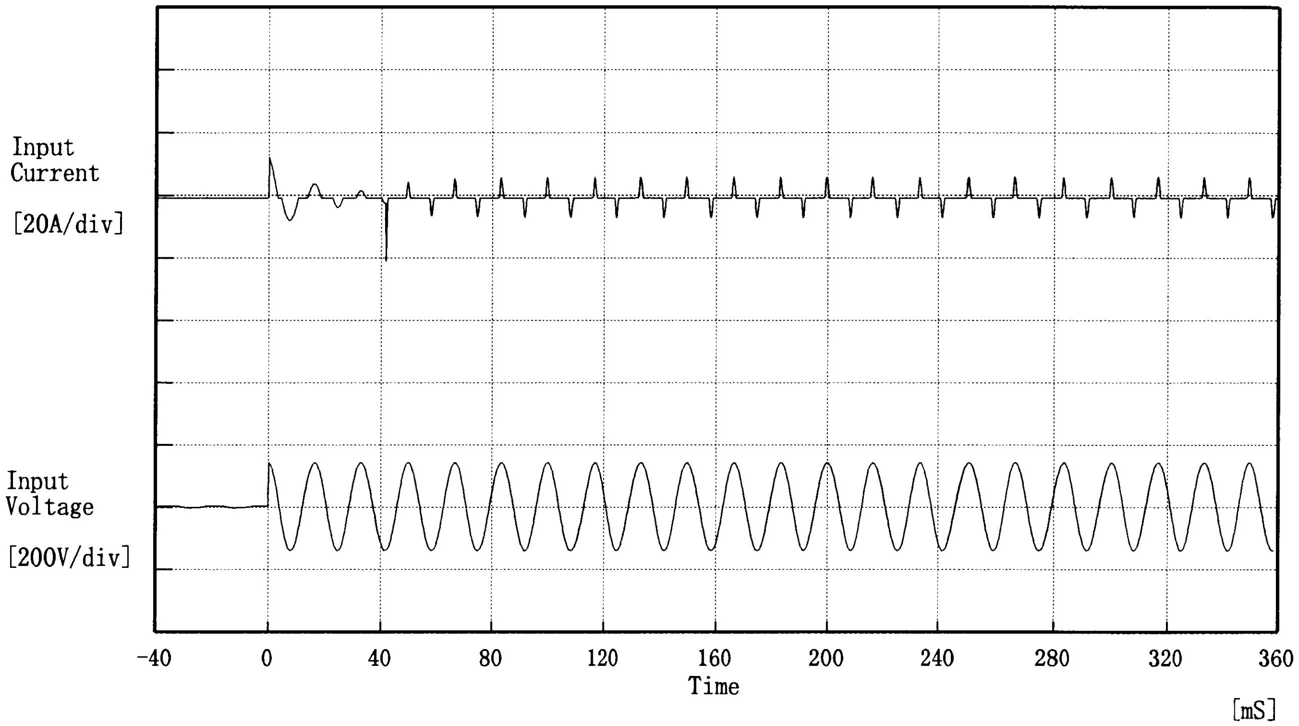
Ambient Temp.	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
[℃]	Operating Point [V]		
-20	15.55	15.56	15.56
-10	15.52	15.53	15.51
0	15.49	15.49	15.45
10	15.43	15.42	15.37
20	15.38	15.36	15.31
25	15.33	15.31	15.25
30	15.28	15.26	15.17
40	15.17	15.15	15.01
50	15.03	14.94	14.78
60	14.89	14.73	14.55
−	−	−	−

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	MMB75A-1
Item	Inrush Current 突入電流
Object	――――――――――

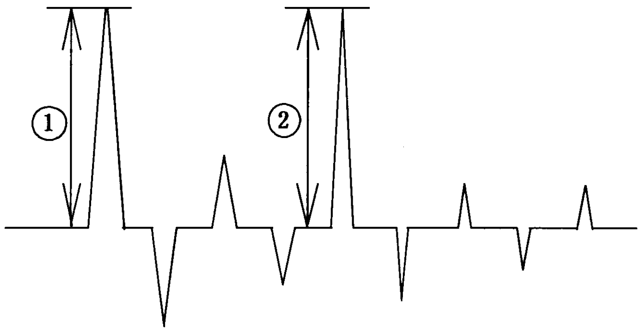
Temperature 25℃
Testing Circuitry Figure A



Input Voltage	100 V
Frequency	60 Hz
Load	100 %

Inrush Current

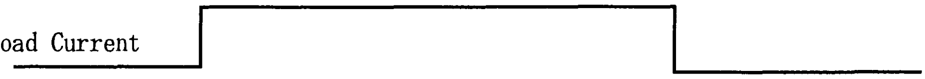
① 12.11 [A]
② 21.09 [A]



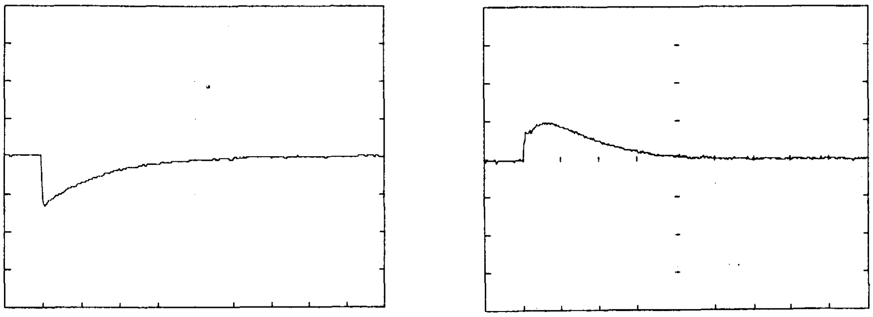
Model	MMB75A-1		
Item	Dynamic Load Responce 動的負荷変動	Temperature Testing Circuitry	25℃ Figure A
Object	＋5.0V5.00A		

