参考資料

COSEL

TEST DATA OF MAX1600F

M1F-EDCB-00

(100V INPUT)

Modular power supply

Oct.7, 2000

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Hajime Goto Design Manager

Prepared by : Yuichi Takahashi
Yuichi Takahashi Design Engineer

INPUT : AC 90～132 V

OUTPUT :	V1:	3.3 V	80 A
	V2:	5.0 V	80 A
	V3:	7.5 V	54 A
	V4:	12.0 V	34 A

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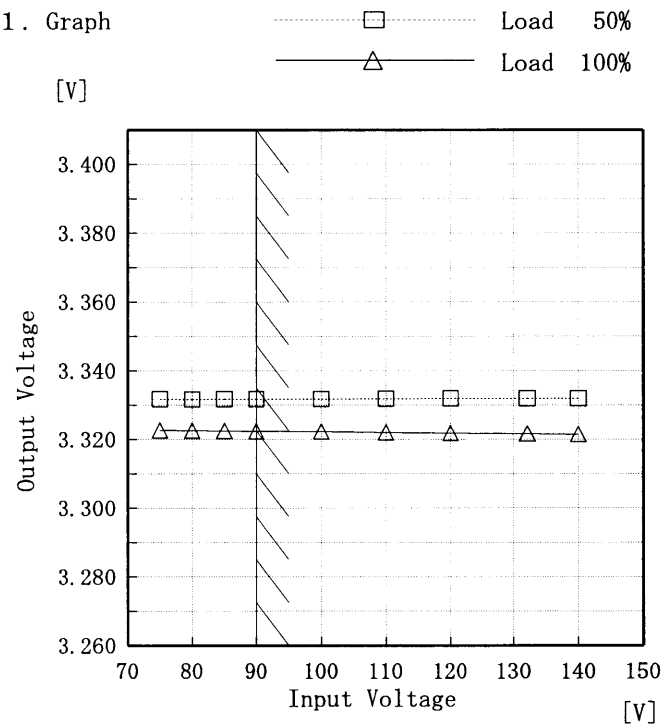
Model	MAX1600F		
Item	Line Regulation 静的入力変動	Temperature Testing Circuitry	25℃ Figure A

Object: V1:+3.3V80A

1. Graph

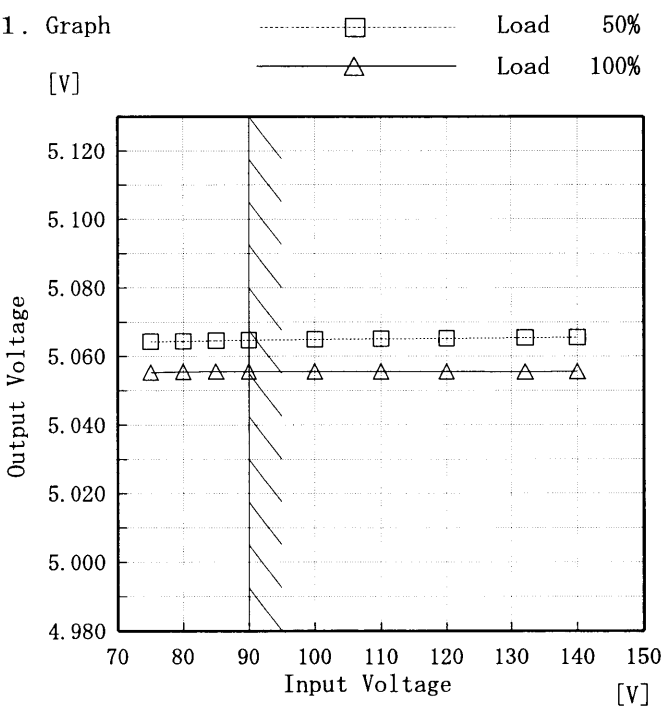


2. Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
75	3.332	3.323
80	3.332	3.323
85	3.332	3.322
90	3.332	3.322
100	3.332	3.322
110	3.332	3.322
120	3.332	3.322
132	3.332	3.322
140	3.332	3.321

Object: V2:+5.0V80A

1. Graph



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

(注)斜線は定格入力電圧範囲を示す。

2. Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
75	5.064	5.055
80	5.064	5.055
85	5.065	5.056
90	5.065	5.056
100	5.065	5.056
110	5.065	5.056
120	5.065	5.056
132	5.065	5.056
140	5.065	5.056

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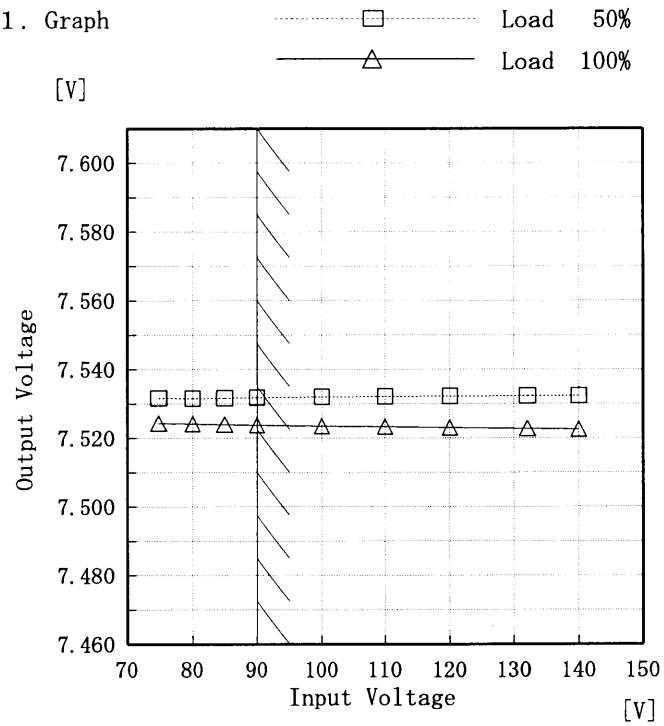
Model	MAX1600F		
Item	Line Regulation 静的入力変動	Temperature Testing Circuitry	25℃ Figure A

Object: V3:+7.5V54A

1. Graph

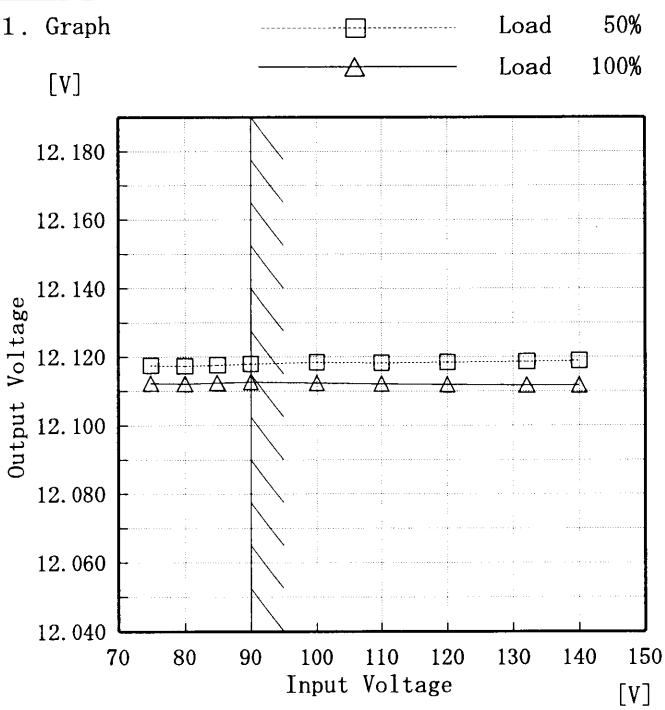


2. Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
75	7.532	7.524
80	7.532	7.524
85	7.532	7.524
90	7.532	7.524
100	7.532	7.524
110	7.532	7.523
120	7.532	7.523
132	7.532	7.523
140	7.532	7.523

Object: V4:+12.0V34A

1. Graph



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

(注)斜線は定格入力電圧範囲を示す。

2. Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
75	12.118	12.112
80	12.117	12.112
85	12.118	12.112
90	12.118	12.113
100	12.118	12.112
110	12.118	12.112
120	12.118	12.112
132	12.119	12.112
140	12.119	12.112

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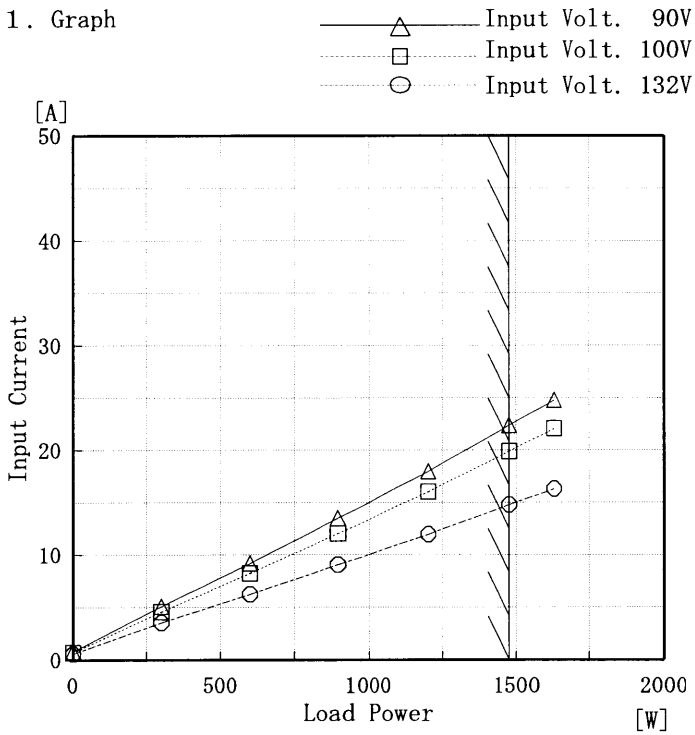
Model	MAX1600F
Item	Input Current (by Load Power) 入力電流（負荷特性）
Object	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

(注)斜線は定格出力電力範囲を示す。

2. Values

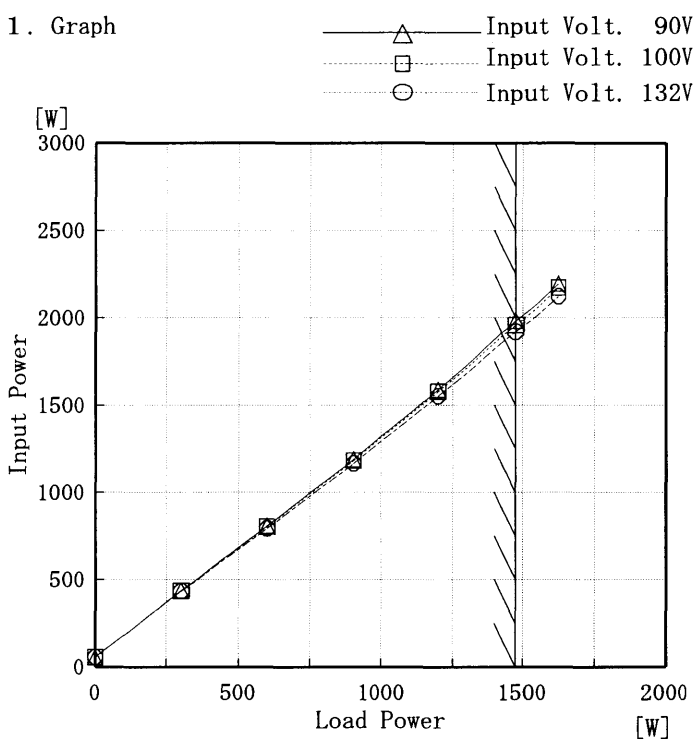
Load Power [W]	Input Current [A] Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.000	0.773	0.702	0.576
300.000	5.106	4.586	3.536
600.000	9.200	8.260	6.250
900.000	13.490	12.040	9.060
1200.000	17.970	16.020	11.960
1477.000	22.370	19.880	14.770
1624.700	24.780	22.070	16.310
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	MAX1600F
Item	Input Power (by Load Power) 入力電力（負荷特性）
Object	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

(注)斜線は定格出力電力範囲を示す。

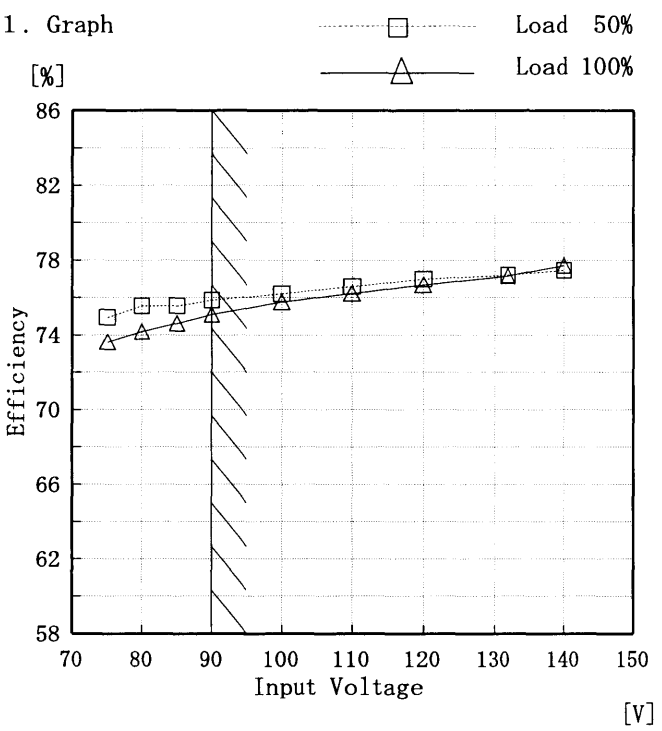
2. Values

Load Power [W]	Input Power [W]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	55.4	56.2	55.8
300.0	436.8	434.9	432.9
600.0	807.0	803.0	793.0
900.0	1190.0	1182.0	1165.0
1200.0	1589.0	1577.0	1552.0
1477.0	1983.0	1958.0	1920.0
1624.7	2196.0	2174.0	2123.0
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	MAX1600F		
Item	Efficiency (by Input Voltage) 効率（入力電圧特性）	Temperature Testing Circuitry	25℃ 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]	Efficiency [%]	
	Load 50%	Load 100%
75	74.9	73.6
80	75.6	74.2
85	75.6	74.6
90	75.9	75.1
100	76.2	75.8
110	76.6	76.2
120	77.0	76.7
132	77.2	77.2
140	77.5	77.7
—	—	—

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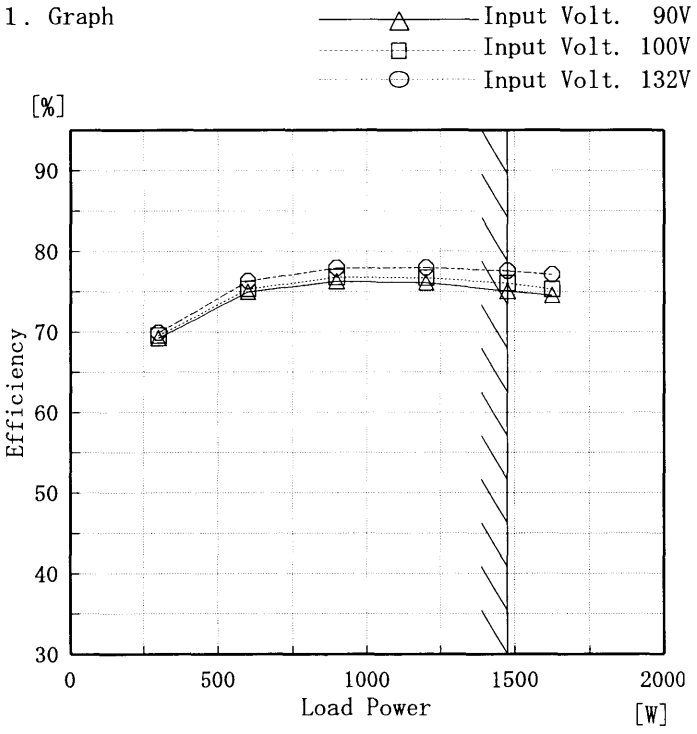
Model	MAX1600F
Item	Efficiency (by Load Power) 効率 (負荷特性)
Object	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

(注)斜線は定格出力電力範囲を示す。

2. Values

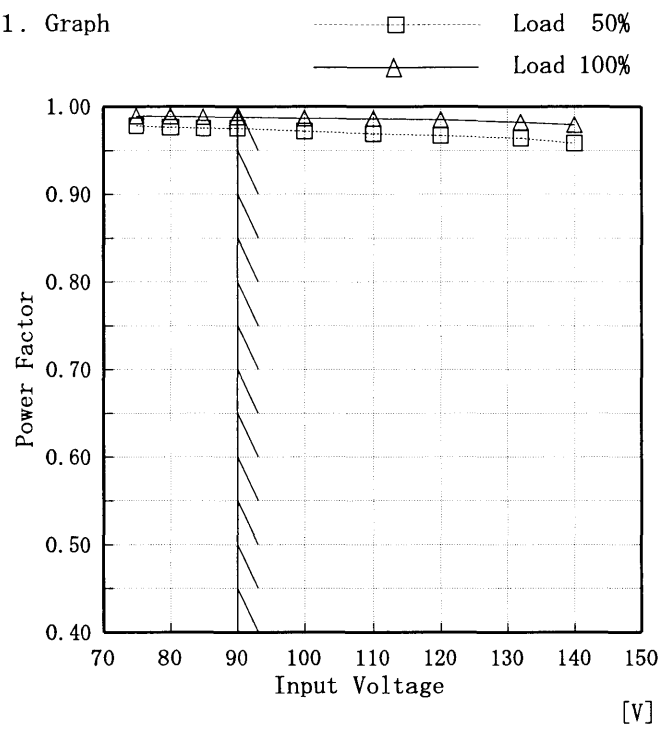
Load Power [W]	Efficiency [%] Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
300.000	69.2	69.6	69.9
600.000	74.9	75.3	76.3
900.000	76.3	76.8	77.9
1200.000	76.1	76.7	77.9
1477.000	75.1	76.0	77.5
1624.700	74.5	75.3	77.1
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	MAX1600F
Item	Power Factor (by Input Voltage) 力率（入力電圧特性）
Object	――――――――――

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

(注)斜線は定格入力電圧範囲を示す。

2. Values

Input Voltage [V]	Power Factor	
	Load 50%	Load 100%
75	0.98	0.99
80	0.98	0.99
85	0.98	0.99
90	0.98	0.99
100	0.97	0.99
110	0.97	0.99
120	0.97	0.99
132	0.96	0.98
140	0.96	0.98
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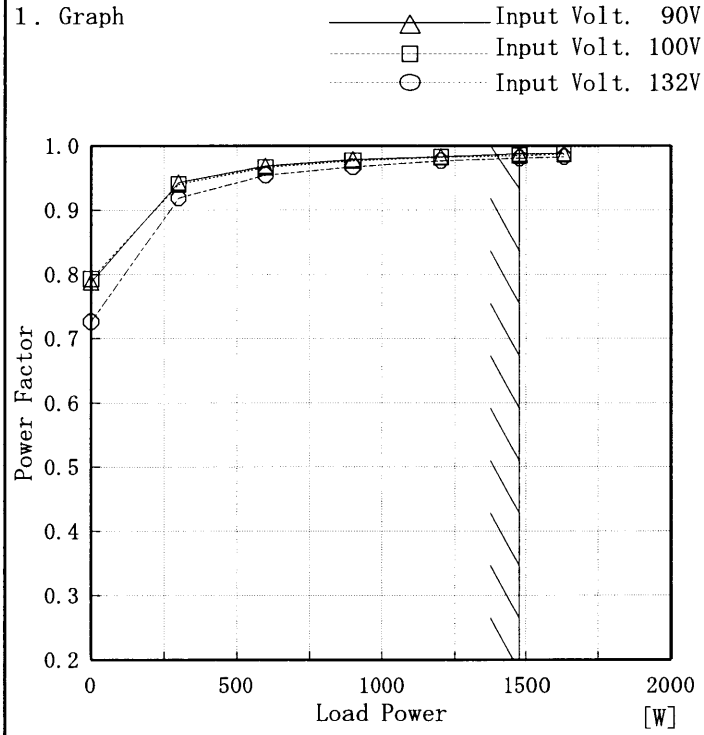
Model	MAX1600F
Item	Power Factor (by Load Power) 力率 (負荷特性)
Object	————

