

ZUW150512  
評価試験成績書

平成 7年 1月 11日

**COSEL**

コーセル株式会社

技術部  
標準設計二課

| 承認  | 照査  | 作成   |
|---|---|--|
|  |  |  |

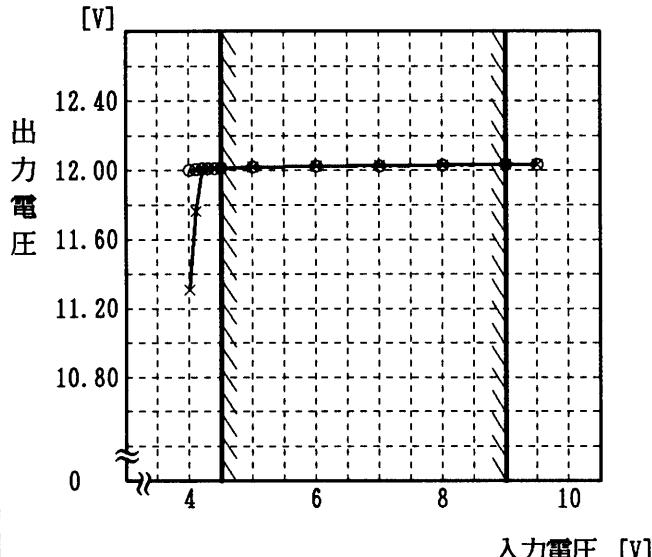
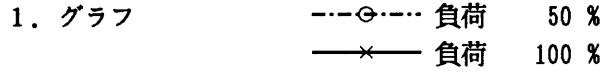
目次

|                    |    |
|--------------------|----|
| 1. 静的入力変動          | 1  |
| 2. 効率              | 2  |
| 3. 静的負荷変動          | 3  |
| 4. リップル電圧（負荷電流特性）  | 4  |
| 5. リップルノイズ         | 6  |
| 6. 過電流保護           | 8  |
| 7. 過電圧保護           | 9  |
| 8. 動的負荷変動          | 10 |
| 9. シーケンス           | 12 |
| 10. 周囲温度変動         | 14 |
| 11. 最低レギュレーション電圧   | 15 |
| 12. リップル電圧（周囲温度特性） | 16 |
| 13. 経時ドリフト         | 17 |
| 14. 総合変動           | 18 |
| 15. 結露特性           | 19 |
| 16. 測定回路図A         | 21 |
| ( 最終頁 )            | 21 |

COSEL

|      |           |
|------|-----------|
| 機種名  | ZUW150512 |
| 測定項目 | 静的入力変動    |

|      |            |
|------|------------|
| 測定出力 | +12V, 0.6A |
|------|------------|



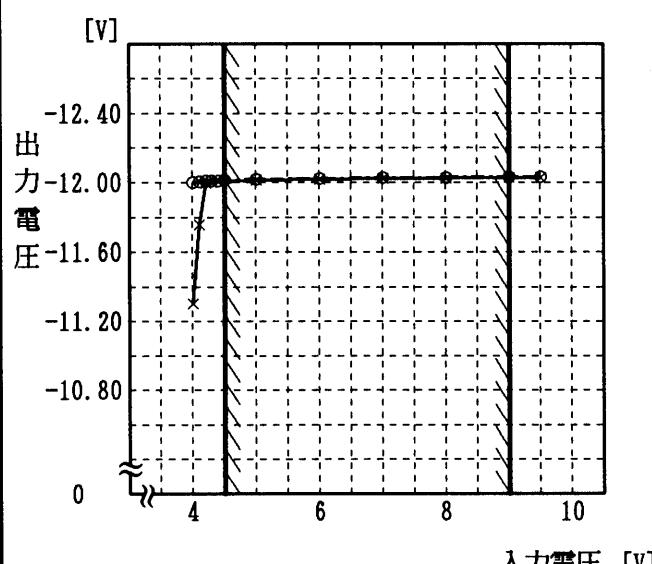
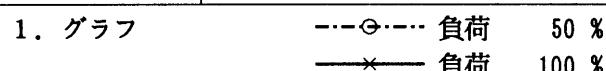
(注) 斜線は定格入力電圧範囲を示す。

測定環境温度 26 °C  
測定環境湿度 42 %RH  
測定回路図 回路図A

## 2. 測定値

| 入力電圧<br>[V] | 負荷 50 %  | 負荷 100 % |
|-------------|----------|----------|
|             | 出力電圧 [V] | 出力電圧 [V] |
| 4.0         | 12.003   | 11.307   |
| 4.1         | 12.008   | 11.762   |
| 4.2         | 12.011   | 12.004   |
| 4.3         | 12.012   | 12.009   |
| 4.4         | 12.014   | 12.011   |
| 4.5         | 12.015   | 12.013   |
| 5.0         | 12.020   | 12.020   |
| 6.0         | 12.025   | 12.026   |
| 7.0         | 12.029   | 12.030   |
| 8.0         | 12.031   | 12.032   |
| 9.0         | 12.033   | 12.034   |
| 9.5         | 12.034   | 12.035   |

|      |            |
|------|------------|
| 測定出力 | -12V, 0.6A |
|------|------------|



(注) 斜線は定格入力電圧範囲を示す。

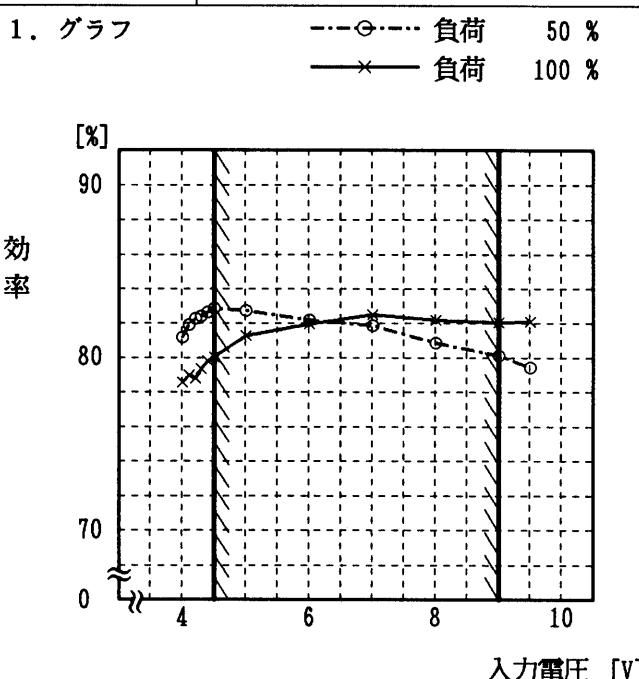
## 2. 測定値

| 入力電圧<br>[V] | 負荷 50 %  | 負荷 100 % |
|-------------|----------|----------|
|             | 出力電圧 [V] | 出力電圧 [V] |
| 4.0         | -12.001  | -11.302  |
| 4.1         | -12.006  | -11.756  |
| 4.2         | -12.009  | -11.996  |
| 4.3         | -12.011  | -12.001  |
| 4.4         | -12.012  | -12.003  |
| 4.5         | -12.013  | -12.005  |
| 5.0         | -12.019  | -12.013  |
| 6.0         | -12.025  | -12.020  |
| 7.0         | -12.028  | -12.024  |
| 8.0         | -12.031  | -12.027  |
| 9.0         | -12.033  | -12.029  |
| 9.5         | -12.034  | -12.030  |

COSEL

|      |           |
|------|-----------|
| 機種名  | ZUW150512 |
| 測定項目 | 効率        |
| 測定出力 | _____     |