Input Volt. 100 V

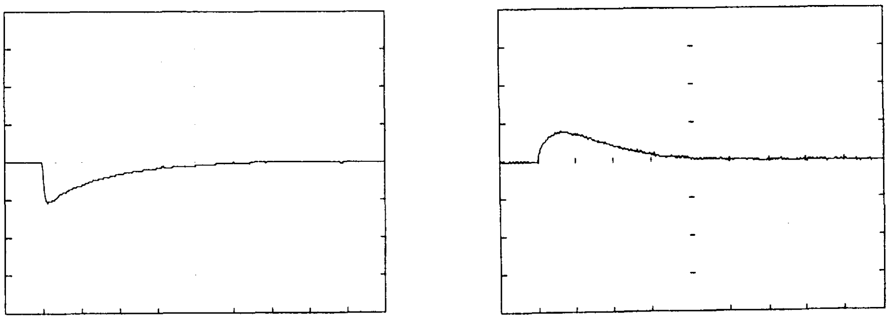
Cycle 200 mS



Load 0% ←→ Load 100 %



Load 0% ←→ Load 50 %



100 mV/div

10 mS/div

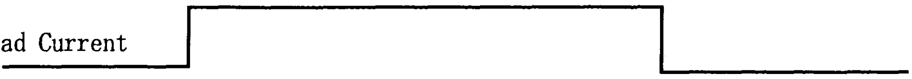
COSEL

Model	MMB75A-1
Item	Dynamic Load Responce 動的負荷変動
Object	＋12.0V4.00A

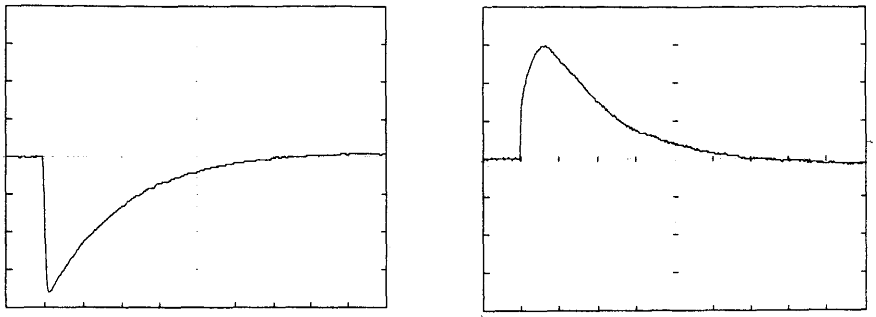
Temperature	25℃
Testing Circuitry	Figure A

Input Volt. 100 V

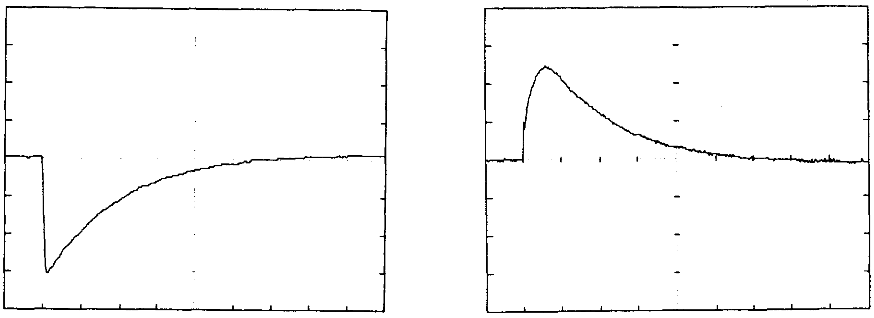
Cycle 200 mS



Load 0% ←→ Load 100 %



Load 0% ←→ Load 50 %



100 mV/div

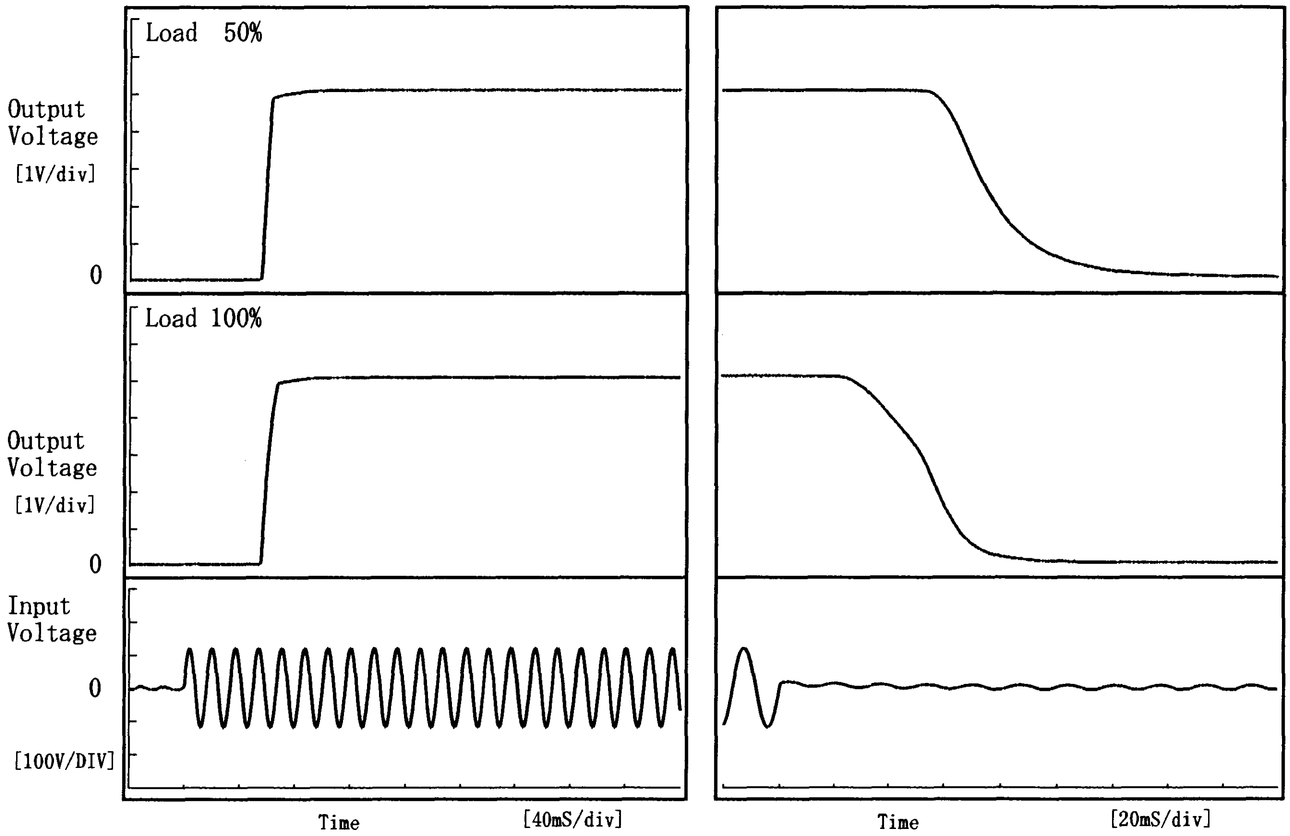
10 mS/div

COSEL

Model	MMB75A-1		
Item	Rise and Fall Time 立上り、立下り時間	Temperature Testing Circuitry	25℃ Figure A
Object	+5.0V5.00A		

