参考資料

COSEL

# TEST DATA OF PAA100F-15

(100V INPUT)

Regulated DC Power Supply

Date : Apr. 17. 1996

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Design Engineer

コーセル株式会社

COSEL CO., LTD.

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# CONTENTS



(Final Page 26 )

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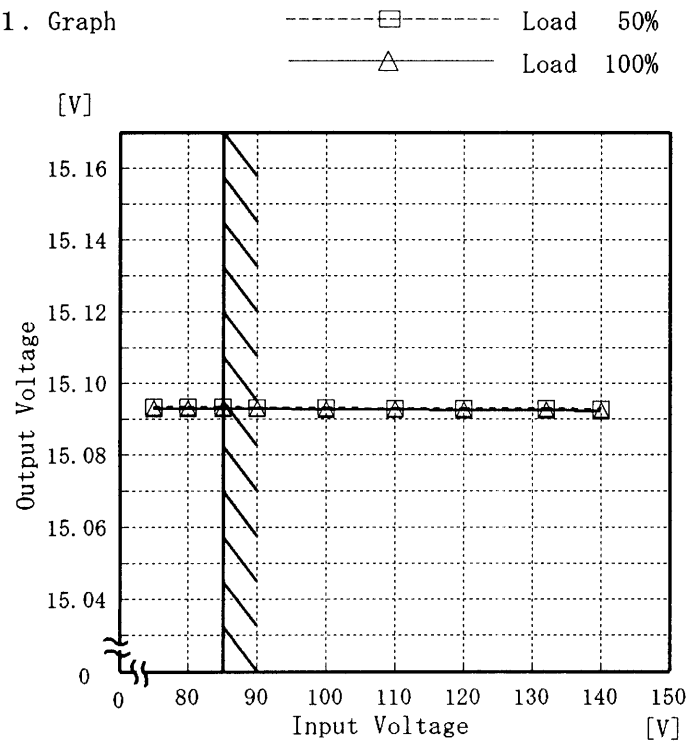
| | |
|---|---|
| Model | PAA100F-15 |
| Item | Line Regulation 静的入力変動 |
| Object | +15V7.00A |

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% Output Volt. [V] | Load 100% Output Volt. [V] |
|---|---|---|
| 75 | 15.094 | 15.093 |
| 80 | 15.093 | 15.093 |
| 85 | 15.093 | 15.093 |
| 90 | 15.093 | 15.093 |
| 100 | 15.093 | 15.093 |
| 110 | 15.093 | 15.093 |
| 120 | 15.093 | 15.093 |
| 132 | 15.093 | 15.092 |
| 140 | 15.093 | 15.092 |

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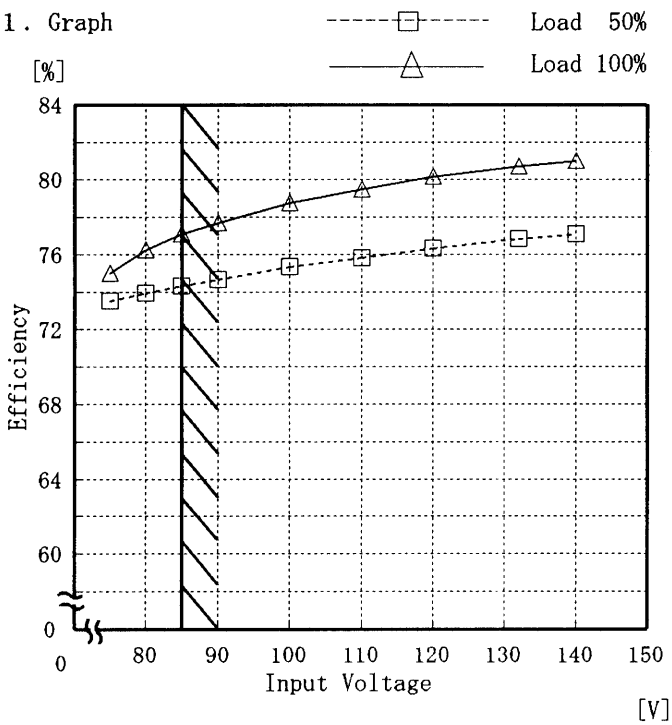
| | |
|---|---|
| Model | PAA100F-15 |
| Item | Efficiency 効率 |
| Object | ―――――――――― |

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

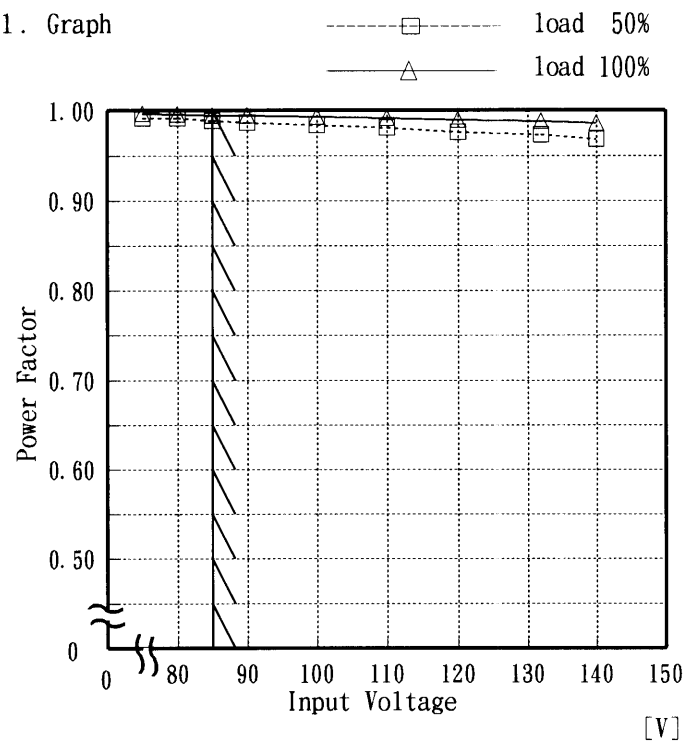
| Input Voltage [V] | Load 50% Efficiency [%] | Load 100% Efficiency [%] |
|---|---|---|
| 75 | 73.5 | 75.0 |
| 80 | 74.0 | 76.3 |
| 85 | 74.3 | 77.1 |
| 90 | 74.7 | 77.7 |
| 100 | 75.4 | 78.8 |
| 110 | 75.8 | 79.5 |
| 120 | 76.4 | 80.2 |
| 132 | 76.8 | 80.7 |
| 140 | 77.1 | 81.0 |

COSEL

| | |
|---|---|
| Model | PAA100F-15 |
| Item | Power Factor　力率 |
| 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 | 0.99 | 1.00 |
| 80 | 0.99 | 1.00 |
| 85 | 0.99 | 1.00 |
| 90 | 0.99 | 1.00 |
| 100 | 0.98 | 0.99 |
| 110 | 0.98 | 0.99 |
| 120 | 0.98 | 0.99 |
| 132 | 0.97 | 0.99 |
| 140 | 0.97 | 0.99 |

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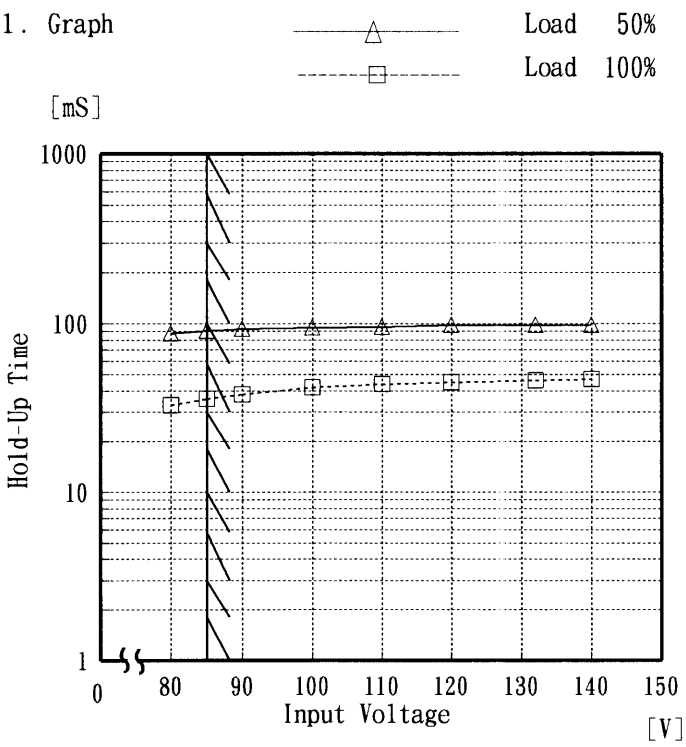
|---|---|
| Model | PAA100F-15 |
| Item | Hold-Up Time　出力保持時間 |
| Object | +15V7.00A |

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、ＡＣ入力断から出力電圧が、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] |
|---|---|---|
| 80 | 88 | 33 |
| 85 | 91 | 36 |
| 90 | 93 | 38 |
| 100 | 95 | 42 |
| 110 | 96 | 44 |
| 120 | 98 | 45 |
| 132 | 98 | 46 |
| 140 | 98 | 47 |

