



# TEST DATA OF RMC15A-1 (100V INPUT)

Regulated DC Power Supply

Sep. 24, 1999

Approved by : Keiji Takahashi  
Design Manager

Prepared by : Yuichi Takahashi  
Design Engineer

**コーセル株式会社**  
**COSEL CO., LTD.**



# CONTENTS

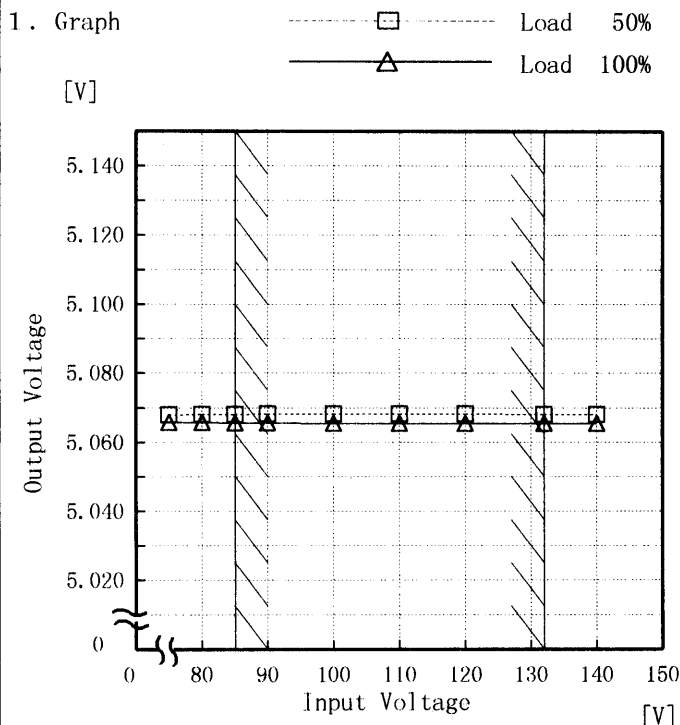
1. Line Regulation	1
<small>静的入力変動</small>	
2. Efficiency (by Input Voltage)	3
<small>効率 (入力電圧特性)</small>	
3. Power Factor (by Input Voltage)	4
<small>力率 (入力電圧特性)</small>	
4. Hold-Up Time	5
<small>出力保持時間</small>	
5. Instantaneous Interruption Compensation	8
<small>瞬時停電保障</small>	
6. Load Regulation	11
<small>静的負荷変動</small>	
7. Ripple Voltage (by Load Current)	13
<small>リップル電圧 (負荷特性)</small>	
8. Ripple-Noise	16
<small>リップルノイズ</small>	
9. Overcurrent Protection	19
<small>過電流保護</small>	
10. Inrush Current	21
<small>突入電流</small>	
11. Dynamic Load Responce	22
<small>動的負荷変動</small>	
12. Rise and Fall Time	25
<small>立上り、立下り時間</small>	
13. Ambient Temperature Drift	28
<small>周囲温度変動</small>	
14. Minimum Input Voltage for Regulated Output Voltage	30
<small>最低レギュレーション電圧</small>	
15. Ripple Voltage (by Ambient Temperature)	32
<small>リップル電圧 (周囲温度特性)</small>	
16. Time Lapse Drift	34
<small>経時ドリフト</small>	
17. Output Voltage Accuracy	36
<small>定電圧精度</small>	
18. Condensation	37
<small>結露特性</small>	
19. Leakage Current	38
<small>漏洩電流</small>	
20. Conducted Emission	39
<small>雑音端子電圧</small>	
21. Figure of Testing Circuitry	40
<small>測定回路図</small>	

(Final Page 41 )