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

(注)斜線は定格出力電力範囲を示す。

2. Values

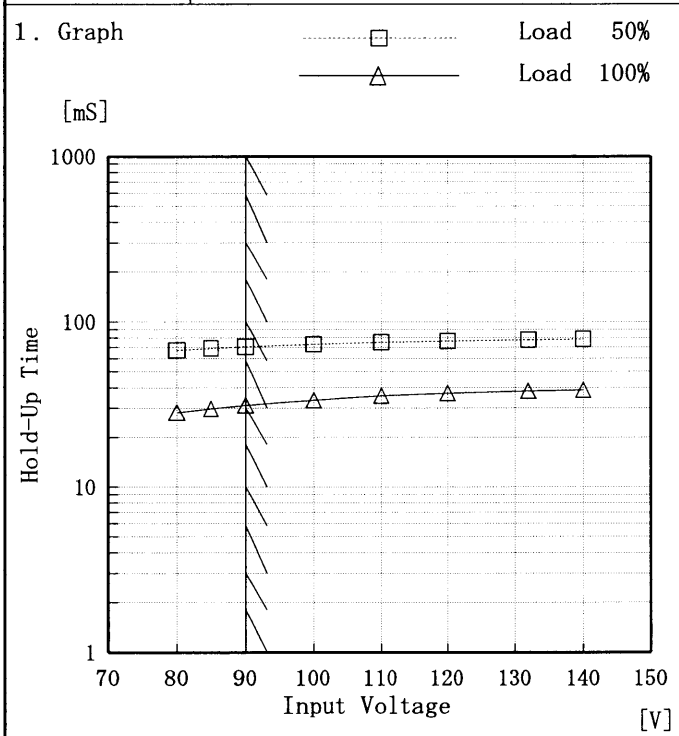
Load Power [W]	Power Factor		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.000	0.79	0.79	0.73
300.000	0.94	0.94	0.92
600.000	0.97	0.97	0.95
900.000	0.98	0.98	0.97
1200.000	0.98	0.98	0.98
1477.000	0.99	0.98	0.98
1624.700	0.99	0.99	0.98
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	MAX1600F
Item	Hold-Up Time 出力保持時間
Object	V1:+3.3V80A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

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

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

(注)斜線は定格入力電圧範囲を示す。

2. Values

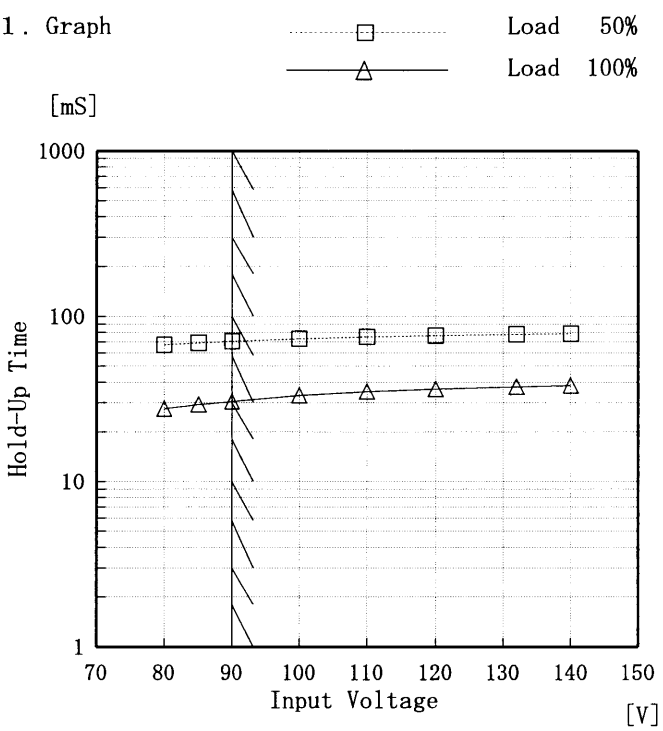
Input Voltage [V]	Hold-Up Time [mS]	
	Load 50%	Load 100%
75	—	—
80	67	28
85	69	30
90	71	31
100	73	34
110	75	36
120	77	37
132	78	38
140	79	39

COSEL

Model	MAX1600F
Item	Hold-Up Time 出力保持時間
Object	V2:+5.0V80A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

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

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

(注)斜線は定格入力電圧範囲を示す。

2. Values

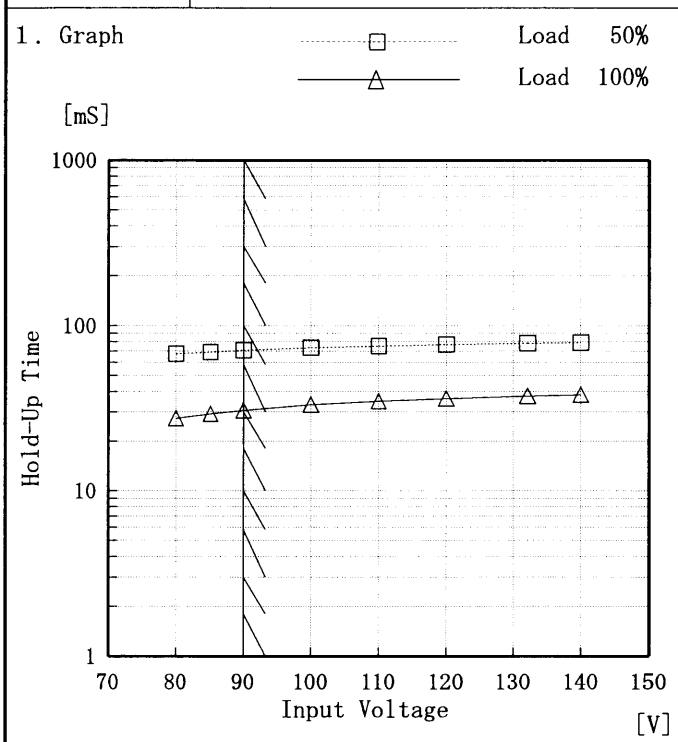
Input Voltage [V]	Hold-Up Time [mS]	
	Load 50%	Load 100%
75	—	—
80	67	28
85	69	29
90	71	31
100	73	33
110	75	35
120	77	36
132	78	38
140	79	38

COSEL

Model	MAX1600F
Item	Hold-Up Time 出力保持時間
Object	V3:+7.5V54A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

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

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

(注)斜線は定格入力電圧範囲を示す。

2. Values

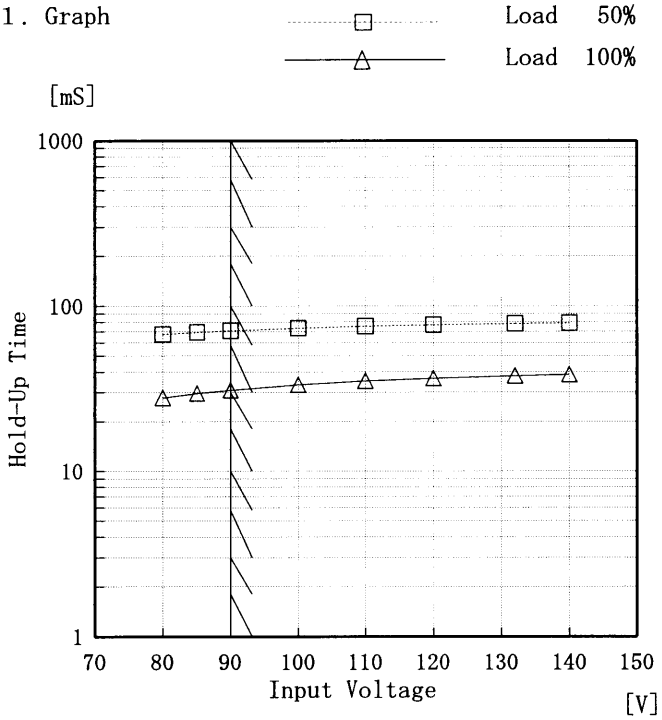
Input Voltage [V]	Hold-Up Time [mS]	
	Load 50%	Load 100%
75	—	—
80	68	28
85	69	29
90	71	31
100	74	33
110	75	35
120	77	36
132	78	38
140	79	38

COSEL

Model	MAX1600F
Item	Hold-Up Time 出力保持時間
Object	V4:+12.0V34A

Temperature 25℃
Testing Circuitry Figure A

1. Graph



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

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

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

(注)斜線は定格入力電圧範囲を示す。

2. Values

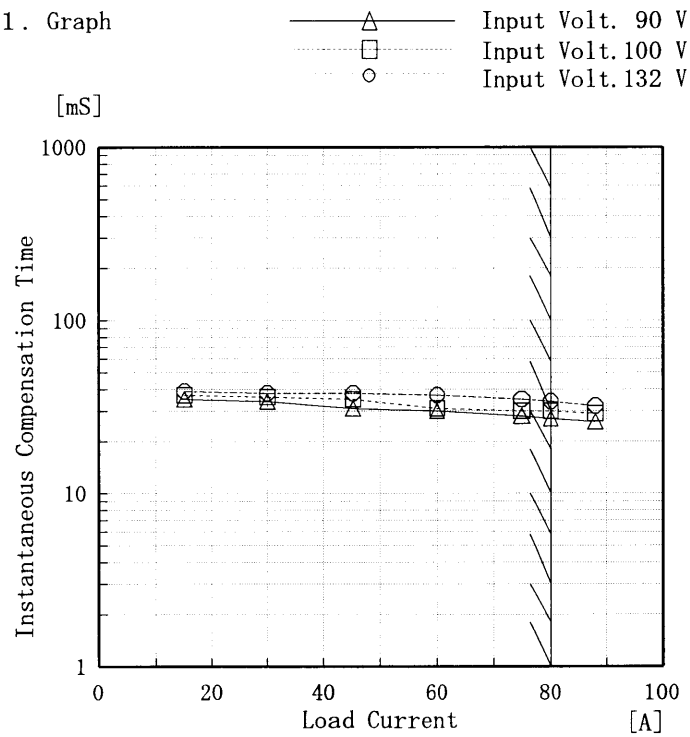
Input Voltage [V]	Hold-Up Time [mS]	
	Load 50%	Load 100%
75	—	—
80	68	28
85	69	30
90	71	31
100	74	34
110	76	35
120	77	37
132	78	38
140	79	39

COSEL

Model	MAX1600F
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	V1:+3.3V80A

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

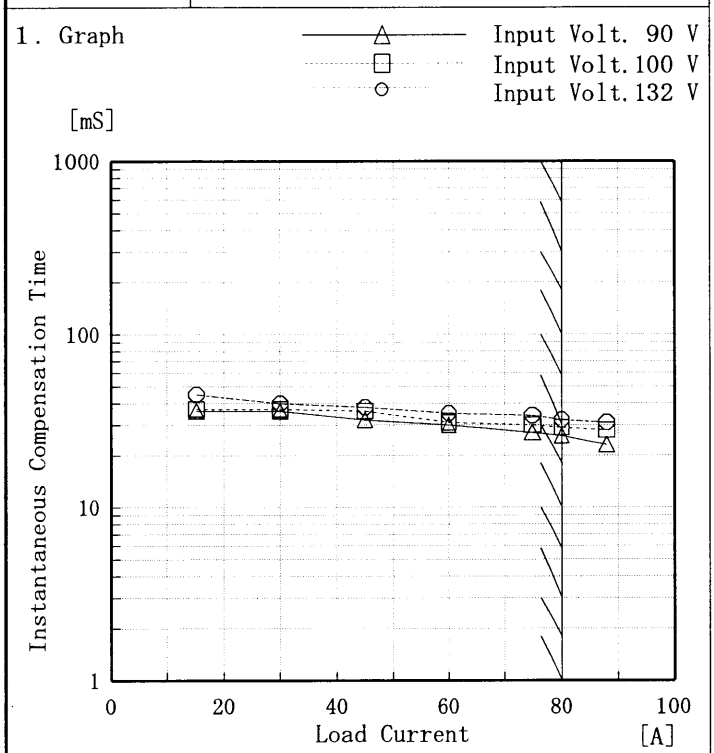
Load Current [A]	Time [mS]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	—	—	—
15.0	35	37	39
30.0	34	36	38
45.0	31	35	38
60.0	30	31	37
75.0	28	30	35
80.0	27	30	34
88.0	26	29	32
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	MAX1600F
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	V2:+5.0V80A

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

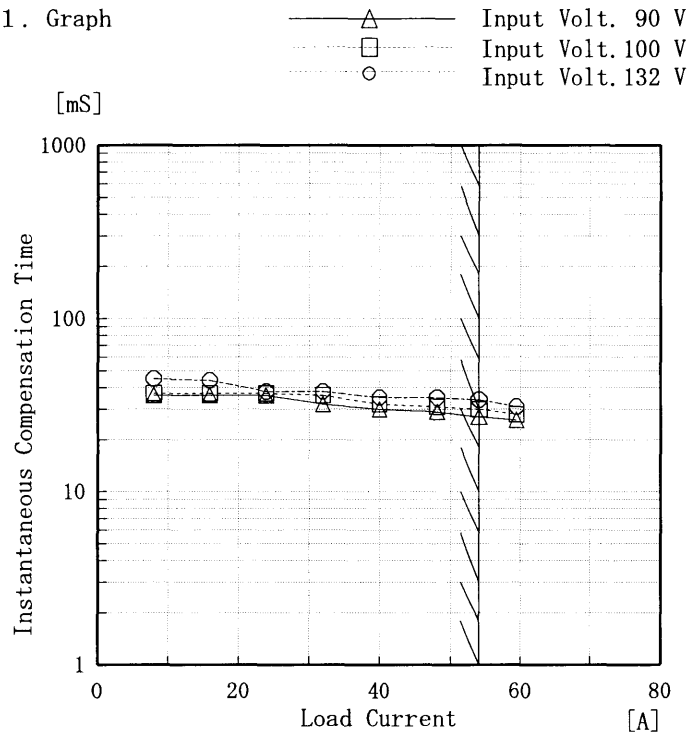
Load Current [A]	Time [mS]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	—	—	—
15.0	36	37	45
30.0	36	37	40
45.0	32	36	38
60.0	30	31	35
75.0	27	30	34
80.0	26	29	32
88.0	23	28	31
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	MAX1600F
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	V3:+7.5V54A

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

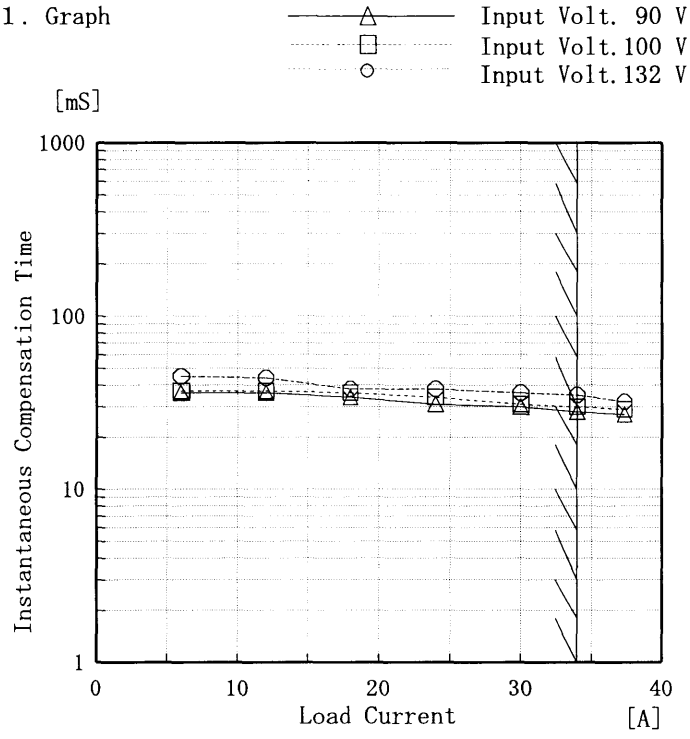
Load Current [A]	Time [mS] Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	—	—	—
8.0	36	37	45
16.0	36	37	44
24.0	36	37	38
32.0	32	36	38
40.0	30	32	35
48.0	29	31	35
54.0	27	30	34
59.4	26	28	31
—	—	—	—
—	—	—	—

COSEL

Model	MAX1600F
Item	Instantaneous Interruption Compensation 瞬時停電保障
Object	V4:＋12.0V34A

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

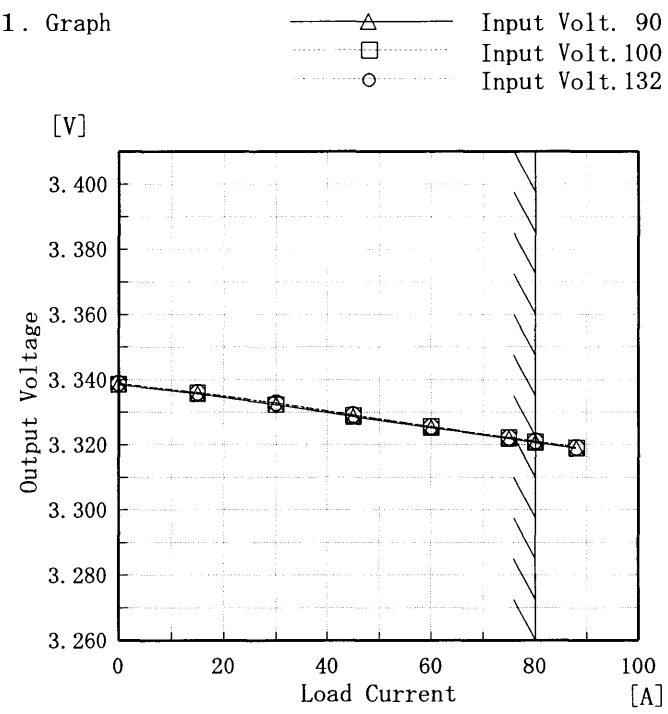
Load Current [A]	Time [mS]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	—	—	—
6.0	36	37	45
12.0	36	37	44
18.0	34	36	38
24.0	31	34	38
30.0	30	31	36
34.0	28	30	35
37.4	27	29	32
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model	MAX1600F		
Item	Load Regulation 静的負荷変動	Temperature Testing Circuitry	25℃ Figure A

Object: V1:+3.3V80A

1. Graph

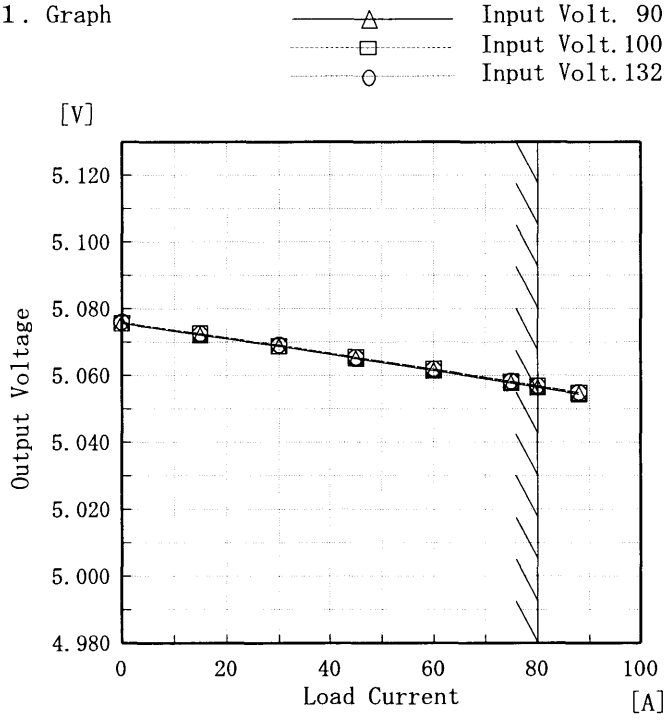


2. Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	3.339	3.339	3.339
15.0	3.336	3.336	3.336
30.0	3.332	3.332	3.333
45.0	3.329	3.329	3.329
60.0	3.325	3.326	3.326
75.0	3.322	3.322	3.322
80.0	3.321	3.321	3.321
88.0	3.319	3.319	3.319
—	—	—	—
—	—	—	—