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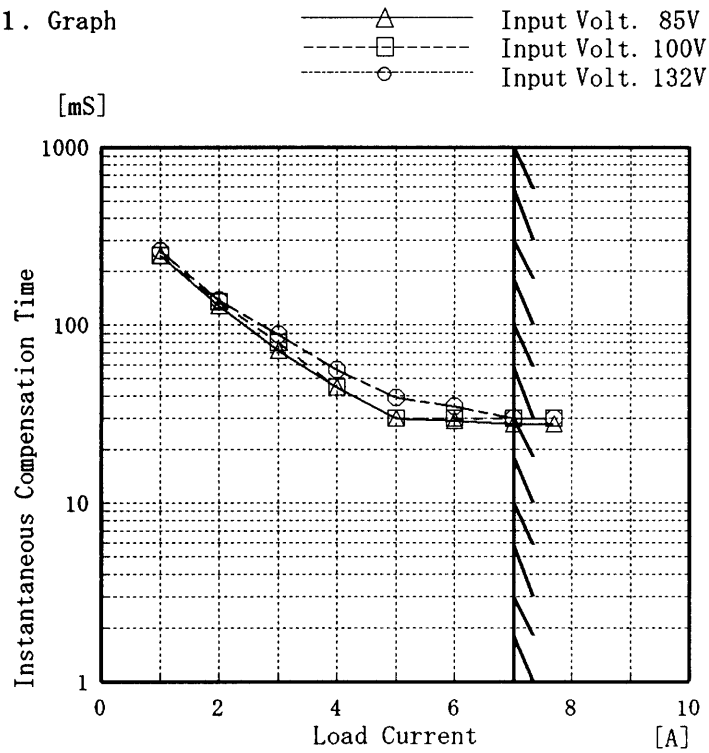
| Model | PAA100F-15 |
|---|---|
| Item | Instantaneous Interruption Compensation<br>瞬時停電保障 |
| Object | +15V7.00A |

Testing Circuitry Figure A

1. Graph




This duration covers from Shut-off of AC-IN to the moment when output voltage descends to its 95% of the rated.

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

瞬時停電保障時間とは、出力電圧が定格値の９５％になる時の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 | — | — | — |
| 1.0 | 246 | 247 | 263 |
| 2.0 | 128 | 135 | 138 |
| 3.0 | 72 | 80 | 89 |
| 4.0 | 45 | 45 | 56 |
| 5.0 | 30 | 30 | 39 |
| 6.0 | 29 | 30 | 35 |
| 7.0 | 28 | 30 | 30 |
| 7.7 | 28 | 30 | 30 |
| — | — | — | — |
| — | — | — | — |

COSEL

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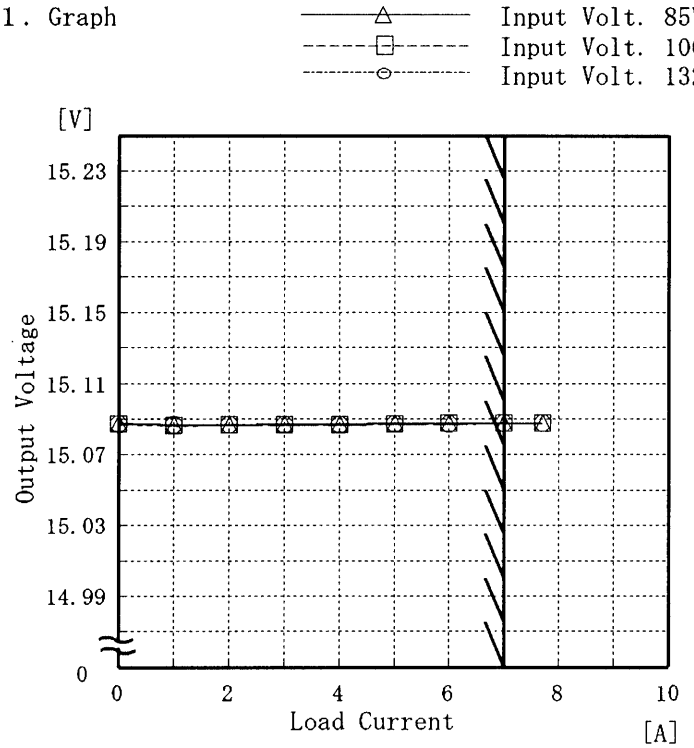
|---|---|
| Model | PAA100F-15 |
| Item | Load Regulation 静的負荷変動 |
| Object | +15V7.00A |

Temperature 25℃
Testing Circuitry Figure A

1. Graph




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

(注)斜線は定格負荷電流範囲を示す。

2. Values

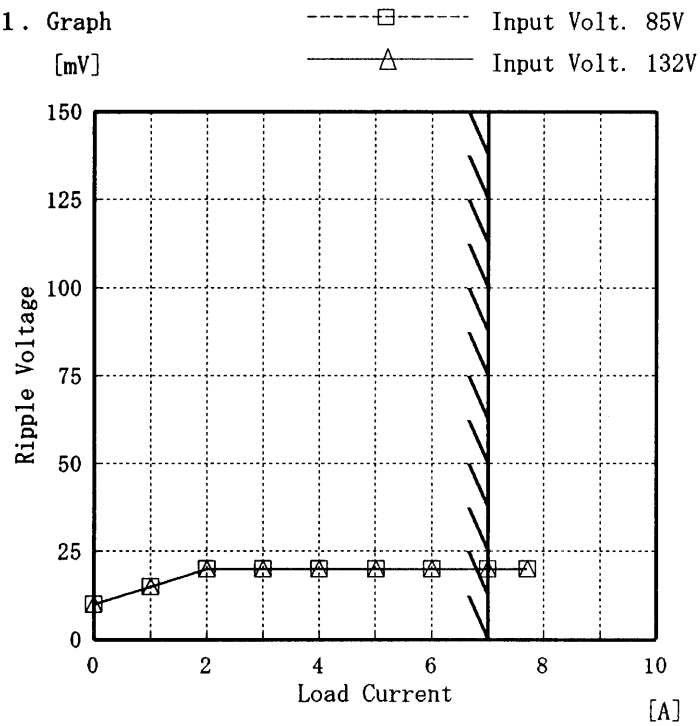
| Load Current [A] | Input Volt. 85[V] Output Volt. [V] | Input Volt. 100[V] Output Volt. [V] | Input Volt. 132[V] Output Volt. [V] |
|---|---|---|---|
| 0.0 | 15.088 | 15.087 | 15.087 |
| 1.0 | 15.087 | 15.087 | 15.087 |
| 2.0 | 15.087 | 15.087 | 15.087 |
| 3.0 | 15.087 | 15.087 | 15.087 |
| 4.0 | 15.087 | 15.087 | 15.087 |
| 5.0 | 15.088 | 15.087 | 15.087 |
| 6.0 | 15.088 | 15.088 | 15.087 |
| 7.0 | 15.088 | 15.088 | 15.088 |
| 7.7 | 15.088 | 15.088 | 15.088 |
| — | — | — | — |

COSEL

| | |
|---|---|
| Model | PAA100F-15 |
| Item | Ripple Voltage(by Load Current)<br>リップル電圧(負荷電流特性) |
| Object | +15V7.00A |

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

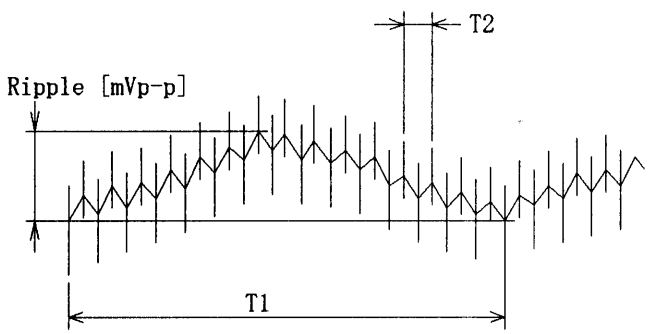



Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

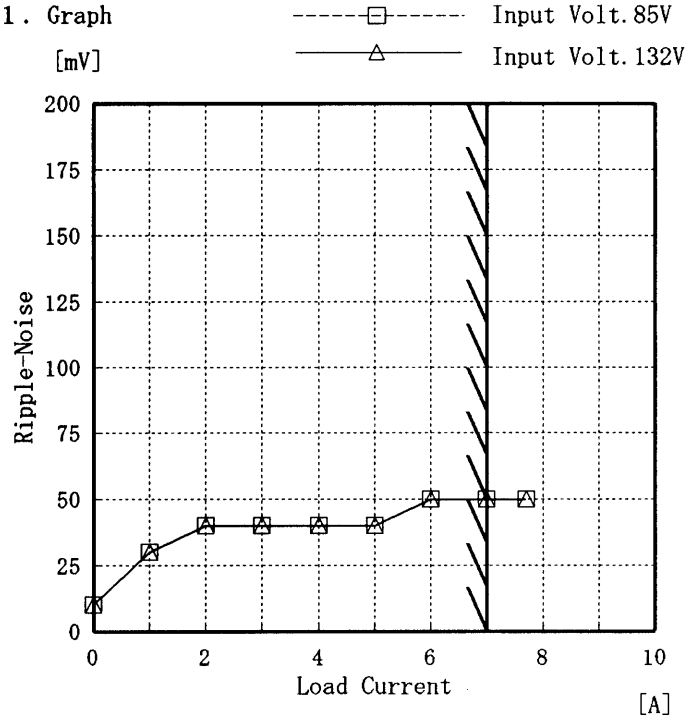
| Load Current [A] | Input Volt. 85 [V] Ripple Output Volt. [mV] | Input Volt. 132 [V] Ripple Output Volt. [mV] |
|---|---|---|
| 0.0 | 10 | 10 |
| 1.0 | 15 | 15 |
| 2.0 | 20 | 20 |
| 3.0 | 20 | 20 |
| 4.0 | 20 | 20 |
| 5.0 | 20 | 20 |
| 6.0 | 20 | 20 |
| 7.0 | 20 | 20 |
| 7.7 | 20 | 20 |
| — | — | — |
| — | — | — |

