参考資料

COSEL

# TEST DATA OF ZUW62412

(24.0V INPUT)

Regulated DC Power Supply

Date : Sep.21. 1996

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Design Manager

Prepared by : H. Ise.
Design Engineer

コーセル株式会社

COSEL CO.,LTD.

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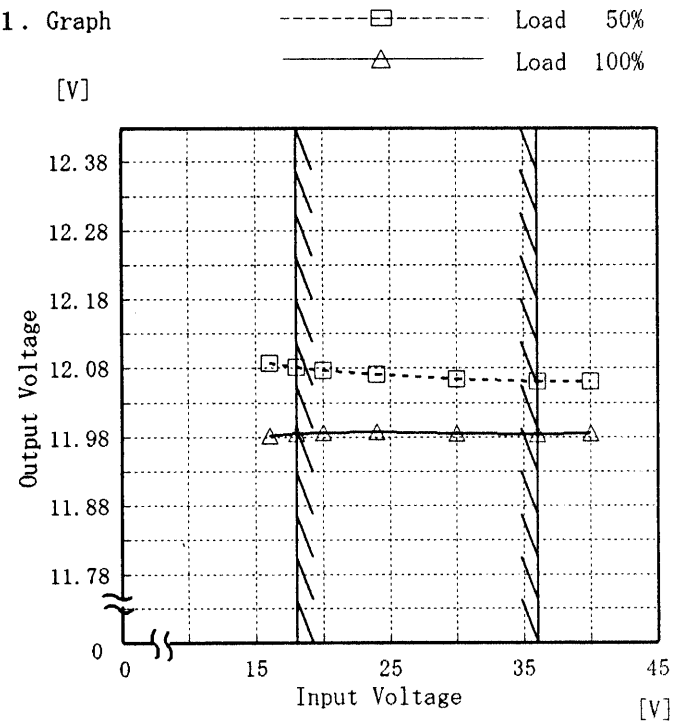
| | |
|---|---|
| Model | ZUW62412 |
| Item | Line Regulation 静的入力変動 |

Temperature 25℃
Testing Circuitry Figure A

Object ＋12V0.25A

1. Graph

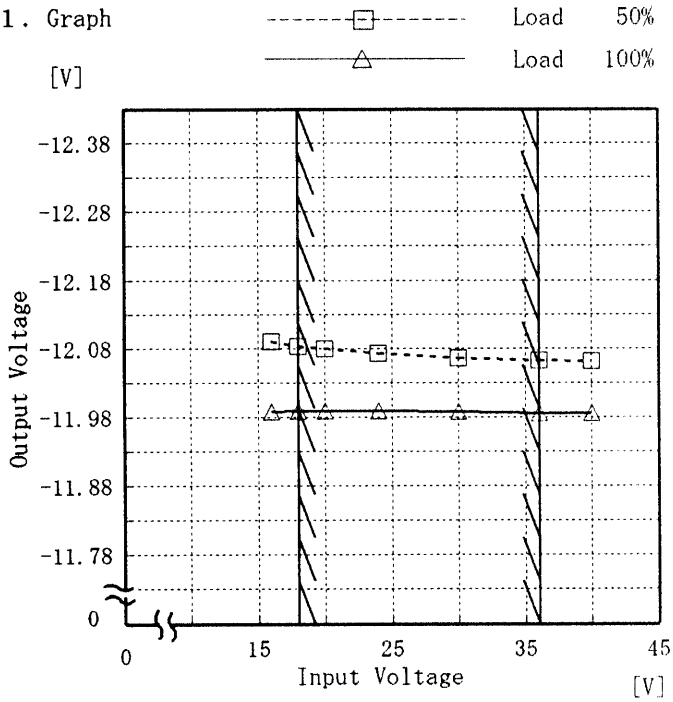



2. Values

| Input Voltage [V] | Load 50% Output Volt. [V] | Load 100% Output Volt. [V] |
|---|---|---|
| 16.0 | 12.087 | 11.983 |
| 18.0 | 12.081 | 11.985 |
| 20.0 | 12.077 | 11.986 |
| 24.0 | 12.071 | 11.987 |
| 30.0 | 12.065 | 11.986 |
| 36.0 | 12.061 | 11.985 |
| 40.0 | 12.061 | 11.985 |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

Object －12V0.25A

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] |
|---|---|---|
| 16.0 | -12.090 | -11.988 |
| 18.0 | -12.083 | -11.989 |
| 20.0 | -12.079 | -11.990 |
| 24.0 | -12.072 | -11.989 |
| 30.0 | -12.065 | -11.987 |
| 36.0 | -12.062 | -11.986 |
| 40.0 | -12.061 | -11.986 |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |



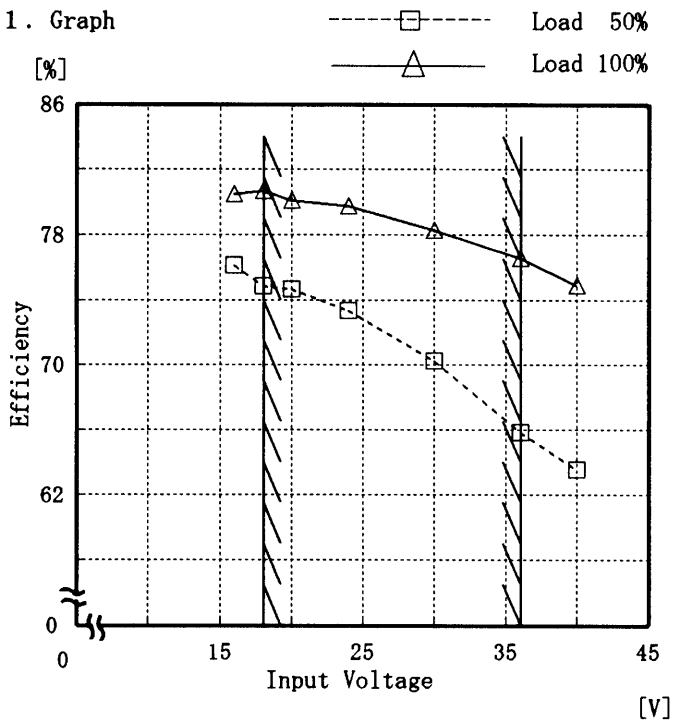
BC－2059

COSEL

| Model | ZUW62412 |
|---|---|
| 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 [%] |
|---|---|---|
| 16.0 | 76.2 | 80.5 |
| 18.0 | 74.8 | 80.7 |
| 20.0 | 74.7 | 80.1 |
| 24.0 | 73.4 | 79.7 |
| 30.0 | 70.2 | 78.3 |
| 36.0 | 65.9 | 76.6 |
| 40.0 | 63.6 | 74.9 |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