Model	RMC15A-1
Item	Line Regulation 静の入力変動
Object	+5.0V2A

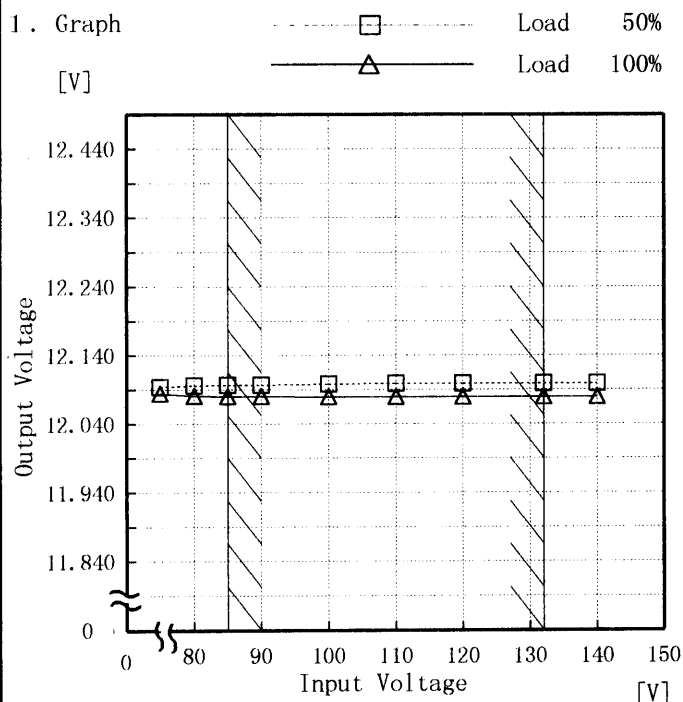
Temperature 25°C  
Testing Circuitry Figure A



2. Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
75	5.068	5.066
80	5.068	5.066
85	5.068	5.066
90	5.068	5.066
100	5.068	5.066
110	5.068	5.066
120	5.068	5.066
132	5.068	5.066
140	5.068	5.066

Object	+12.0V0.3A
--------	------------



2. Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
75	12.094	12.084
80	12.096	12.081
85	12.097	12.080
90	12.097	12.080
100	12.098	12.079
110	12.099	12.079
120	12.099	12.079
132	12.099	12.079
140	12.099	12.079

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。



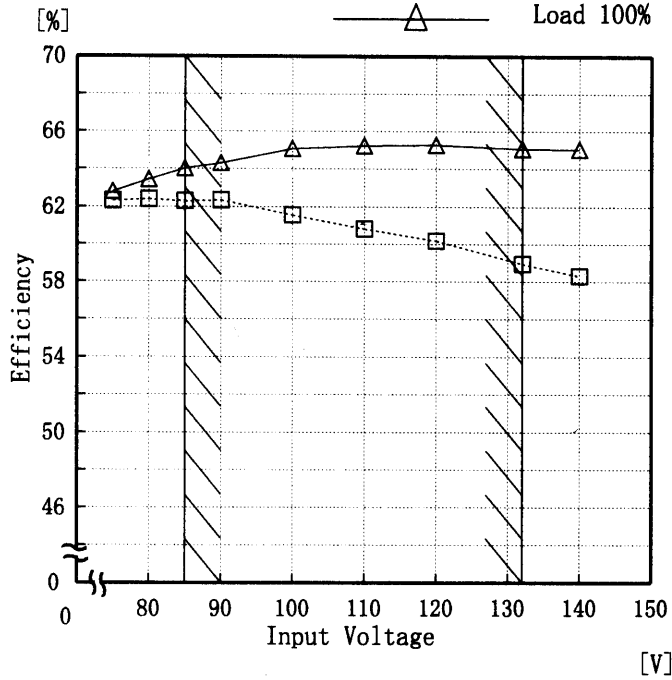
<b>COSEL</b>																																			
Model	RMC15A-1	Temperature	25°C																																
Item	Line Regulation 静の入力変動	Testing Circuitry	Figure A																																
Object	-12.0V0.2A																																		
<p>1. Graph</p> <p style="text-align: right;"> <span style="border: 1px solid black; padding: 0 2px;">□</span> Load 50%  <span style="border: 1px solid black; padding: 0 2px;">△</span> Load 100%                 </p> <p style="text-align: center;">                     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。                 </p>		<p>2. Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Input Voltage [V]</th> <th colspan="2">Output Voltage [V]</th> </tr> <tr> <th>Load 50%</th> <th>Load 100%</th> </tr> </thead> <tbody> <tr><td>75</td><td>-12.189</td><td>-12.185</td></tr> <tr><td>80</td><td>-12.190</td><td>-12.183</td></tr> <tr><td>85</td><td>-12.190</td><td>-12.182</td></tr> <tr><td>90</td><td>-12.191</td><td>-12.182</td></tr> <tr><td>100</td><td>-12.192</td><td>-12.182</td></tr> <tr><td>110</td><td>-12.192</td><td>-12.181</td></tr> <tr><td>120</td><td>-12.192</td><td>-12.182</td></tr> <tr><td>132</td><td>-12.192</td><td>-12.182</td></tr> <tr><td>140</td><td>-12.192</td><td>-12.182</td></tr> </tbody> </table>		Input Voltage [V]	Output Voltage [V]		Load 50%	Load 100%	75	-12.189	-12.185	80	-12.190	-12.183	85	-12.190	-12.182	90	-12.191	-12.182	100	-12.192	-12.182	110	-12.192	-12.181	120	-12.192	-12.182	132	-12.192	-12.182	140	-12.192	-12.182
Input Voltage [V]	Output Voltage [V]																																		
	Load 50%	Load 100%																																	
75	-12.189	-12.185																																	
80	-12.190	-12.183																																	
85	-12.190	-12.182																																	
90	-12.191	-12.182																																	
100	-12.192	-12.182																																	
110	-12.192	-12.181																																	
120	-12.192	-12.182																																	
132	-12.192	-12.182																																	
140	-12.192	-12.182																																	