COSEL

| | |
|---|---|
| Model | PAA100F-15 |
| Item | Ripple-Noise　リップルノイズ |
| Object | +15V7.00A |

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

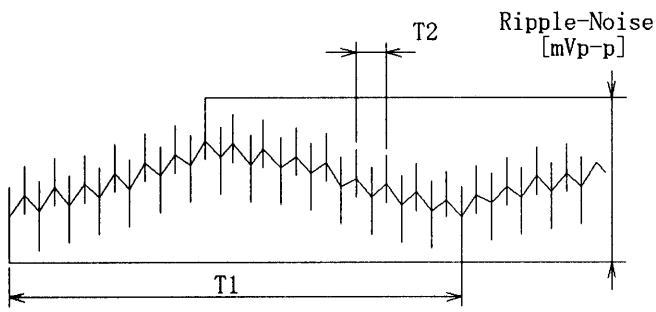



Fig. Complex Ripple Wave Form
図　リップル波形詳細図

2. Values

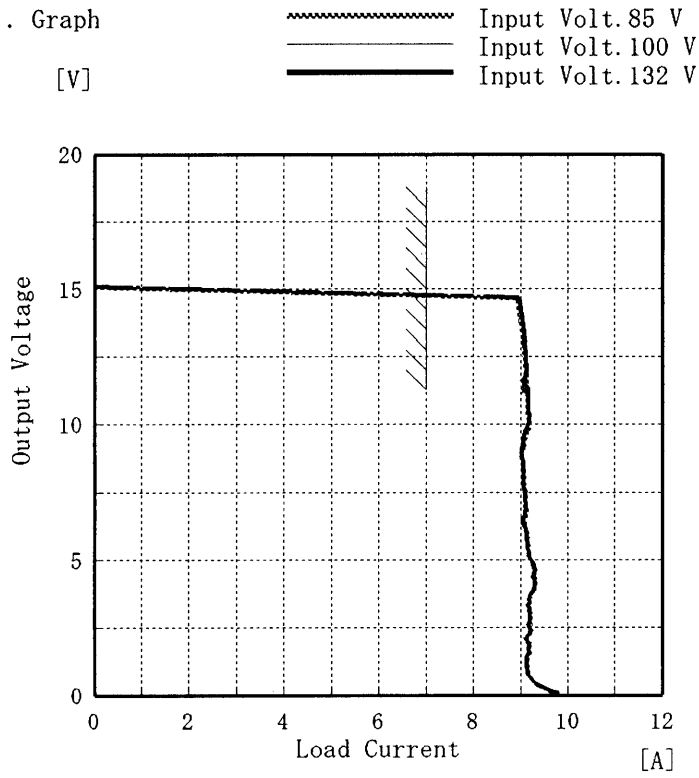
| Load current [A] | Input Volt. 85 [V] Ripple-Noise [mV] | Input Volt. 132 [V] Ripple-Noise [mV] |
|---|---|---|
| 0.0 | 10 | 10 |
| 1.0 | 30 | 30 |
| 2.0 | 40 | 40 |
| 3.0 | 40 | 40 |
| 4.0 | 40 | 40 |
| 5.0 | 40 | 40 |
| 6.0 | 50 | 50 |
| 7.0 | 50 | 50 |
| 7.7 | 50 | 50 |
| — | — | — |
| — | — | — |

COSEL

| | |
|---|---|
| Model | PAA100F-15 |
| Item | Overcurrent Protection<br>過電流保護 |
| Object | +15V7.00A |

Temperature 25℃
Testing Circuitry Figure A

1. Graph




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

(注)斜線は定格負荷電流範囲を示す。

2. Values

| Output Voltage [V] | Input Volt. 85[V] Load Current [A] | Input Volt. 100[V] Load Current [A] | Input Volt. 132[V] Load Current [A] |
|---|---|---|---|
| 15.00 | 0.00 | 0.00 | 0.00 |
| 14.25 | 8.95 | 8.98 | 9.01 |
| 13.50 | 9.01 | 9.04 | 9.06 |
| 12.00 | 9.10 | 9.11 | 9.12 |
| 10.50 | 9.15 | 9.15 | 9.17 |
| 9.00 | 9.04 | 9.03 | 9.02 |
| 7.50 | 9.09 | 9.09 | 9.09 |
| 6.00 | 9.12 | 9.13 | 9.13 |
| 4.50 | 9.29 | 9.29 | 9.29 |
| 3.00 | 9.20 | 9.20 | 9.19 |
| 1.50 | 9.17 | 9.17 | 9.17 |
| 0.00 | 9.83 | 9.83 | 9.83 |

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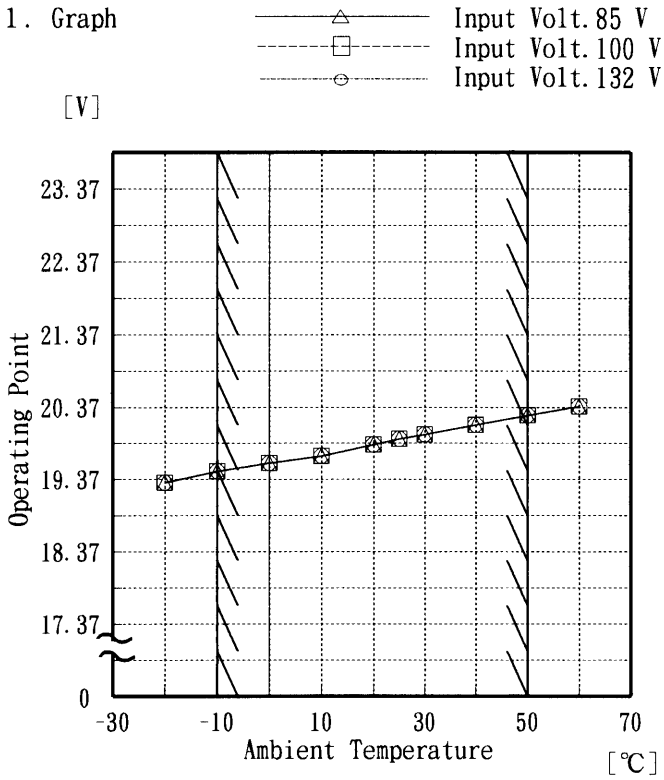
| | |
|---|---|
| Model | PAA100F-15 |
| Item | Overvoltage Protection<br>過電圧保護 |
| Object | +15V 7.00A |