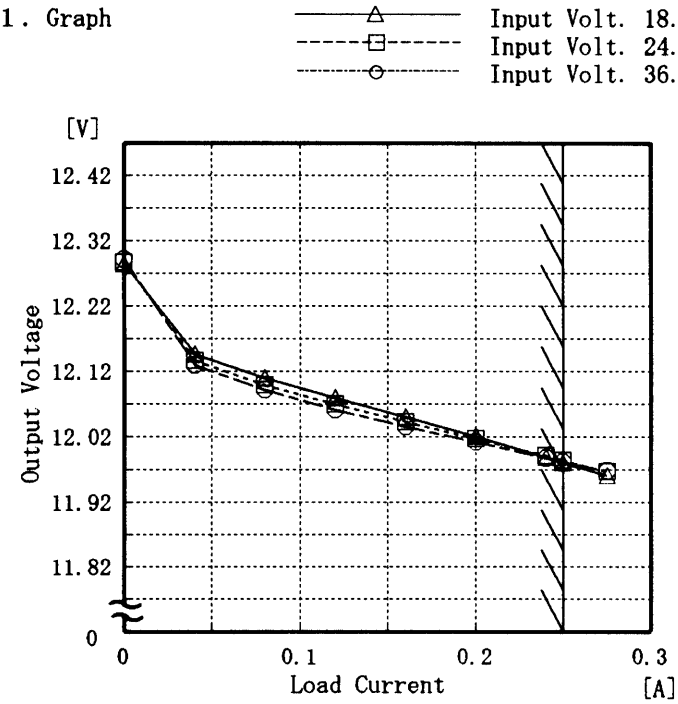
COSEL

| | |
|---|---|
| Model | ZUW62412 |
| Item | Load Regulation 静的負荷変動 |

Temperature 25℃
Testing Circuitry Figure A

Object +12V0.25A

1. Graph

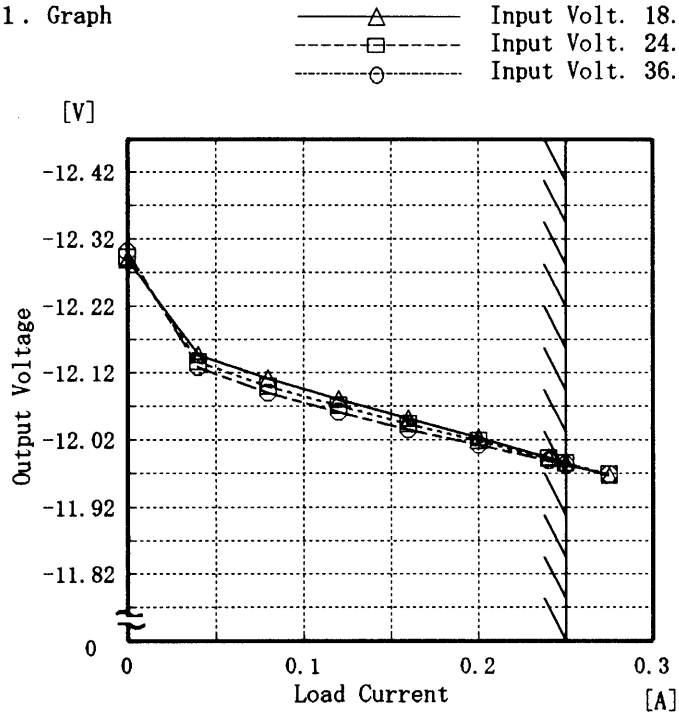



2. Values

| Load Current [A] | Input Volt. 18.0[V] Output Volt. [V] | Input Volt. 24.0[V] Output Volt. [V] | Input Volt. 36.0[V] Output Volt. [V] |
|---|---|---|---|
| 0.000 | 12.285 | 12.287 | 12.293 |
| 0.040 | 12.147 | 12.137 | 12.130 |
| 0.080 | 12.110 | 12.100 | 12.091 |
| 0.120 | 12.080 | 12.070 | 12.062 |
| 0.160 | 12.050 | 12.043 | 12.036 |
| 0.200 | 12.021 | 12.017 | 12.012 |
| 0.240 | 11.990 | 11.991 | 11.989 |
| 0.250 | 11.981 | 11.984 | 11.982 |
| 0.275 | 11.962 | 11.968 | 11.968 |
| — | — | — | — |

Object −12V0.25A

1. Graph




2. Values

| Load Current [A] | Input Volt. 18.0[V] Output Volt. [V] | Input Volt. 24.0[V] Output Volt. [V] | Input Volt. 36.0[V] Output Volt. [V] |
|---|---|---|---|
| 0.000 | -12.290 | -12.293 | -12.301 |
| 0.040 | -12.149 | -12.137 | -12.129 |
| 0.080 | -12.112 | -12.101 | -12.091 |
| 0.120 | -12.082 | -12.072 | -12.062 |
| 0.160 | -12.053 | -12.045 | -12.036 |
| 0.200 | -12.024 | -12.019 | -12.013 |
| 0.240 | -11.994 | -11.993 | -11.989 |
| 0.250 | -11.986 | -11.986 | -11.983 |
| 0.275 | -11.967 | -11.970 | -11.969 |
| — | — | — | — |

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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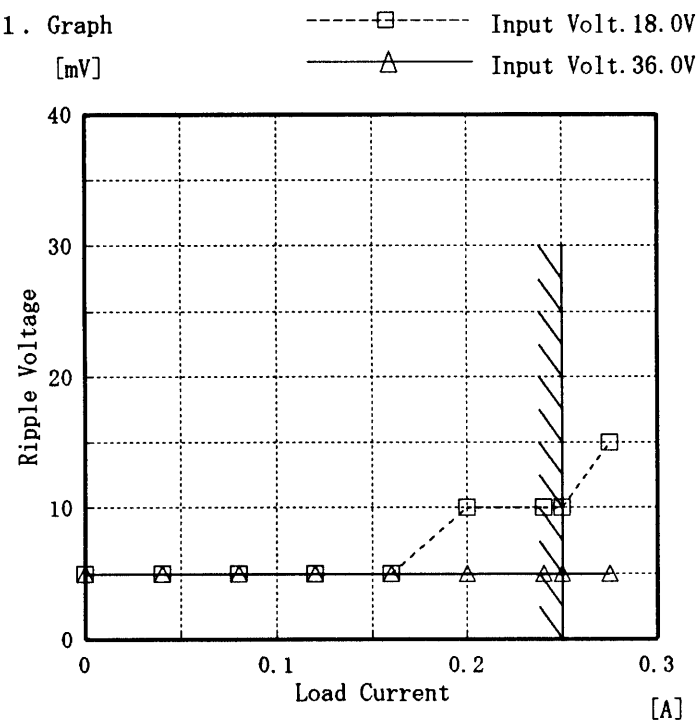
| | |
|---|---|
| Model | ZUW62412 |
| Item | Ripple Voltage(by Load Current)<br>リップル電圧(負荷電流特性) |
| Object | +12V 0.25A |

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

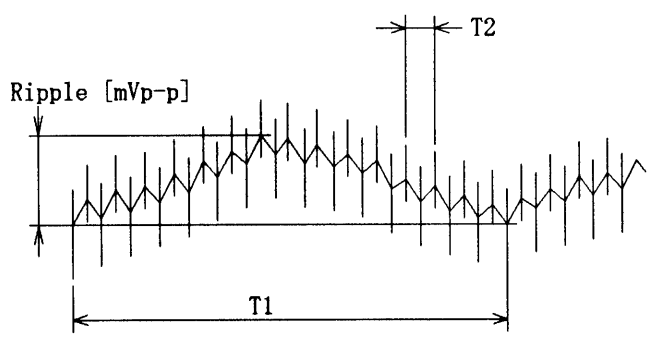



Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

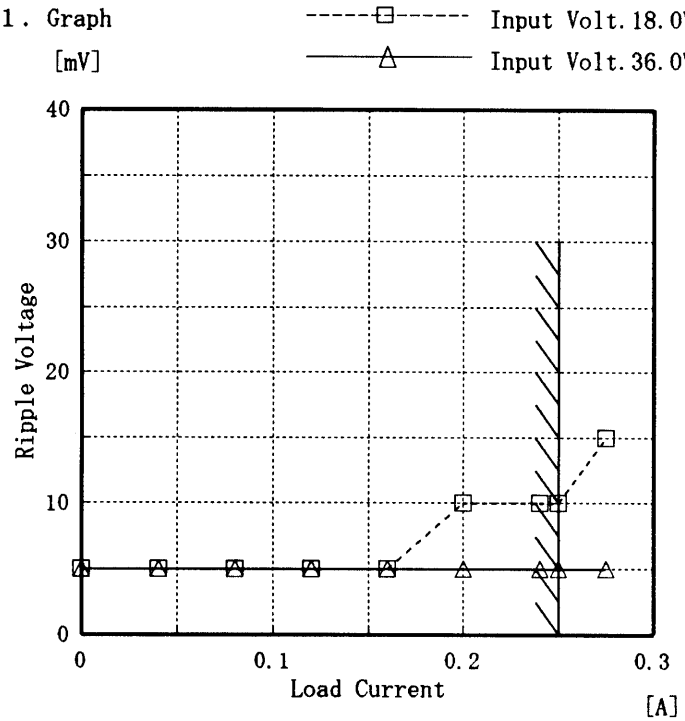
| Load Current [A] | Input Volt. 18.0 [V] Ripple Output Volt. [mV] | Input Volt. 36.0 [V] Ripple Output Volt. [mV] |
|---|---|---|
| 0.000 | 5 | 5 |
| 0.040 | 5 | 5 |
| 0.080 | 5 | 5 |
| 0.120 | 5 | 5 |
| 0.160 | 5 | 5 |
| 0.200 | 10 | 5 |
| 0.240 | 10 | 5 |
| 0.250 | 10 | 5 |
| 0.275 | 15 | 5 |
| — | — | — |
| — | — | — |

COSEL

| | |
|---|---|
| Model | ZUW62412 |
| Item | Ripple Voltage(by Load Current)<br>リップル電圧(負荷電流特性) |
| Object | −12V 0.25A |