Model	RMC15A-1
Item	Efficiency (by Input Voltage) 効率 (入力電圧特性)
Object	_____

Temperature 25°C  
Testing Circuitry Figure A

1. Graph □ Load 50%  
△ Load 100%



2. Values

Input Voltage [V]	Efficiency [%]	
	Load 50%	Load 100%
75	62.3	62.8
80	62.4	63.4
85	62.3	64.0
90	62.4	64.3
100	61.6	65.1
110	60.8	65.2
120	60.2	65.3
132	58.9	65.1
140	58.3	65.1

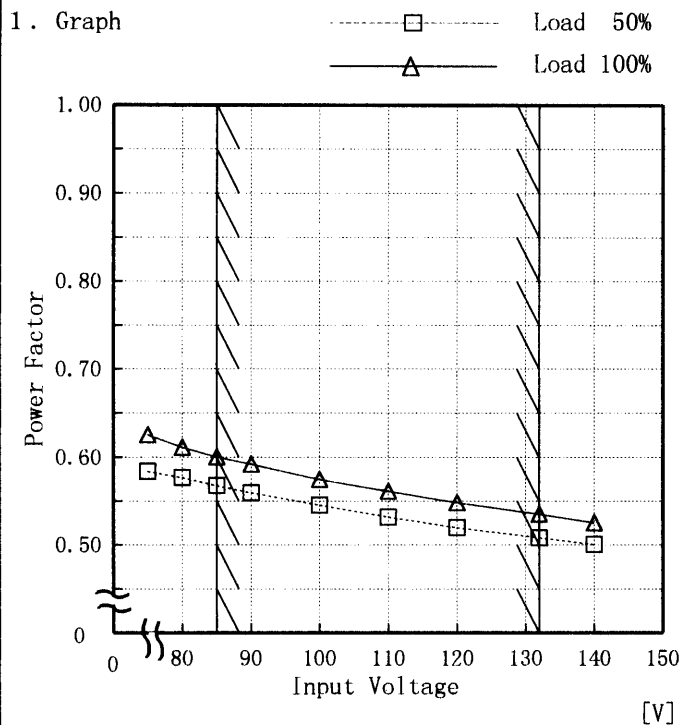
Note: Slanted line shows the range of the rated input voltage.