Testing Circuitry Figure A

1. Graph




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

(注)斜線は定格周囲温度範囲を示す。

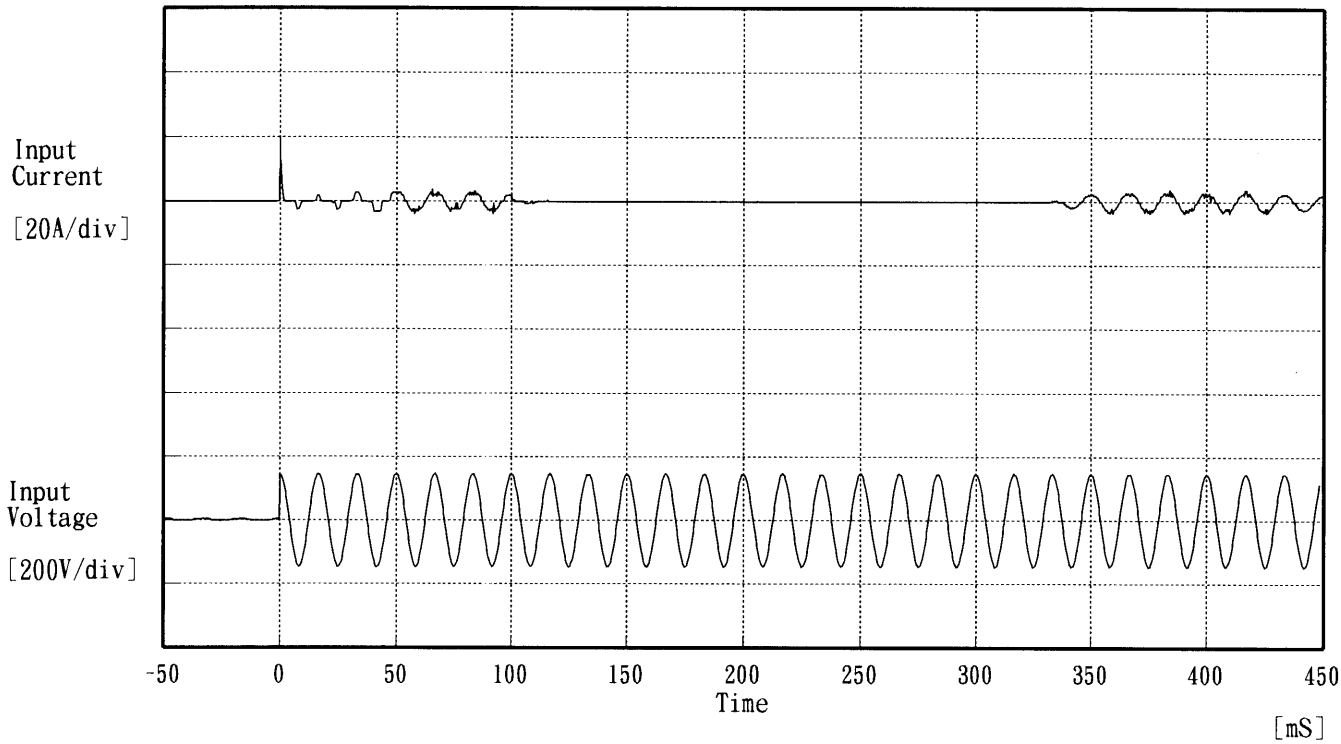
2. Values

| Ambient Temp. [℃] | Input Volt. 85[V] | Input Volt. 100[V] | Input Volt. 132[V] |
|---|---|---|---|
| | Operating Point [V] | | |
| -20 | 19.33 | 19.33 | 19.33 |
| -10 | 19.49 | 19.49 | 19.49 |
| 0 | 19.60 | 19.60 | 19.60 |
| 10 | 19.70 | 19.70 | 19.70 |
| 20 | 19.86 | 19.86 | 19.86 |
| 25 | 19.94 | 19.94 | 19.94 |
| 30 | 20.00 | 20.00 | 20.00 |
| 40 | 20.13 | 20.13 | 20.13 |
| 50 | 20.26 | 20.26 | 20.26 |
| 60 | 20.38 | 20.38 | 20.38 |
| — | — | — | — |

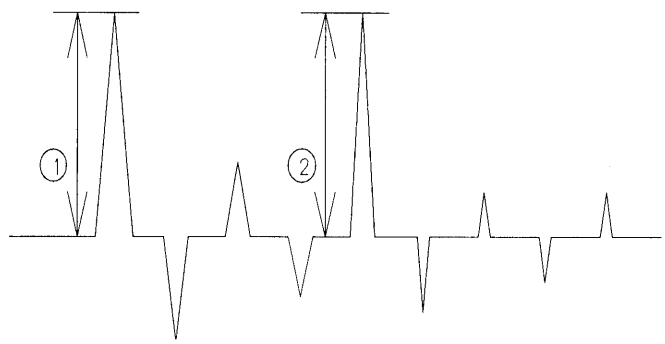
COSEL

| | |
|---|---|
| Model | PAA100F-15 |
| 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 19.26 [A]
② 4.00 [A]



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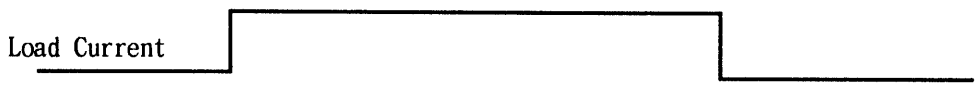
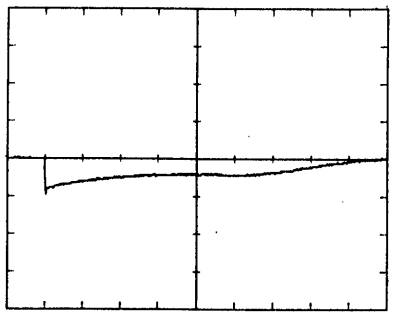
| | | | |
|---|---|---|---|
| Model | PAA100F-15 | | |
| Item | Dynamic Load Responce<br>動的負荷変動 | Temperature<br>Testing Circuitry | 25 ℃<br>Figure A |
| Object | +15V 7.00A | | |

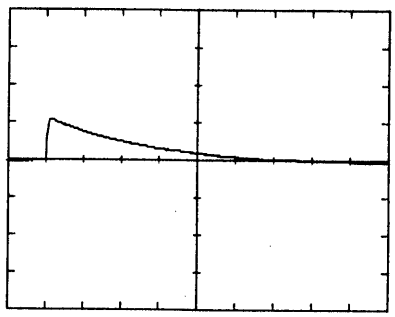
Input Volt. 100 V
Cycle 1000 mS

Load Current

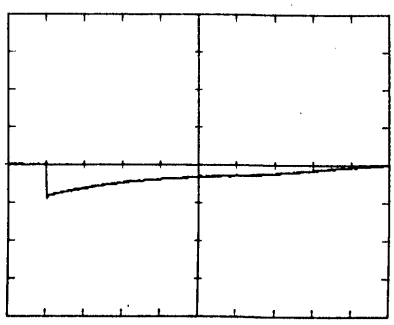


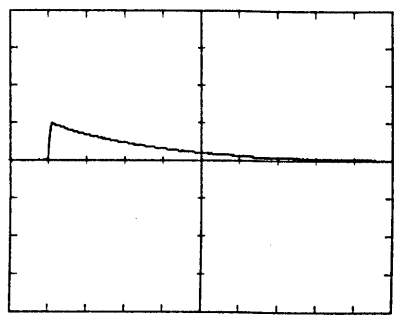
Min. Load ←→
Load 100 %





Min. Load ←→
Load 50 %





100 mV/div

10 mS/div

COSEL

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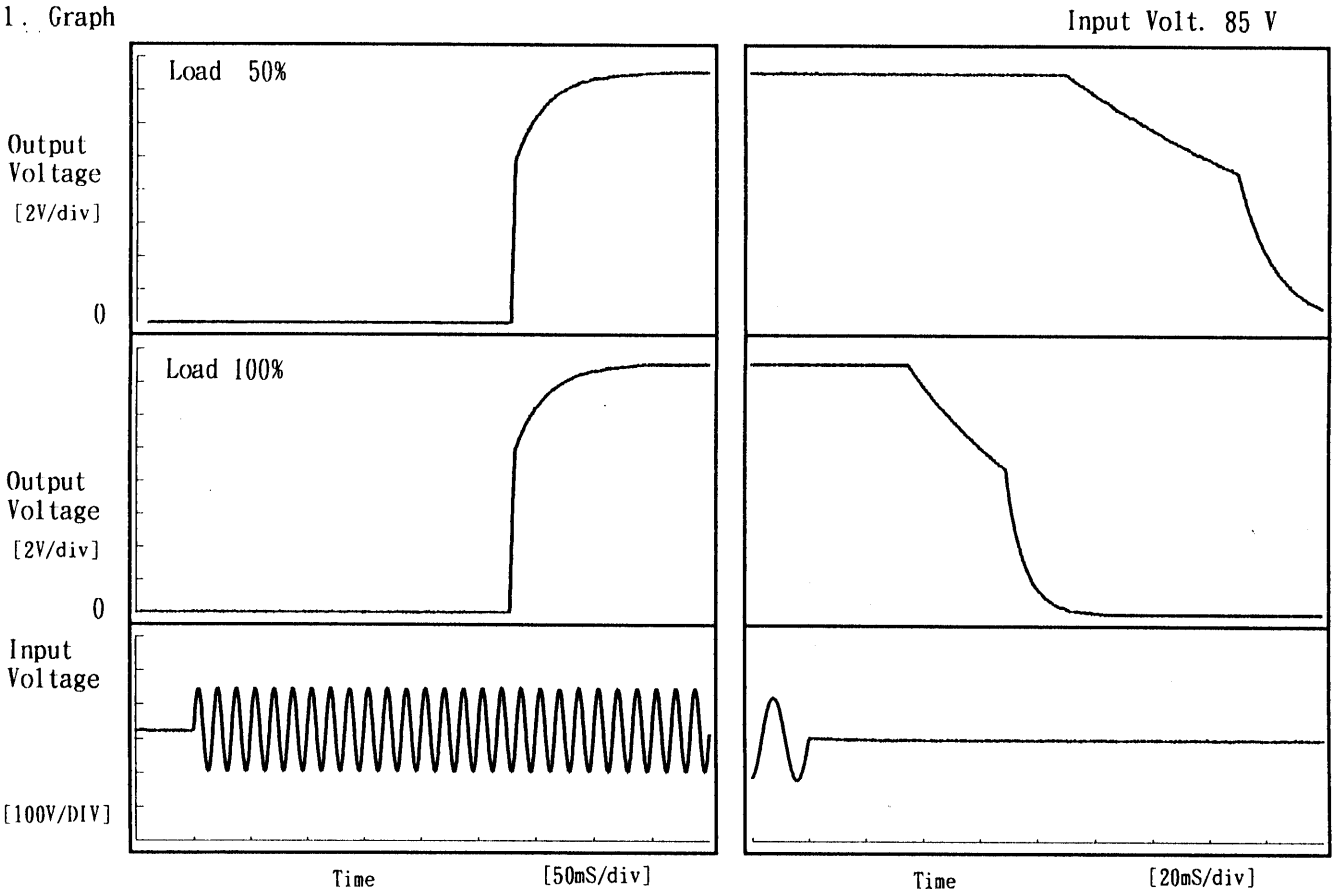
|---|---|---|---|
| Model | PAA100F-15 | | |
| Item | Rise and Fall Time　立上り、立下り時間 | Temperature<br>Testing Circuitry | 25 ℃<br>Figure　A |
| Object | +15V 7.00A | | |