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

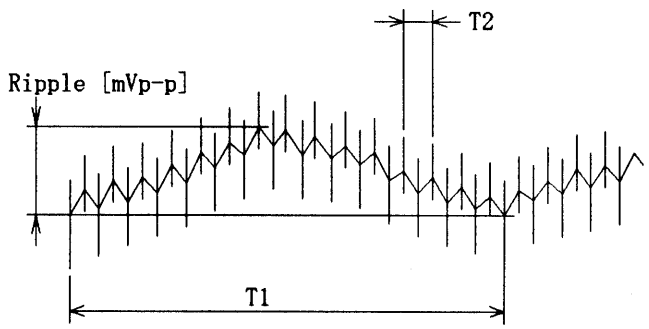



Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

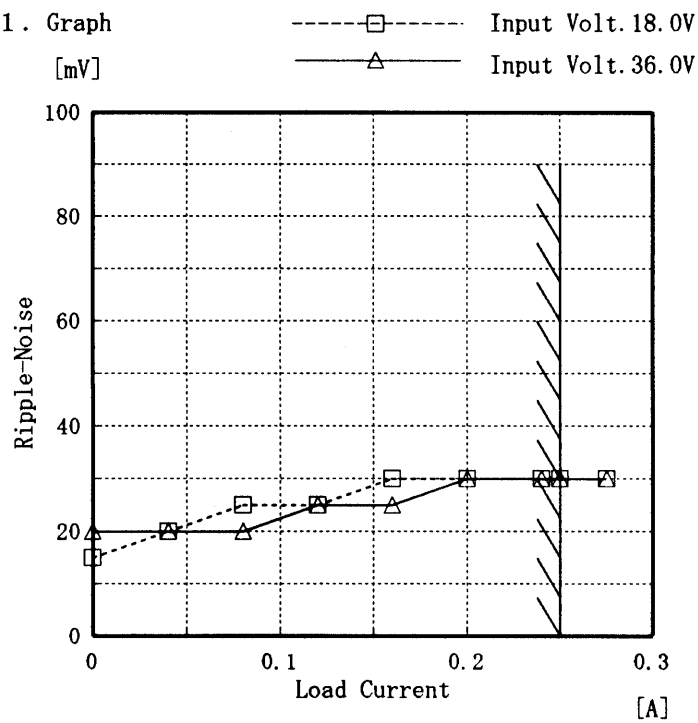
| Load Current [A] | Input Volt. 18.0 [V] Ripple Output Volt. [mV] | Input Volt. 36.0 [V] Ripple Output Volt. [mV] |
|---|---|---|
| 0.000 | 5 | 5 |
| 0.040 | 5 | 5 |
| 0.080 | 5 | 5 |
| 0.120 | 5 | 5 |
| 0.160 | 5 | 5 |
| 0.200 | 10 | 5 |
| 0.240 | 10 | 5 |
| 0.250 | 10 | 5 |
| 0.275 | 15 | 5 |
| — | — | — |
| — | — | — |

COSEL

| | |
|---|---|
| Model | ZUW62412 |
| Item | Ripple-Noise リップルノイズ |
| Object | +12V0.25A |

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

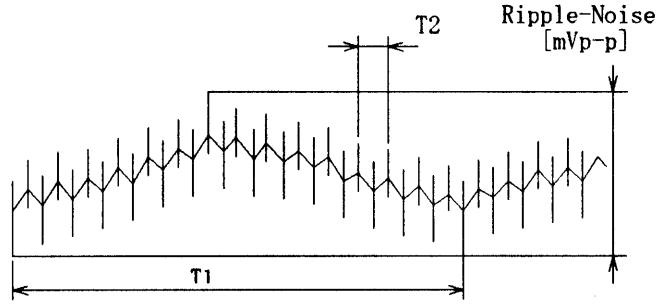



Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

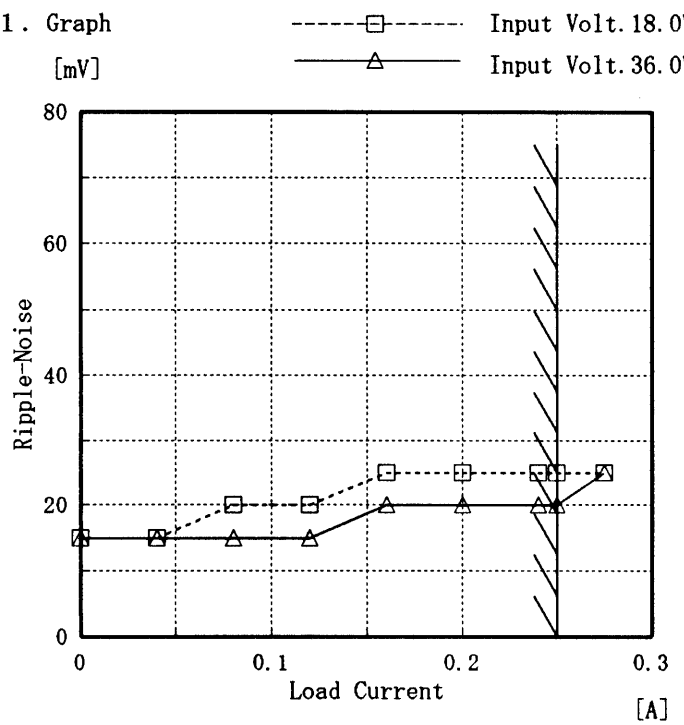
| Load current [A] | Input Volt. 18.0 [V] Ripple-Noise [mV] | Input Volt. 36.0 [V] Ripple-Noise [mV] |
|---|---|---|
| 0.000 | 15 | 20 |
| 0.040 | 20 | 20 |
| 0.080 | 25 | 20 |
| 0.120 | 25 | 25 |
| 0.160 | 30 | 25 |
| 0.200 | 30 | 30 |
| 0.240 | 30 | 30 |
| 0.250 | 30 | 30 |
| 0.275 | 30 | 30 |
| — | — | — |
| — | — | — |

COSEL

| | |
|---|---|
| Model | ZUW62412 |
| Item | Ripple-Noise リップルノイズ |
| Object | −12V0.25A |

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

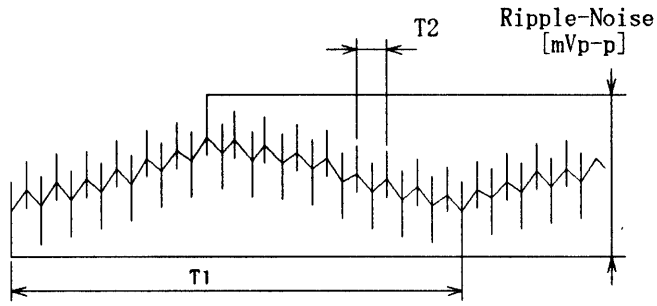



Fig. Complex Ripple Wave Form
図 リップル波形詳細図

2. Values

| Load current [A] | Input Volt. 18.0 [V] Ripple-Noise [mV] | Input Volt. 36.0 [V] Ripple-Noise [mV] |
|---|---|---|
| 0.000 | 15 | 15 |
| 0.040 | 15 | 15 |
| 0.080 | 20 | 15 |
| 0.120 | 20 | 15 |
| 0.160 | 25 | 20 |
| 0.200 | 25 | 20 |
| 0.240 | 25 | 20 |
| 0.250 | 25 | 20 |
| 0.275 | 25 | 25 |
| — | — | — |
| — | — | — |

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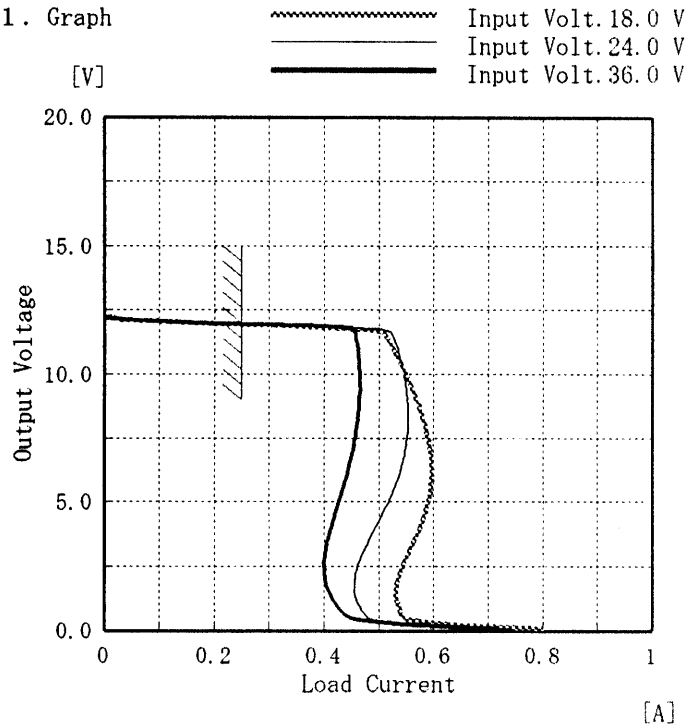
| Model | ZUW62412 |
|---|---|
| Item | Overcurrent Protection<br>過電流保護 |