Object: V2:+5.0V80A

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. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	5.076	5.076	5.076
15.0	5.072	5.073	5.073
30.0	5.069	5.069	5.069
45.0	5.065	5.065	5.065
60.0	5.061	5.062	5.062
75.0	5.058	5.058	5.058
80.0	5.056	5.057	5.057
88.0	5.054	5.055	5.055
—	—	—	—
—	—	—	—

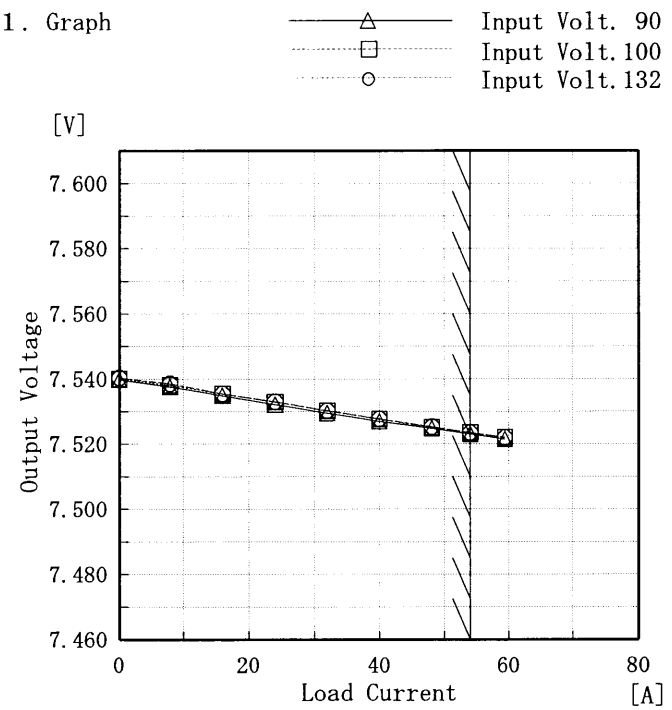
COSEL

Model	MAX1600F
Item	Load Regulation 静的負荷変動

Temperature 25℃
Testing Circuitry Figure A

Object V3:+7.5V54A

1. Graph

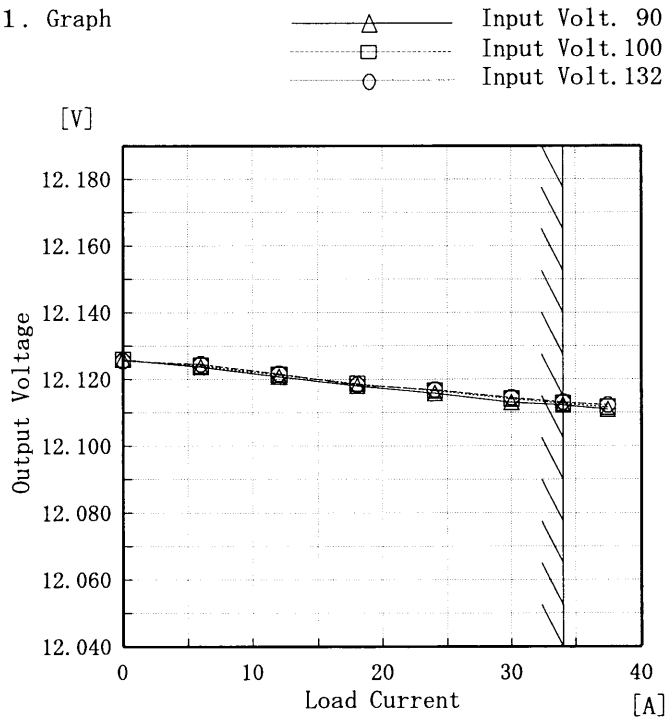


2. Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	7.540	7.540	7.540
8.0	7.538	7.538	7.539
16.0	7.535	7.535	7.536
24.0	7.532	7.533	7.533
32.0	7.530	7.530	7.530
40.0	7.527	7.528	7.528
48.0	7.525	7.525	7.525
54.0	7.523	7.524	7.523
59.4	7.522	7.522	7.522
—	—	—	—

Object V4:+12.0V34A

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

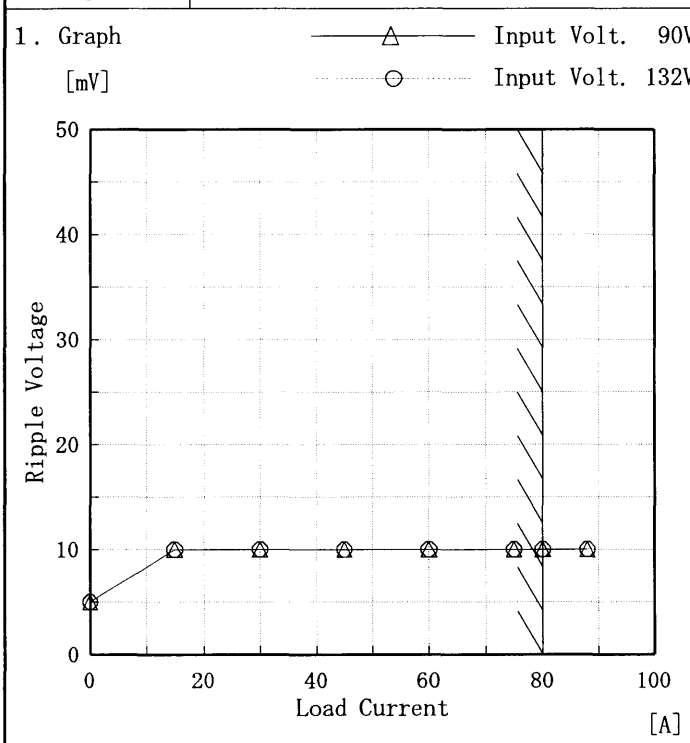
Load Current [A]	Output Voltage [V]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
0.0	12.126	12.126	12.126
6.0	12.124	12.124	12.125
12.0	12.121	12.121	12.122
18.0	12.118	12.119	12.118
24.0	12.116	12.117	12.117
30.0	12.113	12.114	12.115
34.0	12.112	12.113	12.113
37.4	12.111	12.112	12.112
—	—	—	—
—	—	—	—

COSEL

Model	MAX1600F
Item	Ripple Voltage(by Load Current) リップル電圧(負荷特性)
Object	V1:+3.3V80A

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

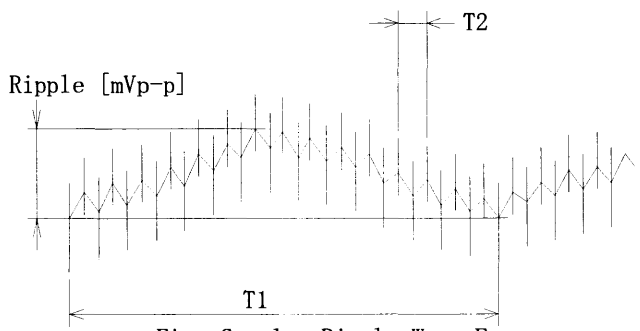


Fig. Complex Ripple Wave Form

図 リップル波形詳細図

2. Values

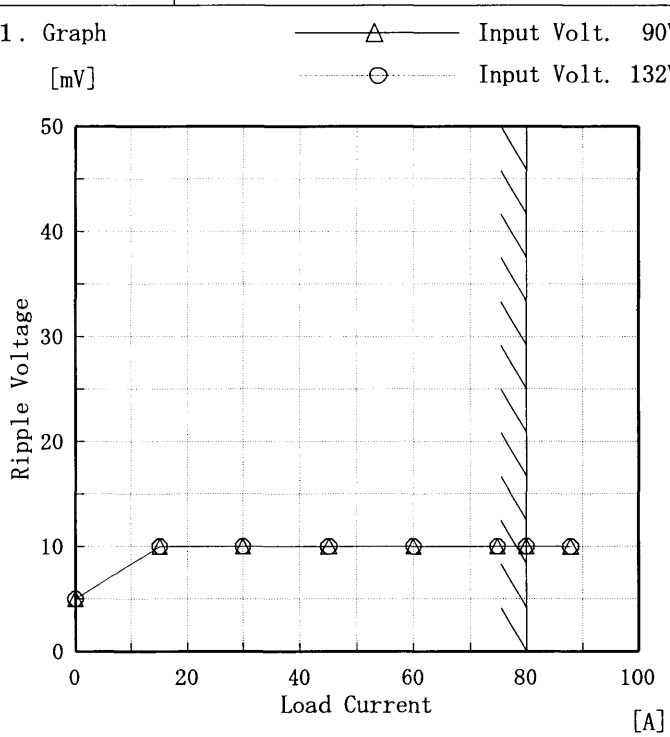
Load Current [A]	Ripple Output Voltage [mV]	
	Input Volt. 90 [V]	Input Volt. 132 [V]
0.0	5	5
15.0	10	10
30.0	10	10
45.0	10	10
60.0	10	10
75.0	10	10
80.0	10	10
88.0	10	10
—	—	—
—	—	—
—	—	—

COSEL

Model	MAX1600F
Item	Ripple Voltage(by Load Current) リップル電圧(負荷特性)
Object	V2:+5.0V80A

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

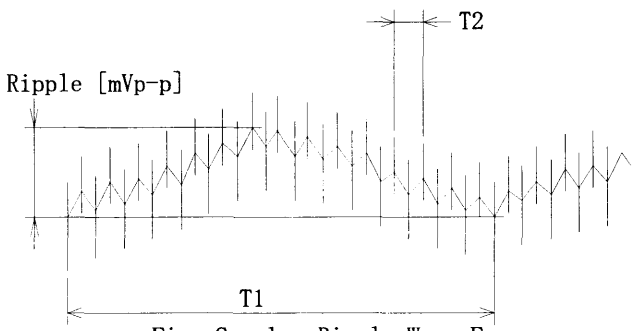


Fig. Complex Ripple Wave Form

図 リップル波形詳細図

2. Values

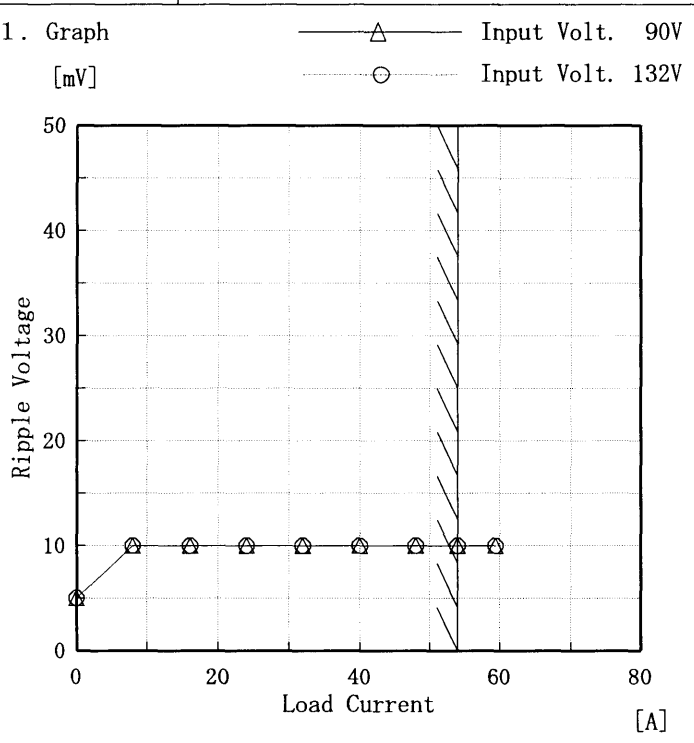
Load Current [A]	Ripple Output Voltage [mV]	
	Input Volt. 90 [V]	Input Volt. 132 [V]
0.0	5	5
15.0	10	10
30.0	10	10
45.0	10	10
60.0	10	10
75.0	10	10
80.0	10	10
88.0	10	10
—	—	—
—	—	—
—	—	—

COSEL

Model	MAX1600F
Item	Ripple Voltage(by Load Current) リップル電圧(負荷特性)
Object	V3:+7.5V54A

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

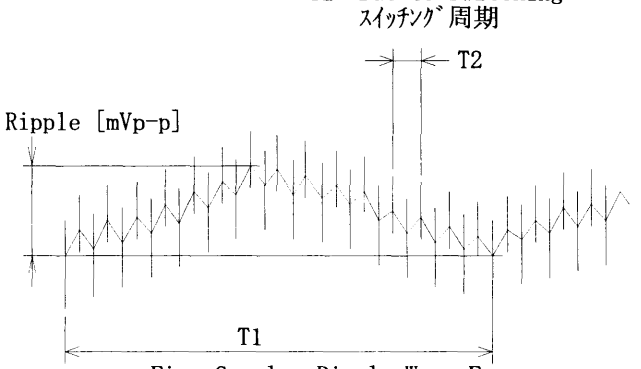


Fig. Complex Ripple Wave Form

図 リップル波形詳細図

2. Values

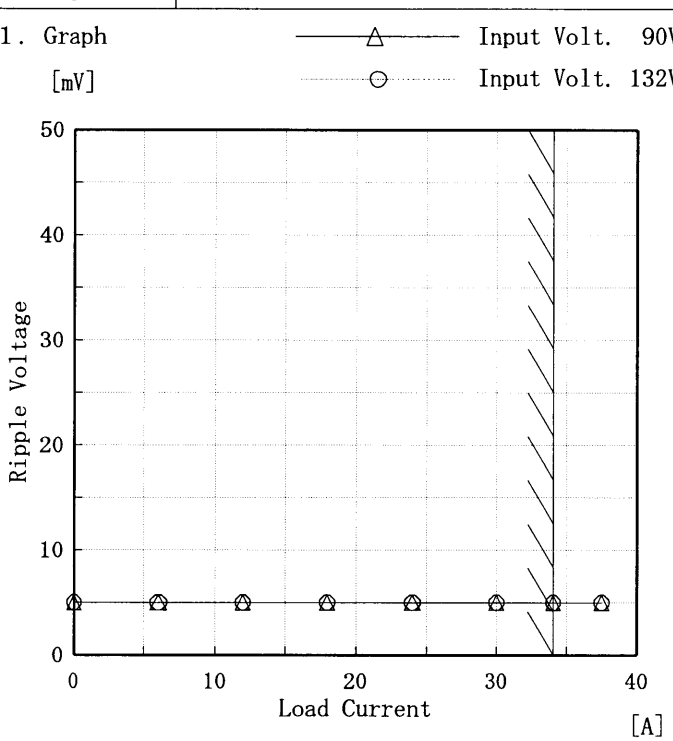
Load Current [A]	Ripple Output Voltage [mV]	
	Input Volt. 90 [V]	Input Volt. 132 [V]
0.0	5	5
8.0	10	10
16.0	10	10
24.0	10	10
32.0	10	10
40.0	10	10
48.0	10	10
54.0	10	10
59.4	10	10
—	—	—
—	—	—

COSEL

Model	MAX1600F
Item	Ripple Voltage(by Load Current) リップル電圧(負荷特性)
Object	V4:+12.0V34A

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

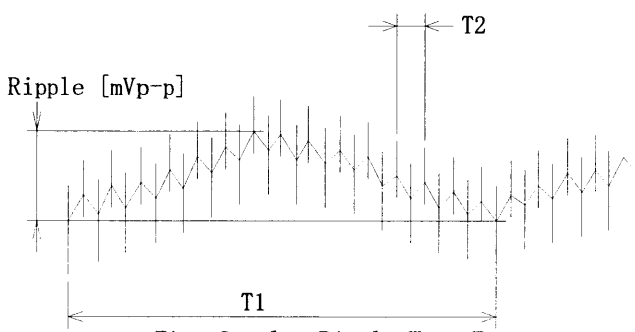


Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

Load Current [A]	Ripple Output Voltage [mV]	
	Input Volt. 90 [V]	Input Volt. 132 [V]
0.0	5	5
6.0	5	5
12.0	5	5
18.0	5	5
24.0	5	5
30.0	5	5
34.0	5	5
37.4	5	5
—	—	—
—	—	—
—	—	—

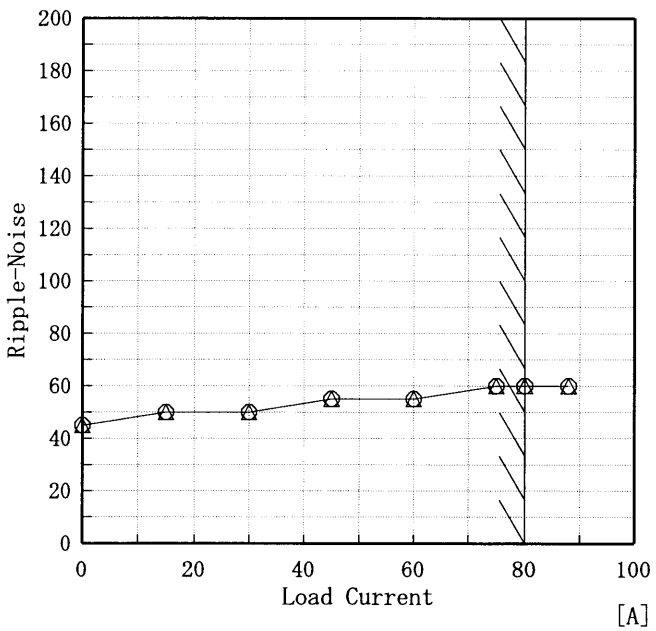
COSEL

Model	MAX1600F
Item	Ripple-Noise リップルノイズ
Object	V1:+3.3V80A

Temperature 25℃
Testing Circuitry Figure A

1. Graph

△—— Input Volt. 90V
○····· Input Volt. 132V



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

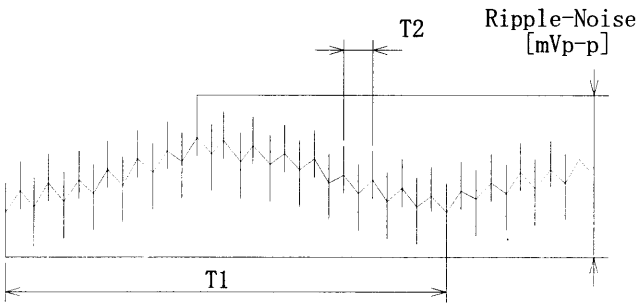


Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 90 [V]	Input Volt. 132 [V]
0.0	45	45
15.0	50	50
30.0	50	50
45.0	55	55
60.0	55	55
75.0	60	60
80.0	60	60
88.0	60	60
—	—	—
—	—	—
—	—	—

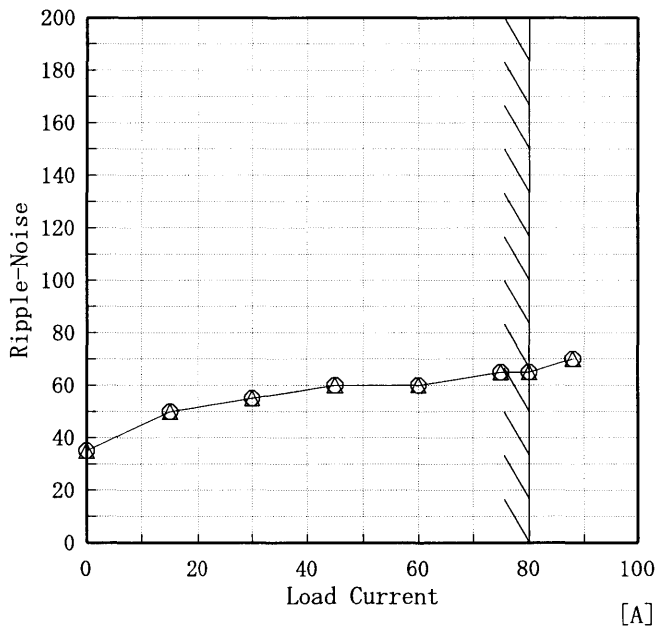
COSEL

Model	MAX1600F
Item	Ripple-Noise リップルノイズ
Object	V2:+5.0V80A

Temperature 25℃
Testing Circuitry Figure A

1. Graph

△ Input Volt. 90V
○ Input Volt. 132V



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

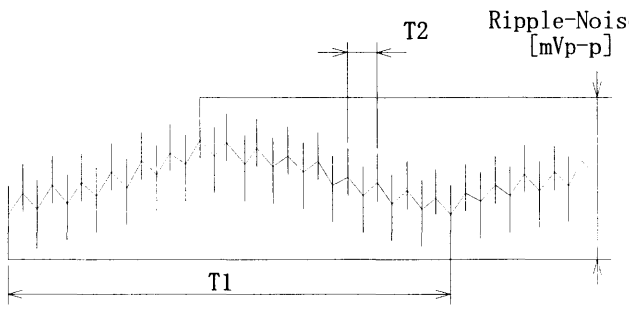


Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 90 [V]	Input Volt. 132 [V]
0.0	35	35
15.0	50	50
30.0	55	55
45.0	60	60
60.0	60	60
75.0	65	65
80.0	65	65
88.0	70	70
—	—	—
—	—	—
—	—	—