(注) 斜線は定格入力電圧範囲を示す。



Model	RMC15A-1
Item	Power Factor (by Input Voltage) 力率 (入力電圧特性)
Object	_____

Temperature	25°C
Testing Circuitry	Figure A



2. Values

Input Voltage [V]	Power Factor	
	Load 50%	Load 100%
75	0.58	0.63
80	0.58	0.61
85	0.57	0.60
90	0.56	0.59
100	0.55	0.57
110	0.53	0.56
120	0.52	0.55
132	0.51	0.53
140	0.50	0.53

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。



Model		RMC15A-1		Temperature	25°C																																
Item		Hold-Up Time 出力保持時間		Testing Circuitry	Figure A																																
Object		+5.0V2A																																			
1. Graph			2. Values																																		
			<table border="1"> <thead> <tr> <th rowspan="2">Input Voltage [V]</th> <th colspan="2">Hold-Up Time [mS]</th> </tr> <tr> <th>Load 50%</th> <th>Load 100%</th> </tr> </thead> <tbody> <tr><td>75</td><td>19</td><td>11</td></tr> <tr><td>80</td><td>23</td><td>14</td></tr> <tr><td>85</td><td>27</td><td>17</td></tr> <tr><td>90</td><td>31</td><td>20</td></tr> <tr><td>100</td><td>40</td><td>26</td></tr> <tr><td>110</td><td>50</td><td>33</td></tr> <tr><td>120</td><td>61</td><td>41</td></tr> <tr><td>132</td><td>75</td><td>52</td></tr> <tr><td>140</td><td>85</td><td>59</td></tr> </tbody> </table>			Input Voltage [V]	Hold-Up Time [mS]		Load 50%	Load 100%	75	19	11	80	23	14	85	27	17	90	31	20	100	40	26	110	50	33	120	61	41	132	75	52	140	85	59
Input Voltage [V]	Hold-Up Time [mS]																																				
	Load 50%	Load 100%																																			
75	19	11																																			
80	23	14																																			
85	27	17																																			
90	31	20																																			
100	40	26																																			
110	50	33																																			
120	61	41																																			
132	75	52																																			
140	85	59																																			
<p>This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.</p> <p>Note: Slanted line shows the range of the rated input voltage.</p> <p>出力保持時間とは、入力電圧断から出力電圧が、定電圧精度の規格範囲を保持しているところまでの時間。</p> <p>(注)斜線は定格入力電圧範囲を示す。</p>																																					



Model		RMC15A-1		Temperature		25°C																																	
Item		Hold-Up Time 出力保持時間		Testing Circuitry		Figure A																																	
Object		+12.0V0.3A																																					
1. Graph				2. Values																																			
<p>-----□----- Load 50%</p> <p>-----△----- Load 100%</p> <p>Hold-Up Time [mS]</p> <p>Input Voltage [V]</p>				<table border="1"> <thead> <tr> <th rowspan="2">Input Voltage [V]</th> <th colspan="2">Hold-Up Time [mS]</th> </tr> <tr> <th>Load 50%</th> <th>Load 100%</th> </tr> </thead> <tbody> <tr><td>75</td><td>19</td><td>15</td></tr> <tr><td>80</td><td>22</td><td>17</td></tr> <tr><td>85</td><td>25</td><td>20</td></tr> <tr><td>90</td><td>29</td><td>23</td></tr> <tr><td>100</td><td>36</td><td>30</td></tr> <tr><td>110</td><td>44</td><td>37</td></tr> <tr><td>120</td><td>53</td><td>45</td></tr> <tr><td>132</td><td>65</td><td>55</td></tr> <tr><td>140</td><td>74</td><td>63</td></tr> </tbody> </table>				Input Voltage [V]	Hold-Up Time [mS]		Load 50%	Load 100%	75	19	15	80	22	17	85	25	20	90	29	23	100	36	30	110	44	37	120	53	45	132	65	55	140	74	63
Input Voltage [V]	Hold-Up Time [mS]																																						
	Load 50%	Load 100%																																					
75	19	15																																					
80	22	17																																					
85	25	20																																					
90	29	23																																					
100	36	30																																					
110	44	37																																					
120	53	45																																					
132	65	55																																					
140	74	63																																					
<p>This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.</p> <p>Note: Slanted line shows the range of the rated input voltage.</p> <p>出力保持時間とは、入力電圧断から出力電圧が、定電圧精度の規格範囲を保持しているところまでの時間。</p> <p>(注) 斜線は定格入力電圧範囲を示す。</p>																																							