Temperature 25℃
Testing Circuitry Figure A

Object +12V0.25A

1. Graph

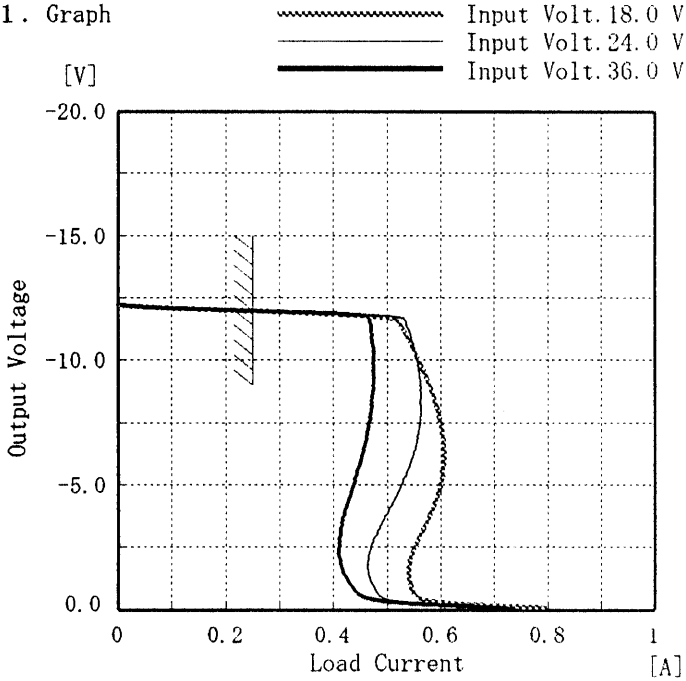



2. Values

| Output Voltage [V] | Input Volt. 18.0[V] Load Current [A] | Input Volt. 24.0[V] Load Current [A] | Input Volt. 36.0[V] Load Current [A] |
|---|---|---|---|
| 12.00 | 0.213 | 0.212 | 0.206 |
| 11.40 | 0.514 | 0.526 | 0.458 |
| 10.80 | 0.529 | 0.535 | 0.462 |
| 9.60 | 0.556 | 0.547 | 0.465 |
| 8.40 | 0.577 | 0.553 | 0.462 |
| 7.20 | 0.592 | 0.549 | 0.454 |
| 6.00 | 0.597 | 0.535 | 0.441 |
| 4.80 | 0.587 | 0.512 | 0.426 |
| 3.60 | 0.566 | 0.483 | 0.408 |
| 2.40 | 0.542 | 0.460 | 0.401 |
| 1.20 | 0.531 | 0.458 | 0.415 |
| 0.00 | 0.801 | 0.740 | 0.716 |

Object −12V0.25A

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. 18.0[V] Load Current [A] | Input Volt. 24.0[V] Load Current [A] | Input Volt. 36.0[V] Load Current [A] |
|---|---|---|---|
| -12.00 | 0.210 | 0.206 | 0.196 |
| -11.40 | 0.525 | 0.536 | 0.470 |
| -10.80 | 0.540 | 0.544 | 0.471 |
| -9.60 | 0.563 | 0.557 | 0.557 |
| -8.40 | 0.588 | 0.561 | 0.471 |
| -7.20 | 0.600 | 0.559 | 0.465 |
| -6.00 | 0.605 | 0.546 | 0.452 |
| -4.80 | 0.597 | 0.522 | 0.434 |
| -3.60 | 0.574 | 0.492 | 0.417 |
| -2.40 | 0.549 | 0.468 | 0.410 |
| -1.20 | 0.541 | 0.468 | 0.429 |
| 0.00 | 0.799 | 0.737 | 0.715 |



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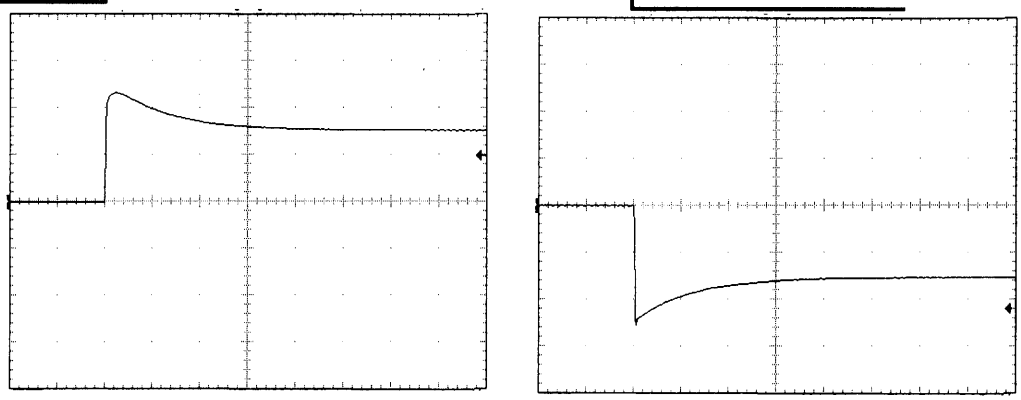
| | | | |
|---|---|---|---|
| Model | ZUW62412 | | |
| Item | Dynamic Load Responce<br>動的負荷変動 | Temperature<br>Testing Circuitry | 25℃<br>Figure A |
| Object | +12V0.25A | | |

Input Volt. 24.0 V

Cycle 100 mS

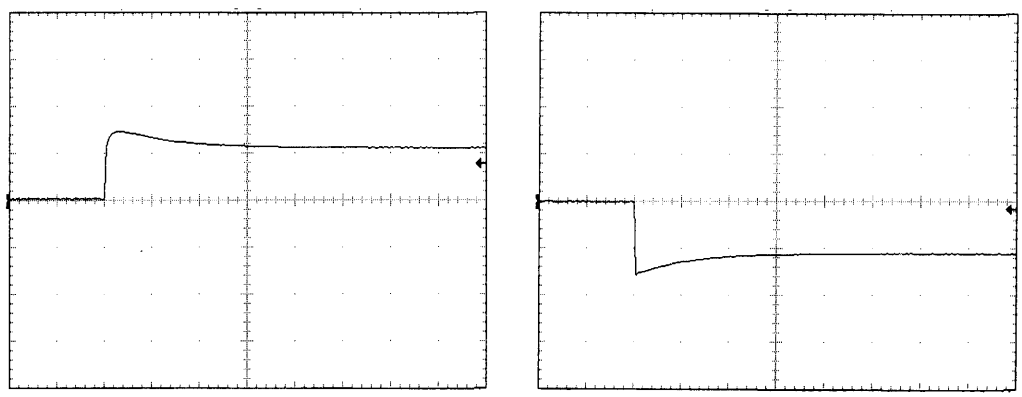
Load Current

Min. Load ⟷ Load 100 %



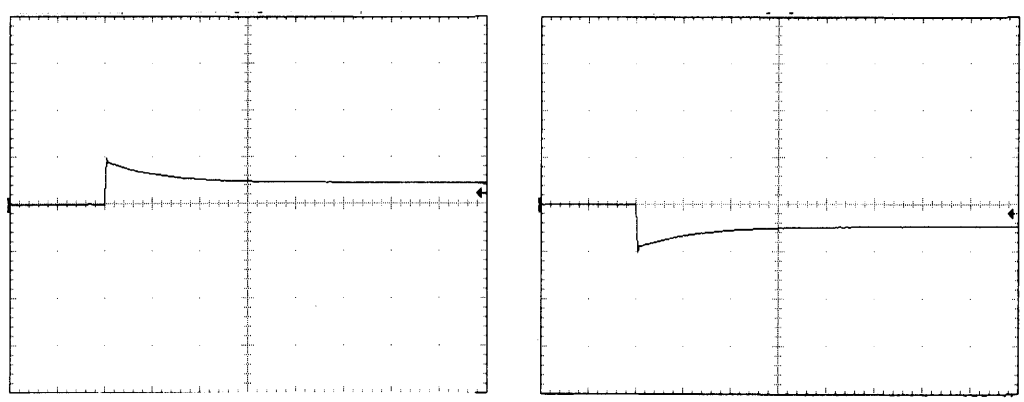
200 mV/div

Min. Load ⟷ Load 50 %



200 mV/div

Load 50%⟷ Load 100 %



200 mV/div

1 mS/div

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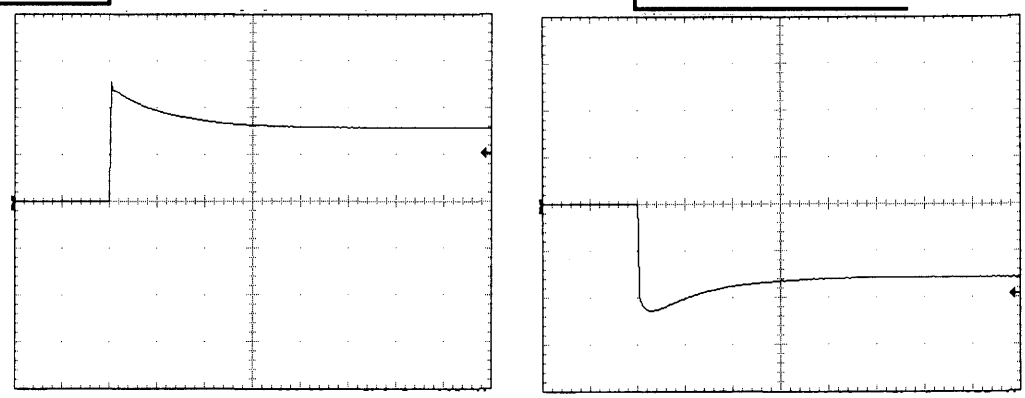
| | | | |
|---|---|---|---|
| Model | ZUW62412 | | |
| Item | Dynamic Load Responce<br>動的負荷変動 | Temperature<br>Testing Circuitry | 25℃<br>Figure A |
| Object | −12V0.25A | | |