測定環境温度 26 °C  
 測定環境湿度 42 %RH  
 測定回路図 回路図A



(注) 斜線は定格入力電圧範囲を示す。

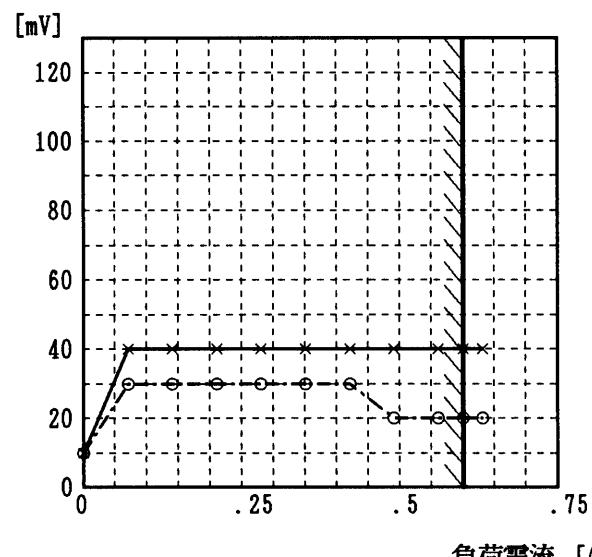
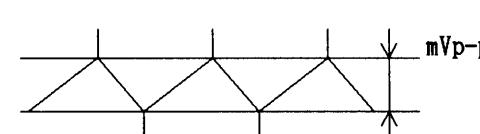
## 2. 測定値

| 入力電圧<br>[V] | 負荷 50 % | 負荷 100 % |
|-------------|---------|----------|
|             | 効率 [%]  | 効率 [%]   |
| 4.0         | 81.2    | 78.6     |
| 4.1         | 81.9    | 79.0     |
| 4.2         | 82.3    | 78.8     |
| 4.3         | 82.4    | 79.4     |
| 4.4         | 82.7    | 79.8     |
| 4.5         | 82.9    | 80.1     |
| 5.0         | 82.7    | 81.3     |
| 6.0         | 82.2    | 82.0     |
| 7.0         | 81.9    | 82.5     |
| 8.0         | 80.8    | 82.2     |
| 9.0         | 80.1    | 82.1     |
| 9.5         | 79.4    | 82.1     |

COSEL

| 機種名                        | ZUW150512    | 測定環境温度  | 26 °C        |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
|----------------------------|--------------|---|--------------|-------------|--------------|--------------|--------------|----------|----------|-------|---------|---------|---------|--|-------|---------|---------|---------|--|-------|---------|---------|---------|--|-------|---------|---------|---------|--|-------|---------|---------|---------|--|-------|---------|---------|---------|--|-------|---------|---------|---------|--|-------|---------|---------|---------|--|-------|---------|---------|---------|--|-------|---------|---------|---------|--|-------|---------|---------|---------|--|
| 測定項目                       | 静的負荷変動       | 測定環境湿度  | 42 %RH       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 測定出力                       | +12V, 0.6A   | 測定回路図   | 回路図A         |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 1. グラフ                     |              | 2. 測定値  |              |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| <p>(注) 斜線は定格負荷電流範囲を示す。</p> |              | <table border="1"> <thead> <tr> <th rowspan="2">負荷電流<br/>[A]</th> <th rowspan="2">入力電圧<br/>4.5V</th> <th rowspan="2">入力電圧<br/>5.0V</th> <th rowspan="2">入力電圧<br/>9.0V</th> <th>出力電圧 [V]</th> </tr> <tr> <th>出力電圧 [V]</th> </tr> </thead> <tbody> <tr><td>0.000</td><td>12.280</td><td>12.284</td><td>12.304</td><td></td></tr> <tr><td>0.070</td><td>12.212</td><td>12.214</td><td>12.219</td><td></td></tr> <tr><td>0.140</td><td>12.180</td><td>12.182</td><td>12.187</td><td></td></tr> <tr><td>0.210</td><td>12.152</td><td>12.155</td><td>12.161</td><td></td></tr> <tr><td>0.280</td><td>12.126</td><td>12.130</td><td>12.137</td><td></td></tr> <tr><td>0.350</td><td>12.100</td><td>12.105</td><td>12.113</td><td></td></tr> <tr><td>0.420</td><td>12.076</td><td>12.081</td><td>12.091</td><td></td></tr> <tr><td>0.490</td><td>12.051</td><td>12.057</td><td>12.069</td><td></td></tr> <tr><td>0.560</td><td>12.026</td><td>12.033</td><td>12.047</td><td></td></tr> <tr><td>0.600</td><td>12.013</td><td>12.020</td><td>12.035</td><td></td></tr> <tr><td>0.630</td><td>12.002</td><td>12.010</td><td>12.025</td><td></td></tr> </tbody> </table>                                  |              | 負荷電流<br>[A] | 入力電圧<br>4.5V | 入力電圧<br>5.0V | 入力電圧<br>9.0V | 出力電圧 [V] | 出力電圧 [V] | 0.000 | 12.280  | 12.284  | 12.304  |  | 0.070 | 12.212  | 12.214  | 12.219  |  | 0.140 | 12.180  | 12.182  | 12.187  |  | 0.210 | 12.152  | 12.155  | 12.161  |  | 0.280 | 12.126  | 12.130  | 12.137  |  | 0.350 | 12.100  | 12.105  | 12.113  |  | 0.420 | 12.076  | 12.081  | 12.091  |  | 0.490 | 12.051  | 12.057  | 12.069  |  | 0.560 | 12.026  | 12.033  | 12.047  |  | 0.600 | 12.013  | 12.020  | 12.035  |  | 0.630 | 12.002  | 12.010  | 12.025  |  |
| 負荷電流<br>[A]                | 入力電圧<br>4.5V | 入力電圧<br>5.0V  | 入力電圧<br>9.0V |             |              |              |              | 出力電圧 [V] |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
|                            |              |   |              | 出力電圧 [V]    |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.000                      | 12.280       | 12.284  | 12.304       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.070                      | 12.212       | 12.214  | 12.219       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.140                      | 12.180       | 12.182  | 12.187       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.210                      | 12.152       | 12.155  | 12.161       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.280                      | 12.126       | 12.130  | 12.137       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.350                      | 12.100       | 12.105  | 12.113       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.420                      | 12.076       | 12.081  | 12.091       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.490                      | 12.051       | 12.057  | 12.069       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.560                      | 12.026       | 12.033  | 12.047       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.600                      | 12.013       | 12.020  | 12.035       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.630                      | 12.002       | 12.010  | 12.025       |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 測定出力                       | -12V, 0.6A   | 2. 測定値  |              |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| <p>(注) 斜線は定格負荷電流範囲を示す。</p> |              | <table border="1"> <thead> <tr> <th rowspan="2">負荷電流<br/>[A]</th> <th rowspan="2">入力電圧<br/>4.5V</th> <th rowspan="2">入力電圧<br/>5.0V</th> <th rowspan="2">入力電圧<br/>9.0V</th> <th>出力電圧 [V]</th> </tr> <tr> <th>出力電圧 [V]</th> </tr> </thead> <tbody> <tr><td>0.000</td><td>-12.278</td><td>-12.282</td><td>-12.300</td><td></td></tr> <tr><td>0.070</td><td>-12.211</td><td>-12.214</td><td>-12.219</td><td></td></tr> <tr><td>0.140</td><td>-12.178</td><td>-12.181</td><td>-12.187</td><td></td></tr> <tr><td>0.210</td><td>-12.150</td><td>-12.153</td><td>-12.160</td><td></td></tr> <tr><td>0.280</td><td>-12.122</td><td>-12.127</td><td>-12.135</td><td></td></tr> <tr><td>0.350</td><td>-12.096</td><td>-12.101</td><td>-12.111</td><td></td></tr> <tr><td>0.420</td><td>-12.070</td><td>-12.076</td><td>-12.088</td><td></td></tr> <tr><td>0.490</td><td>-12.045</td><td>-12.051</td><td>-12.065</td><td></td></tr> <tr><td>0.560</td><td>-12.019</td><td>-12.027</td><td>-12.042</td><td></td></tr> <tr><td>0.600</td><td>-12.004</td><td>-12.012</td><td>-12.029</td><td></td></tr> <tr><td>0.630</td><td>-11.993</td><td>-12.001</td><td>-12.019</td><td></td></tr> </tbody> </table> |              | 負荷電流<br>[A] | 入力電圧<br>4.5V | 入力電圧<br>5.0V | 入力電圧<br>9.0V | 出力電圧 [V] | 出力電圧 [V] | 0.000 | -12.278 | -12.282 | -12.300 |  | 0.070 | -12.211 | -12.214 | -12.219 |  | 0.140 | -12.178 | -12.181 | -12.187 |  | 0.210 | -12.150 | -12.153 | -12.160 |  | 0.280 | -12.122 | -12.127 | -12.135 |  | 0.350 | -12.096 | -12.101 | -12.111 |  | 0.420 | -12.070 | -12.076 | -12.088 |  | 0.490 | -12.045 | -12.051 | -12.065 |  | 0.560 | -12.019 | -12.027 | -12.042 |  | 0.600 | -12.004 | -12.012 | -12.029 |  | 0.630 | -11.993 | -12.001 | -12.019 |  |
| 負荷電流<br>[A]                | 入力電圧<br>4.5V | 入力電圧<br>5.0V  | 入力電圧<br>9.0V |             |              |              |              | 出力電圧 [V] |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
|                            |              |   |              | 出力電圧 [V]    |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.000                      | -12.278      | -12.282   | -12.300      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.070                      | -12.211      | -12.214   | -12.219      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.140                      | -12.178      | -12.181   | -12.187      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.210                      | -12.150      | -12.153   | -12.160      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.280                      | -12.122      | -12.127   | -12.135      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.350                      | -12.096      | -12.101   | -12.111      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.420                      | -12.070      | -12.076   | -12.088      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.490                      | -12.045      | -12.051   | -12.065      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.560                      | -12.019      | -12.027   | -12.042      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.600                      | -12.004      | -12.012   | -12.029      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |
| 0.630                      | -11.993      | -12.001   | -12.019      |             |              |              |              |          |          |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |       |         |         |         |  |