Model		RMC15A-1		Temperature	25°C																																
Item		Hold-Up Time 出力保持時間		Testing Circuitry	Figure A																																
Object		-12.0V0.2A																																			
1. Graph			2. Values																																		
<p>-----□----- Load 50%</p> <p>-----△----- Load 100%</p> <p>Hold-Up Time [mS]</p> <p>Input Voltage [V]</p>			<table border="1"> <thead> <tr> <th rowspan="2">Input Voltage [V]</th> <th colspan="2">Hold-Up Time [mS]</th> </tr> <tr> <th>Load 50%</th> <th>Load 100%</th> </tr> </thead> <tbody> <tr><td>75</td><td>19</td><td>15</td></tr> <tr><td>80</td><td>22</td><td>18</td></tr> <tr><td>85</td><td>25</td><td>21</td></tr> <tr><td>90</td><td>28</td><td>24</td></tr> <tr><td>100</td><td>35</td><td>30</td></tr> <tr><td>110</td><td>43</td><td>37</td></tr> <tr><td>120</td><td>52</td><td>45</td></tr> <tr><td>132</td><td>63</td><td>56</td></tr> <tr><td>140</td><td>71</td><td>63</td></tr> </tbody> </table>			Input Voltage [V]	Hold-Up Time [mS]		Load 50%	Load 100%	75	19	15	80	22	18	85	25	21	90	28	24	100	35	30	110	43	37	120	52	45	132	63	56	140	71	63
Input Voltage [V]	Hold-Up Time [mS]																																				
	Load 50%	Load 100%																																			
75	19	15																																			
80	22	18																																			
85	25	21																																			
90	28	24																																			
100	35	30																																			
110	43	37																																			
120	52	45																																			
132	63	56																																			
140	71	63																																			
<p>This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.</p> <p>Note: Slanted line shows the range of the rated input voltage.</p> <p>出力保持時間とは、入力電圧断から出力電圧が、定電圧精度の規格範囲を保持しているところまでの時間。</p> <p>(注)斜線は定格入力電圧範囲を示す。</p>																																					



Model		RMC15A-1	Temperature		25°C																																																			
Item		Instantaneous Interruption Compensation 瞬時停電保障	Testing Circuitry		Figure A																																																			
Object		+5.0V2A																																																						
1. Graph			2. Values																																																					
<p> <span style="border-bottom: 1px solid black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <math>\triangle</math> — Input Volt. 85 V  <span style="border-bottom: 1px dashed black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <math>\square</math> — Input Volt. 100 V  <span style="border-bottom: 1px dotted black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <math>\circ</math> — Input Volt. 132 V                 </p> <p>This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.                  Note: Slanted line shows the range of the rated load current.</p> <p>瞬時停電保障時間とは、出力電圧が定電圧精度の規格範囲を保持している瞬時停電時間をいう。                  (注) 斜線は定格負荷電流範囲を示す。</p>			<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Time [mS]</th> </tr> <tr> <th>Input Volt. 85[V]</th> <th>Input Volt. 100[V]</th> <th>Input Volt. 132[V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>0.4</td><td>34</td><td>51</td><td>94</td></tr> <tr><td>0.8</td><td>27</td><td>40</td><td>77</td></tr> <tr><td>1.2</td><td>21</td><td>31</td><td>65</td></tr> <tr><td>1.6</td><td>14</td><td>27</td><td>56</td></tr> <tr><td>2.0</td><td>13</td><td>21</td><td>45</td></tr> <tr><td>2.2</td><td>11</td><td>20</td><td>44</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>			Load Current [A]	Time [mS]			Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]	0.0	—	—	—	0.4	34	51	94	0.8	27	40	77	1.2	21	31	65	1.6	14	27	56	2.0	13	21	45	2.2	11	20	44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Time [mS]																																																							
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]																																																					
0.0	—	—	—																																																					
0.4	34	51	94																																																					
0.8	27	40	77																																																					
1.2	21	31	65																																																					
1.6	14	27	56																																																					
2.0	13	21	45																																																					
2.2	11	20	44																																																					
—	—	—	—																																																					
—	—	—	—																																																					
—	—	—	—																																																					
—	—	—	—																																																					