Input Volt. 24.0 V

Cycle 100 mS

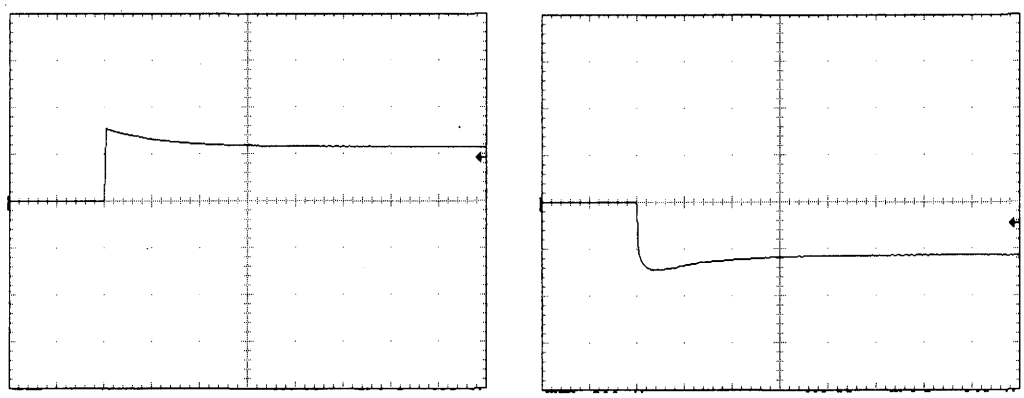
Load Current

Min. Load ⟷
Load 100 %



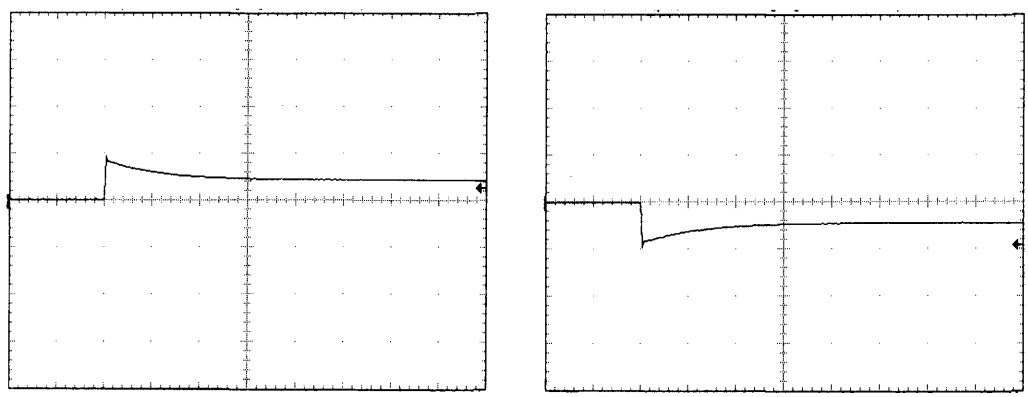
200 mV/div

Min. Load ⟷
Load 50 %



200 mV/div

Load 50%⟷
Load 100 %



200 mV/div

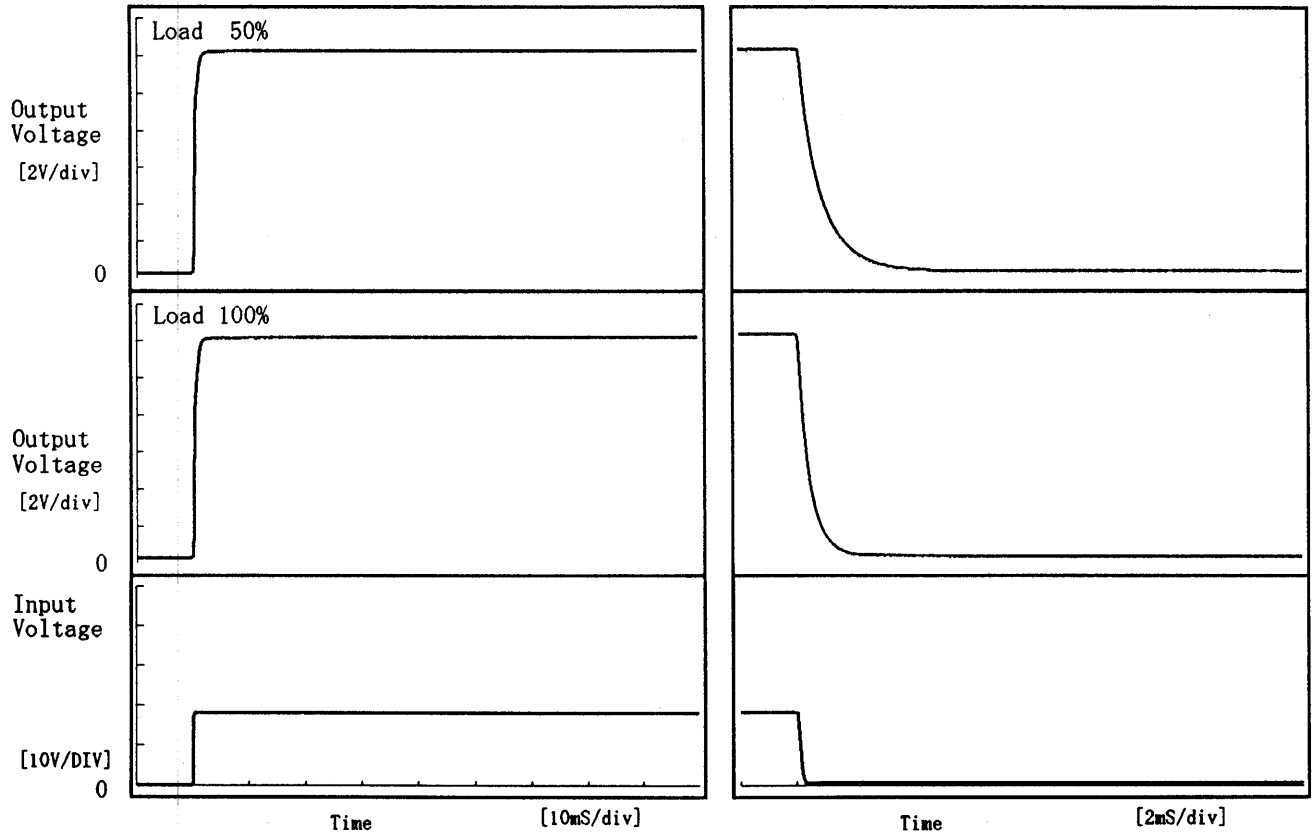
1 mS/div

COSEL

| | | | |
|---|---|---|---|
| Model | ZUW62412 | | |
| Item | Rise and Fall Time 立上り、立下り時間 | Temperature | 25℃ |
| | | Testing Circuitry | Figure A |
| Object | +12V0.25A | | |

1. Graph

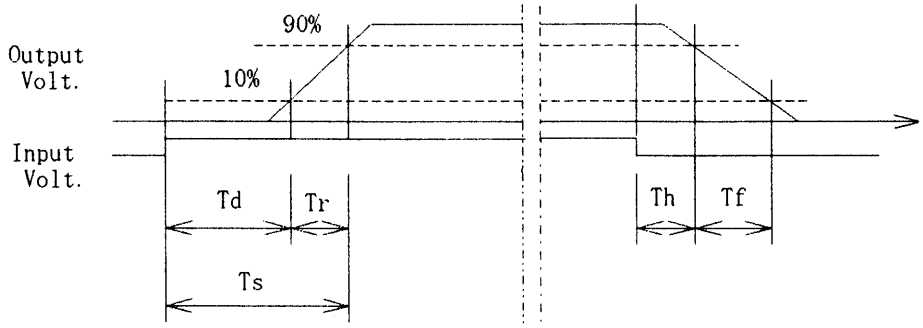
Input Volt. 18.0 V




2. Values

[mS]

| Load \ Time | T d | T r | T s | T h | T f |
|---|---|---|---|---|---|
| 50 % | 0.05 | 0.90 | 0.95 | 0.21 | 1.94 |
| 100 % | 0.05 | 1.00 | 1.05 | 0.14 | 0.99 |