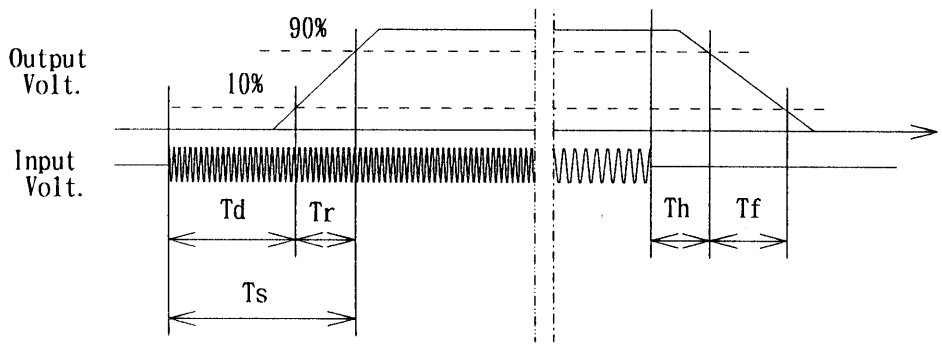
1. Graph




2. Values

[mS]

| Load \ Time | T d | T r | T s | T h | T f |
|---|---|---|---|---|---|
| 50 % | 278.3 | 36.8 | 315.0 | 102.5 | 71.6 |
| 100 % | 277.8 | 36.8 | 314.5 | 41.6 | 39.0 |



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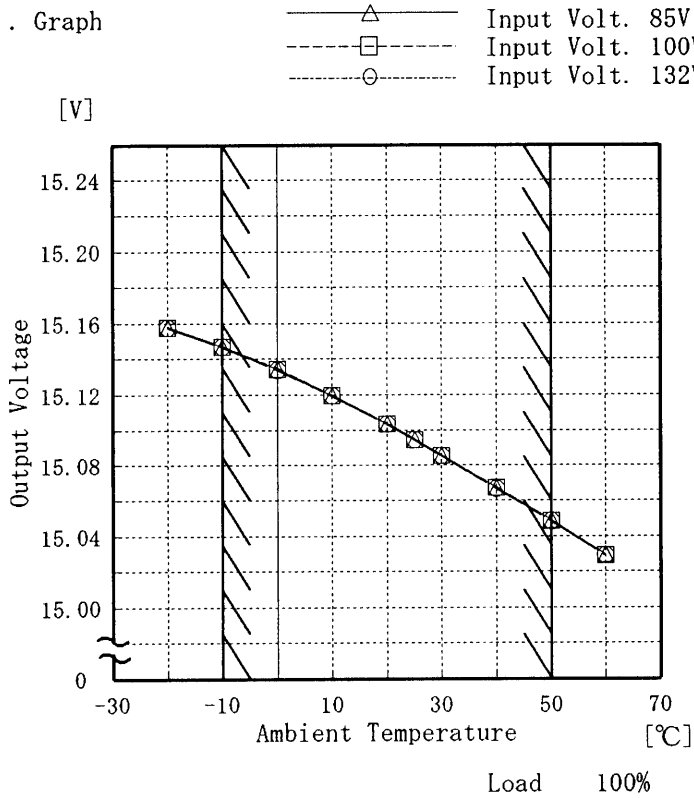
| | |
|---|---|
| Model | PAA100F-15 |
| Item | Ambient Temperature Drift<br>周囲温度変動 |
| Object | +15V7.00A |

Testing Circuitry Figure A

1. Graph




Load 100%

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

(注)斜線は定格周囲温度範囲を示す。

2. Values

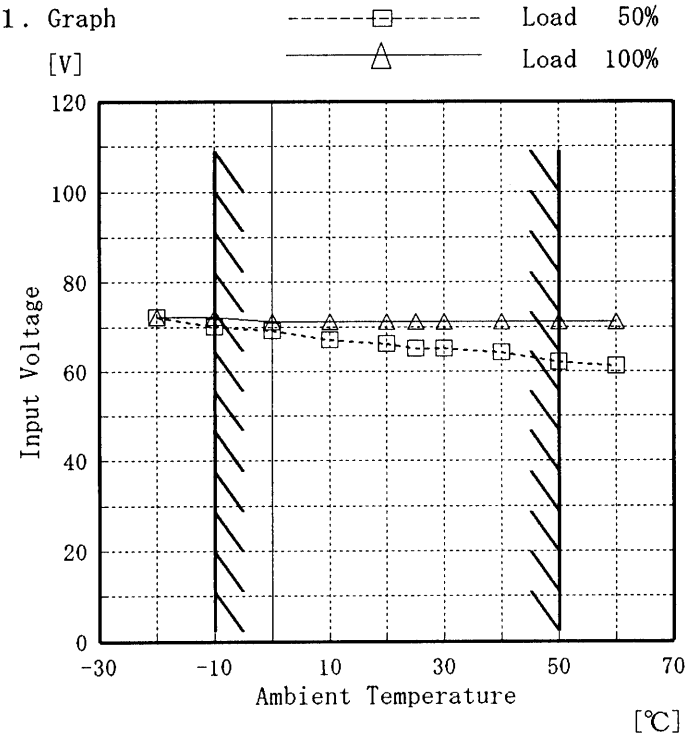
| Temperature [℃] | Input Volt. 85[V] Output Volt. [V] | Input Volt. 100[V] Output Volt. [V] | Input Volt. 132[V] Output Volt. [V] |
|---|---|---|---|
| -20 | 15.158 | 15.158 | 15.158 |
| -10 | 15.147 | 15.147 | 15.147 |
| 0 | 15.134 | 15.134 | 15.134 |
| 10 | 15.120 | 15.119 | 15.119 |
| 20 | 15.104 | 15.104 | 15.103 |
| 25 | 15.095 | 15.095 | 15.094 |
| 30 | 15.086 | 15.085 | 15.085 |
| 40 | 15.067 | 15.067 | 15.067 |
| 50 | 15.049 | 15.048 | 15.048 |
| 60 | 15.029 | 15.029 | 15.029 |
| — | — | — | — |

COSEL

| | |
|---|---|
| Model | PAA100F-15 |
| Item | Minimum Input Voltage for Regulated Output Voltage<br>最低レギュレーション電圧 |
| Object | +15V7.00A |

Testing Circuitry Figure A

1. Graph




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

(注)斜線は定格周囲温度範囲を示す。

2. Values

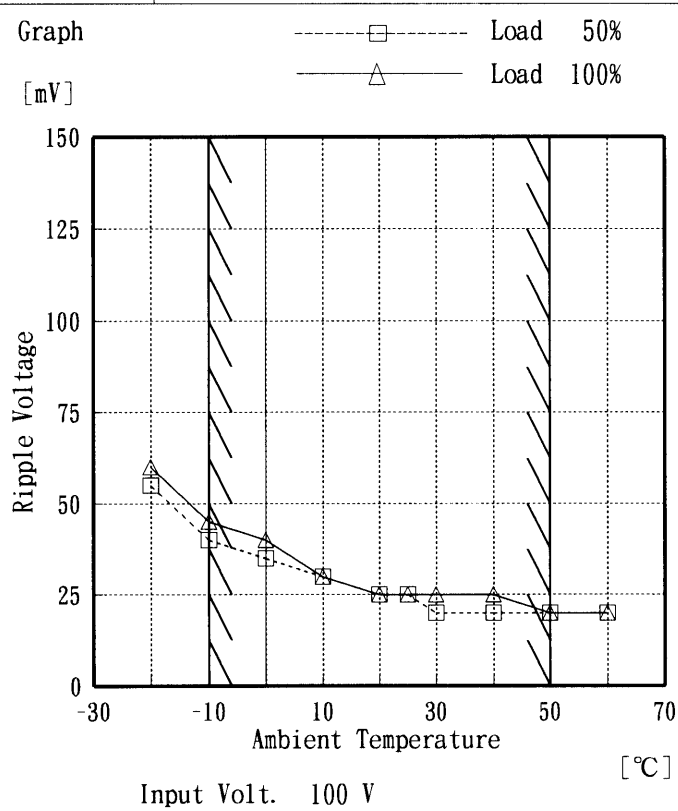
| Ambient Temp. [℃] | Load 50% Input Volt. [V] | Load 100% Input Volt. [V] |
|---|---|---|
| -20 | 72 | 72 |
| -10 | 70 | 72 |
| 0 | 69 | 71 |
| 10 | 67 | 71 |
| 20 | 66 | 71 |
| 25 | 65 | 71 |
| 30 | 65 | 71 |
| 40 | 64 | 71 |
| 50 | 62 | 71 |
| 60 | 61 | 71 |
| — | — | — |