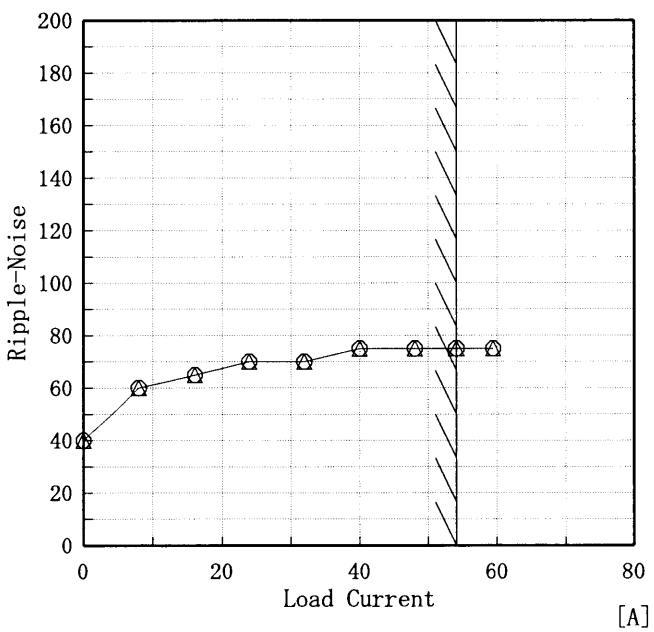
COSEL

Model	MAX1600F
Item	Ripple-Noise リップルノイズ
Object	V3:+7.5V54A

Temperature 25℃
Testing Circuitry Figure A

1. Graph

△——— Input Volt. 90V
○····· Input Volt. 132V



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

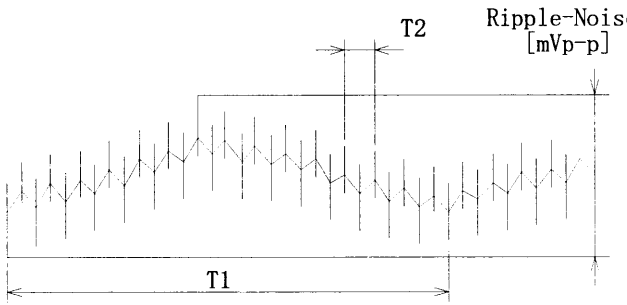


Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 90 [V]	Input Volt. 132 [V]
0.0	40	40
8.0	60	60
16.0	65	65
24.0	70	70
32.0	70	70
40.0	75	75
48.0	75	75
54.0	75	75
59.4	75	75
—	—	—
—	—	—

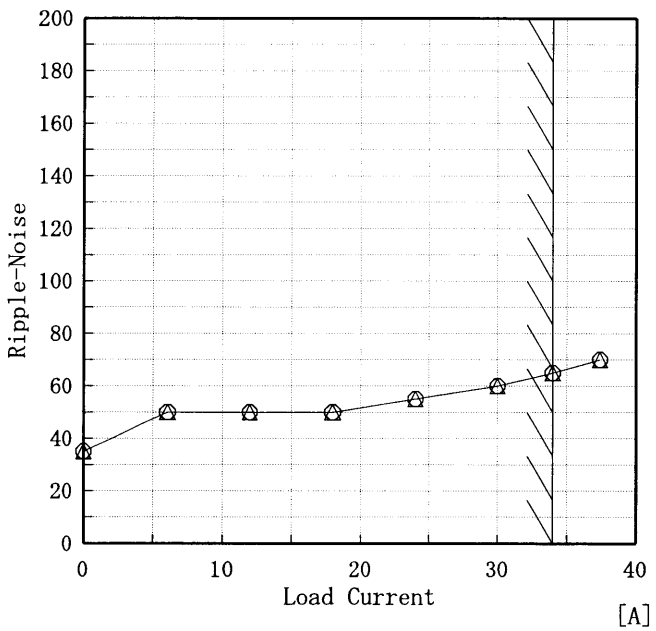
COSEL

Model	MAX1600F
Item	Ripple-Noise リップルノイズ
Object	V4:+12.0V34A

Temperature 25℃
Testing Circuitry Figure A

1. Graph

△——— Input Volt. 90V
○····· Input Volt. 132V



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

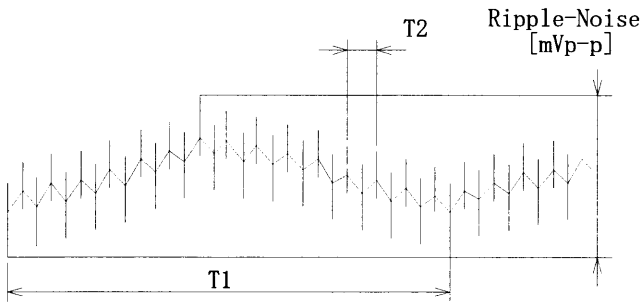


Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 90 [V]	Input Volt. 132 [V]
0.0	35	35
6.0	50	50
12.0	50	50
18.0	50	50
24.0	55	55
30.0	60	60
34.0	65	65
37.4	70	70
—	—	—
—	—	—
—	—	—

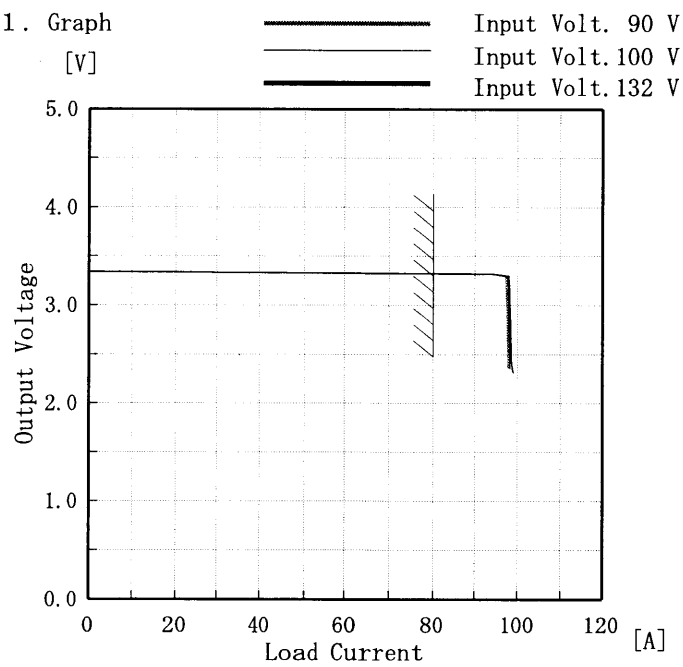
COSEL

Model	MAX1600F
Item	Overcurrent Protection 過電流保護

Temperature 25℃
Testing Circuitry Figure A

Object V1:+3.3V80A

1. Graph



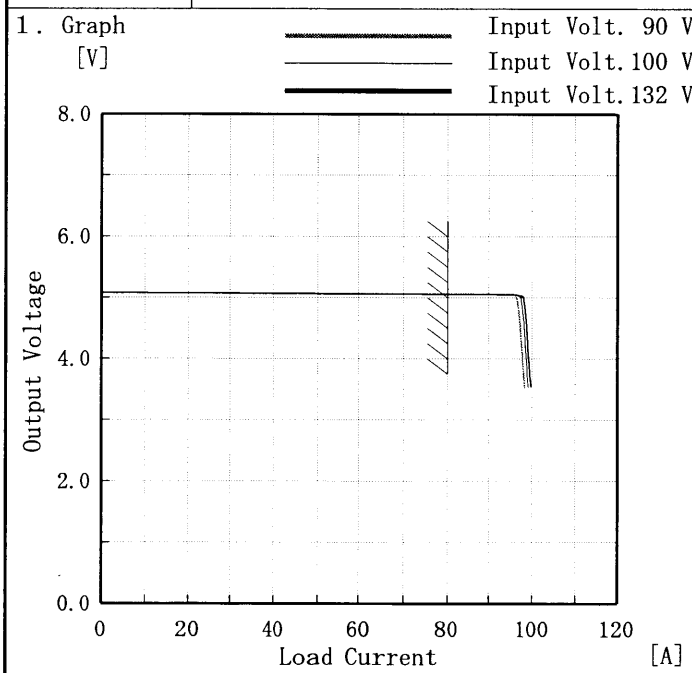
Note: Slanted line shows the range of the rated load current.
Intermittent operation occurs when the output voltage is from 2.3V to 0V.

2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
3.30	85.08	85.35	85.41
3.13	97.29	97.69	98.06
2.97	97.48	97.84	98.22
2.64	97.67	98.01	98.41
2.31	98.09	98.52	99.08
1.98	—	—	—
1.65	—	—	—
1.32	—	—	—
0.99	—	—	—
0.66	—	—	—
0.33	—	—	—
0.00	—	—	—

Object V2:+5.0V80A

1. Graph



Note: Slanted line shows the range of the rated load current.
Intermittent operation occurs when the output voltage is from 3.5V to 0V.

2. Values

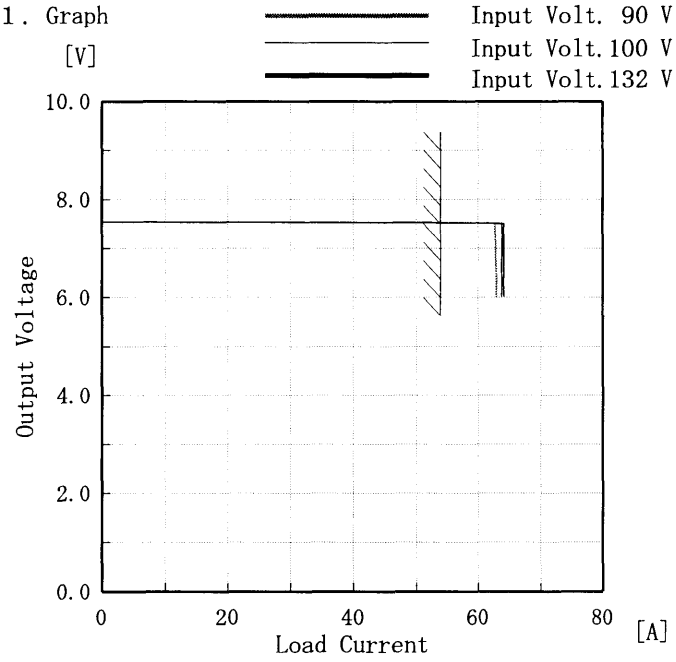
Output Voltage [V]	Load Current [A]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
5.00	95.55	95.78	95.80
4.75	96.73	97.66	98.32
4.50	97.12	98.04	98.73
4.00	97.67	98.58	99.24
3.50	98.28	99.13	99.77
3.00	—	—	—
2.50	—	—	—
2.00	—	—	—
1.50	—	—	—
1.00	—	—	—
0.50	—	—	—
0.00	—	—	—

COSEL

Model	MAX1600F	Temperature	25℃
Item	Overcurrent Protection 過電流保護	Testing Circuitry	Figure A

Object: V3:+7.5V54A

1. Graph



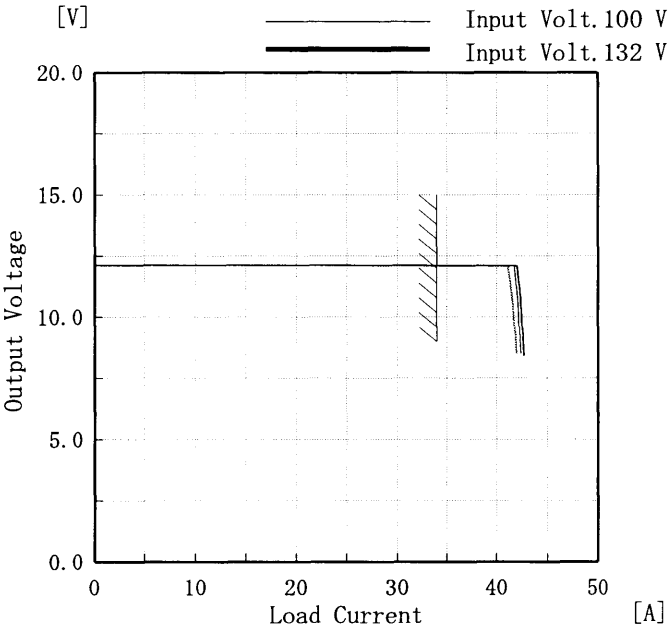
Note: Slanted line shows the range of the rated load current.
Intermittent operation occurs when the output voltage is from 6V to 0V.

2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
7.50	62.86	63.87	64.22
7.13	62.91	63.88	64.21
6.75	62.96	63.85	64.19
6.00	63.08	63.86	64.24
5.25	—	—	—
4.50	—	—	—
3.75	—	—	—
3.00	—	—	—
2.25	—	—	—
1.50	—	—	—
0.75	—	—	—
0.00	—	—	—

Object: V4:+12.0V34A

1. Graph



Note: Slanted line shows the range of the rated load current.
Intermittent operation occurs when the output voltage is from 8.4V to 0V.

2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
12.00	41.14	41.69	41.94
11.40	41.32	41.82	42.11
10.80	41.48	41.99	42.27
9.60	41.70	42.12	42.41
8.40	41.91	42.28	42.57
7.20	—	—	—
6.00	—	—	—
4.80	—	—	—
3.60	—	—	—
2.40	—	—	—
1.20	—	—	—
0.00	—	—	—

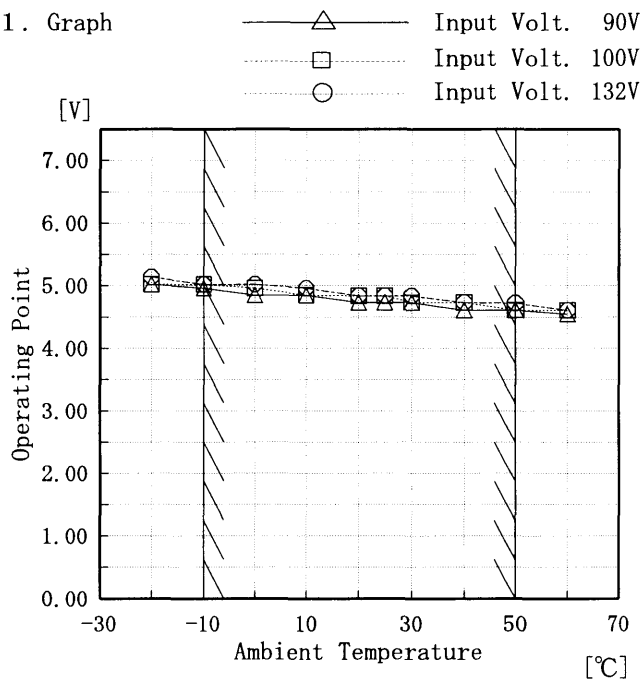
COSEL

Model	MAX1600F
Item	Overvoltage Protection 過電圧保護

Testing Circuitry Figure A

Object V1:+3.3V80A

1. Graph



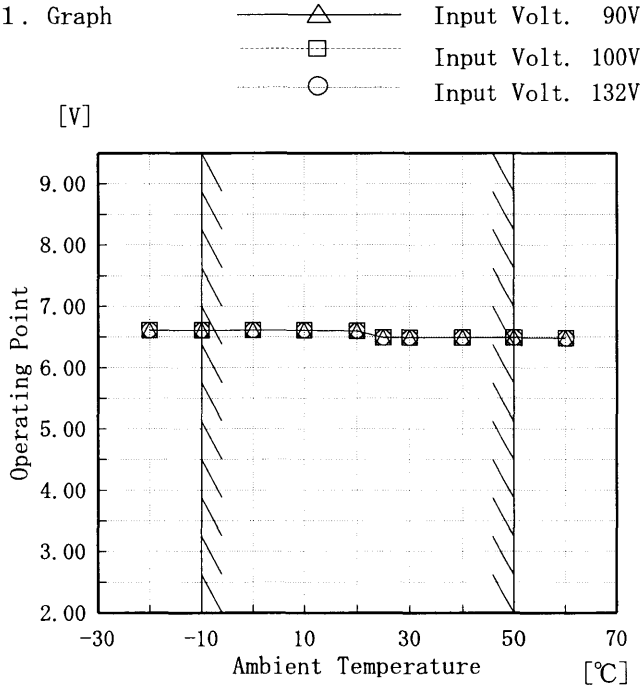
Load 0%

2. Values

Ambient Temperature [℃]	Operating Point [V]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	5.02	5.02	5.14
-10	4.96	5.02	5.02
0	4.85	4.96	5.02
10	4.85	4.85	4.96
20	4.73	4.84	4.84
25	4.73	4.84	4.84
30	4.73	4.73	4.84
40	4.61	4.73	4.73
50	4.61	4.61	4.72
60	4.55	4.61	4.61
—	—	—	—

Object V2:+5.0V80A

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. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	6.61	6.61	6.61
-10	6.61	6.61	6.61
0	6.61	6.61	6.61
10	6.61	6.61	6.61
20	6.60	6.60	6.60
25	6.49	6.49	6.49
30	6.49	6.49	6.49
40	6.49	6.49	6.49
50	6.49	6.49	6.49
60	6.48	6.48	6.48
—	—	—	—

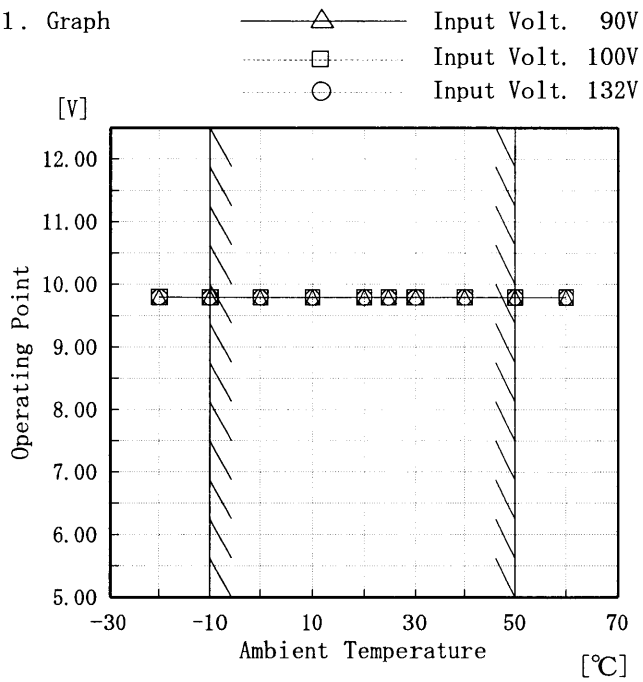
COSEL

Model	MAX1600F
Item	Overvoltage Protection 過電圧保護

Testing Circuitry Figure A

Object V3:+7.5V54A

1. Graph



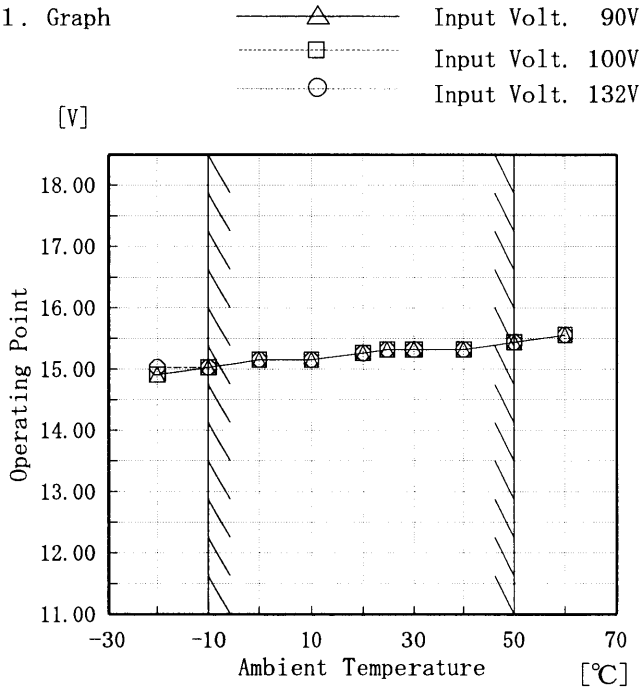
Load 0%

2. Values

Ambient Temperature [℃]	Operating Point [V]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	9.80	9.80	9.80
-10	9.79	9.79	9.79
0	9.79	9.79	9.79
10	9.79	9.79	9.79
20	9.79	9.79	9.79
25	9.79	9.79	9.79
30	9.79	9.79	9.79
40	9.79	9.79	9.79
50	9.79	9.79	9.79
60	9.79	9.79	9.79
—	—	—	—