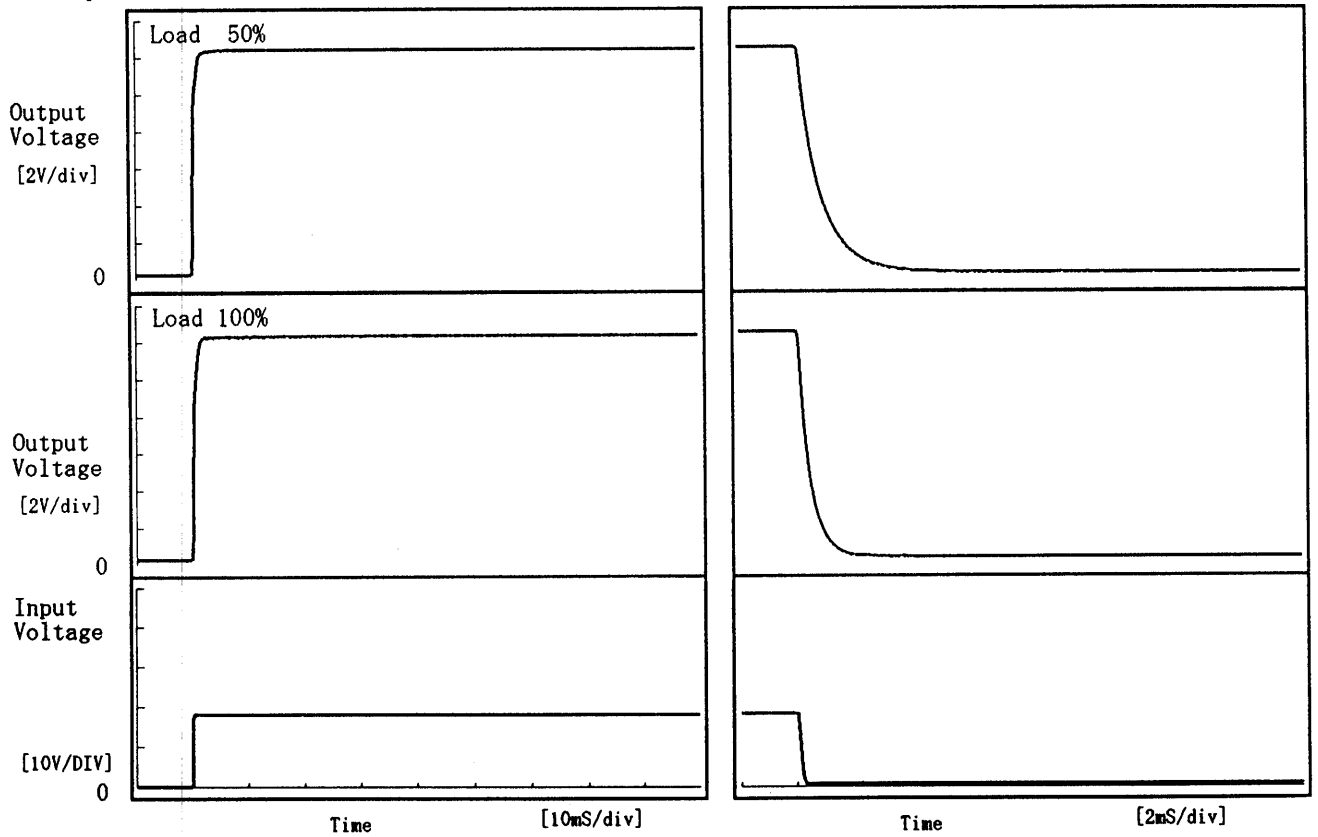


COSEL

| | | | |
|---|---|---|---|
| Model | ZUW62412 | | |
| Item | Rise and Fall Time 立上り、立下り時間 | Temperature | 25℃ |
| Object | -12V0.25A | Testing Circuitry | Figure A |

1. Graph

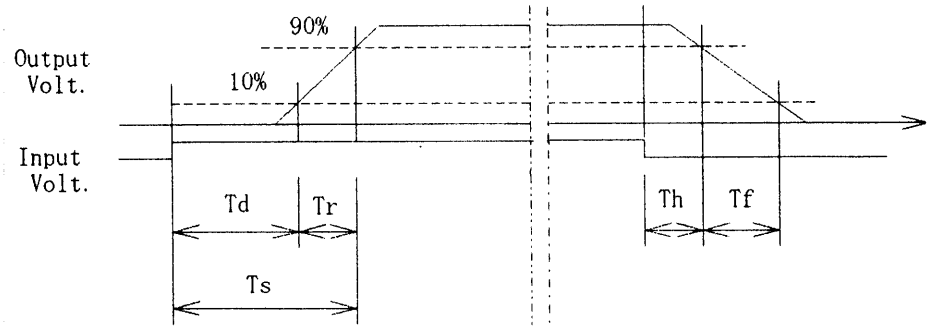
Input Volt. 18.0 V




2. Values

[mS]

| Load \ Time | T d | T r | T s | T h | T f |
|---|---|---|---|---|---|
| 50 % | 0.05 | 0.85 | 0.90 | 0.22 | 1.55 |
| 100 % | 0.05 | 0.95 | 1.00 | 0.15 | 0.98 |



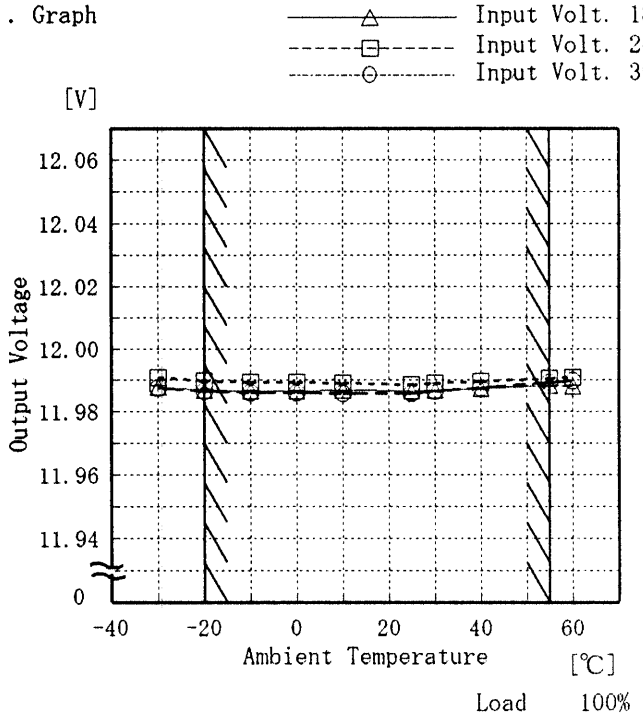
COSEL

| Model | ZUW62412 |
|---|---|
| Item | Ambient Temperature Drift<br>周囲温度変動 |

Testing Circuitry Figure A

Object +12V0.25A

1. Graph

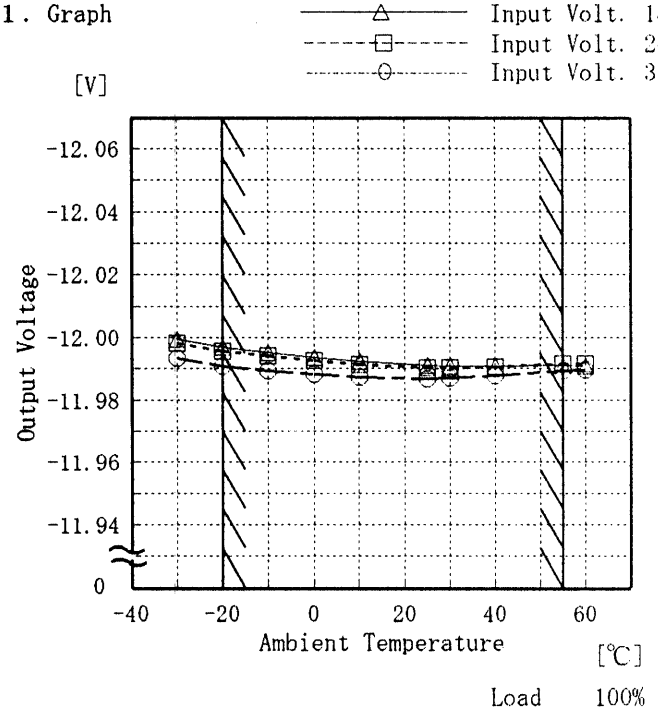



2. Values

| Temperature [℃] | Input Volt. 18.0[V] Output Volt. [V] | Input Volt. 24.0[V] Output Volt. [V] | Input Volt. 36.0[V] Output Volt. [V] |
|---|---|---|---|
| -30 | 11.988 | 11.991 | 11.988 |
| -20 | 11.987 | 11.990 | 11.986 |
| -10 | 11.986 | 11.989 | 11.986 |
| 0 | 11.987 | 11.989 | 11.986 |
| 10 | 11.987 | 11.989 | 11.986 |
| 25 | 11.987 | 11.989 | 11.986 |
| 30 | 11.987 | 11.989 | 11.986 |
| 40 | 11.987 | 11.990 | 11.988 |
| 55 | 11.988 | 11.991 | 11.989 |
| 60 | 11.988 | 11.991 | 11.990 |
| — | — | — | — |