Model		RMC15A-1	Temperature		25°C																																																			
Item		Instantaneous Interruption Compensation 瞬時停電保障	Testing Circuitry		Figure A																																																			
Object		+12.0V0.3A																																																						
1. Graph			2. Values																																																					
<p> <span style="border-bottom: 1px solid black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <math>\triangle</math> Input Volt. 85 V  <span style="border-bottom: 1px dashed black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <math>\square</math> Input Volt. 100 V  <span style="border-bottom: 1px dotted black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <math>\circ</math> Input Volt. 132 V                 </p> <p>                     This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.                      Note: Slanted line shows the range of the rated load current.                 </p> <p>                     瞬時停電保障時間とは、出力電圧が定電圧精度の規格範囲を保持している瞬時停電時間をいう。                      (注)斜線は定格負荷電流範囲を示す。                 </p>			<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Time [mS]</th> </tr> <tr> <th>Input Volt. 85[V]</th> <th>Input Volt. 100[V]</th> <th>Input Volt. 132[V]</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>0.06</td><td>28</td><td>40</td><td>72</td></tr> <tr><td>0.12</td><td>23</td><td>35</td><td>65</td></tr> <tr><td>0.18</td><td>21</td><td>31</td><td>60</td></tr> <tr><td>0.24</td><td>20</td><td>30</td><td>57</td></tr> <tr><td>0.30</td><td>18</td><td>28</td><td>53</td></tr> <tr><td>0.33</td><td>15</td><td>27</td><td>53</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>			Load Current [A]	Time [mS]			Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]	0.00	—	—	—	0.06	28	40	72	0.12	23	35	65	0.18	21	31	60	0.24	20	30	57	0.30	18	28	53	0.33	15	27	53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Time [mS]																																																							
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]																																																					
0.00	—	—	—																																																					
0.06	28	40	72																																																					
0.12	23	35	65																																																					
0.18	21	31	60																																																					
0.24	20	30	57																																																					
0.30	18	28	53																																																					
0.33	15	27	53																																																					
—	—	—	—																																																					
—	—	—	—																																																					
—	—	—	—																																																					
—	—	—	—																																																					