COSEL

| | |
|---|---|
| Model | PAA100F-15 |
| Item | Ripple Voltage (by Ambient Temp.)<br>リップル電圧（周囲温度特性） |
| Object | +15V7.00A |

Testing Circuitry Figure A

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

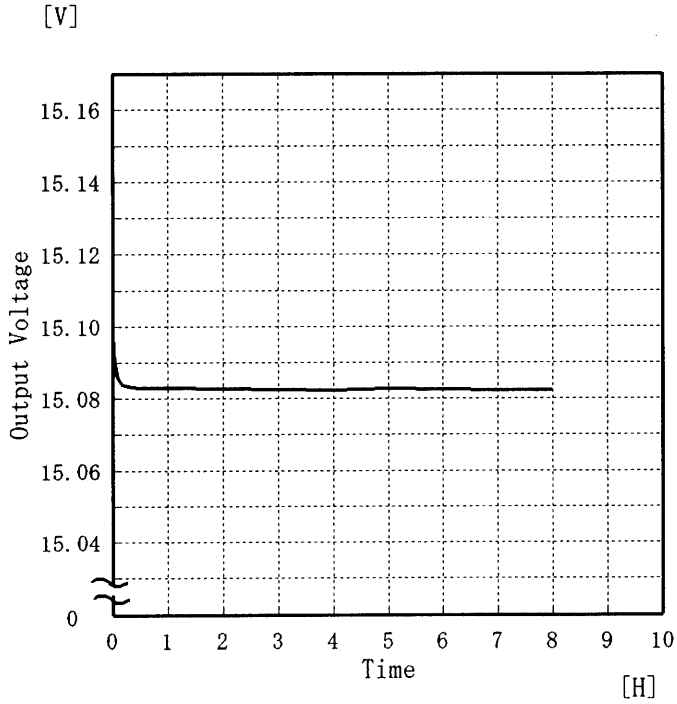
| Ambient Temp. [℃] | Load 50% Ripple Output Volt. [mV] | Load 100% Ripple Output Volt. [mV] |
|---|---|---|
| -20 | 55 | 60 |
| -10 | 40 | 45 |
| 0 | 35 | 40 |
| 10 | 30 | 30 |
| 20 | 25 | 25 |
| 25 | 25 | 25 |
| 30 | 20 | 25 |
| 40 | 20 | 25 |
| 50 | 20 | 20 |
| 60 | 20 | 20 |
| — | — | — |

COSEL

| | |
|---|---|
| Model | PAA100F-15 |
| Item | Time Lapse Drift　経時ドリフト |
| Object | +15V7.00A |

Temperature　25 ℃
Testing Circuitry　Figure A

1. Graph




Input Volt.　100V
Load　100%

2. Values

| Time since start [H] | Output Voltage [V] |
|---|---|
| 0.0 | 15.098 |
| 0.5 | 15.083 |
| 1.0 | 15.083 |
| 2.0 | 15.083 |
| 3.0 | 15.083 |
| 4.0 | 15.082 |
| 5.0 | 15.083 |
| 6.0 | 15.083 |
| 7.0 | 15.082 |
| 8.0 | 15.082 |

COSEL

| | |
|---|---|
| Model | PAA100F-15 |
| Item | Output Voltage Accuracy　定電圧精度 |
| Object | +15V7.00A |

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 : 85～132 V
Load Current　: 0.0～7.00 A

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

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

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　　85～132 V
負荷電流　　0.0～7.00 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

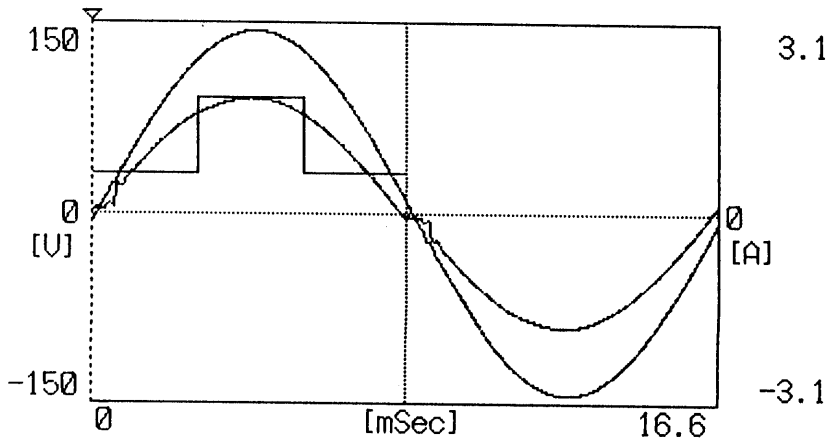
$$* \text{定電圧精度(変動率)} = \left( \frac{\text{変動値}}{\text{定格出力電圧}} \right) \times 100$$

| Item | Temperature [℃] | Input Voltage [V] | Output Current [A] | Output Voltage [V] | Output Voltage Accuracy [mV] | Output Voltage Accuracy(Ration) [%] |
|---|---|---|---|---|---|---|
| Maximum Voltage | -10 | 85 | 0.0 | 15.146 | ±51 | ±0.4 |
| Minimum Voltage | 50 | 132 | 7.00 | 15.046 | | |

COSEL

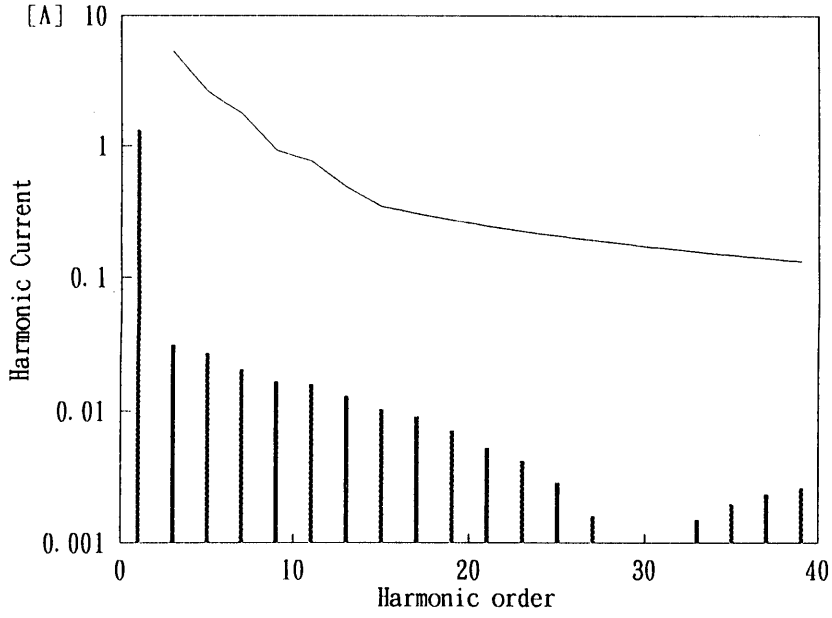
| | | | |
|---|---|---|---|
| Model | PAA100F-15 | | |
| Item | Harmonic Current<br>高調波電流 | Temperature<br>Testing Circuitry | 25℃<br>Figure E |
| Object | ———— | | |

1. Input Current Waveform




| Conditions | Values |
|---|---|
| Input Voltage [V] | 99.7 |
| Input Current [A] | 1.32 |
| Active Power [W] | 130.9 |
| Apparent Power[VA] | 131.5 |
| Frequency [Hz] | 60 |
| Power Factor | 0.995 |
| Output Power [W] | 100 |

2. Harmonic Current




| Harmonics order 高調波次数 | Limits 限度値 [A] | Values 測定値 [A] |
|---|---|---|
| 1 | — | 1.31800 |
| 2 | — | 0.00018 |
| 3 | 5.29000 | 0.03156 |
| 4 | — | 0.00007 |
| 5 | 2.62200 | 0.02739 |
| 6 | — | 0.00008 |
| 7 | 1.77100 | 0.02067 |
| 8 | — | 0.00004 |
| 9 | 0.92000 | 0.01674 |
| 10 | — | 0.00008 |
| 11 | 0.75900 | 0.01587 |
| 12 | — | 0.00007 |
| 13 | 0.48300 | 0.01299 |
| 14 | — | 0.00005 |
| 15 | 0.34500 | 0.01027 |
| 16 | — | 0.00007 |
| 17 | 0.30441 | 0.00908 |
| 18 | — | 0.00007 |
| 19 | 0.27237 | 0.00713 |
| 20 | — | 0.00004 |
| 21 | 0.24643 | 0.00525 |
| 22 | — | 0.00005 |
| 23 | 0.22500 | 0.00419 |
| 24 | — | 0.00005 |
| 25 | 0.20700 | 0.00287 |
| 26 | — | 0.00006 |
| 27 | 0.19167 | 0.00159 |
| 28 | — | 0.00006 |
| 29 | 0.17845 | 0.00076 |
| 30 | — | 0.00005 |
| 31 | 0.16694 | 0.00082 |
| 32 | — | 0.00005 |
| 33 | 0.15682 | 0.00150 |
| 34 | — | 0.00005 |
| 35 | 0.14786 | 0.00199 |
| 36 | — | 0.00006 |
| 37 | 0.13986 | 0.00233 |
| 38 | — | 0.00008 |
| 39 | 0.13269 | 0.00261 |
| 40 | — | 0.00007 |