Object −12V0.25A

1. Graph




2. Values

| Temperature [℃] | Input Volt. 18.0[V] Output Volt. [V] | Input Volt. 24.0[V] Output Volt. [V] | Input Volt. 36.0[V] Output Volt. [V] |
|---|---|---|---|
| -30 | -12.000 | -11.998 | -11.993 |
| -20 | -11.997 | -11.996 | -11.991 |
| -10 | -11.995 | -11.994 | -11.989 |
| 0 | -11.994 | -11.993 | -11.988 |
| 10 | -11.992 | -11.991 | -11.987 |
| 25 | -11.991 | -11.990 | -11.987 |
| 30 | -11.991 | -11.990 | -11.987 |
| 40 | -11.991 | -11.991 | -11.988 |
| 55 | -11.991 | -11.992 | -11.989 |
| 60 | -11.991 | -11.992 | -11.990 |
| — | — | — | — |

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。

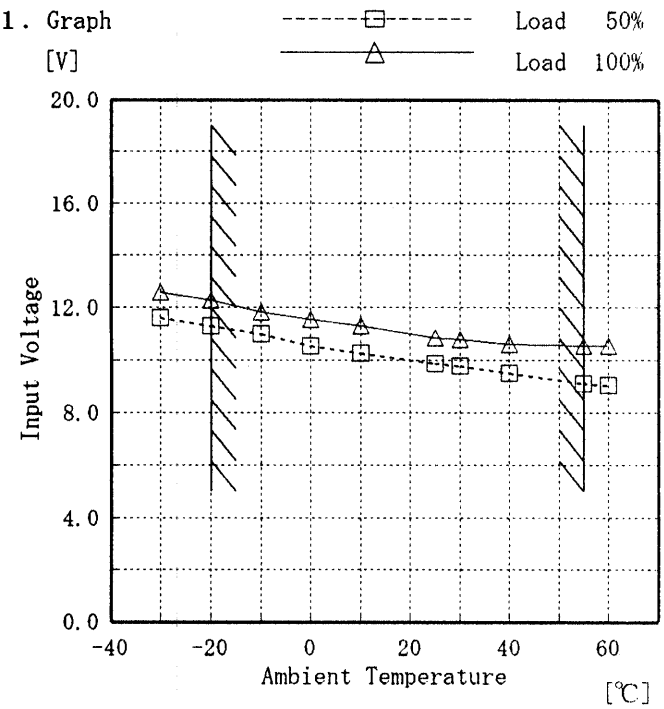
COSEL

| Model | ZUW62412 |
|---|---|
| Item | Minimum Input Voltage for Regulated Output Voltage<br>最低レギュレーション電圧 |

Testing Circuitry Figure A

Object +12V0.25A

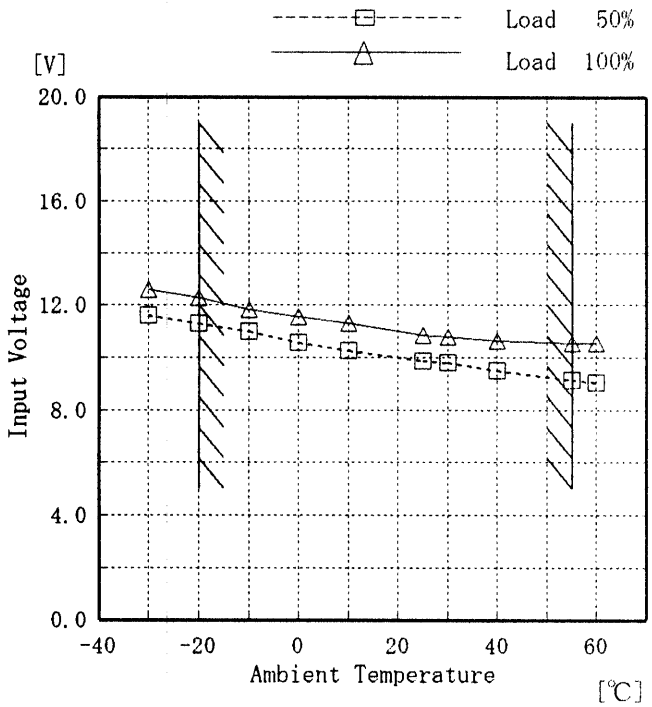
1. Graph




2. Values

| Ambient Temp. [℃] | Load 50% Input Volt. [V] | Load 100% Input Volt. [V] |
|---|---|---|
| -30 | 11.6 | 12.6 |
| -20 | 11.3 | 12.3 |
| -10 | 11.0 | 11.8 |
| 0 | 10.6 | 11.6 |
| 10 | 10.3 | 11.3 |
| 25 | 9.9 | 10.9 |
| 30 | 9.8 | 10.8 |
| 40 | 9.5 | 10.6 |
| 55 | 9.1 | 10.6 |
| 60 | 9.1 | 10.6 |
| — | — | — |

Object −12V0.25A




2. Values

| Ambient Temp. [℃] | Load 50% Input Volt. [V] | Load 100% Input Volt. [V] |
|---|---|---|
| -30 | 11.6 | 12.6 |
| -20 | 11.3 | 12.3 |
| -10 | 11.0 | 11.8 |
| 0 | 10.6 | 11.6 |
| 10 | 10.3 | 11.3 |
| 25 | 9.9 | 10.9 |
| 30 | 9.8 | 10.8 |
| 40 | 9.5 | 10.6 |
| 55 | 9.1 | 10.6 |
| 60 | 9.1 | 10.6 |
| — | — | — |

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。

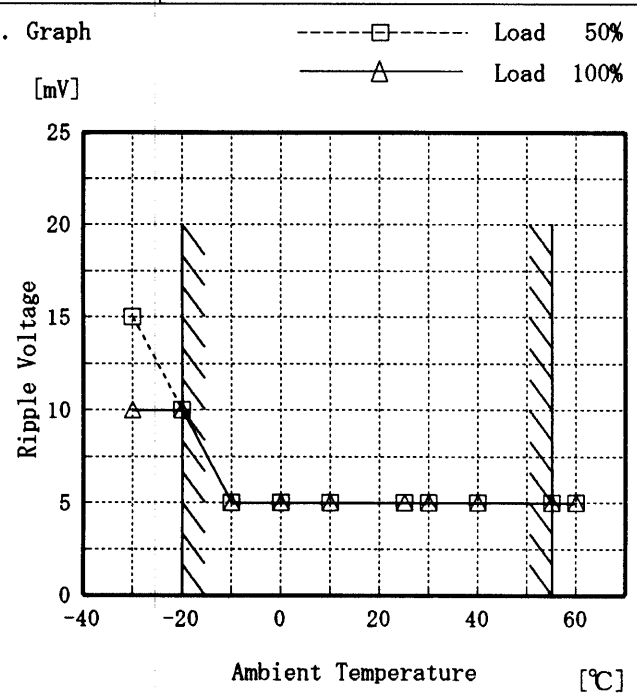
COSEL

| Model | ZUW62412 |
|---|---|
| Item | Ripple Voltage (by Ambient Temp.)<br>リップル電圧 (周囲温度特性) |

Testing Circuitry Figure A

Object +12V0.25A

1. Graph



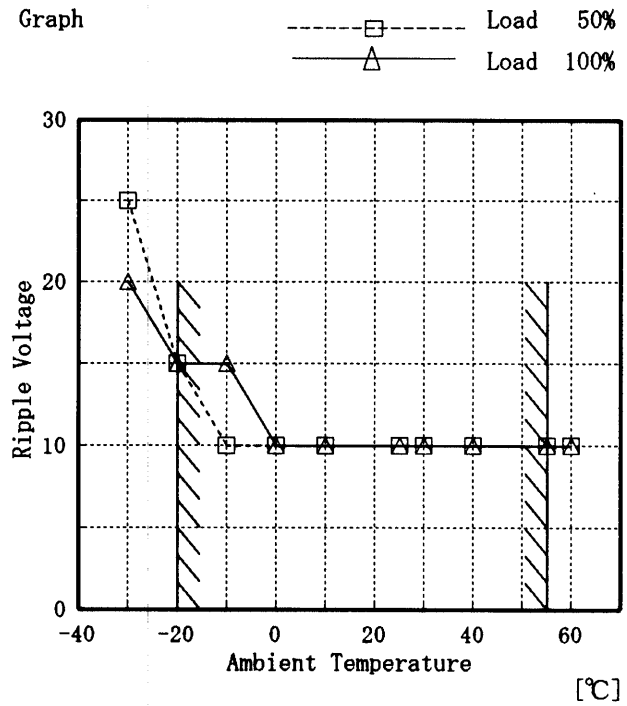

Input Volt. 18.0 V

2. Values

| Ambient Temp. [℃] | Load 50% Ripple Output Volt. [mV] | Load 100% Ripple Output Volt. [mV] |
|---|---|---|
| -30 | 15 | 10 |
| -20 | 10 | 10 |
| -10 | 5 | 5 |
| 0 | 5 | 5 |
| 10 | 5 | 5 |
| 25 | 5 | 5 |
| 30 | 5 | 5 |
| 40 | 5 | 5 |
| 55 | 5 | 5 |
| 60 | 5 | 5 |
| — | — | — |