Model		RMC15A-1	Temperature		25°C																																																			
Item		Instantaneous Interruption Compensation 瞬時停電保障	Testing Circuitry		Figure A																																																			
Object		-12.0V0.2A																																																						
1. Graph			2. Values																																																					
<p> <span style="border-bottom: 1px solid black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <math>\Delta</math> — Input Volt. 85 V  <span style="border-bottom: 1px dashed black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <math>\square</math> — Input Volt. 100 V  <span style="border-bottom: 1px dotted black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <math>\circ</math> — Input Volt. 132 V                 </p> <p>                     This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.                      Note: Slanted line shows the range of the rated load current.                 </p> <p>                     瞬時停電保障時間とは、出力電圧が定電圧精度の規格範囲を保持している瞬時停電時間をいう。                      (注)斜線は定格負荷電流範囲を示す。                 </p>			<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Time [mS]</th> </tr> <tr> <th>Input Volt. 85[V]</th> <th>Input Volt. 100[V]</th> <th>Input Volt. 132[V]</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>0.04</td><td>25</td><td>37</td><td>65</td></tr> <tr><td>0.08</td><td>22</td><td>31</td><td>61</td></tr> <tr><td>0.12</td><td>20</td><td>31</td><td>57</td></tr> <tr><td>0.16</td><td>19</td><td>29</td><td>55</td></tr> <tr><td>0.20</td><td>18</td><td>27</td><td>53</td></tr> <tr><td>0.22</td><td>18</td><td>27</td><td>53</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>			Load Current [A]	Time [mS]			Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]	0.00	—	—	—	0.04	25	37	65	0.08	22	31	61	0.12	20	31	57	0.16	19	29	55	0.20	18	27	53	0.22	18	27	53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Time [mS]																																																							
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]																																																					
0.00	—	—	—																																																					
0.04	25	37	65																																																					
0.08	22	31	61																																																					
0.12	20	31	57																																																					
0.16	19	29	55																																																					
0.20	18	27	53																																																					
0.22	18	27	53																																																					
—	—	—	—																																																					
—	—	—	—																																																					
—	—	—	—																																																					
—	—	—	—																																																					



<b>Model</b> RMC15A-1		Temperature 25°C Testing Circuitry Figure A																																															
<b>Item</b>	Load Regulation 静的負荷変動																																																
<b>Object</b>	+5.0V2A																																																
1. Graph	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>—△— Input Volt. 85 V</p> <p>- - -□- - - Input Volt. 100 V</p> <p>- - -○- - - Input Volt. 132 V</p> </div> </div>	2. Values																																															
		<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Output Voltage [V]</th> </tr> <tr> <th>Input Volt. 85[V]</th> <th>Input Volt. 100[V]</th> <th>Input Volt. 132[V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>5.070</td><td>5.070</td><td>5.070</td></tr> <tr><td>0.4</td><td>5.070</td><td>5.070</td><td>5.070</td></tr> <tr><td>0.8</td><td>5.069</td><td>5.069</td><td>5.069</td></tr> <tr><td>1.2</td><td>5.068</td><td>5.068</td><td>5.068</td></tr> <tr><td>1.6</td><td>5.067</td><td>5.067</td><td>5.067</td></tr> <tr><td>2.0</td><td>5.066</td><td>5.066</td><td>5.066</td></tr> <tr><td>2.2</td><td>5.065</td><td>5.065</td><td>5.065</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>	Load Current [A]	Output Voltage [V]			Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]	0.0	5.070	5.070	5.070	0.4	5.070	5.070	5.070	0.8	5.069	5.069	5.069	1.2	5.068	5.068	5.068	1.6	5.067	5.067	5.067	2.0	5.066	5.066	5.066	2.2	5.065	5.065	5.065	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Output Voltage [V]																																																
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]																																														
0.0	5.070	5.070	5.070																																														
0.4	5.070	5.070	5.070																																														
0.8	5.069	5.069	5.069																																														
1.2	5.068	5.068	5.068																																														
1.6	5.067	5.067	5.067																																														
2.0	5.066	5.066	5.066																																														
2.2	5.065	5.065	5.065																																														
—	—	—	—																																														
—	—	—	—																																														
—	—	—	—																																														
<b>Object</b>	+12.0V0.3A																																																
1. Graph	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>—△— Input Volt. 85 V</p> <p>- - -□- - - Input Volt. 100 V</p> <p>- - -○- - - Input Volt. 132 V</p> </div> </div>	2. Values																																															
		<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Output Voltage [V]</th> </tr> <tr> <th>Input Volt. 85[V]</th> <th>Input Volt. 100[V]</th> <th>Input Volt. 132[V]</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>12.100</td><td>12.102</td><td>12.103</td></tr> <tr><td>0.06</td><td>12.099</td><td>12.100</td><td>12.101</td></tr> <tr><td>0.12</td><td>12.096</td><td>12.097</td><td>12.098</td></tr> <tr><td>0.18</td><td>12.092</td><td>12.093</td><td>12.094</td></tr> <tr><td>0.24</td><td>12.088</td><td>12.089</td><td>12.090</td></tr> <tr><td>0.30</td><td>12.083</td><td>12.084</td><td>12.085</td></tr> <tr><td>0.33</td><td>12.080</td><td>12.081</td><td>12.082</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>	Load Current [A]	Output Voltage [V]			Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]	0.00	12.100	12.102	12.103	0.06	12.099	12.100	12.101	0.12	12.096	12.097	12.098	0.18	12.092	12.093	12.094	0.24	12.088	12.089	12.090	0.30	12.083	12.084	12.085	0.33	12.080	12.081	12.082	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Output Voltage [V]																																																
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]																																														
0.00	12.100	12.102	12.103																																														
0.06	12.099	12.100	12.101																																														
0.12	12.096	12.097	12.098																																														
0.18	12.092	12.093	12.094																																														
0.24	12.088	12.089	12.090																																														
0.30	12.083	12.084	12.085																																														
0.33	12.080	12.081	12.082																																														
—	—	—	—																																														
—	—	—	—																																														
—	—	—	—																																														
<p>Note: Slanted line shows the range of the rated load current.</p> <p>(注)斜線は定格負荷電流範囲を示す。</p>																																																	