COSEL

| 機種名  | ZUW150512       | 測定環境温度<br>26 °C   |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
|--|-----------------|---|-------------|------|--|------|------|-------|----|----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|
| 測定項目   | リップル電圧 (負荷電流特性) | 測定環境湿度<br>42 %RH  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 測定出力   | +12V, 0.6A      | 測定回路図<br>回路図A   |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 1. グラフ   |                 | 2. 測定値  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| <p>---○--- 入力電圧 4.5V<br/>       —×— 入力電圧 9.0V</p>  |                 | <table border="1"> <thead> <tr> <th rowspan="2">負荷電流<br/>[A]</th> <th colspan="2">入力電圧</th> </tr> <tr> <th>4.5V</th> <th>9.0V</th> </tr> </thead> <tbody> <tr> <td>0.000</td> <td>10</td> <td>10</td> </tr> <tr> <td>0.070</td> <td>30</td> <td>40</td> </tr> <tr> <td>0.140</td> <td>30</td> <td>40</td> </tr> <tr> <td>0.210</td> <td>30</td> <td>40</td> </tr> <tr> <td>0.280</td> <td>30</td> <td>40</td> </tr> <tr> <td>0.350</td> <td>30</td> <td>40</td> </tr> <tr> <td>0.420</td> <td>30</td> <td>40</td> </tr> <tr> <td>0.490</td> <td>20</td> <td>40</td> </tr> <tr> <td>0.560</td> <td>20</td> <td>40</td> </tr> <tr> <td>0.600</td> <td>20</td> <td>40</td> </tr> <tr> <td>0.630</td> <td>20</td> <td>40</td> </tr> </tbody> </table> | 負荷電流<br>[A] | 入力電圧 |  | 4.5V | 9.0V | 0.000 | 10 | 10 | 0.070 | 30 | 40 | 0.140 | 30 | 40 | 0.210 | 30 | 40 | 0.280 | 30 | 40 | 0.350 | 30 | 40 | 0.420 | 30 | 40 | 0.490 | 20 | 40 | 0.560 | 20 | 40 | 0.600 | 20 | 40 | 0.630 | 20 | 40 |
| 負荷電流<br>[A]  | 入力電圧            |   |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
|  | 4.5V            | 9.0V  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.000  | 10              | 10  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.070  | 30              | 40  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.140  | 30              | 40  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.210  | 30              | 40  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.280  | 30              | 40  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.350  | 30              | 40  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.420  | 30              | 40  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.490  | 20              | 40  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.560  | 20              | 40  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.600  | 20              | 40  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| 0.630  | 20              | 40  |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |
| リップルの電圧は、下図p-p値で示される。<br>(注) 斜線は定格負荷電流範囲を示す。   |                 |    |             |      |  |      |      |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |       |    |    |

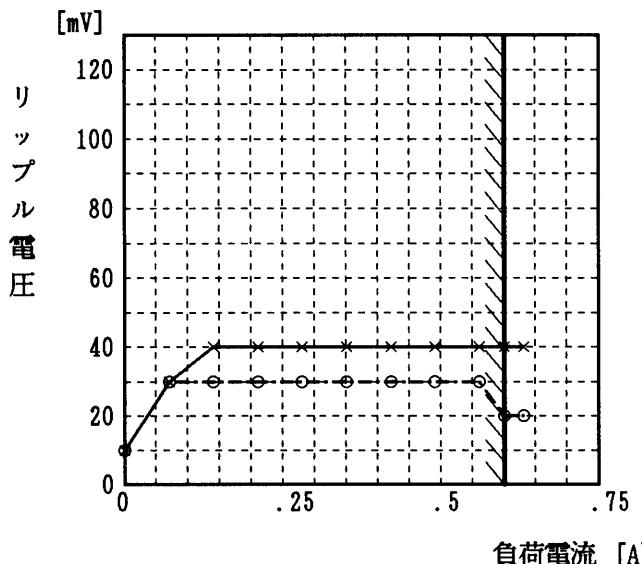
COSEL

|      |                |
|------|----------------|
| 機種名  | ZUW150512      |
| 測定項目 | リップル電圧（負荷電流特性） |
| 測定出力 | -12V, 0.6A     |

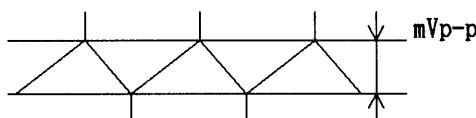
測定環境温度 26 °C  
 測定環境湿度 42 %RH  
 測定回路図 回路図A

1. グラフ

---○--- 入力電圧 4.5V  
 —×— 入力電圧 9.0V



リップルの電圧は、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。



## 2. 測定値

| 負荷電流<br>[A] | 入力電圧<br>4.5V | 入力電圧<br>9.0V |
|-------------|--------------|--------------|
|             | リップル電圧[mV]   | リップル電圧[mV]   |
| 0.000       | 10           | 10           |
| 0.070       | 30           | 30           |
| 0.140       | 30           | 40           |
| 0.210       | 30           | 40           |
| 0.280       | 30           | 40           |
| 0.350       | 30           | 40           |
| 0.420       | 30           | 40           |
| 0.490       | 30           | 40           |
| 0.560       | 30           | 40           |
| 0.600       | 20           | 40           |
| 0.630       | 20           | 40           |

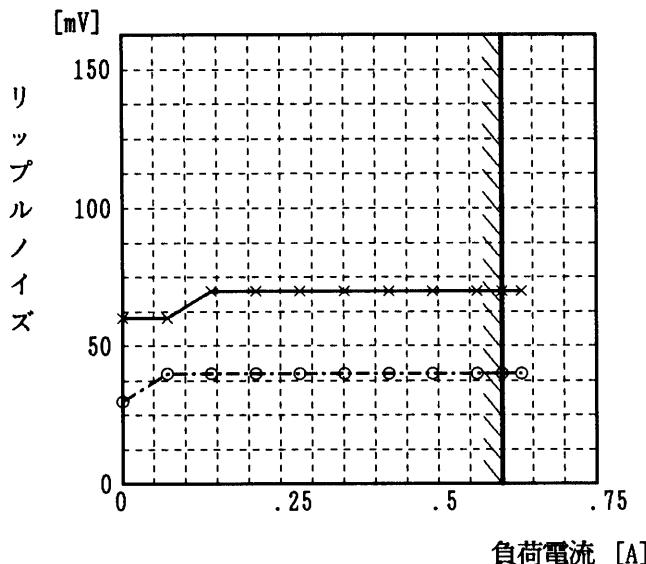
COSEL

|      |            |
|------|------------|
| 機種名  | ZUW150512  |
| 測定項目 | リップルノイズ    |
| 測定出力 | +12V, 0.6A |

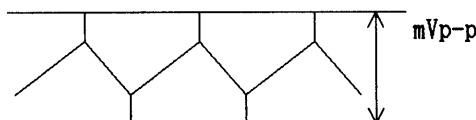
測定環境温度 26 °C  
 測定環境湿度 42 %RH  
 測定回路図 回路図A