1．Graph

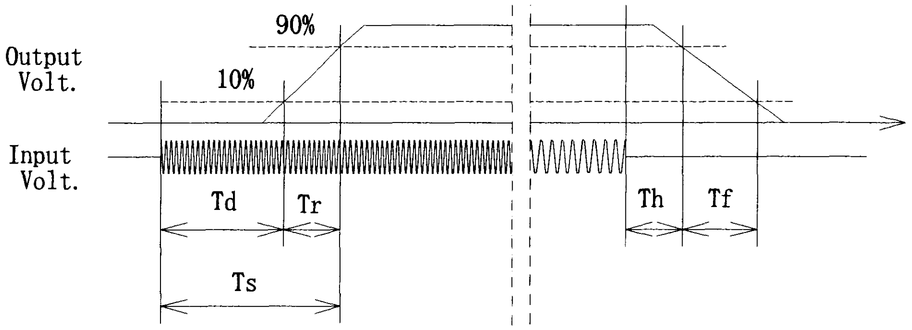
Input Volt. 85 V



2．Values

[mS]

Time / Load	T d	T r	T s	T h	T f
50 %	55.8	6.6	62.4	62.3	42.0
100 %	55.8	9.6	65.4	34.7	36.6

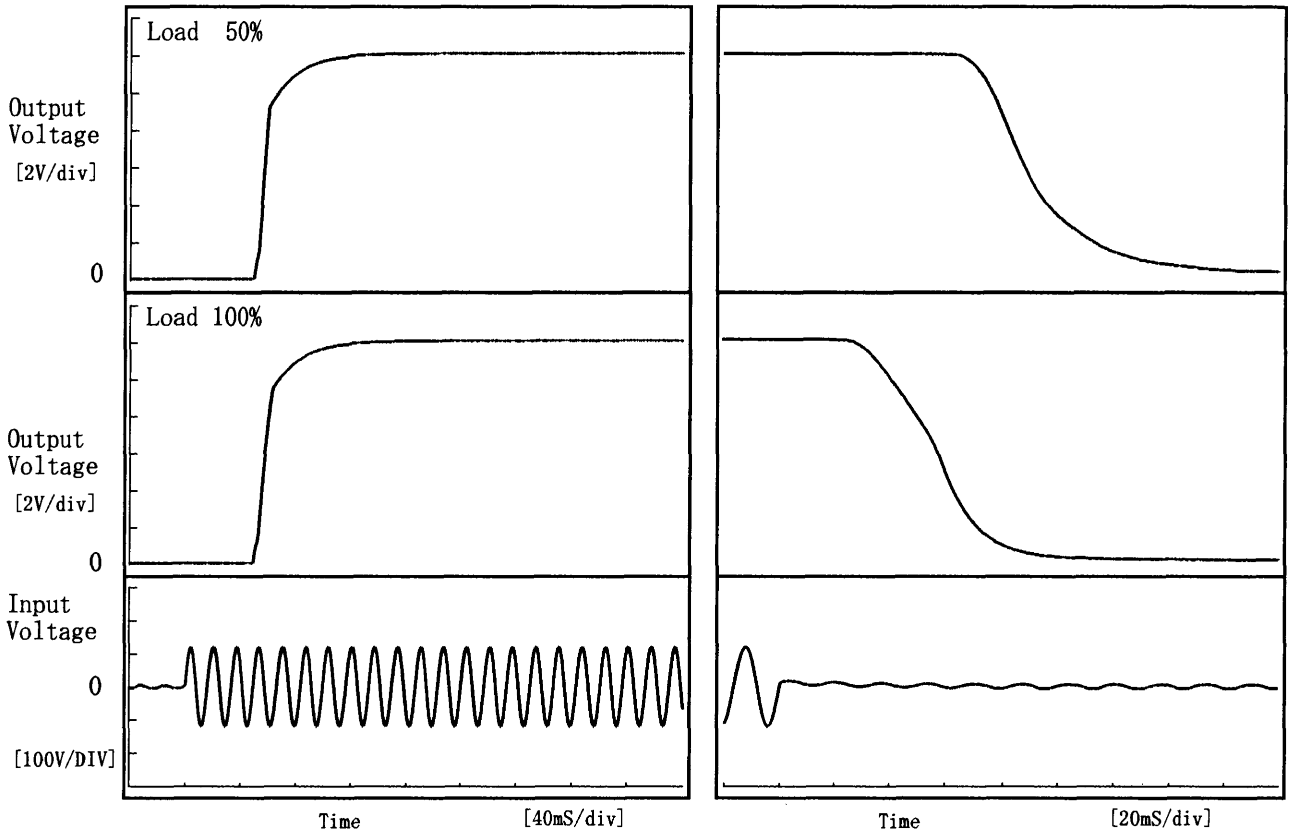

90%
10%
Output Volt.
Input Volt.
Td
Tr
Ts
Th
Tf

COSEL

Model	MMB75A-1		
Item	Rise and Fall Time　立上り、立下り時間	Temperature Testing Circuitry	25℃ Figure A
Object	＋12.0V4.00A		

1．Graph

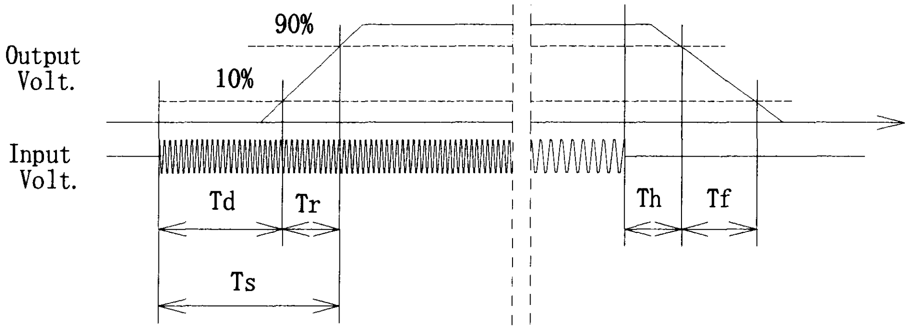
Input Volt. 85 V



2．Values

[mS]