Object V4:+12.0V34A

1. Graph



Load 0%

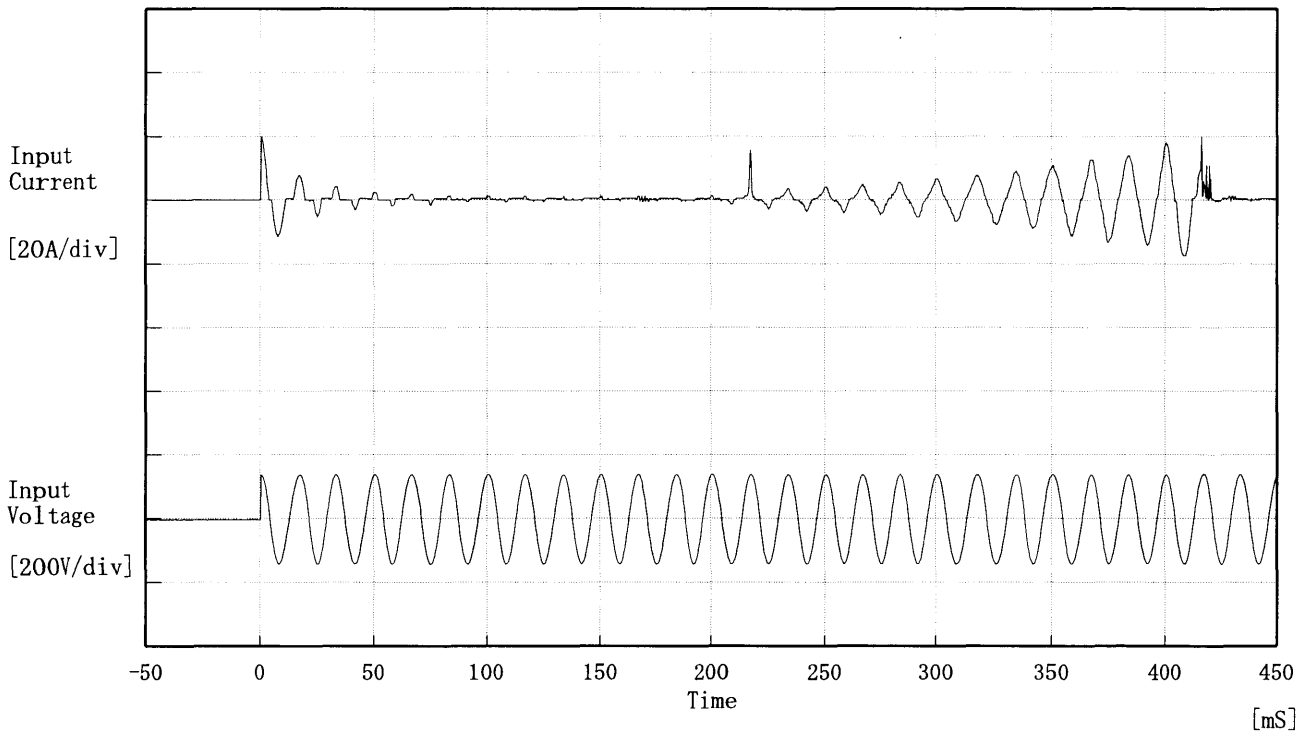
Note: Slanted line shows the range of the rated ambient temperature.
(注)斜線は定格周囲温度範囲を示す。

2. Values

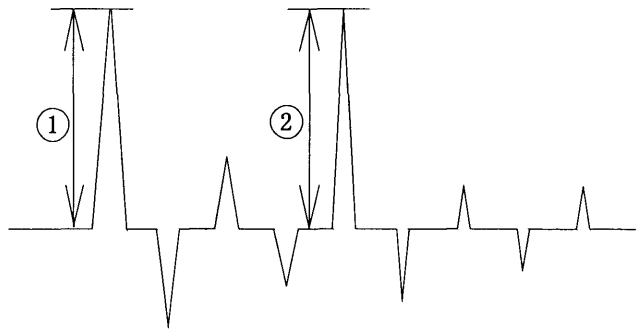
Ambient Temperature [℃]	Operating Point [V]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	14.91	14.91	15.03
-10	15.03	15.03	15.03
0	15.15	15.15	15.15
10	15.15	15.15	15.15
20	15.26	15.26	15.26
25	15.32	15.32	15.32
30	15.32	15.32	15.32
40	15.32	15.32	15.32
50	15.44	15.44	15.44
60	15.56	15.56	15.56
—	—	—	—

COSEL

Model	MAX1600F		
Item	Inrush Current 突入電流	Temperature Testing Circuitry	25℃ Figure A
Object	――――――――		



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



COSEL

Model	MAX1600F		
Item	Dynamic Load Responce 動的負荷変動	Temperature Testing Circuitry	25℃ Figure A
Object	V1:+3.3V80A		

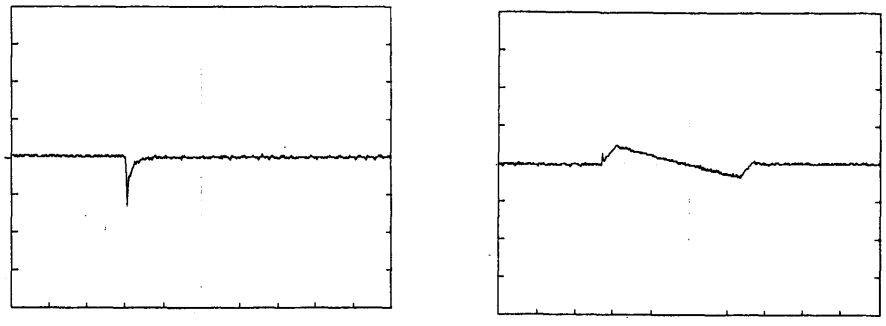
Input Volt. 100 V

Cycle 1000 mS

Load Current

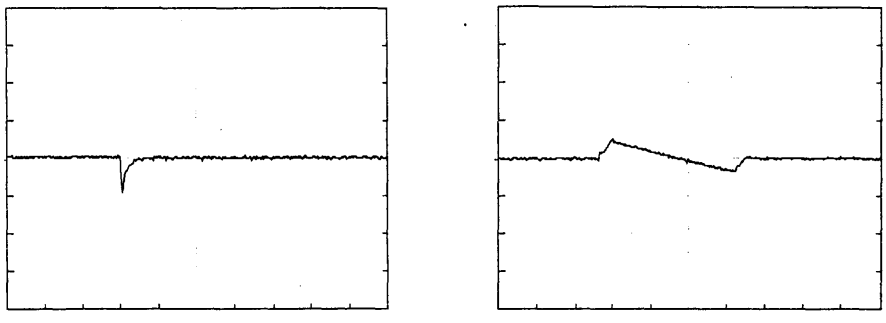
Load 0% ⟷

Load 100 %



Load 0% ⟷

Load 50 %



500 mV/div

2 mS/div

COSEL

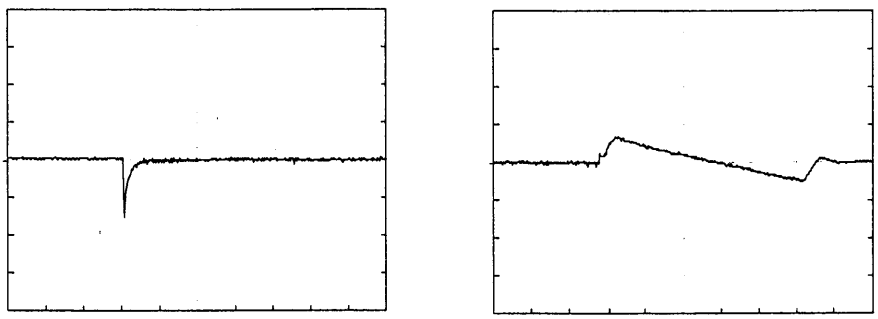
Model	MAX1600F		
Item	Dynamic Load Responce 動的負荷変動	Temperature Testing Circuitry	25℃ Figure A
Object	V2:+5.0V80A		

Input Volt. 100 V

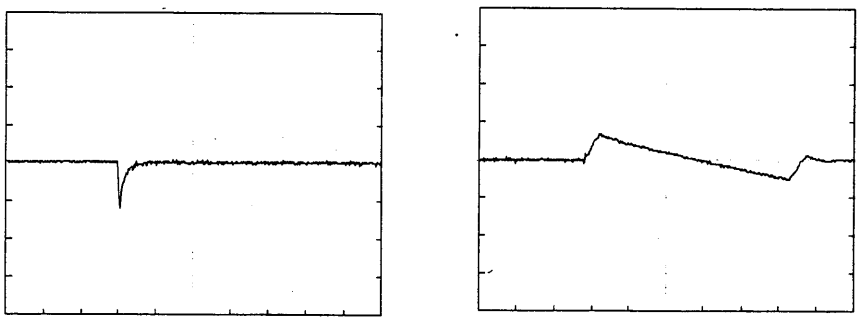
Cycle 1000 mS

Load Current

Load 0% ⟷
Load 100 %



Load 0% ⟷
Load 50 %



500 mV/div

2 mS/div

COSEL

Model	MAX1600F		
Item	Dynamic Load Responce 動的負荷変動	Temperature Testing Circuitry	25℃ Figure A
Object	V3:+7.5V54A		

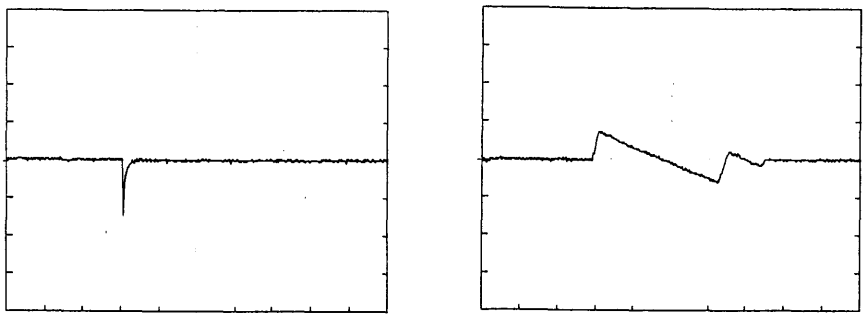
Input Volt. 100 V

Cycle 1000 mS

Load Current

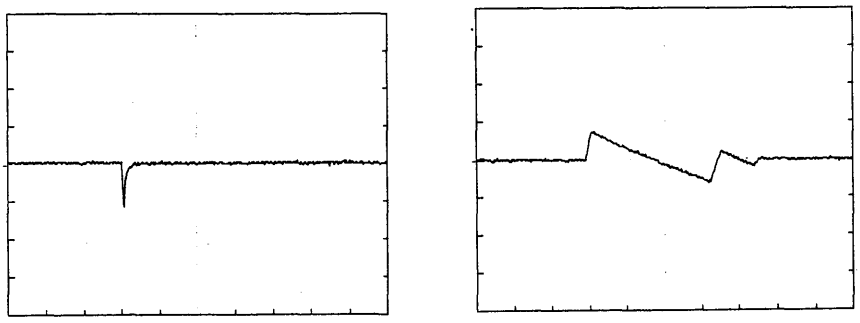
Load 0% ⟷

Load 100 %



Load 0% ⟷

Load 50 %



500 mV/div

5 mS/div

COSEL

Model	MAX1600F		
Item	Dynamic Load Responce 動的負荷変動	Temperature Testing Circuitry	25℃ Figure A
Object	V4:+12.0V34A		

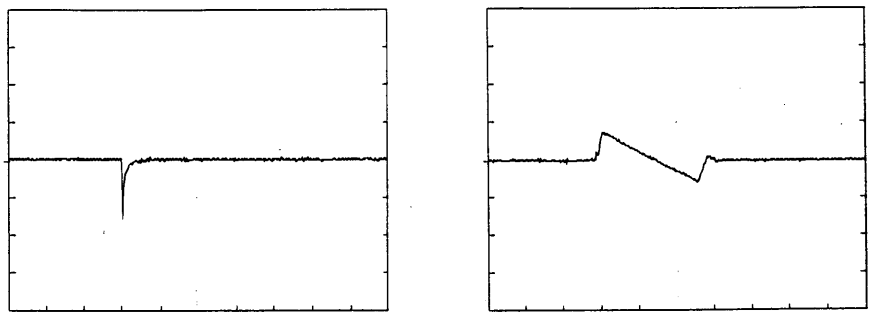
Input Volt. 100 V

Cycle 1000 mS

Load Current

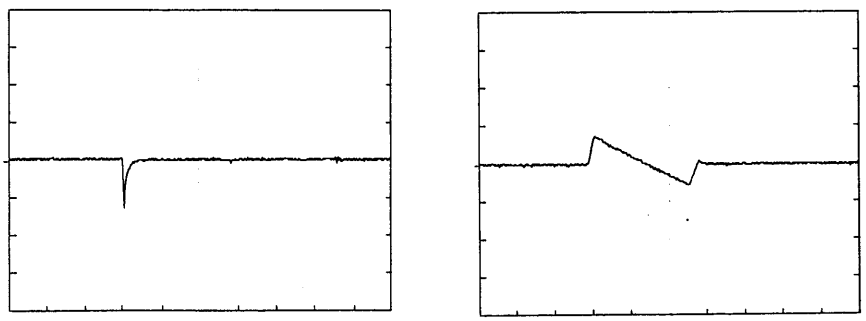
Load 0% ⟷

Load 100 %



Load 0% ⟷

Load 50 %



500 mV/div

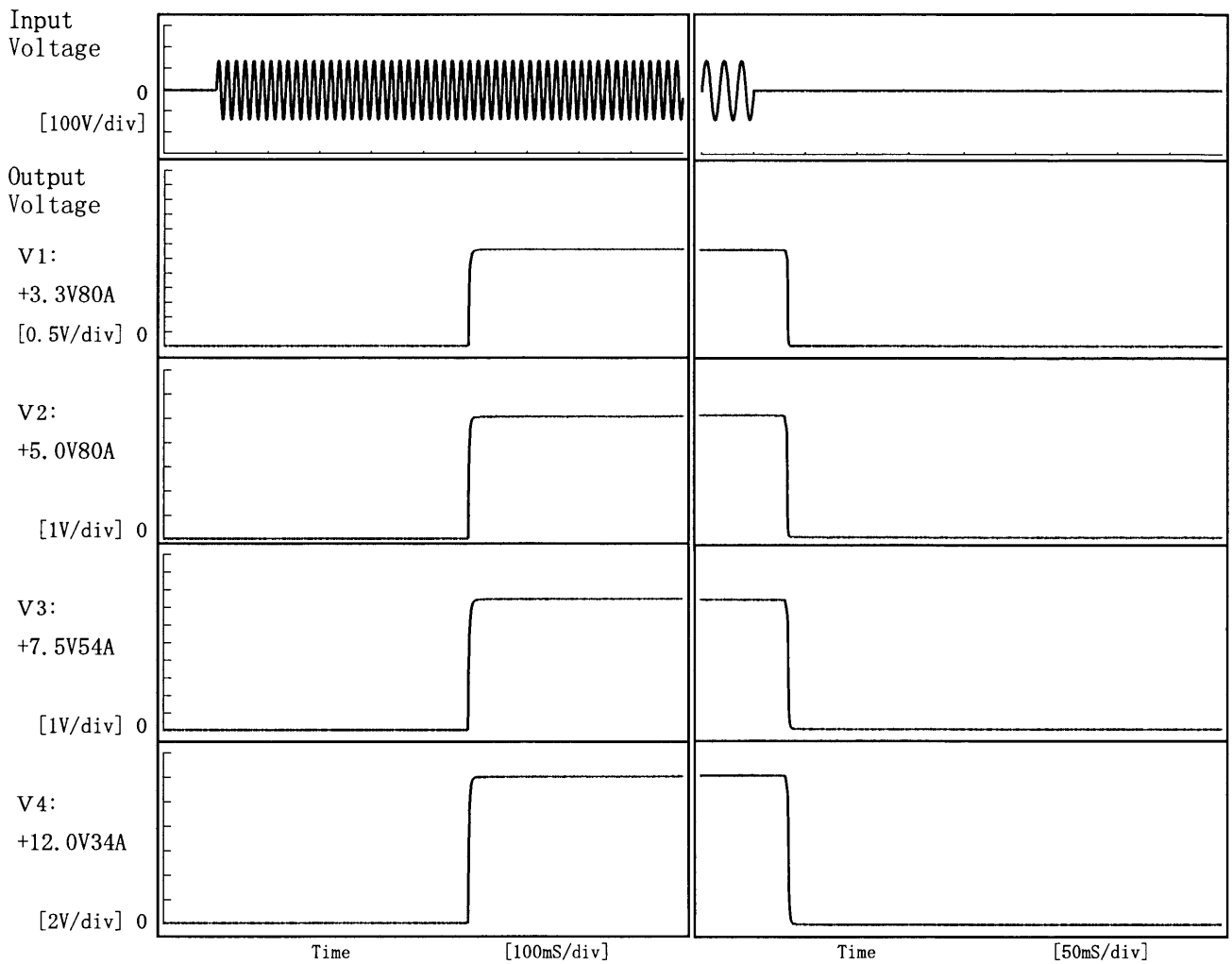
5 mS/div

COSEL

Model	MAX1600F		
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. 100 V

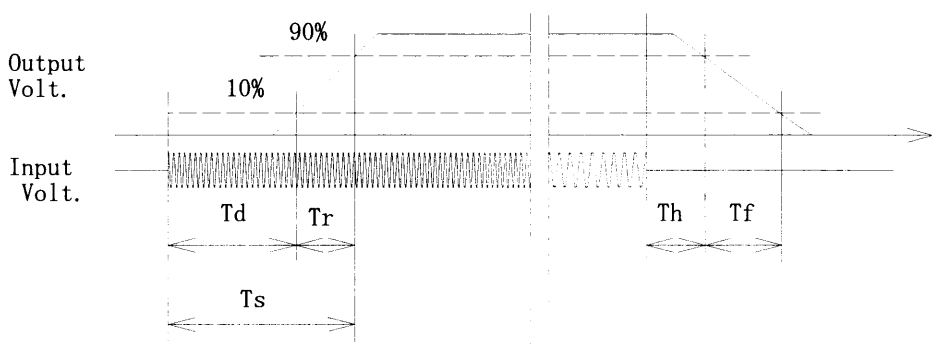
1. Graph



2. Values

[mS]

Output \ Time	T d	T r	T s	T h	T f
V1	485.5	5.0	490.5	33.8	1.3
V2	485.5	4.0	489.5	33.3	1.8
V3	485.5	6.5	492.0	33.3	2.5
V4	485.5	5.5	491.0	33.5	2.8