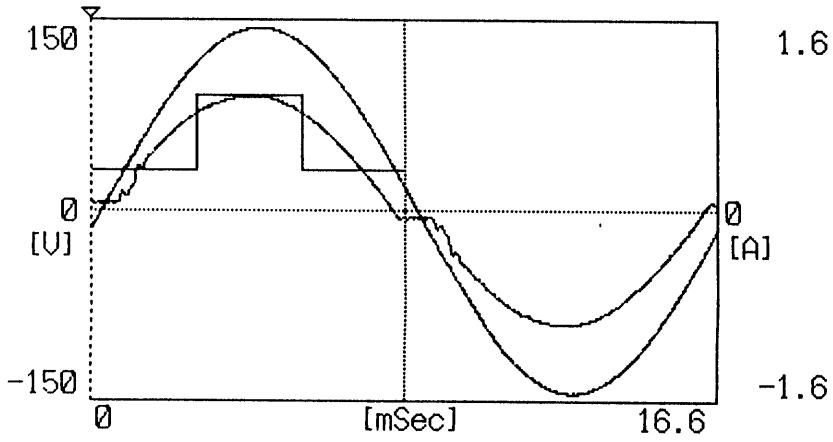
——— Harmonic Current
高調波電流

_____ Limits for Class A equipment of odd harmonics
ｸﾗｽAの機器に対する高調波奇数次限度値

COSEL

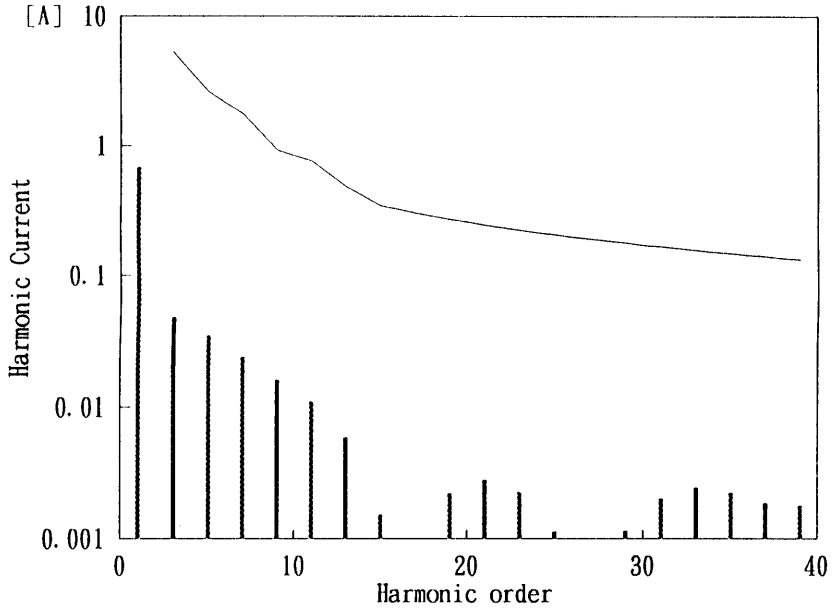
| | | | |
|---|---|---|---|
| Model | PAA100F-15 | | |
| Item | Harmonic Current<br>高調波電流 | Temperature<br>Testing Circuitry | 25℃<br>Figure E |
| Object | ———— | | |

1. Input Current Waveform




| Conditions | Values |
|---|---|
| Input Voltage [V] | 99.9 |
| Input Current [A] | 0.69 |
| Active Power [W] | 68 |
| Apparent Power[VA] | 68.8 |
| Frequency [Hz] | 60 |
| Power Factor | 0.988 |
| Output Power [W] | 50 |

2. Harmonic Current




| Harmonics order 高調波次数 | Limits 限度値 [A] | Values 測定値 [A] |
|---|---|---|
| 1 | — | 0.68494 |
| 2 | — | 0.00018 |
| 3 | 5.29000 | 0.04769 |
| 4 | — | 0.00005 |
| 5 | 2.62200 | 0.03485 |
| 6 | — | 0.00009 |
| 7 | 1.77100 | 0.02417 |
| 8 | — | 0.00008 |
| 9 | 0.92000 | 0.01608 |
| 10 | — | 0.00008 |
| 11 | 0.75900 | 0.01100 |
| 12 | — | 0.00008 |
| 13 | 0.48300 | 0.00588 |
| 14 | — | 0.00005 |
| 15 | 0.34500 | 0.00153 |
| 16 | — | 0.00005 |
| 17 | 0.30441 | 0.00084 |
| 18 | — | 0.00008 |
| 19 | 0.27237 | 0.00220 |
| 20 | — | 0.00006 |
| 21 | 0.24643 | 0.00280 |
| 22 | — | 0.00007 |
| 23 | 0.22500 | 0.00226 |
| 24 | — | 0.00016 |
| 25 | 0.20700 | 0.00113 |
| 26 | — | 0.00021 |
| 27 | 0.19167 | 0.00025 |
| 28 | — | 0.00020 |
| 29 | 0.17845 | 0.00114 |
| 30 | — | 0.00020 |
| 31 | 0.16694 | 0.00202 |
| 32 | — | 0.00028 |
| 33 | 0.15682 | 0.00244 |
| 34 | — | 0.00028 |
| 35 | 0.14786 | 0.00223 |
| 36 | — | 0.00019 |
| 37 | 0.13986 | 0.00188 |
| 38 | — | 0.00022 |
| 39 | 0.13269 | 0.00179 |
| 40 | — | 0.00039 |

——— Harmonic Current
高調波電流

——— Limits for Class A equipment of odd harmonics
ｸﾗｽAの機器に対する高調波奇数次限度値

COSEL

| | | |
|---|---|---|
| Model | PAA100F-15 | |
| Item | Condensation　結露特性 | Testing Circuitry　Figure A |
| Object | +15V7.00A | |

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.

④ Repeating ①, ② and ③ three times.

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３度行い、異常のないことを確認する。

2．Values

| | Times | Output Voltage [V] | Ripple Voltage [mV] | Ripple Noise [mV] |
|---|---|---|---|---|
| Load 50 % | 1 | 15.150 | 20 | 40 |
| | 2 | 15.159 | 20 | 40 |
| | 3 | 15.164 | 20 | 40 |
| Load 100 % | 1 | 15.149 | 20 | 50 |
| | 2 | 15.158 | 20 | 50 |
| | 3 | 15.163 | 20 | 50 |

Input Volt. 100　V

COSEL

| | | |
|---|---|---|
| Model | PAA100F-15 | |
| Item | Leakage Current 漏洩電流 | Testing Circuitry Figure A |
| Object | ―――――― | |

1. Results

| Standards | Leakage Current [mA] | | |
|---|---|---|---|
| | Input Volt. 85 [V] | Input Volt. 100 [V] | Input Volt. 132 [V] |
| (A) DENTORI | 0.16 | 0.19 | 0.27 |
| (B) UL | 0.16 | 0.19 | 0.27 |
| (C) CSA | 0.16 | 0.19 | 0.27 |

| 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。

Load 100 %

(A) Input Resistance :1KΩ

(B) Input Resistance :1.5KΩ
Input Capacitance :0.15μF

(C) Input Resistance :1.5KΩ
Input Capacitance :0.15μF

(D) Input Resistance :2KΩ
Input Capacitance :0.1μF

COSEL

| | | |
|---|---|---|
| Model | PAA100F-15 | |
| Item | Line Noise Tolerance<br>入力雑音耐量 | Testing Circuitry Figure C |
| Object | +15V7.00A | |

1. Results

| Pulse Width [nS] | MODE | Operating Point of Overvoltage Protection [V]<br>過電圧保護動作値 | DC-like Regulation of Output Voltage<br>出力電圧の直流的変動 |
|---|---|---|---|
| 50 | COMMON | 19.50 | no regulation |
| | NORMAL | 19.60 | no regulation |
| 1000 | COMMON | 19.80 | no regulation |
| | NORMAL | 19.70 | no regulation |

Conditions

Input Voltage :100 V
Pulse Voltage :2000 V
Pulse Cycle :10 mS
Pulse Input Duration :1 min. or more
Load :100 %

COSEL

| | | |
|---|---|---|
| Model | PAA100F-15 | |
| Item | Conducted Emission<br>雑音端子電圧 | Testing Circuitry Figure D |
| Object | ———————— | |