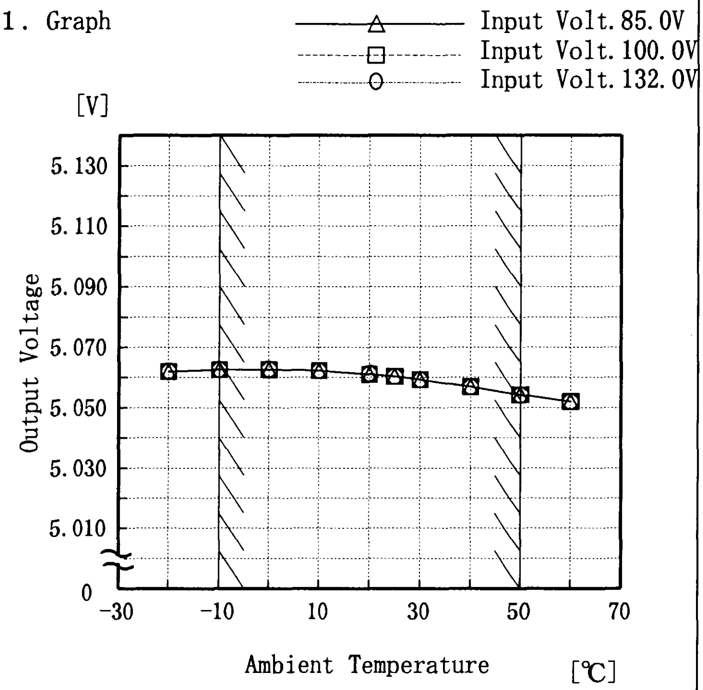
Time / Load	T d	T r	T s	T h	T f
50 %	52.2	24.6	76.8	73.4	52.5
100 %	52.4	25.4	77.8	36.1	41.5


90%
Output
Volt.
10%
Input
Volt.
Td
Tr
Ts
Th
Tf

COSEL

Model	MMB75A-1	
Item	Ambient Temperature Drift 周囲温度変動	Testing Circuitry Figure A
Object	+5.0V5.00A	

1. Graph



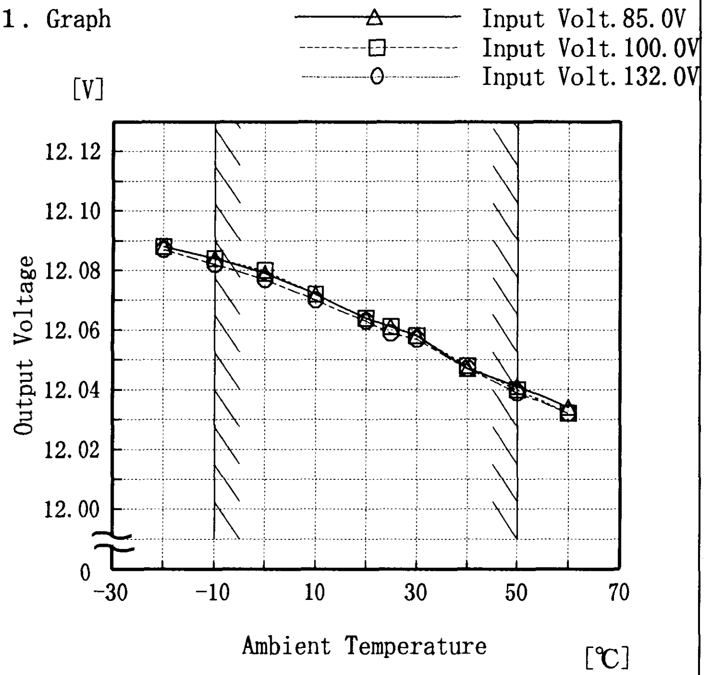
Load 100%

2. Values

Temperature [℃]	Input Volt. 85.0[V] Output Volt. [V]	Input Volt. 100.0[V] Output Volt. [V]	Input Volt. 132.0[V] Output Volt. [V]
-20	5.062	5.062	5.062
-10	5.063	5.063	5.063
0	5.063	5.063	5.063
10	5.062	5.062	5.062
20	5.061	5.061	5.061
25	5.060	5.060	5.060
30	5.059	5.059	5.059
40	5.057	5.057	5.057
50	5.054	5.054	5.054
60	5.052	5.052	5.052
—	—	—	—

Object	+12.0V4.00A

1. Graph



Load 100%

2. Values

Temperature [℃]	Input Volt. 85.0[V] Output Volt. [V]	Input Volt. 100.0[V] Output Volt. [V]	Input Volt. 132.0[V] Output Volt. [V]
-20	12.088	12.088	12.087
-10	12.084	12.084	12.082
0	12.079	12.080	12.077
10	12.072	12.072	12.070
20	12.064	12.064	12.063
25	12.061	12.061	12.059
30	12.058	12.058	12.057
40	12.047	12.048	12.047
50	12.041	12.040	12.039
60	12.034	12.032	12.032
—	—	—	—

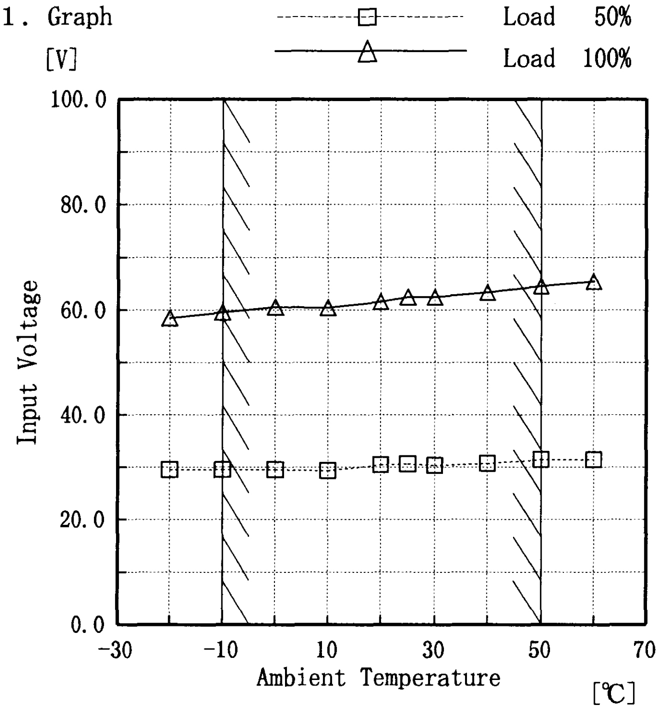
Note: Slanted line shows the range of the rated ambient temperature.