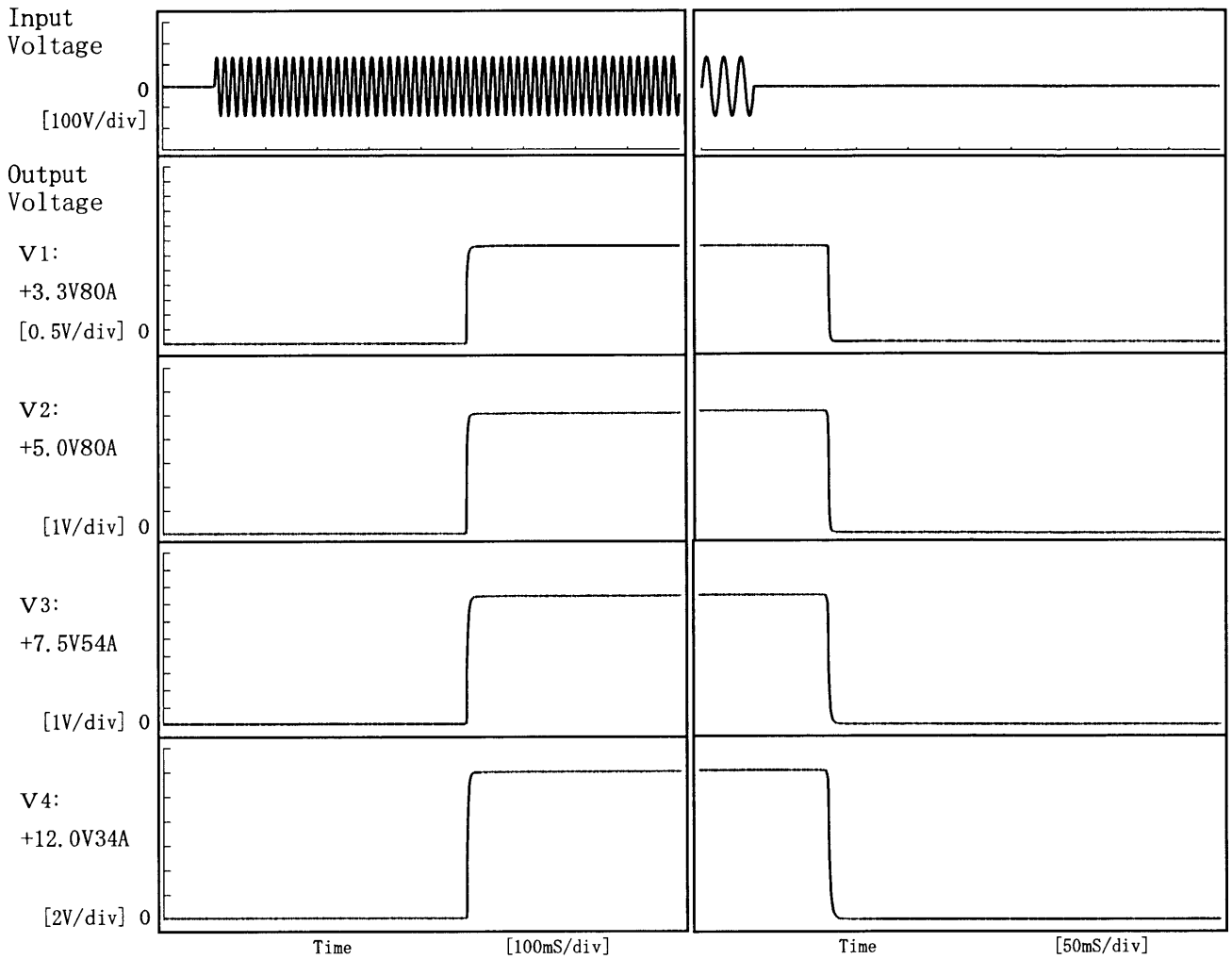
COSEL

Model	MAX1600F		
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. 100 V

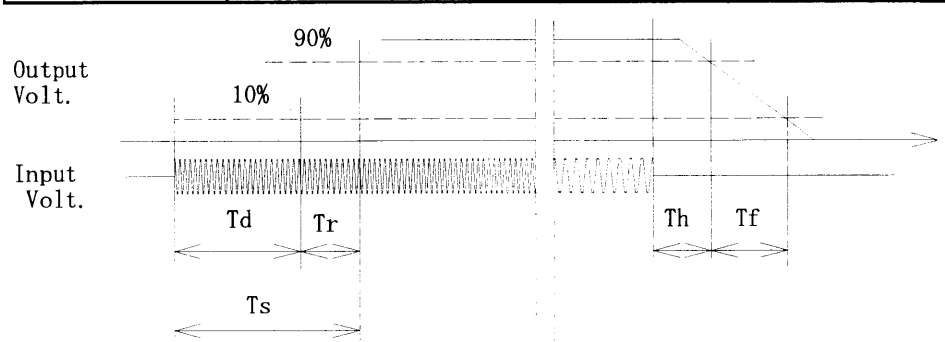
1. Graph



2. Values

[mS]

Output \ Time	T d	T r	T s	T h	T f
V1	486.5	4.5	491.0	73.3	1.8
V2	486.5	3.5	490.0	73.3	1.8
V3	486.5	6.0	492.5	73.5	3.0
V4	486.5	5.0	491.5	73.5	3.8



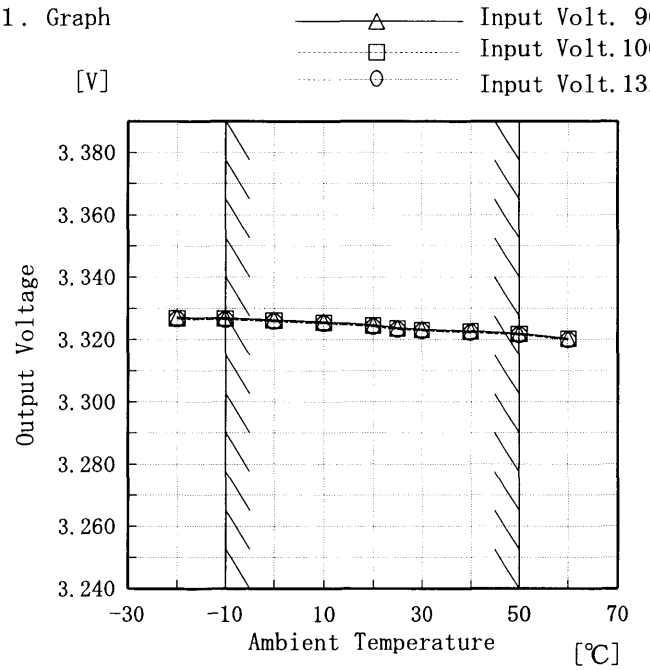
COSEL

Model	MAX1600F
Item	Ambient Temperature Drift 周囲温度変動

Testing Circuitry Figure A

Object V1:+3.3V80A

1. Graph

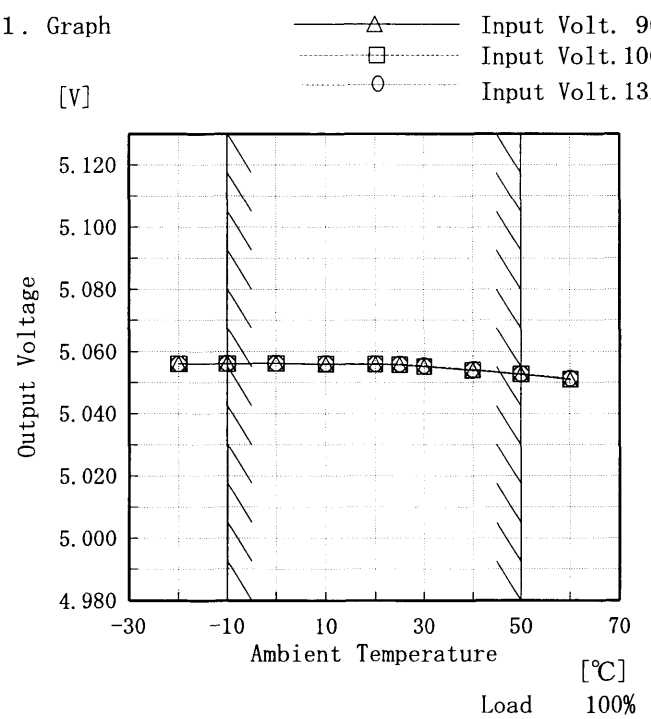


2. Values

Ambient Temperature [℃]	Output Voltage [V]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	3.327	3.327	3.327
-10	3.327	3.327	3.326
0	3.326	3.326	3.326
10	3.326	3.325	3.325
20	3.325	3.324	3.324
25	3.324	3.324	3.323
30	3.323	3.323	3.323
40	3.323	3.323	3.322
50	3.322	3.322	3.321
60	3.320	3.320	3.320
—	—	—	—

Object V2:+5.0V80A

1. Graph



2. Values

Ambient Temperature [℃]	Output Voltage [V]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	5.056	5.056	5.056
-10	5.056	5.056	5.056
0	5.056	5.056	5.056
10	5.056	5.056	5.056
20	5.056	5.056	5.056
25	5.056	5.056	5.056
30	5.055	5.055	5.055
40	5.054	5.054	5.054
50	5.053	5.053	5.053
60	5.051	5.051	5.051
—	—	—	—

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。

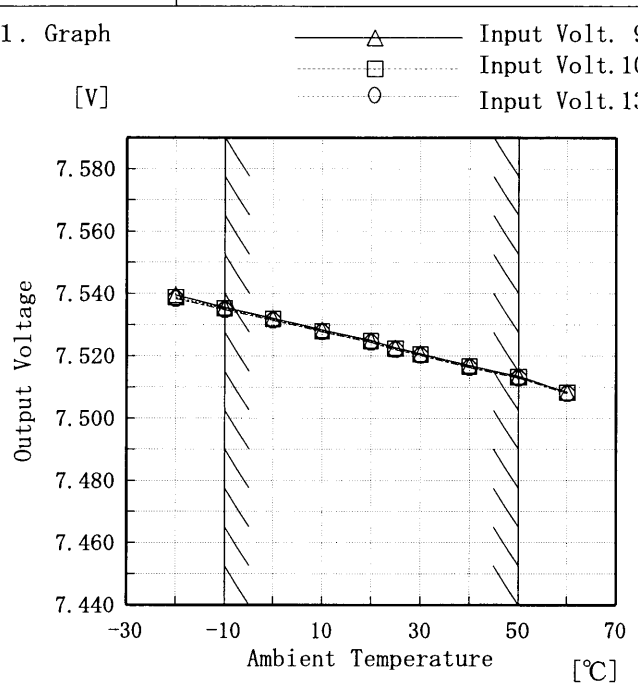
COSEL

Model	MAX1600F
Item	Ambient Temperature Drift 周囲温度変動

Testing Circuitry Figure A

Object V3:+7.5V54A

1. Graph

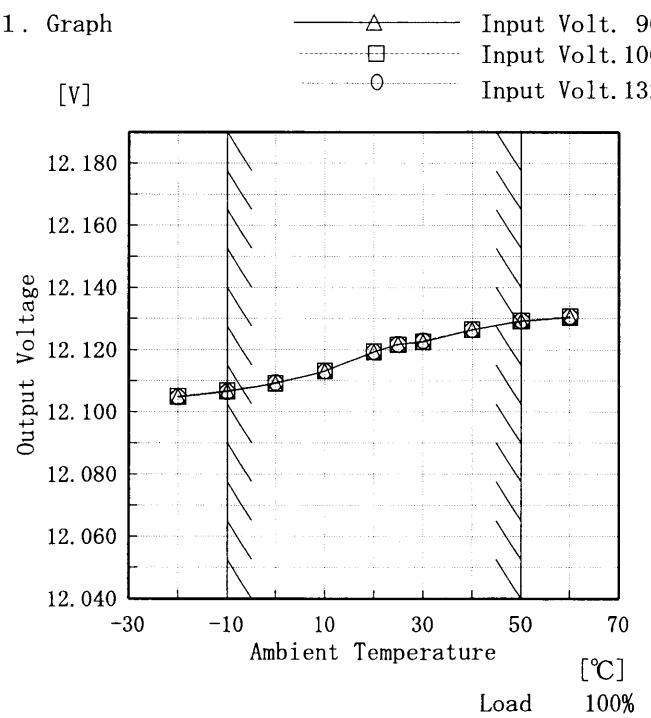


2. Values

Ambient Temperature [℃]	Output Voltage [V]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	7.539	7.539	7.538
-10	7.536	7.535	7.535
0	7.532	7.532	7.531
10	7.528	7.528	7.528
20	7.525	7.525	7.524
25	7.523	7.522	7.522
30	7.521	7.520	7.520
40	7.517	7.517	7.516
50	7.513	7.513	7.513
60	7.508	7.508	7.508
—	—	—	—

Object V4:+12.0V34A

1. Graph



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

(注)斜線は定格周囲温度範囲を示す。

2. Values

Ambient Temperature [℃]	Output Voltage [V]		
	Input Volt. 90[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	12.105	12.105	12.105
-10	12.107	12.107	12.106
0	12.109	12.109	12.109
10	12.113	12.113	12.113
20	12.119	12.119	12.119
25	12.122	12.122	12.122
30	12.122	12.123	12.123
40	12.126	12.126	12.126
50	12.129	12.129	12.129
60	12.130	12.131	12.131
—	—	—	—

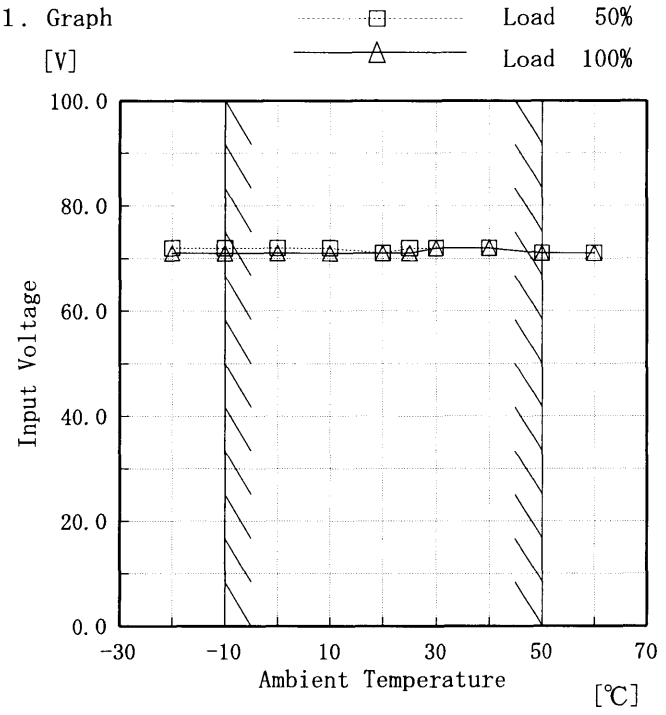
COSEL

Model	MAX1600F
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:+3.3V80A

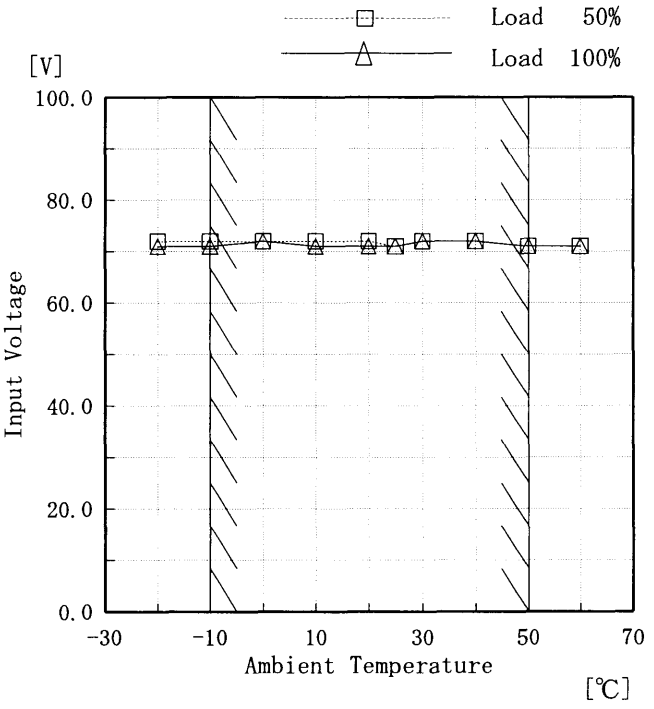
1. Graph



2. Values

Ambient Temperature [℃]	Input Voltage [V]	
	Load 50%	Load 100%
-20	72	71
-10	72	71
0	72	71
10	72	71
20	71	71
25	72	71
30	72	72
40	72	72
50	71	71
60	71	71
—	—	—

Object V2:+5.0V80A



2. Values

Ambient Temperature [℃]	Input Voltage [V]	
	Load 50%	Load 100%
-20	72	71
-10	72	71
0	72	72
10	72	71
20	72	71
25	71	71
30	72	72
40	72	72
50	71	71
60	71	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。

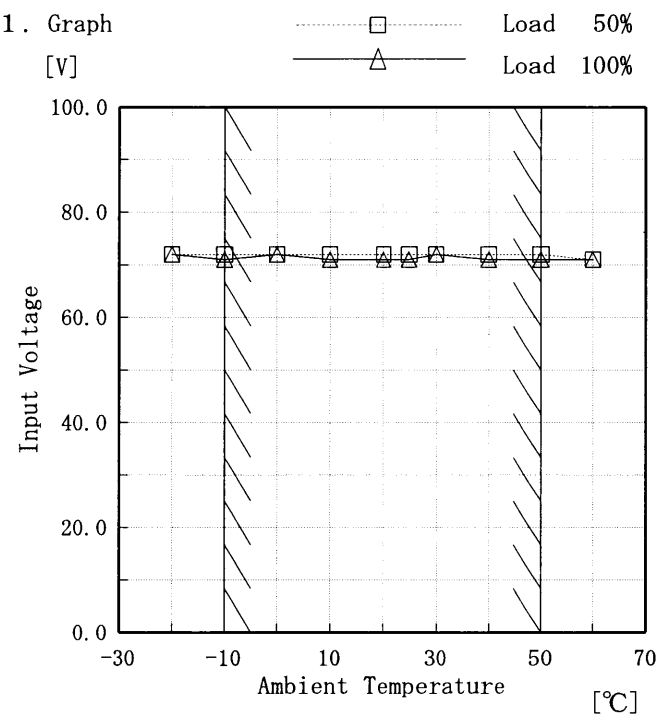
COSEL

Model	MAX1600F
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 V3:+7.5V54A

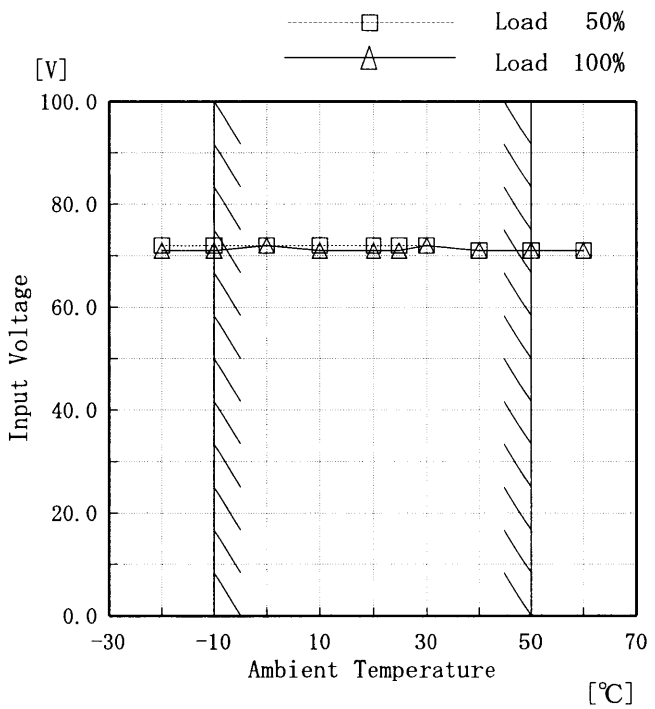
1. Graph



2. Values

Ambient Temperature [℃]	Input Voltage [V]	
	Load 50%	Load 100%
-20	72	72
-10	72	71
0	72	72
10	72	71
20	72	71
25	72	71
30	72	72
40	72	71
50	72	71
60	71	71
—	—	—

Object V4:+12.0V34A



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	72	71
-10	72	71
0	72	72
10	72	71
20	72	71
25	72	71
30	72	72
40	71	71
50	71	71
60	71	71
—	—	—