1. グラフ

---○--- 入力電圧 4.5V  
 ——×— 入力電圧 9.0V



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。

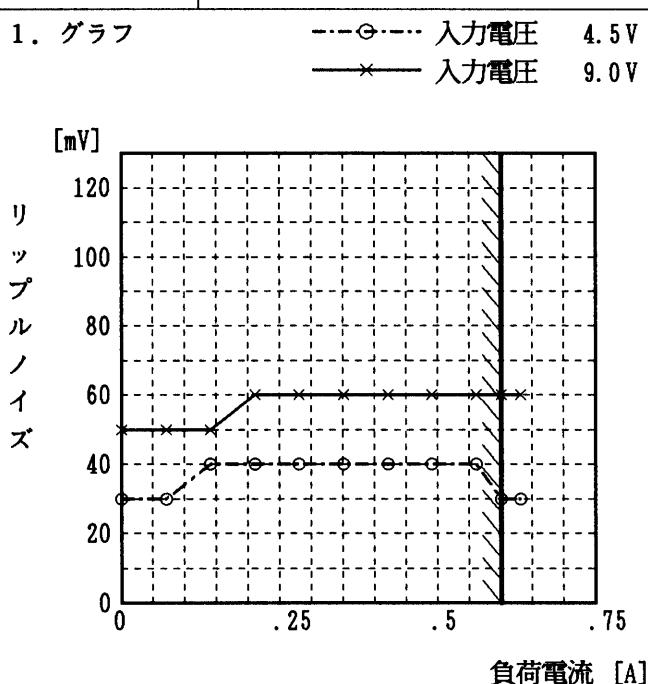


## 2. 測定値

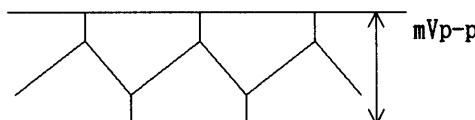
| 負荷電流<br>[A] | 入力電圧                 |                      |
|-------------|----------------------|----------------------|
|             | 4.5V<br>リップルノイズ [mV] | 9.0V<br>リップルノイズ [mV] |
| 0.000       | 30                   | 60                   |
| 0.070       | 40                   | 60                   |
| 0.140       | 40                   | 70                   |
| 0.210       | 40                   | 70                   |
| 0.280       | 40                   | 70                   |
| 0.350       | 40                   | 70                   |
| 0.420       | 40                   | 70                   |
| 0.490       | 40                   | 70                   |
| 0.560       | 40                   | 70                   |
| 0.600       | 40                   | 70                   |
| 0.630       | 40                   | 70                   |

COSEL

|      |            |        |        |
|------|------------|--------|--------|
| 機種名  | ZUW150512  | 測定環境温度 | 26 °C  |
| 測定項目 | リップルノイズ    | 測定環境湿度 | 42 %RH |
| 測定出力 | -12V, 0.6A | 測定回路図  | 回路図A   |



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。



## 2. 測定値

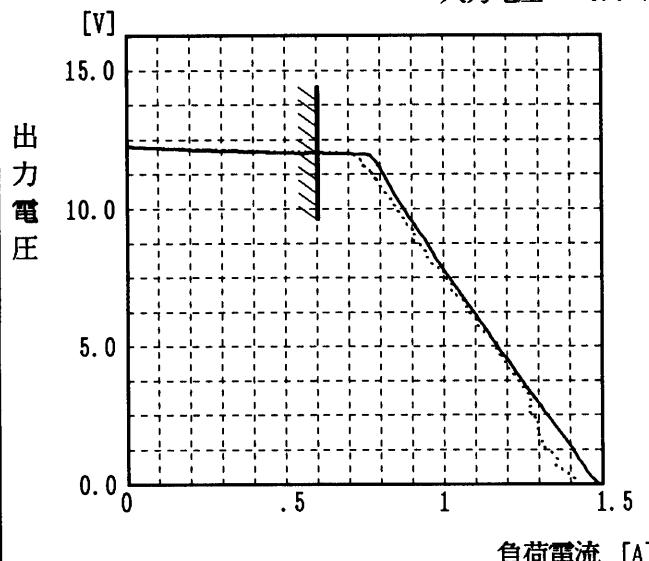
| 負荷電流<br>[A] | 入力電圧                 |                      |
|-------------|----------------------|----------------------|
|             | 4.5V<br>リップルノイズ [mV] | 9.0V<br>リップルノイズ [mV] |
| 0.000       | 30                   | 50                   |
| 0.070       | 30                   | 50                   |
| 0.140       | 40                   | 50                   |
| 0.210       | 40                   | 60                   |
| 0.280       | 40                   | 60                   |
| 0.350       | 40                   | 60                   |
| 0.420       | 40                   | 60                   |
| 0.490       | 40                   | 60                   |
| 0.560       | 40                   | 60                   |
| 0.600       | 30                   | 60                   |
| 0.630       | 30                   | 60                   |

COSEL

|      |            |        |        |
|------|------------|--------|--------|
| 機種名  | ZUW150512  | 測定環境温度 | 26 °C  |
| 測定項目 | 過電流保護      | 測定環境湿度 | 42 %RH |
| 測定出力 | +12V, 0.6A | 測定回路図  | 回路図A   |

## 1. グラフ

----- 入力電圧 4.5 V  
 ——— 入力電圧 5.0 V  
 ..... 入力電圧 9.0 V



(注) 斜線は定格負荷電流範囲を示す。

## 2. 測定値

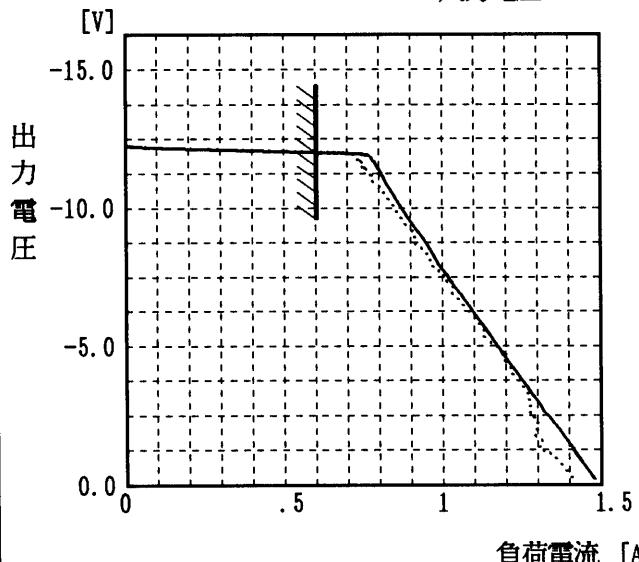
| 出力電圧<br>[V] | 入力電圧<br>4.5V | 入力電圧<br>5.0V | 入力電圧<br>9.0V |
|-------------|--------------|--------------|--------------|
|             | 負荷電流 [A]     |              |              |
| 11.99       | 0.66         | 0.66         | 0.72         |
| 11.40       | 0.80         | 0.80         | 0.77         |
| 10.80       | 0.83         | 0.83         | 0.80         |
| 9.60        | 0.90         | 0.90         | 0.87         |
| 8.40        | 0.96         | 0.96         | 0.94         |
| 7.20        | 1.03         | 1.03         | 1.02         |
| 6.00        | 1.11         | 1.11         | 1.10         |
| 4.80        | 1.18         | 1.18         | 1.16         |
| 3.60        | 1.26         | 1.26         | 1.25         |
| 2.40        | 1.33         | 1.33         | 1.28         |
| 1.20        | 1.41         | 1.41         | 1.34         |
| 0.00        | 1.49         | 1.49         | 1.42         |
|             |              |              |              |
|             |              |              |              |
|             |              |              |              |
|             |              |              |              |
|             |              |              |              |