(注)斜線は定格周囲温度範囲を示す。

COSEL

Model	MMB75A-1	
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	+5.0V5.00A	

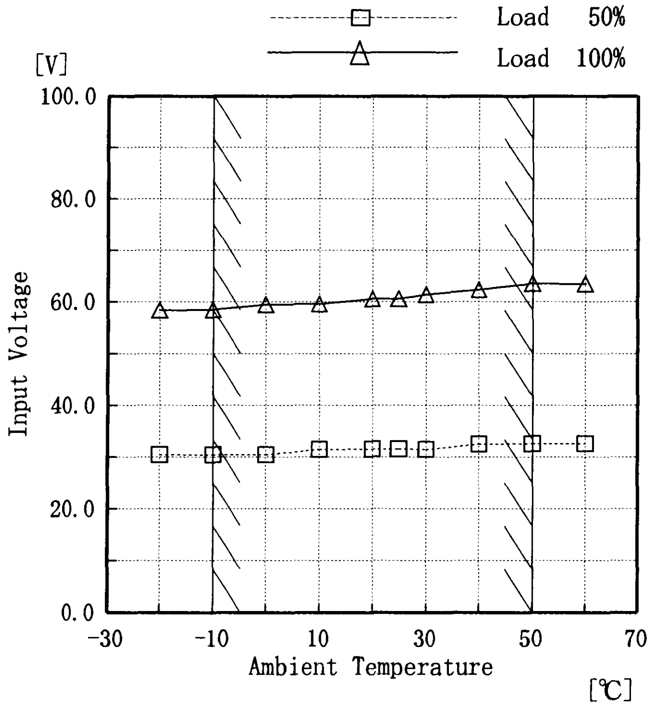
1. Graph



2. Values

Ambient Temp. [℃]	Load 50% Input Volt. [V]	Load 100% Input Volt. [V]
-20	29.6	58.4
-10	29.6	59.5
0	29.6	60.5
10	29.4	60.4
20	30.5	61.5
25	30.6	62.4
30	30.4	62.4
40	30.7	63.3
50	31.5	64.5
60	31.5	65.4
—	—	—

Object	+12.0V4.00A



2. Values

Ambient Temp. [℃]	Load 50% Input Volt. [V]	Load 100% Input Volt. [V]
-20	30.5	58.4
-10	30.5	58.5
0	30.5	59.5
10	31.5	59.6
20	31.6	60.6
25	31.6	60.6
30	31.5	61.4
40	32.5	62.4
50	32.6	63.6
60	32.6	63.5
—	—	—

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

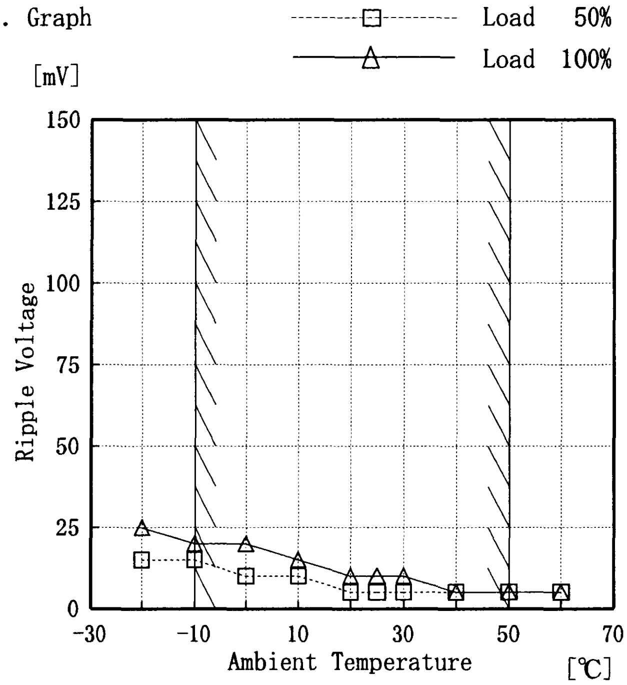
(注)斜線は定格周囲温度範囲を示す。

COSEL

Model	MMB75A-1	
Item	Ripple Voltage (by Ambient Temp.) リップル電圧 (周囲温度特性)	Testing Circuitry Figure A

Object	+5.0V5.00A

1. Graph



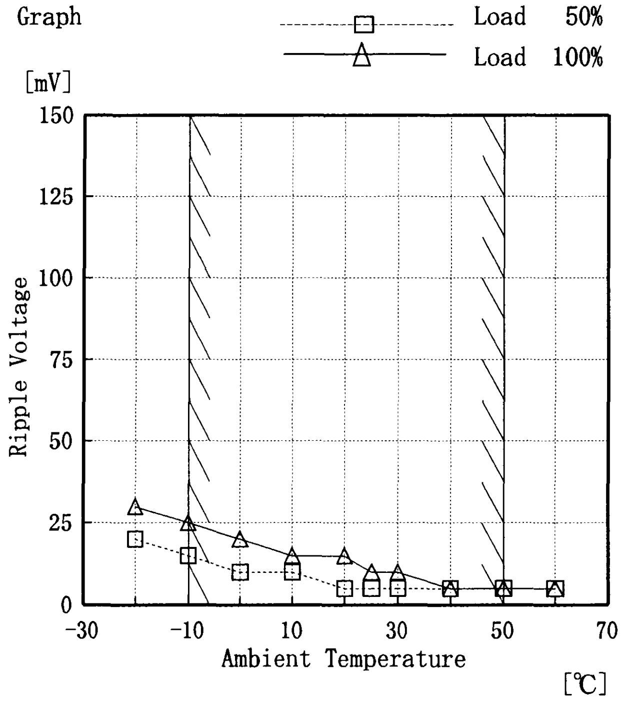
Input Volt. 85 V

2. Values

Ambient Temp. [℃]	Load 50% Ripple Output Volt. [mV]	Load 100% Ripple Output Volt. [mV]
-20	15	25
-10	15	20
0	10	20
10	10	15
20	5	10
25	5	10
30	5	10
40	5	5
50	5	5
60	5	5
—	—	—

Object	+12.0V4.00A

1. Graph



Input Volt. 85 V

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

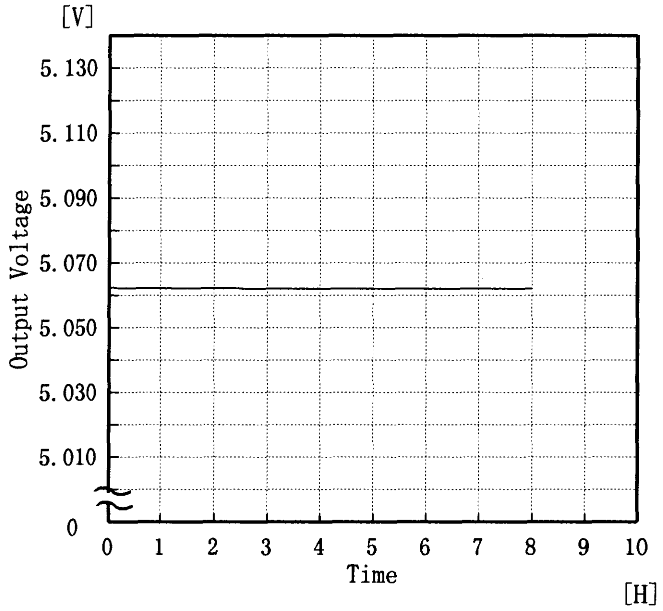
Ambient Temp. [℃]	Load 50% Ripple Output Volt. [mV]	Load 100% Ripple Output Volt. [mV]
-20	20	30
-10	15	25
0	10	20
10	10	15
20	5	15
25	5	10
30	5	10
40	5	5
50	5	5
60	5	5
—	—	—