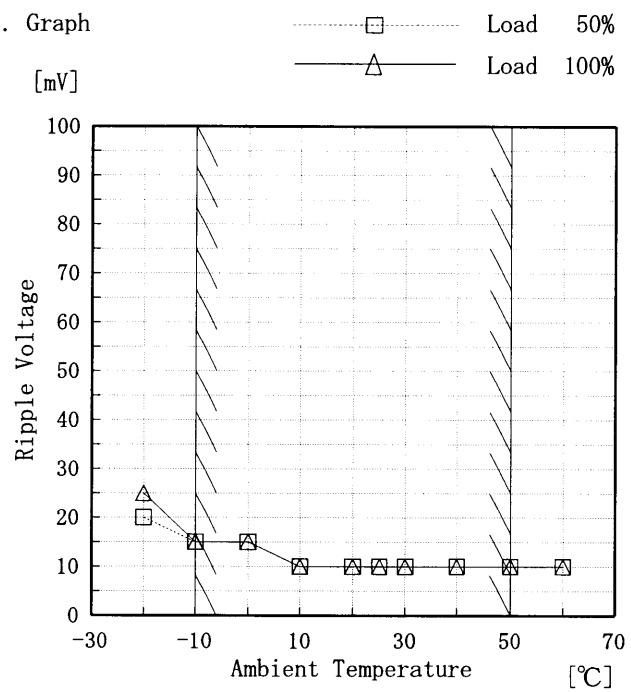
COSEL

Model	MAX1600F
Item	Ripple Voltage (by Ambient Temp.) リップル電圧（周囲温度特性）

Testing Circuitry　Figure A

Object　V1:+3.3V80A

1. Graph



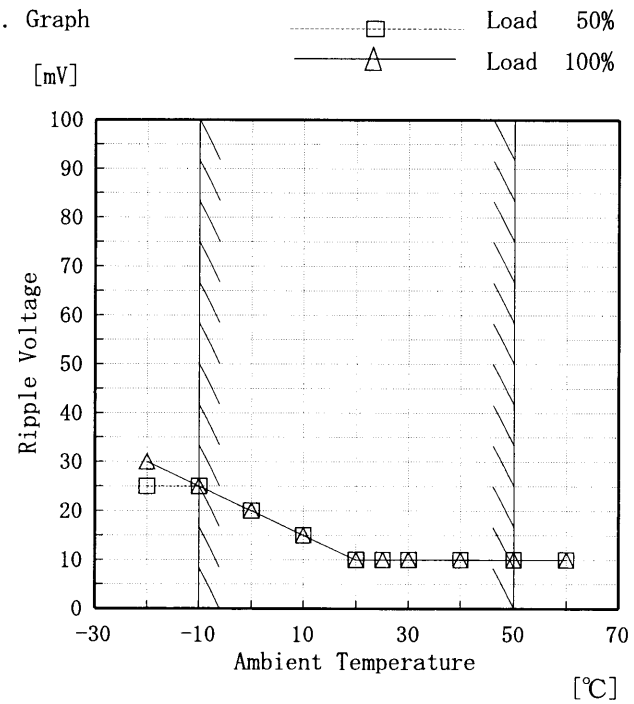
Input Volt.　100 V

2. Values

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

Object　V2:+5.0V80A

1. Graph



Input Volt.　100 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 Temperature [℃]	Ripple Output Voltage [mV]	
	Load 50%	Load 100%
-20	25	30
-10	25	25
0	20	20
10	15	15
20	10	10
25	10	10
30	10	10
40	10	10
50	10	10
60	10	10
—	—	—

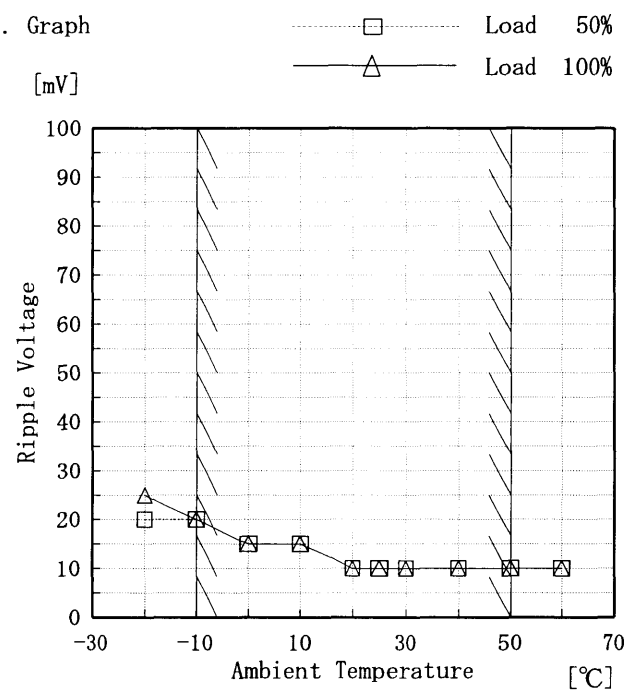
COSEL

Model	MAX1600F
Item	Ripple Voltage (by Ambient Temp.) リップル電圧（周囲温度特性）

Testing Circuitry Figure A

Object V3:+7.5V54A

1. Graph



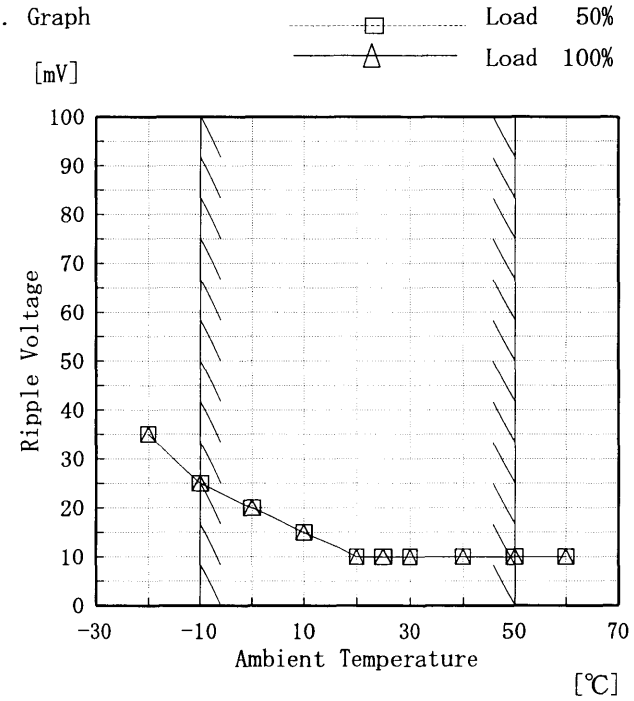
Input Volt. 100 V

2. Values

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

Object V4:+12.0V34A

1. Graph



Input Volt. 100 V

2. Values

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

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。

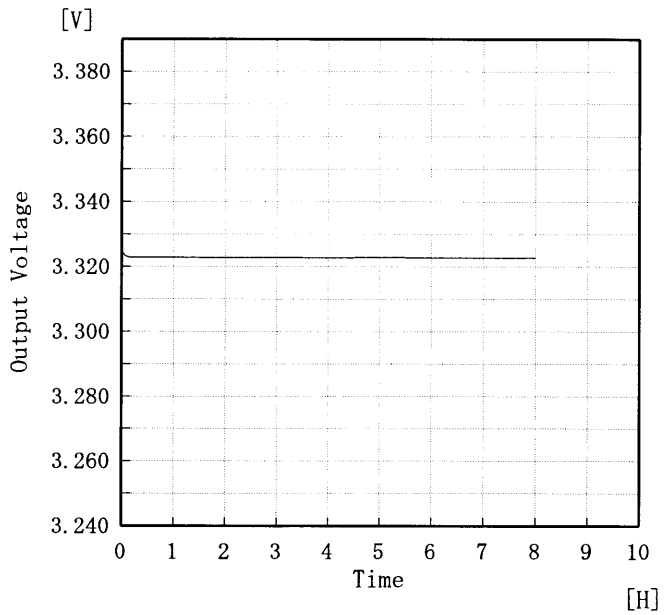
COSEL

Model	MAX1600F
Item	Time Lapse Drift 経時ドリフト

Temperature 25℃
Testing Circuitry Figure A

Object V1:+3.3V80A

1. Graph



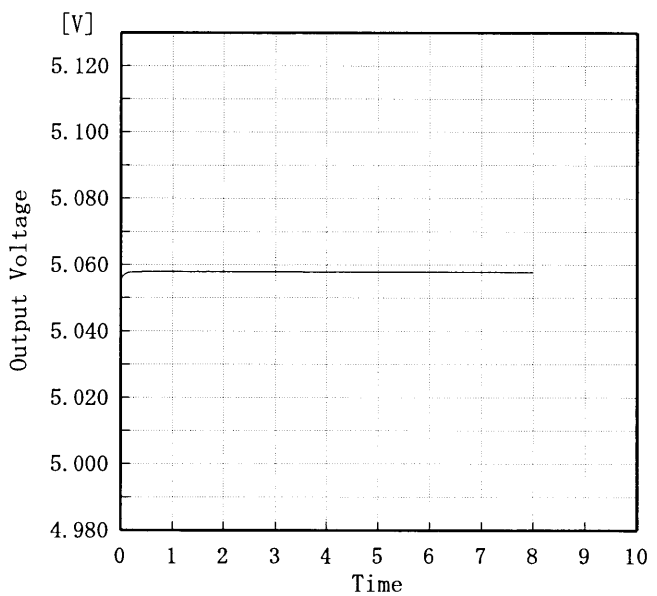
Input Volt. 100V
Load 100%

2. Values

Time since start [H]	Output Voltage [V]
0.0	3.327
0.5	3.323
1.0	3.323
2.0	3.323
3.0	3.323
4.0	3.323
5.0	3.323
6.0	3.323
7.0	3.323
8.0	3.323

Object V2:+5.0V80A

1. Graph



Input Volt. 100V
Load 100%

2. Values

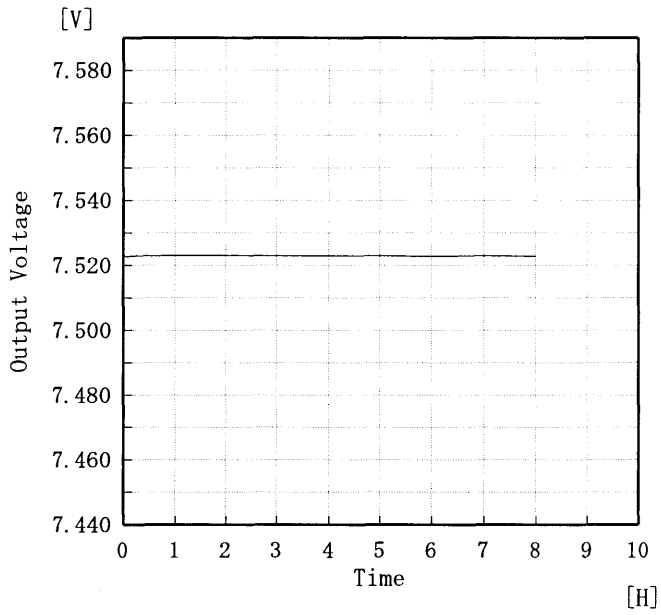
Time since start [H]	Output Voltage [V]
0.0	5.057
0.5	5.058
1.0	5.058
2.0	5.058
3.0	5.058
4.0	5.058
5.0	5.058
6.0	5.058
7.0	5.058
8.0	5.058

COSEL

Model	MAX1600F	Temperature	25℃
Item	Time Lapse Drift 経時ドリフト	Testing Circuitry	Figure A

Object: V3:+7.5V54A

1. Graph



Input Volt. 100V

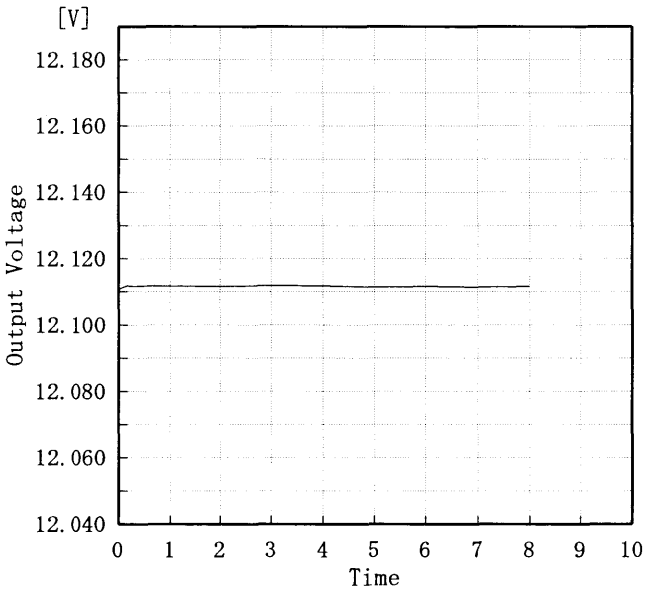
Load 100%

2. Values

Time since start [H]	Output Voltage [V]
0.0	7.526
0.5	7.523
1.0	7.523
2.0	7.523
3.0	7.523
4.0	7.523
5.0	7.523
6.0	7.523
7.0	7.523
8.0	7.523

Object: V4:+12.0V34A

1. Graph



Input Volt. 100V

Load 100%

2. Values

Time since start [H]	Output Voltage [V]
0.0	12.114
0.5	12.112
1.0	12.112
2.0	12.112
3.0	12.112
4.0	12.112
5.0	12.111
6.0	12.112
7.0	12.111
8.0	12.112

COSEL

Model	MAX1600F	
Item	Output Voltage Accuracy 定電圧精度	Testing Circuitry Figure A

1. Output Voltage Accuracy 定電圧精度

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.

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。

Temperature 周囲温度 : -10～50 ℃

Input Voltage 入力電圧 : 90～132 V

Load Current 負荷電流 (V1) : 0～80 A (V2) : 0～80 A (V3) : 0～54 A (V4) : 0～34 A

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

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

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

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

2. Values

Object	V1:+3.3V80A					
Item	Temperature [℃]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	-10	132	0	3.344	±12	±0.4
Minimum Voltage	50	132	80	3.321		

Object	V2:+5.0V80A					
Item	Temperature [℃]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	25	132	0	5.077	±12	±0.2
Minimum Voltage	50	132	80	5.054		

Object	V3:+7.5V54A					
Item	Temperature [℃]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	-10	132	0	7.552	±19	±0.3
Minimum Voltage	50	132	54	7.514		

Object	V4:+12.0V34A					
Item	Temperature [℃]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	50	132	0	12.148	±20	±0.2
Minimum Voltage	-10	132	34	12.108		

COSEL

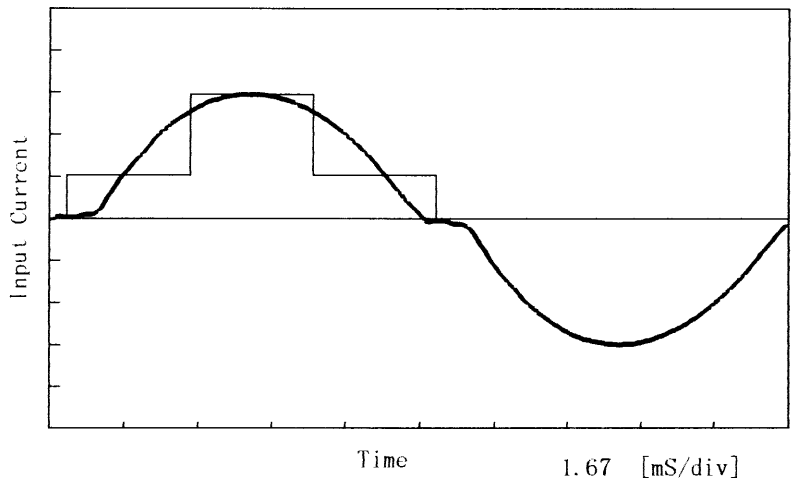
Model	MAX1600F		
Item	Harmonic Current 高調波電流	Temperature Testing Circuitry	25℃ Figure E
Object	————		

1. Input Current Waveform

——— Input Current

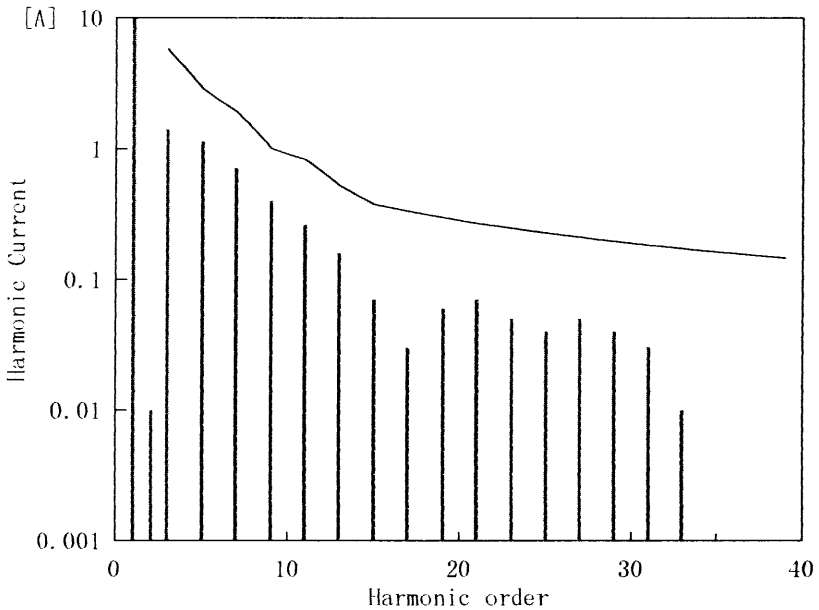
——— Envelope of the input current to classify equipment as Class D
ｸﾗｽDの機器を決定するための入力電流包絡線

10 A/div



Conditions	Values
Input Voltage [V]	100.0
Input Current [A]	19.74
Active Power [W]	1963.6
Apparent Power[VA]	1974.1
Frequency [Hz]	60
Power Factor	0.995
Output Power [W]	1477

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	—	********
2	—	0.01000
3	5.76881	1.41000
4	—	0.00000
5	2.85932	1.14000
6	—	0.00000
7	1.93130	0.71000
8	—	0.00000
9	1.00327	0.40000
10	—	0.00000
11	0.82770	0.26000
12	—	0.00000
13	0.52672	0.16000
14	—	0.00000
15	0.37623	0.07000
16	—	0.00000
17	0.33196	0.03000
18	—	0.00000
19	0.29702	0.06000
20	—	0.00000
21	0.26873	0.07000
22	—	0.00000
23	0.24537	0.05000
24	—	0.00000
25	0.22574	0.04000
26	—	0.00000
27	0.20901	0.05000
28	—	0.00000
29	0.19460	0.04000
30	—	0.00000
31	0.18205	0.03000
32	—	0.00000
33	0.17101	0.01000
34	—	0.00000
35	0.16124	0.00000
36	—	0.00000
37	0.15252	0.00000
38	—	0.00000
39	0.14470	0.00000
40	—	0.00000

COSEL

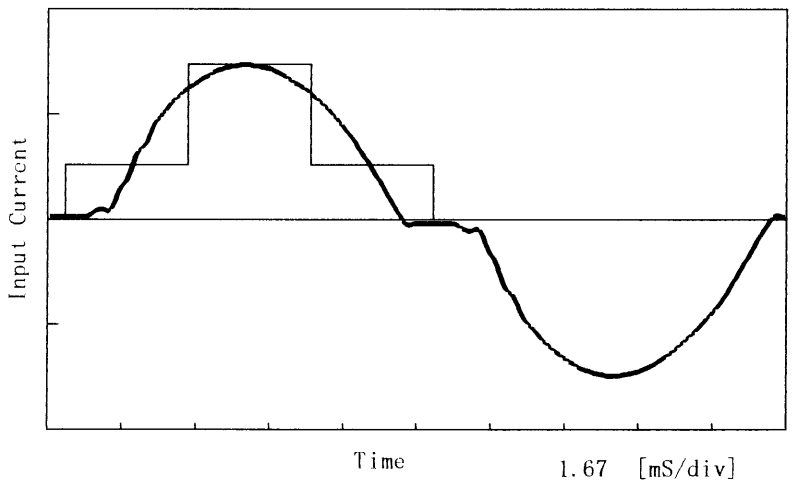
Model	MAX1600F		
Item	Harmonic Current 高調波電流	Temperature Testing Circuitry	25℃ Figure E
Object	————		

1. Input Current Waveform

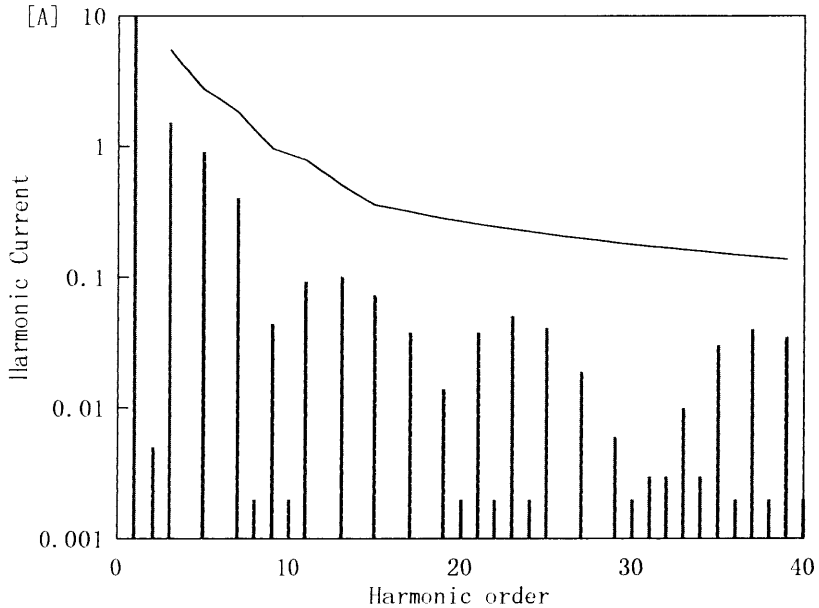
——— Input Current

——— 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

10 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]	100.0
Input Current [A]	9.86
Active Power [W]	968.4
Apparent Power[VA]	986.1
Frequency [Hz]	60
Power Factor	0.982
Output Power [W]	738.5

Harmonics order 高調波次数	Limits 限度値 [A]	Values 測定値 [A]
1	—	********
2	—	0.00500
3	5.48755	1.53400
4	—	0.00100
5	2.71992	0.91100
6	—	0.00100
7	1.83714	0.40400
8	—	0.00200
9	0.95436	0.04400
10	—	0.00200
11	0.78734	0.09300
12	—	0.00100
13	0.50104	0.10100
14	—	0.00000
15	0.35788	0.07300
16	—	0.00000
17	0.31578	0.03800
18	—	0.00100
19	0.28254	0.01400
20	—	0.00200
21	0.25563	0.03800
22	—	0.00200
23	0.23340	0.05100
24	—	0.00200
25	0.21473	0.04100
26	—	0.00100
27	0.19882	0.01900
28	—	0.00100
29	0.18511	0.00600
30	—	0.00200
31	0.17317	0.00300
32	—	0.00300
33	0.16267	0.01000
34	—	0.00300
35	0.15338	0.03000
36	—	0.00200
37	0.14509	0.04000
38	—	0.00200
39	0.13765	0.03500
40	—	0.00200

COSEL

Model	MAX1600F	
Item	Condensation 結露特性	Testing Circuitry Figure A

1. Condensation test 結露特性試験

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.