## 測定出力

-12V, 0.6A

## 1. グラフ

----- 入力電圧 4.5 V  
 ——— 入力電圧 5.0 V  
 ..... 入力電圧 9.0 V



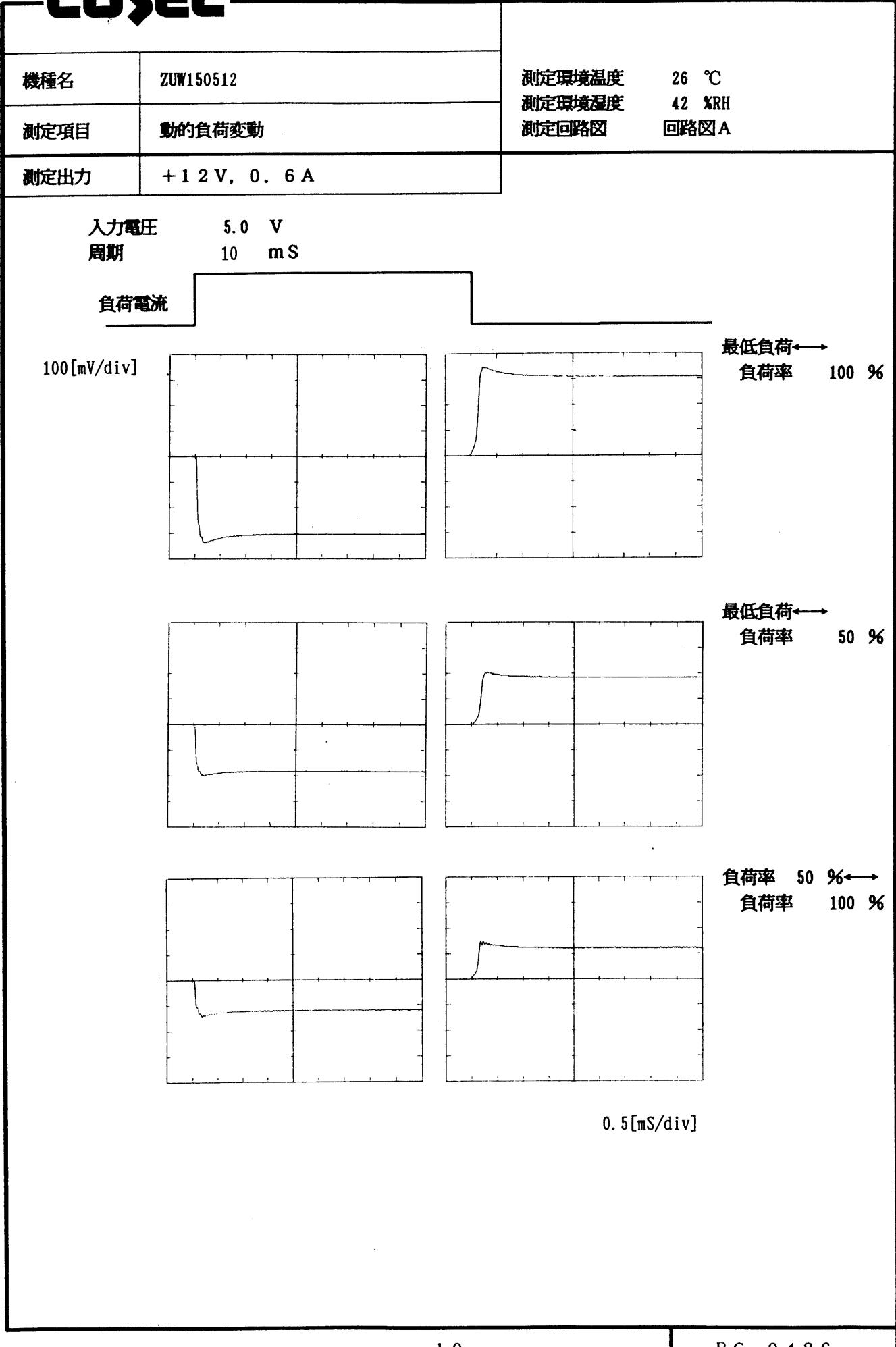
(注) 斜線は定格負荷電流範囲を示す。

## 2. 測定値

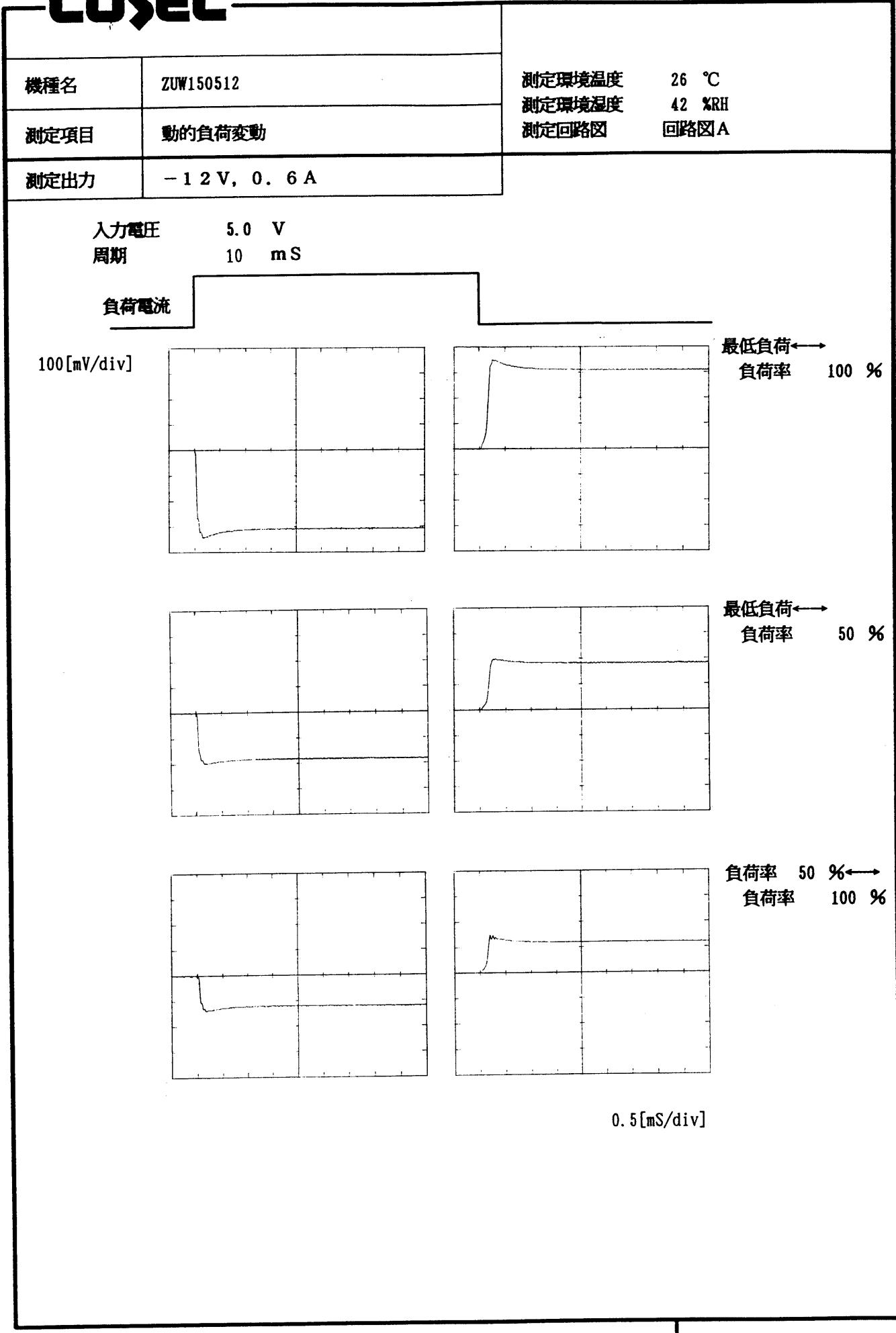
| 出力電圧<br>[V] | 入力電圧<br>4.5V | 入力電圧<br>5.0V | 入力電圧<br>9.0V |
|-------------|--------------|--------------|--------------|
|             | 負荷電流 [A]     |              |              |
| -11.99      | 0.65         | 0.65         | 0.70         |
| -11.40      | 0.80         | 0.80         | 0.76         |
| -10.80      | 0.83         | 0.83         | 0.80         |
| -9.60       | 0.89         | 0.89         | 0.87         |
| -8.40       | 0.96         | 0.96         | 0.94         |
| -7.20       | 1.04         | 1.04         | 1.03         |
| -6.00       | 1.11         | 1.11         | 1.10         |
| -4.80       | 1.18         | 1.18         | 1.20         |
| -3.60       | 1.26         | 1.26         | 1.25         |
| -2.40       | 1.34         | 1.33         | 1.28         |
| -1.20       | 1.42         | 1.42         | 1.35         |
| 0.00        | 1.50         | 1.50         | 1.43         |
|             |              |              |              |
|             |              |              |              |
|             |              |              |              |
|             |              |              |              |