参考資料

COSEL

Model	MMB75A-1	
Item	Time Lapse Drift　経時ドリフト	Temperature 25 ℃ Testing Circuitry Figure A
Object	+5.0V5.00A	

1．Graph



Input Volt.　　100.0V

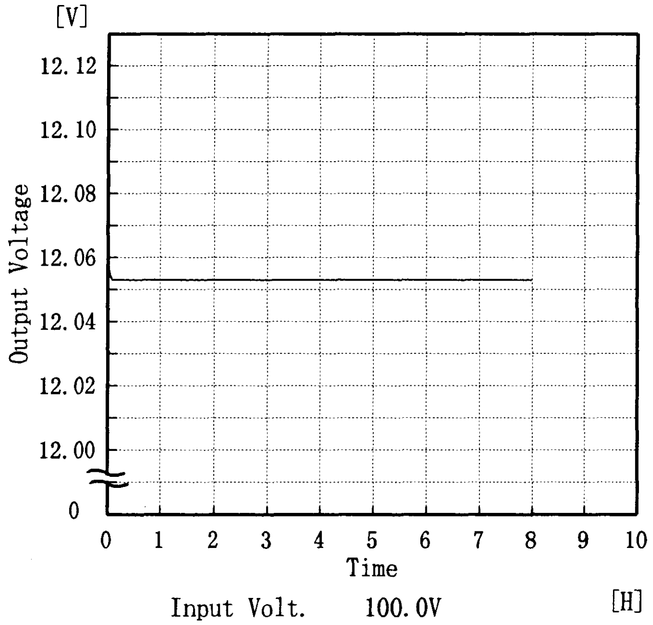
Load　　100%

2.Values

Time since start [H]	Output Voltage [V]
0.0	5.063
0.5	5.062
1.0	5.062
2.0	5.062
3.0	5.062
4.0	5.062
5.0	5.062
6.0	5.062
7.0	5.062
8.0	5.062

Object	+12.0V4.00A

1．Graph



Input Volt.　　100.0V

Load　　100%

2.Values

Time since start [H]	Output Voltage [V]
0.0	12.062
0.5	12.053
1.0	12.053
2.0	12.053
3.0	12.053
4.0	12.053
5.0	12.053
6.0	12.053
7.0	12.053
8.0	12.053

COSEL

Model	MMB75A-1	
Item	Output Voltage Accuracy　定電圧精度	Testing Circuitry　Figure A

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 :　85.0～132.0 V
Load Current (AVR 1) :　0.00～5.00 A
(AVR 2) :　0.00～4.00 A

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

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

定電圧精度

周囲温度、入力電圧、負荷を下記仕様内で、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　85.0～132.0 V
負荷電流 (AVR 1)　0.00～5.00 A
(AVR 2)　0.00～4.00 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

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

Object	+5.0V5.00A

Item	Temperature [℃]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	-10	132.0	0.00	5.086	±16	±0.4
Minimum Voltage	50	100.0	5.00	5.054		

Object	+12.0V4.00A

Item	Temperature [℃]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	-10	100.0	0.00	12.095	±36	±0.4
Minimum Voltage	50	85.0	4.00	12.023		

参考資料

COSEL

Model	MMB75A-1
Item	Condensation 結露特性
Object	+5.0V5.00A

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

Item	Data	Testing Conditions
Output Voltage [V]	5.057	Input Volt.: 100V, Load Current:5A
Line Regulation [mV]	1	Input Volt.: 85～132V, Load Current:5A
Load Regulation [mV]	9	Input Volt.: 100V, Load Current:0～5A

COSEL

Model	MMB75A-1	
Item	Condensation　結露特性	Testing Circuitry　　Figure A
Object	＋12.0V4.00A	

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

Item	Data	Testing Conditions
Output Voltage　[V]	12.046	Input Volt.： 100V, Load Current:4A
Line Regulation [mV]	1	Input Volt.： 85～132V, Load Current:4A
Load Regulation [mV]	11	Input Volt.： 100V, Load Current:0～4A

COSEL

Model	MMB75A-1
Item	Leakage Current 漏洩電流
Object	————

Testing Circuitry Figure A

1．Results

Standards	Leakage Current [mA]		
	Input Volt. 85 [V]	Input Volt. 100 [V]	Input Volt. 132 [V]
(A) DENTORI	0. 17	0. 18	0. 19
(B) UL	0. 14	0. 15	0. 21
(C) CSA	0. 13	0. 15	0. 21

Standards	Leakage Current [mA]		
	Input Volt. 170 [V]	Input Volt. 220 [V]	Input Volt. 264 [V]
(D) VDE	—	—	—

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。

Model	MMB75A-1	
Item	Conducted Emission 雑音端子電圧	Testing Circuitry Figure D
Object	―――――――	