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:+3.3V80A

Item	Data	Testing Conditions
Output Voltage [V]	3.343	Input Volt.: 100V, Load Current:80A
Line Regulation [mV]	1	Input Volt.: 90～132V, Load Current:80A
Load Regulation [mV]	19	Input Volt.: 100V, Load Current:0～80A

Object V2:+5.0V80A

Item	Data	Testing Conditions
Output Voltage [V]	5.063	Input Volt.: 100V, Load Current:80A
Line Regulation [mV]	1	Input Volt.: 90～132V, Load Current:80A
Load Regulation [mV]	22	Input Volt.: 100V, Load Current:0～80A

Object V3:+7.5V54A

Item	Data	Testing Conditions
Output Voltage [V]	7.544	Input Volt.: 100V, Load Current:54A
Line Regulation [mV]	2	Input Volt.: 90～132V, Load Current:54A
Load Regulation [mV]	18	Input Volt.: 100V, Load Current:0～54A

Object V4:+12.0V34A

Item	Data	Testing Conditions
Output Voltage [V]	12.107	Input Volt.: 100V, Load Current:34A
Line Regulation [mV]	2	Input Volt.: 90～132V, Load Current:34A
Load Regulation [mV]	15	Input Volt.: 100V, Load Current:0～34A

COSEL

Model	MAX1600F		
Item	Leakage Current 漏洩電流	Temperature Testing Circuitry	25℃ Figure B
Object	————————		

1. Results

Standards	Leakage Current [mA]		
	Input Volt. 90 [V]	Input Volt. 100 [V]	Input Volt. 132 [V]
(A) DENTORI	0.40	0.45	0.65
(B) IEC60950	0.45	0.50	0.65

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

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	MAX1600F		
Item	Line Noise Tolerance 入力雑音耐量	Temperature Testing Circuitry	25℃ Figure C

1. Results

Conditions

Input Voltage :100 V　　Pulse Input Duration:1 min. or more

Pulse Voltage :2000 V　　Load :100 %

Pulse Cycle :10 mS

Object　V１：＋3.3V80A

Pulse Width [nS]	MODE	POLARITY	Malfunction of protective circuits	Fluctuation of output voltage
50	COMMON	+/-	OK	OK
	NORMAL	+/-	OK	OK
1000	COMMON	+/-	OK	OK
	NORMAL	+/-	OK	OK

Object　V２：＋5.0V80A

Pulse Width [nS]	MODE	POLARITY	Malfunction of protective circuits	Fluctuation of output voltage
50	COMMON	+/-	OK	OK
	NORMAL	+/-	OK	OK
1000	COMMON	+/-	OK	OK
	NORMAL	+/-	OK	OK

Object　V３：＋7.5V54A

Pulse Width [nS]	MODE	POLARITY	Malfunction of protective circuits	Fluctuation of output voltage
50	COMMON	+/-	OK	OK
	NORMAL	+/-	OK	OK
1000	COMMON	+/-	OK	OK
	NORMAL	+/-	OK	OK

Object　V４：＋12.0V34A

Pulse Width [nS]	MODE	POLARITY	Malfunction of protective circuits	Fluctuation of output voltage
50	COMMON	+/-	OK	OK
	NORMAL	+/-	OK	OK
1000	COMMON	+/-	OK	OK
	NORMAL	+/-	OK	OK

COSEL

Model	MAX1600F		
Item	Conducted Emission 雑音端子電圧	Temperature Testing Circuitry	25℃ Figure D
Object	————————		

1. Graph

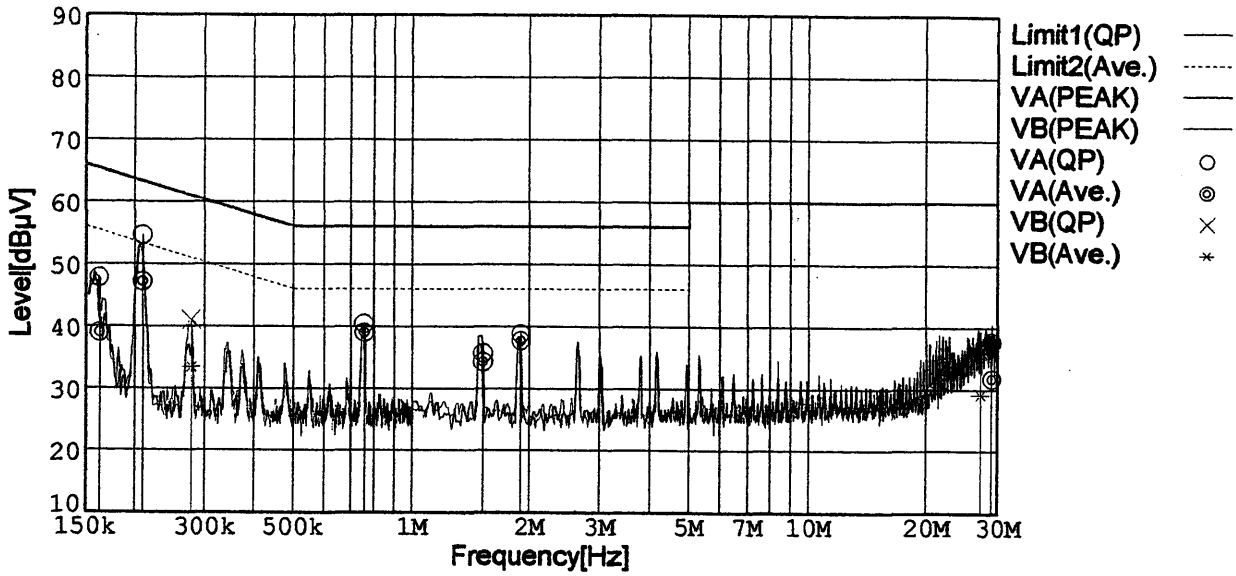
Remarks

Input Volt. 100 V (VCCI Class B)

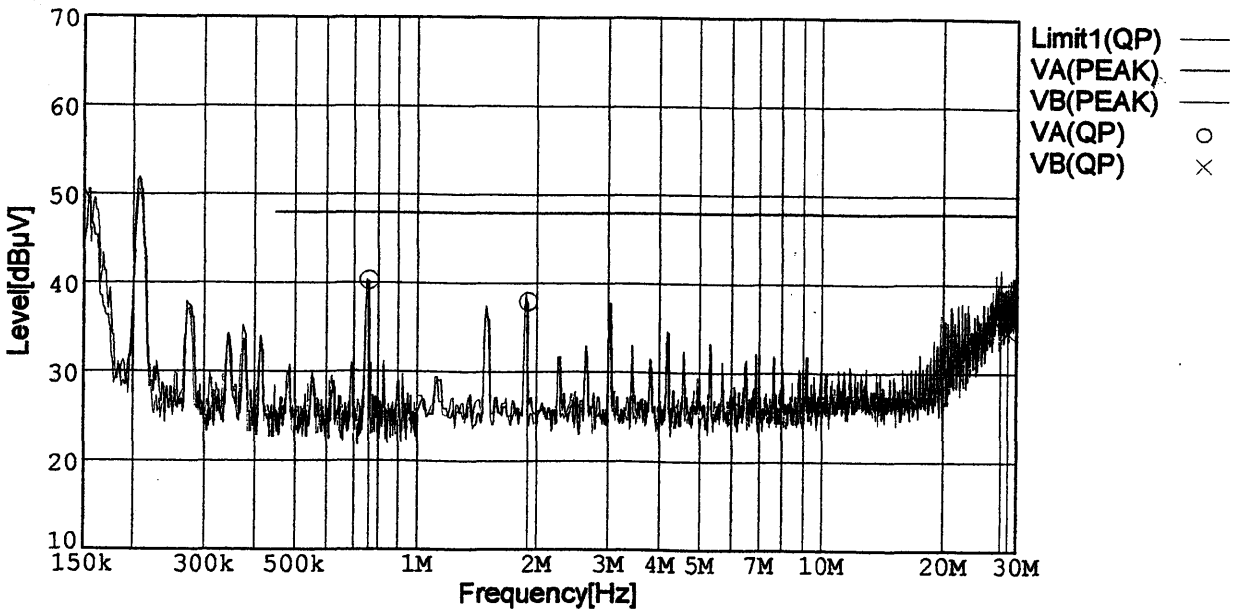
120 V (FCC Class B)

Load 100 %

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



Limit1: [FCC Part15] Class B



COSEL

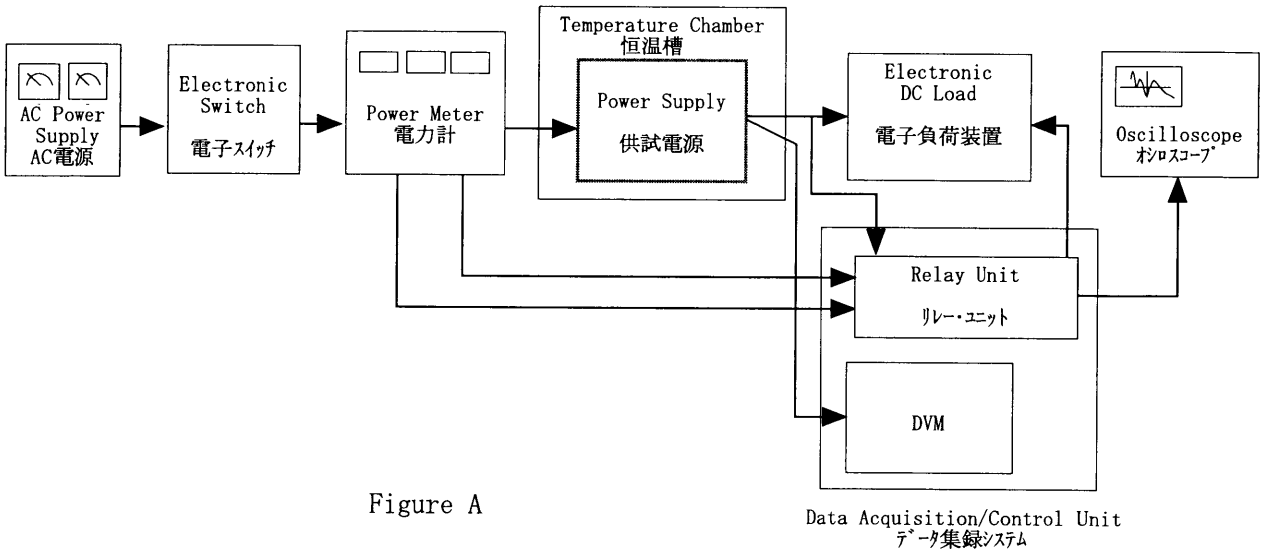


Figure A

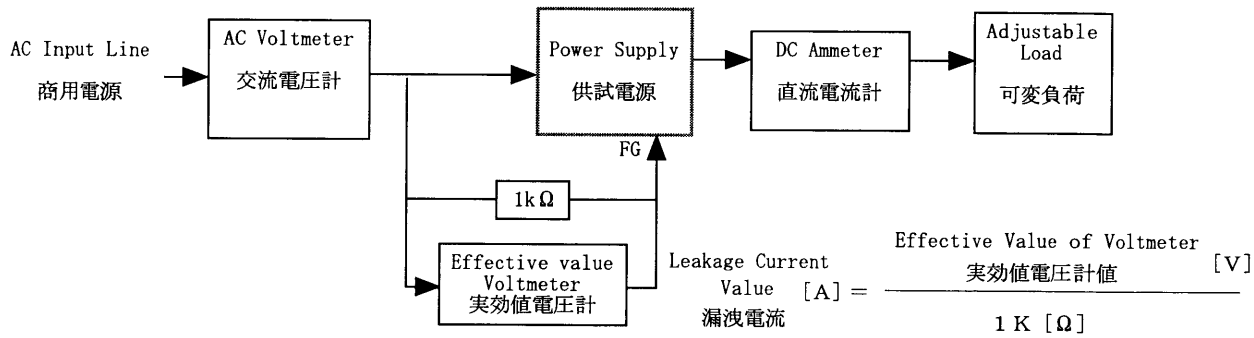


Figure B(DENTORI)

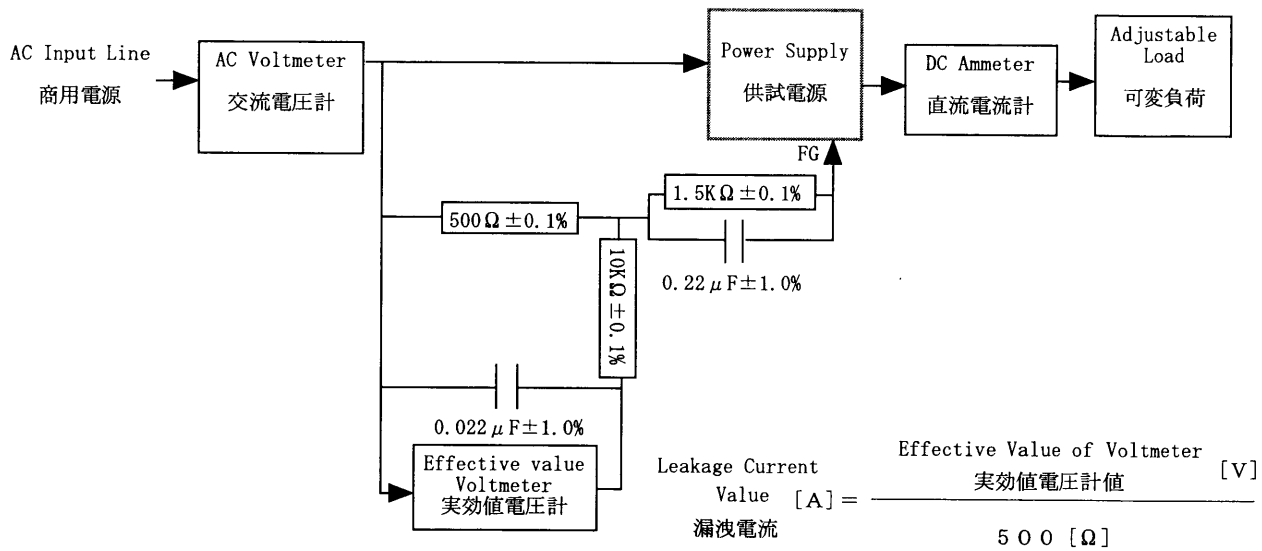


Figure B(IEC60950)

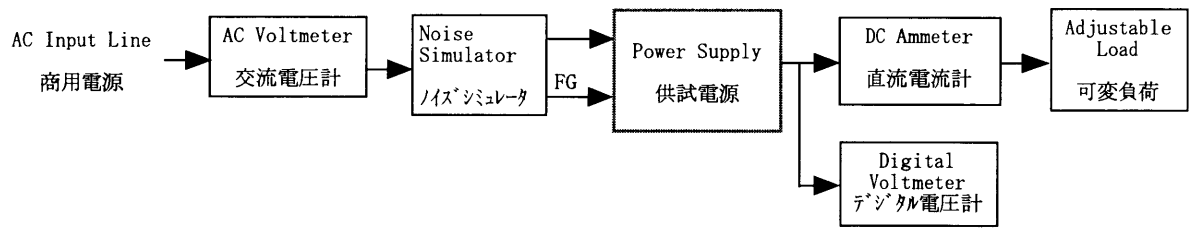


Figure C

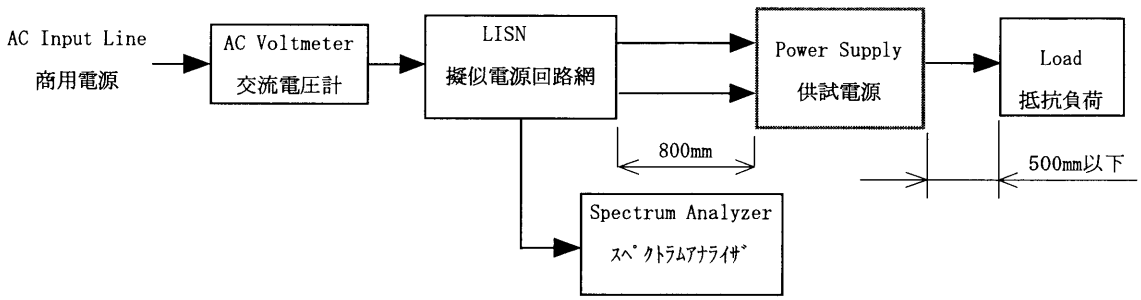


Figure D

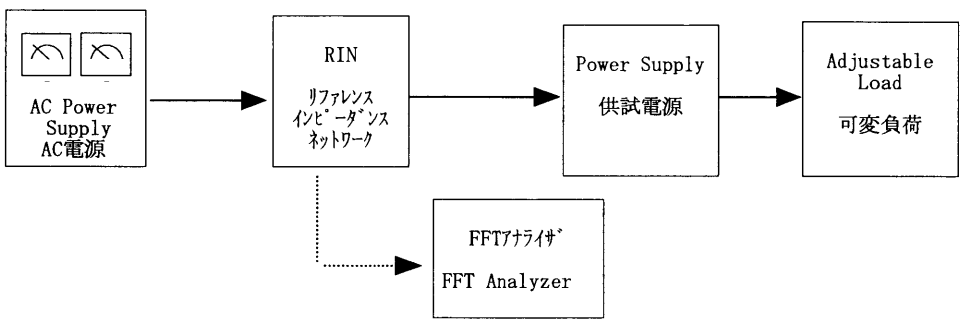


Figure E