COSEL



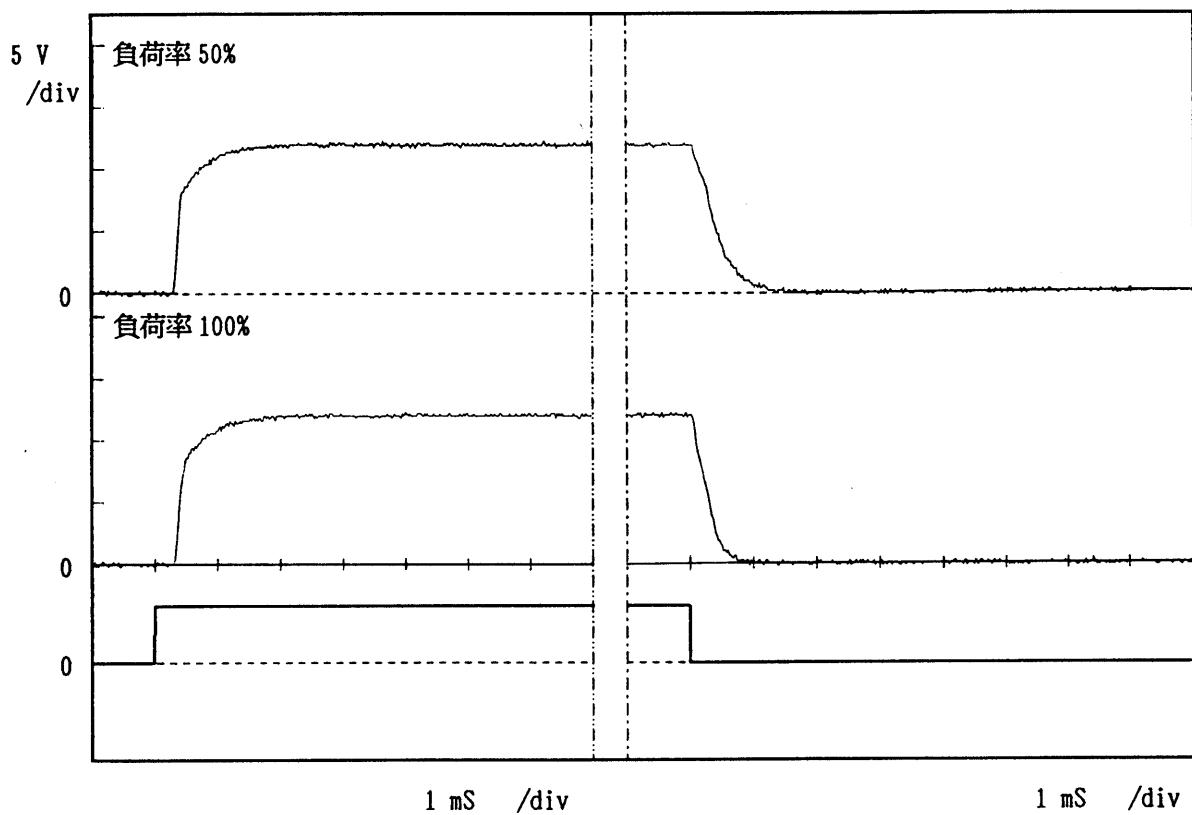
COSEL



**COSEL**

|      |            |        |        |
|------|------------|--------|--------|
| 機種名  | ZUW150512  | 測定環境温度 | 26 °C  |
| 測定項目 | シーケンス特性    | 測定環境湿度 | 42 %RH |
| 測定出力 | +12V, 0.6A | 測定回路図  | 回路図A   |

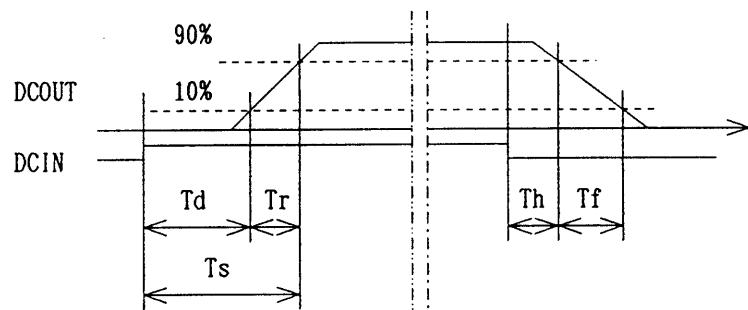
## 1. グラフ



## 2. 測定値

| 時間<br>負荷 | Td   | Tr   | Ts   | Th   | Tf   |
|----------|------|------|------|------|------|
| 50%      | 0.30 | 0.65 | 0.95 | 0.10 | 0.72 |
| 100%     | 0.30 | 0.65 | 0.95 | 0.10 | 0.43 |

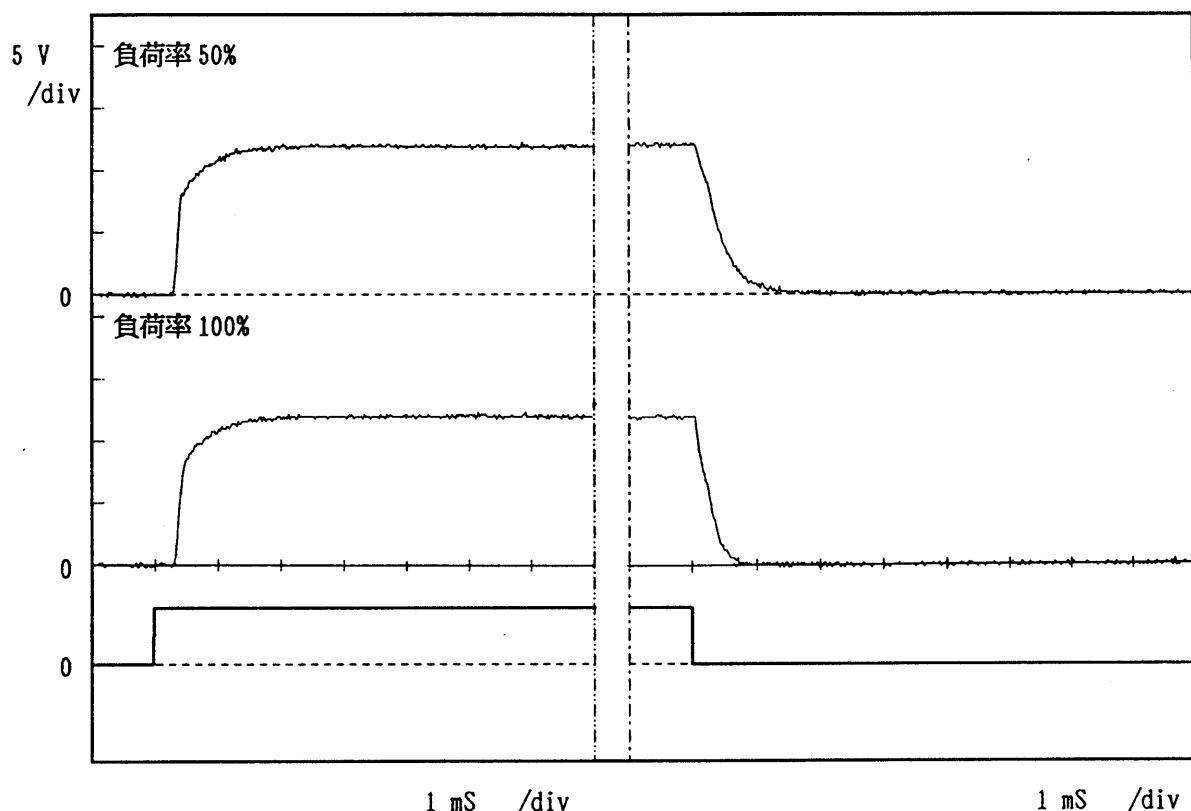
[ms]