1．Graph

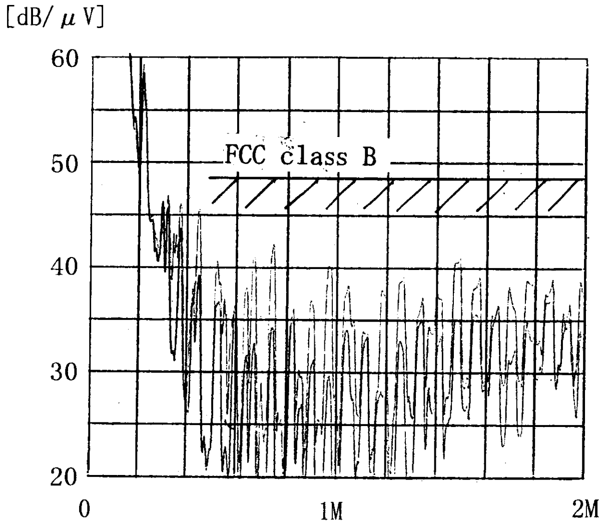
Remarks

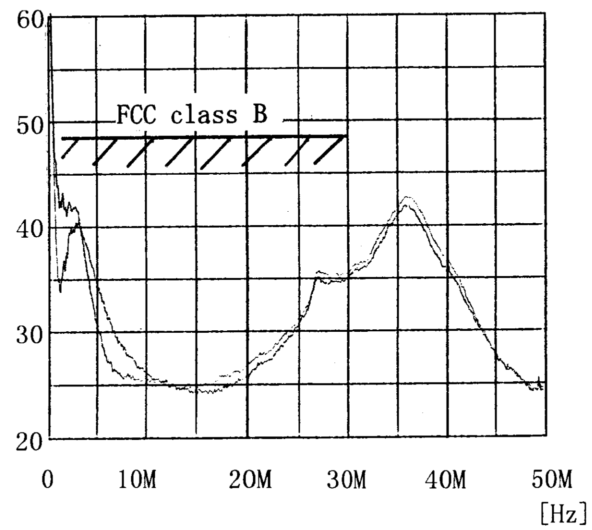
Input Volt. 120 V

Load 100 %

Note: Slanted line shows the range of Tolerance.
(注)斜線は許容値を示す。

NO	Standards	Standards Complied	Frequency [MHz]	Tolerance [dB/μV]
1	FCC class A		0.45～1.6	60
			1.6～30	69.5
2	FCC class B	○	0.45～30	48
3	VCCI class A		0.15～0.5	79
			0.5～30	73
4	VCCI class B		0.15～0.5	66-56
			0.5～5	56
			5～30	60
5	CISPR Pub.22 class A (EN55022)		0.15～0.5	79
			0.5～30	73
6	CISPR Pub.22 class B (EN55022)		0.15～0.5	66-56
			0.5～5	56
			5～30	60





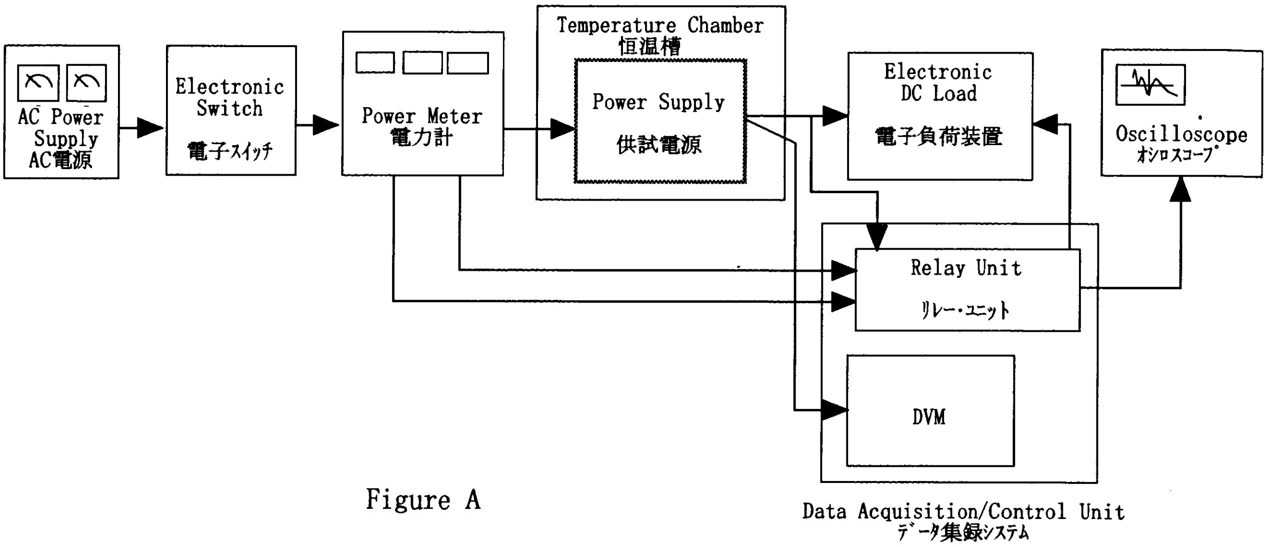
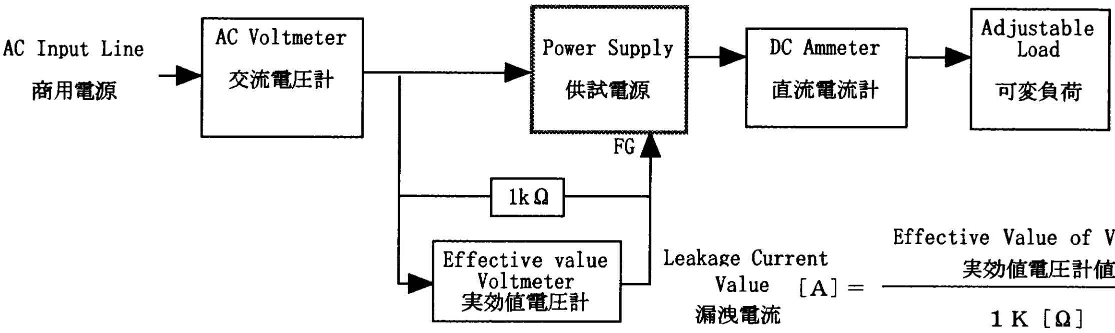
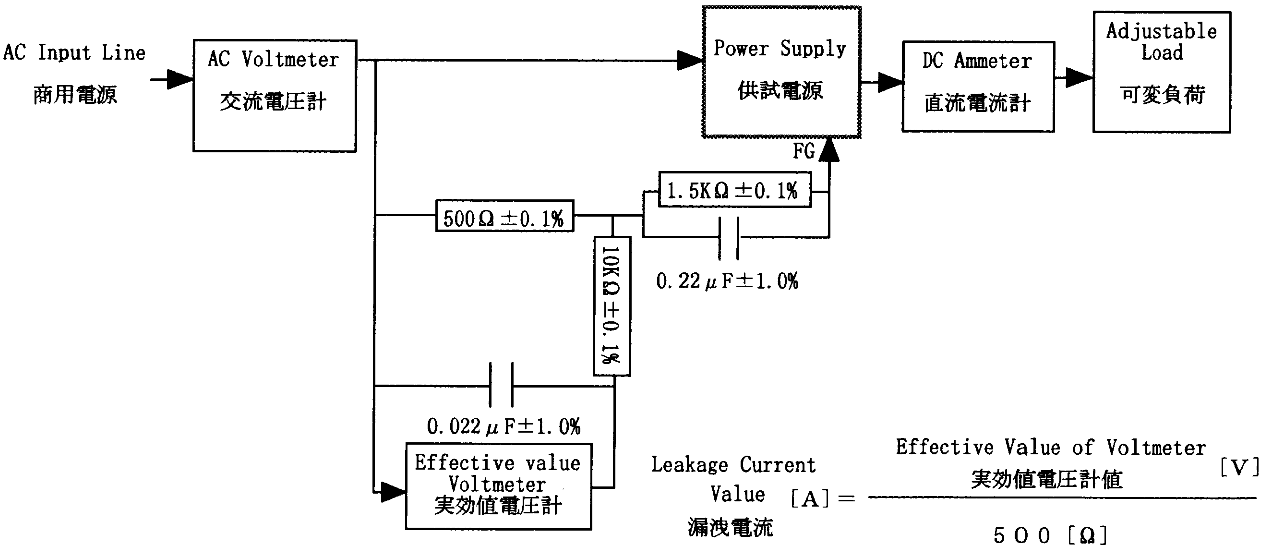