Object −12V0.25A

1. Graph




Input Volt. 18.0 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

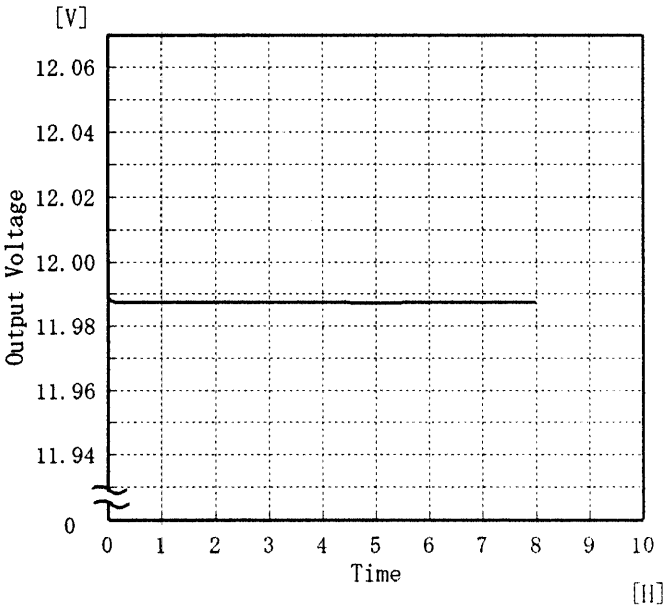
| Ambient Temp. [℃] | Load 50% Ripple Output Volt. [mV] | Load 100% Ripple Output Volt. [mV] |
|---|---|---|
| -30 | 25 | 20 |
| -20 | 15 | 15 |
| -10 | 10 | 15 |
| 0 | 10 | 10 |
| 10 | 10 | 10 |
| 25 | 10 | 10 |
| 30 | 10 | 10 |
| 40 | 10 | 10 |
| 55 | 10 | 10 |
| 60 | 10 | 10 |
| — | — | — |

COSEL

| Model | ZUW62412 | |
|---|---|---|
| Item | Time Lapse Drift 経時ドリフト | Temperature 25 ℃<br>Testing Circuitry Figure A |

Object +12V0.25A

1. Graph




Input Volt. 24.0V

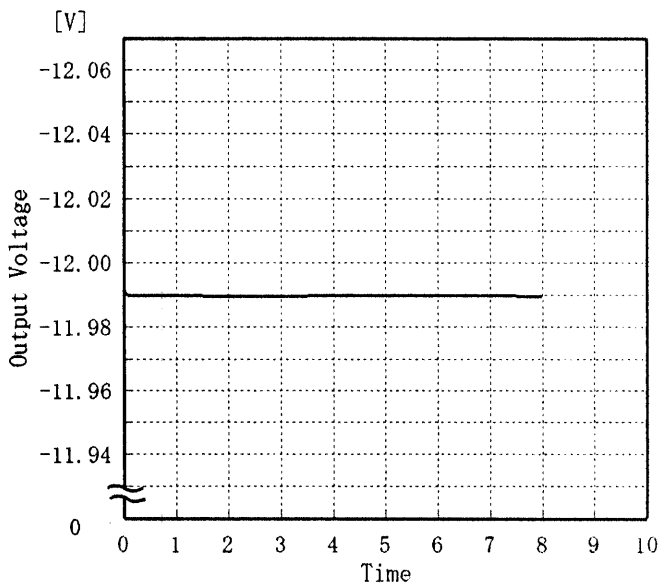
Load 100%

2. Values

| Time since start [H] | Output Voltage [V] |
|---|---|
| 0.0 | 11.988 |
| 0.5 | 11.988 |
| 1.0 | 11.988 |
| 2.0 | 11.988 |
| 3.0 | 11.988 |
| 4.0 | 11.988 |
| 5.0 | 11.988 |
| 6.0 | 11.988 |
| 7.0 | 11.988 |
| 8.0 | 11.988 |

Object −12V0.25A

1. Graph




Input Volt. 24.0V

Load 100%

2. Values

| Time since start [H] | Output Voltage [V] |
|---|---|
| 0.0 | -11.990 |
| 0.5 | -11.990 |
| 1.0 | -11.990 |
| 2.0 | -11.990 |
| 3.0 | -11.990 |
| 4.0 | -11.990 |
| 5.0 | -11.990 |
| 6.0 | -11.990 |
| 7.0 | -11.990 |
| 8.0 | -11.990 |

COSEL

| Model | ZUW62412 | |
|---|---|---|
| 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　: -20～55 ℃

Input Voltage : 18.0～36.0 V

Load Current ( AVR 1 ) : 0.00～0.25 A

( AVR 2 ) : 0.00～0.25 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　-20～55 ℃

入力電圧　18.0～36.0 V

負荷電流 (AVR 1) 0.00～0.25 A

(AVR 2) 0.00～0.25 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　+12V0.25A

| Item | Temperature [℃] | Input Voltage [V] | Output Current [A] | Output Voltage [V] | Output Voltage Accuracy [mV] | Output Voltage Accuracy(Ration)[%] |
|---|---|---|---|---|---|---|
| Maximum Voltage | 55 | 24.0 | 0.25 | 11.990 | ±143 | ±1.2 |
| Minimum Voltage | 25 | 36.0 | 0.00 | 11.704 | | |

Object　−12V0.25A

| Item | Temperature [℃] | Input Voltage [V] | Output Current [A] | Output Voltage [V] | Output Voltage Accuracy [mV] | Output Voltage Accuracy(Ration)[%] |
|---|---|---|---|---|---|---|
| Maximum Voltage | -20 | 18.0 | 0.25 | -11.996 | ±143 | ±1.2 |
| Minimum Voltage | 55 | 24.0 | 0.00 | -11.710 | | |

COSEL

| | |
|---|---|
| Model | ZUW62412 |
| Item | Condensation 結露特性 |
| Object | +12V 0.25A |

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 26℃ 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２６℃、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 | 11.952 | 5 | 15 |
| | 2 | 11.958 | 5 | 10 |
| | 3 | 11.959 | 5 | 10 |
| Load 100 % | 1 | 11.865 | 5 | 20 |
| | 2 | 11.867 | 5 | 20 |
| | 3 | 11.869 | 5 | 20 |

Input Volt. 24.0 V

COSEL

| | |
|---|---|
| Model | ZUW62412 |
| Item | Condensation 結露特性 |
| Object | −12V 0.25A |

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 26℃ 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２６℃、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 | -11.948 | 5 | 15 |
| | 2 | -11.951 | 5 | 15 |
| | 3 | -11.951 | 5 | 15 |
| Load 100 % | 1 | -11.850 | 5 | 20 |
| | 2 | -11.849 | 5 | 20 |
| | 3 | -11.852 | 5 | 30 |

Input Volt. 24.0 V

COSEL

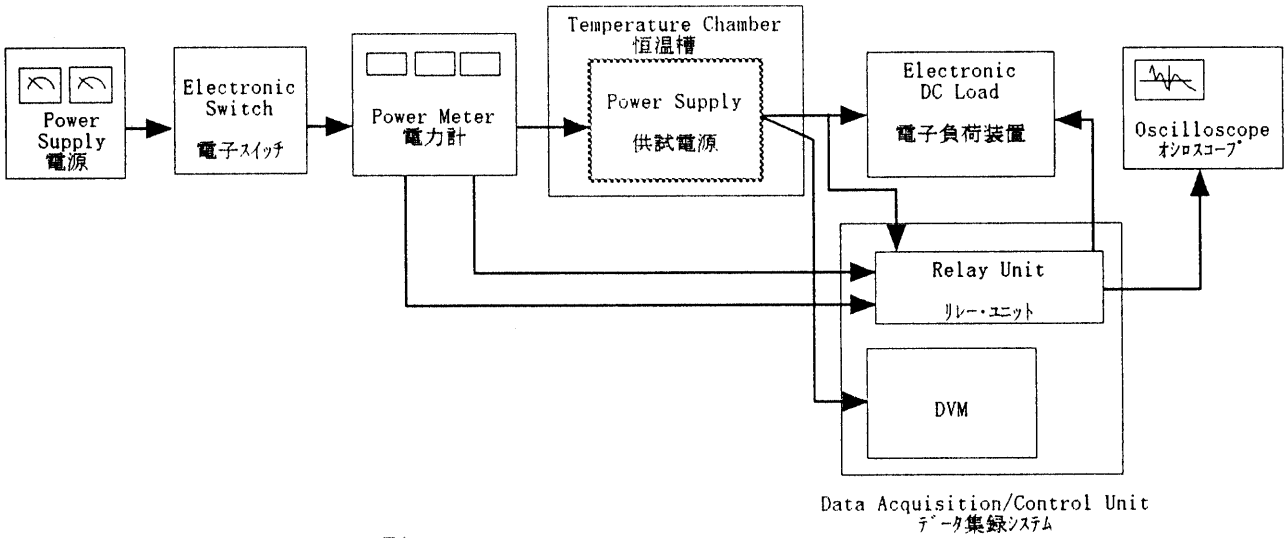



Figure A