1. Graph

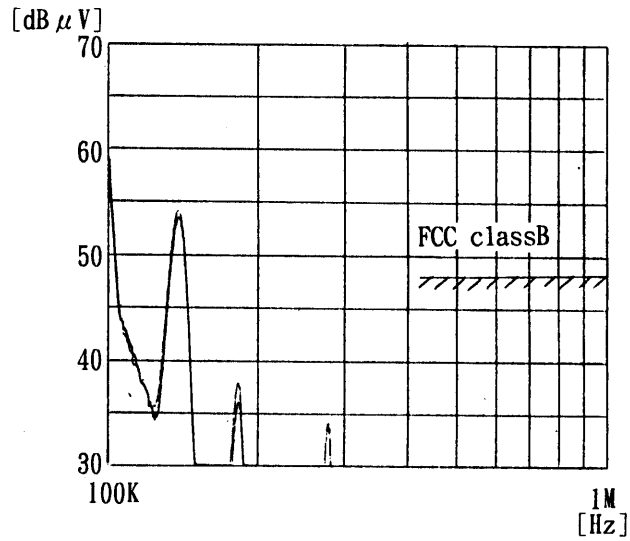
Remarks

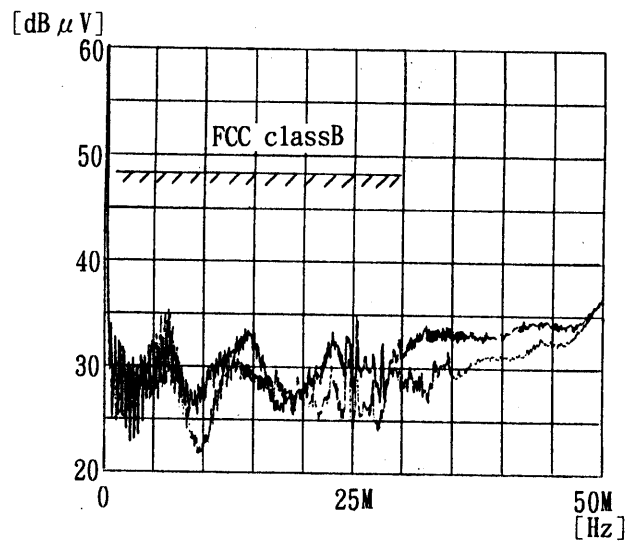
Input Volt. 100 V

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 -1 | | 0.15～0.5 | 79 |
| | | | 0.5～30 | 73 |
| 4 | VCCI -2 | ○ | 0.15～0.5 | 66-56 |
| | | | 0.5～5 | 56 |
| | | | 5～30 | 60 |
| 5 | VDE class A | | 0.01～0.15 | 91-69.5 |
| | | | 0.15～0.5 | 66 |
| | | | 0.5～30 | 60 |
| 6 | CISPR 22 class B | | 0.15～0.5 | 66-56 |
| | | | 0.5～5 | 56 |
| | | | 5～30 | 60 |



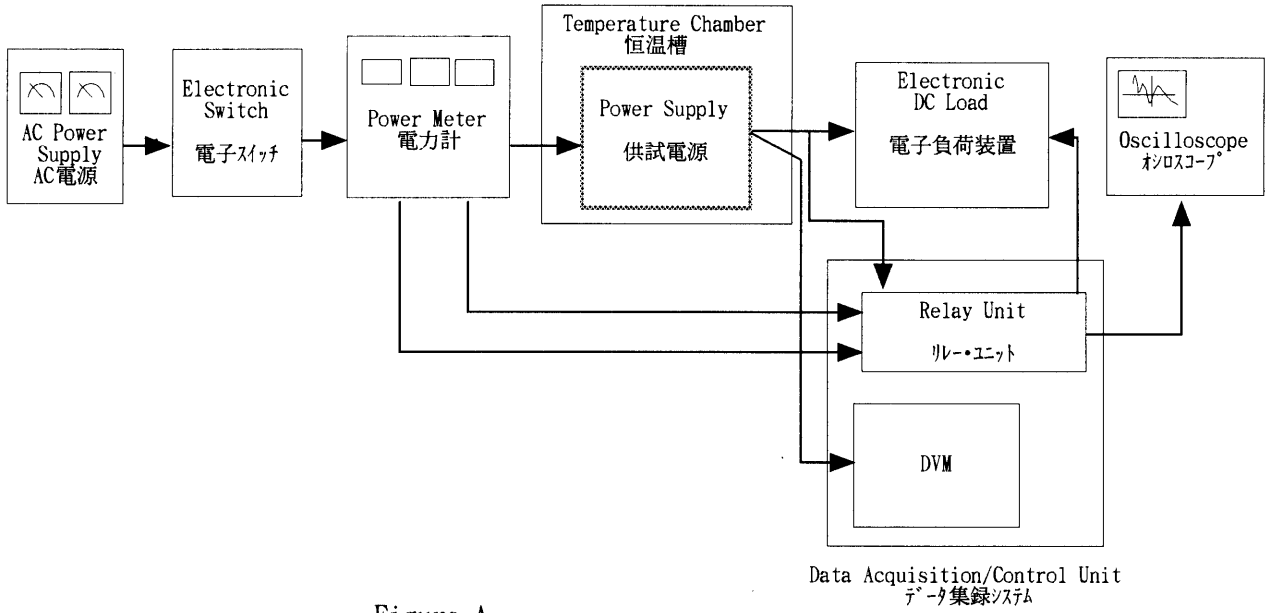



Figure A

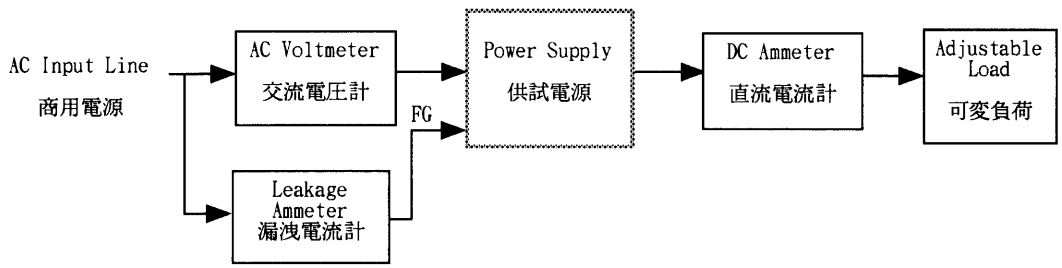



Figure B

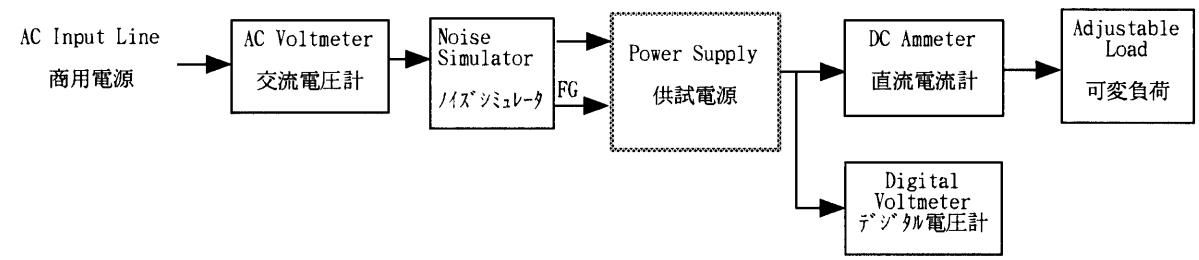



Figure C

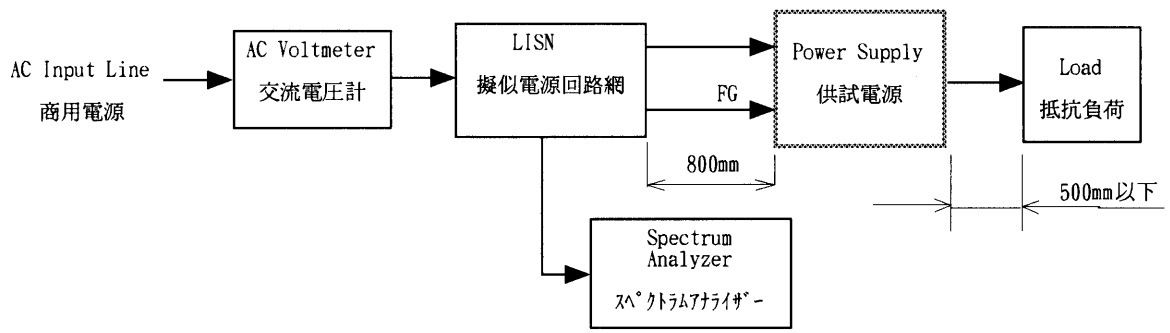
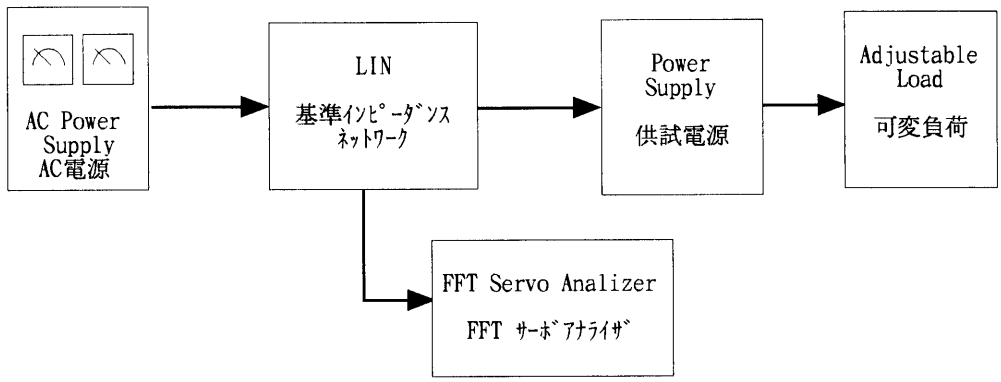



Figure D




Testing Circuitry Figure E