AC Power Supply
AC電源
Electronic Switch
電子スイッチ
Power Meter
電力計
Temperature Chamber
恒温槽
Power Supply
供試電源
Electronic DC Load
電子負荷装置
Oscilloscope
オシロスコープ
Relay Unit
リレー・ユニット
DVM
Data Acquisition/Control Unit
データ集録システム

Figure A


AC Input Line
商用電源
AC Voltmeter
交流電圧計
Power Supply
供試電源
DC Ammeter
直流電流計
Adjustable Load
可変負荷
FG
1kΩ
Effective value Voltmeter
実効値電圧計

$$\text{Leakage Current Value 漏洩電流 [A]} = \frac{\text{Effective Value of Voltmeter 実効値電圧計値 [V]}}{1\,\text{K}\,[\Omega]}$$

Figure B(DENTORI)


AC Input Line
商用電源
AC Voltmeter
交流電圧計
Power Supply
供試電源
DC Ammeter
直流電流計
Adjustable Load
可変負荷
FG
1.5KΩ ±0.1%
500Ω ±0.1%
0.22μF±1.0%
10KΩ ±0.1%
0.022μF±1.0%
Effective value Voltmeter
実効値電圧計

$$\text{Leakage Current Value 漏洩電流 [A]} = \frac{\text{Effective Value of Voltmeter 実効値電圧計値 [V]}}{500\,[\Omega]}$$

Figure B (UL, CSA, VDE)

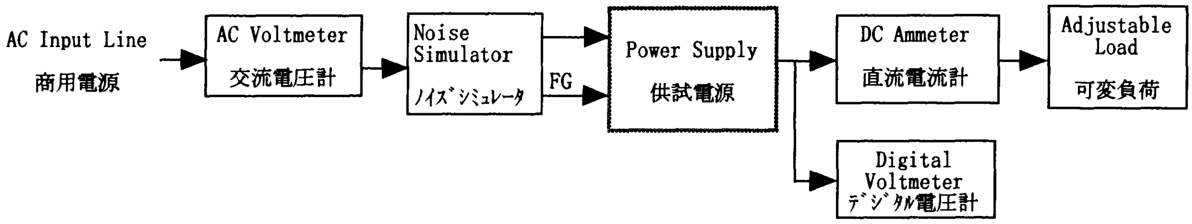

AC Input Line
商用電源
AC Voltmeter
交流電圧計
Noise Simulator
ﾉｲｽﾞｼﾐｭﾚｰﾀ
FG
Power Supply
供試電源
DC Ammeter
直流電流計
Adjustable Load
可変負荷
Digital Voltmeter
ﾃﾞｼﾞﾀﾙ電圧計

Figure C

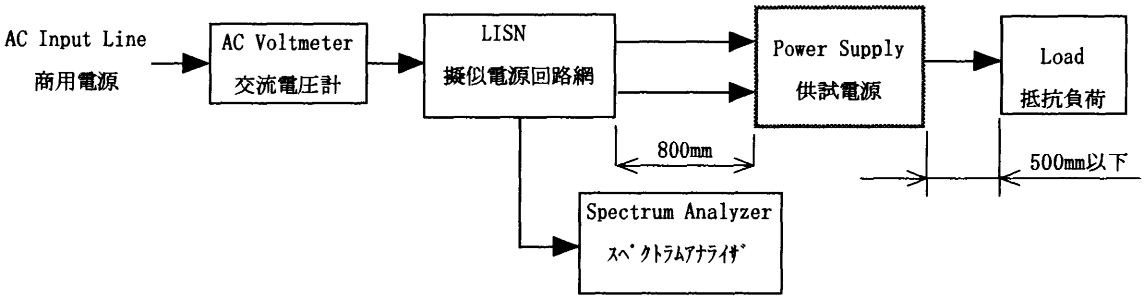

AC Input Line
商用電源
AC Voltmeter
交流電圧計
LISN
擬似電源回路網
Power Supply
供試電源
Load
抵抗負荷
800mm
500mm以下
Spectrum Analyzer
ｽﾍﾟｸﾄﾗﾑｱﾅﾗｲｻﾞ

Figure D

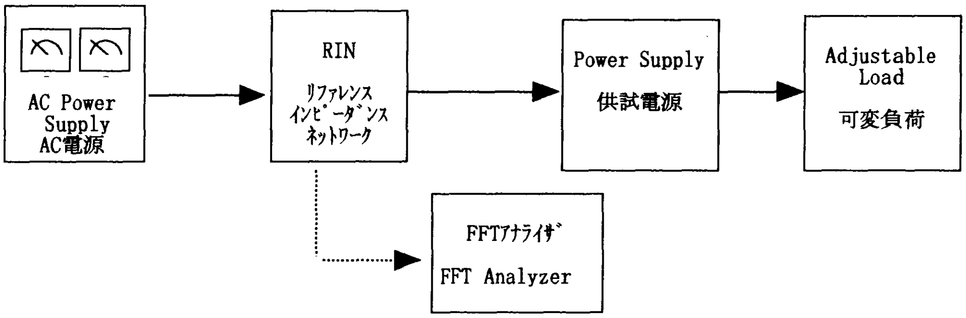

AC Power Supply
AC電源
RIN
ﾘﾌｧﾚﾝｽ
ｲﾝﾋﾟｰﾀﾞﾝｽ
ﾈｯﾄﾜｰｸ
Power Supply
供試電源
Adjustable Load
可変負荷
FFTｱﾅﾗｲｻﾞ
FFT Analyzer

Figure E