**COSEL**

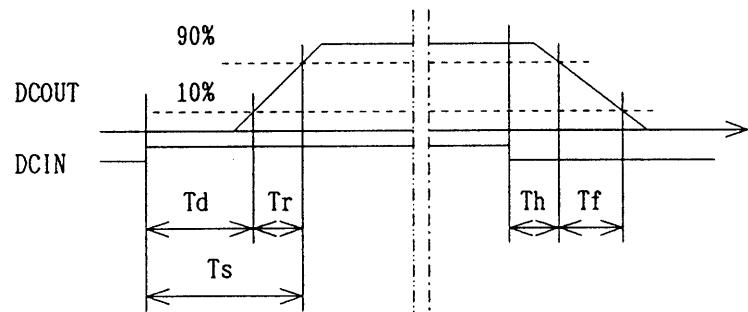
|      |            |        |        |
|------|------------|--------|--------|
| 機種名  | ZUW150512  | 測定環境温度 | 26 °C  |
| 測定項目 | シーケンス特性    | 測定環境湿度 | 42 %RH |
| 測定出力 | -12V, 0.6A | 測定回路図  | 回路図A   |

## 1. グラフ



## 2. 測定値

| 時間<br>負荷 | Td   | Tr   | Ts   | Th   | Tf   |
|----------|------|------|------|------|------|
| 50%      | 0.32 | 0.66 | 0.98 | 0.10 | 0.75 |
| 100%     | 0.32 | 0.66 | 0.98 | 0.10 | 0.43 |

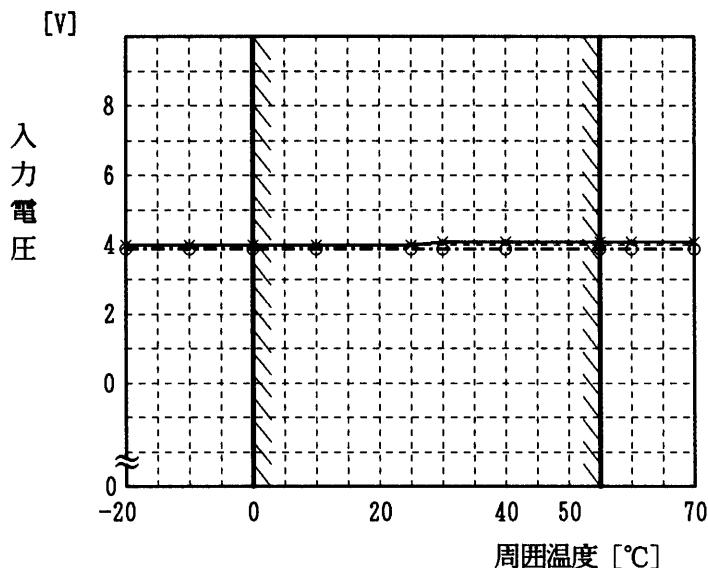


COSEL

|                   |            |          |              |  |
|-------------------|------------|----------|--------------|--|
| 機種名               | ZUW150512  | 測定環境温度   | 26 °C        |  |
| 測定項目              | 周囲温度変動     | 測定環境湿度   | 42 %RH       |  |
| 測定出力              | +12V, 0.6A | 測定回路図    | 回路図A         |  |
| 1. グラフ            |            | 2. 測定値   |              |  |
|                   |            | 周囲温度     | 入力電圧<br>4.5V |  |
|                   |            | [°C]     | 入力電圧<br>5.0V |  |
|                   |            |          | 入力電圧<br>9.0V |  |
|                   |            | 出力電圧 [V] |              |  |
|                   |            | -20      | 12.023       |  |
|                   |            | -10      | 12.021       |  |
|                   |            | 0        | 12.021       |  |
|                   |            | 10       | 12.021       |  |
|                   |            | 25       | 12.019       |  |
|                   |            | 30       | 12.019       |  |
|                   |            | 40       | 12.015       |  |
|                   |            | 55       | 12.013       |  |
|                   |            | 60       | 12.013       |  |
|                   |            | 70       | 12.008       |  |
| (注) 斜線は定格周囲温度を示す。 |            |          |              |  |
| 測定出力              | -12V, 0.6A | 2. 測定値   |              |  |
| 1. グラフ            |            | 周囲温度     | 入力電圧<br>4.5V |  |
|                   |            | [°C]     | 入力電圧<br>5.0V |  |
|                   |            |          | 入力電圧<br>9.0V |  |
|                   |            | -20      | -12.021      |  |
|                   |            | -10      | -12.019      |  |
|                   |            | 0        | -12.019      |  |
|                   |            | 10       | -12.016      |  |
|                   |            | 25       | -12.015      |  |
|                   |            | 30       | -12.014      |  |
|                   |            | 40       | -12.012      |  |
|                   |            | 55       | -12.008      |  |
|                   |            | 60       | -12.004      |  |
|                   |            | 70       | -12.001      |  |
| (注) 斜線は定格周囲温度を示す。 |            |          |              |  |

|      |              |
|------|--------------|
| 機種名  | ZUW150512    |
| 測定項目 | 最低レギュレーション電圧 |
| 測定出力 | +12V, 0.6A   |

1. グラフ



(注) 斜線は定格周囲温度範囲を示す。

測定環境温度 26 °C  
 測定環境湿度 42 %RH  
 測定回路図 回路図 A

## 2. 測定値

|        |                                |             |  |
|--------|--------------------------------|-------------|--|
| 測定出力   | - 12 V, 0.6 A                  |             |  |
| 1. グラフ | $\cdots \oplus \cdots$         | 負荷<br>50 %  |  |
|        | $\text{---} \times \text{---}$ | 負荷<br>100 % |  |

[V]

入力電圧

周囲温度 [°C]

(注) 斜線は定格周囲温度範囲を示す。

(注) 斜線は定格周囲温度範囲を示す。

## 2. 測定值



**COSEL**

| 機種名   | ZUW150512  | 測定環境温度 | 26 °C   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|---|------------|--------|---|---------------|----------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| 測定項目  | 経時ドリフト     | 測定環境湿度 | 42 %RH  |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 測定出力  | +12V, 0.6A | 測定回路図  | 回路図A  |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 1. グラフ  |            |        | 2. 測定値  |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| <p>出力電圧 [V]</p> <p>時間 [H]</p> <p>入力電圧 5.0V<br/>負荷率 100 %<br/>周囲温度 25 °C</p>   |            |        | <table border="1"> <thead> <tr> <th>入力投入からの時間 [H]</th> <th>出力電圧 [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>12.019</td></tr> <tr><td>0.5</td><td>12.017</td></tr> <tr><td>1.0</td><td>12.017</td></tr> <tr><td>2.0</td><td>12.017</td></tr> <tr><td>3.0</td><td>12.017</td></tr> <tr><td>4.0</td><td>12.017</td></tr> <tr><td>5.0</td><td>12.017</td></tr> <tr><td>6.0</td><td>12.017</td></tr> <tr><td>7.0</td><td>12.017</td></tr> <tr><td>8.0</td><td>12.017</td></tr> </tbody> </table> | 入力投入からの時間 [H] | 出力電圧 [V] | 0.0     | 12.019 | 0.5     | 12.017 | 1.0     | 12.017 | 2.0     | 12.017 | 3.0     | 12.017 | 4.0     | 12.017 | 5.0     | 12.017 | 6.0     | 12.017 | 7.0     | 12.017 | 8.0     | 12.017 |
| 入力投入からの時間 [H]   | 出力電圧 [V]   |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 0.0   | 12.019     |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 0.5   | 12.017     |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 1.0   | 12.017     |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 2.0   | 12.017     |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 3.0   | 12.017     |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 4.0   | 12.017     |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 5.0   | 12.017     |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 6.0   | 12.017     |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 7.0   | 12.017     |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 8.0   | 12.017     |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 測定出力  | -12V, 0.6A | 1. グラフ |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| <p>出力電圧 [V]</p> <p>時間 [H]</p> <p>入力電圧 5.0V<br/>負荷率 100 %<br/>周囲温度 25 °C</p>   |            |        | 2. 測定値  |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| <table border="1"> <thead> <tr> <th>入力投入からの時間 [H]</th> <th>出力電圧 [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>-12.015</td></tr> <tr><td>0.5</td><td>-12.013</td></tr> <tr><td>1.0</td><td>-12.013</td></tr> <tr><td>2.0</td><td>-12.013</td></tr> <tr><td>3.0</td><td>-12.013</td></tr> <tr><td>4.0</td><td>-12.013</td></tr> <tr><td>5.0</td><td>-12.013</td></tr> <tr><td>6.0</td><td>-12.013</td></tr> <tr><td>7.0</td><td>-12.013</td></tr> <tr><td>8.0</td><td>-12.013</td></tr> </tbody> </table> |            |        | 入力投入からの時間 [H]   | 出力電圧 [V]      | 0.0      | -12.015 | 0.5    | -12.013 | 1.0    | -12.013 | 2.0    | -12.013 | 3.0    | -12.013 | 4.0    | -12.013 | 5.0    | -12.013 | 6.0    | -12.013 | 7.0    | -12.013 | 8.0    | -12.013 |        |
| 入力投入からの時間 [H]   | 出力電圧 [V]   |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 0.0   | -12.015    |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 0.5   | -12.013    |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 1.0   | -12.013    |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 2.0   | -12.013    |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 3.0   | -12.013    |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 4.0   | -12.013    |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 5.0   | -12.013    |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 6.0   | -12.013    |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 7.0   | -12.013    |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
| 8.0   | -12.013    |        |   |               |          |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |



|      |            |        |        |
|------|------------|--------|--------|
| 機種名  | ZUW150512  | 測定環境温度 | 26 °C  |
| 測定項目 | 総合変動       | 測定環境湿度 | 42 %RH |
| 測定出力 | +12V, 0.6A | 測定回路図  | 回路図A   |

### 総合変動

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値幅の最大をいう。

周囲温度： 0 ~ 55 °C

入力電圧： 4.5 ~ 9.0 V

$$* \text{総合変動} = \frac{\text{出力電圧の最高変動値} - \text{出力電圧の最低変動値}}{2}$$

$$* \text{総合変動率} = \frac{\text{総合変動}}{\text{定格出力電圧}} \times 100$$

出力電流： 0.00 ~ 0.60 A

| 項目    | 周囲温度<br>[°C] | 入力電圧<br>[V] | 出力電流<br>[A] | 出力電圧<br>[V] | 総合変動<br>[mV] | 総合変動率<br>[%] |
|-------|--------------|-------------|-------------|-------------|--------------|--------------|
| 最高変動値 | 55           | 9.0         | 0.00        | 12.337      | 167          | 1.4          |
| 最低変動値 | 55           | 4.5         | 0.60        | 12.003      |              |              |

### 総合変動

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値幅の最大をいう。

周囲温度： 0 ~ 55 °C

入力電圧： 4.5 ~ 9.0 V

$$* \text{総合変動} = \frac{\text{出力電圧の最高変動値} - \text{出力電圧の最低変動値}}{2}$$

$$* \text{総合変動率} = \frac{\text{総合変動}}{\text{定格出力電圧}} \times 100$$

出力電流： 0.00 ~ 0.60 A

| 項目    | 周囲温度<br>[°C] | 入力電圧<br>[V] | 出力電流<br>[A] | 出力電圧<br>[V] | 総合変動<br>[mV] | 総合変動率<br>[%] |
|-------|--------------|-------------|-------------|-------------|--------------|--------------|
| 最高変動値 | 55           | 9.0         | 0.00        | -12.332     | 170          | 1.5          |
| 最低変動値 | 55           | 4.5         | 0.60        | -11.992     |              |              |



|      |            |        |        |
|------|------------|--------|--------|
| 機種名  | ZUW150512  | 測定環境温度 | 26 °C  |
| 測定項目 | 結露特性       | 測定環境湿度 | 42 %RH |
| 測定出力 | +12V, 0.6A | 測定回路図  | 回路図A   |

### 1. 結露特性試験

入力を切った状態で、恒温槽で-10°C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 °C、湿度 42 % 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. 測定値

|              | 回数 | 出力電圧 [V] | リップル電圧 [mV] | リップルノイズ [mV] |
|--------------|----|----------|-------------|--------------|
| 負荷率<br>50 %  | 1  | 11.902   | 30          | 50           |
|              | 2  | 11.908   | 30          | 50           |
|              | 3  | 11.898   | 30          | 50           |
| 負荷率<br>100 % | 1  | 11.901   | 30          | 50           |
|              | 2  | 11.899   | 30          | 50           |
|              | 3  | 11.897   | 30          | 50           |

入力電圧 5.0 V



|      |            |        |        |
|------|------------|--------|--------|
| 機種名  | ZUW150512  | 測定環境温度 | 26 °C  |
| 測定項目 | 結露特性       | 測定環境湿度 | 42 %RH |
| 測定出力 | -12V, 0.6A | 測定回路図  | 回路図A   |

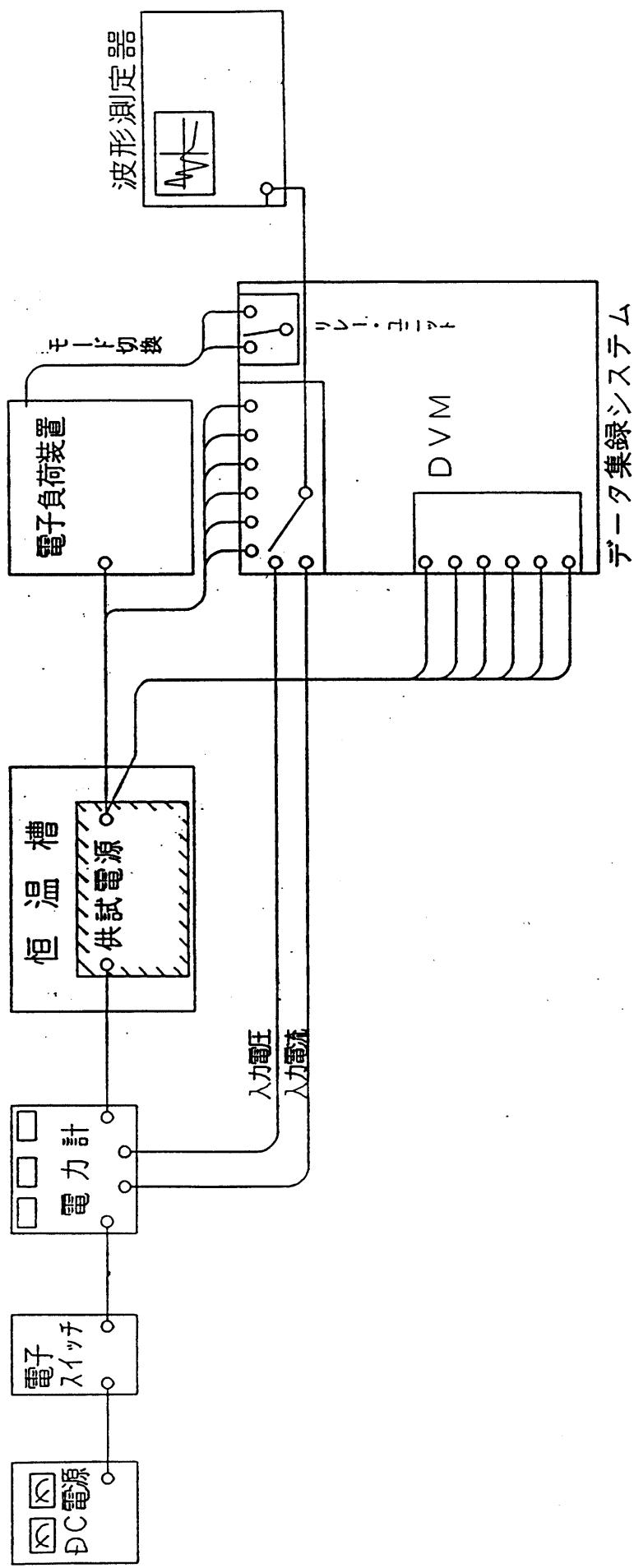
### 1. 結露特性試験

入力を切った状態で、恒温槽で-10°C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°C、湿度 42% 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. 測定値

|             | 回数 | 出力電圧 [V] | リップル電圧 [mV] | リップルノイズ [mV] |
|-------------|----|----------|-------------|--------------|
| 負荷率<br>50%  | 1  | -11.901  | 30          | 40           |
|             | 2  | -11.908  | 30          | 40           |
|             | 3  | -11.903  | 30          | 50           |
| 負荷率<br>100% | 1  | -11.913  | 30          | 40           |
|             | 2  | -11.898  | 30          | 40           |
|             | 3  | -11.906  | 30          | 40           |

入力電圧 5.0 V



測定回路図A