Model		RMC15A-1	Temperature	25°C																																															
Item		Load Regulation 静的負荷変動	Testing Circuitry	Figure A																																															
Object		-12.0V0.2A																																																	
1. Graph		<p> <span style="border-bottom: 1px solid black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <span style="font-size: 0.8em;">▲</span> Input Volt. 85 V  <span style="border-bottom: 1px dashed black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <span style="font-size: 0.8em;">□</span> Input Volt. 100 V  <span style="border-bottom: 1px dotted black; display: inline-block; width: 1em; margin-right: 0.5em;"></span> <span style="font-size: 0.8em;">○</span> Input Volt. 132 V                 </p>	2. Values																																																
			<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Output Voltage [V]</th> </tr> <tr> <th>Input Volt. 85[V]</th> <th>Input Volt. 100[V]</th> <th>Input Volt. 132[V]</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>-12.190</td><td>-12.190</td><td>-12.191</td></tr> <tr><td>0.04</td><td>-12.191</td><td>-12.192</td><td>-12.192</td></tr> <tr><td>0.08</td><td>-12.190</td><td>-12.191</td><td>-12.191</td></tr> <tr><td>0.12</td><td>-12.189</td><td>-12.190</td><td>-12.189</td></tr> <tr><td>0.16</td><td>-12.187</td><td>-12.188</td><td>-12.188</td></tr> <tr><td>0.20</td><td>-12.185</td><td>-12.186</td><td>-12.186</td></tr> <tr><td>0.22</td><td>-12.184</td><td>-12.184</td><td>-12.184</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>		Load Current [A]	Output Voltage [V]			Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]	0.00	-12.190	-12.190	-12.191	0.04	-12.191	-12.192	-12.192	0.08	-12.190	-12.191	-12.191	0.12	-12.189	-12.190	-12.189	0.16	-12.187	-12.188	-12.188	0.20	-12.185	-12.186	-12.186	0.22	-12.184	-12.184	-12.184	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Output Voltage [V]																																																		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]																																																
0.00	-12.190	-12.190	-12.191																																																
0.04	-12.191	-12.192	-12.192																																																
0.08	-12.190	-12.191	-12.191																																																
0.12	-12.189	-12.190	-12.189																																																
0.16	-12.187	-12.188	-12.188																																																
0.20	-12.185	-12.186	-12.186																																																
0.22	-12.184	-12.184	-12.184																																																
—	—	—	—																																																
—	—	—	—																																																
—	—	—	—																																																
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。																																																			

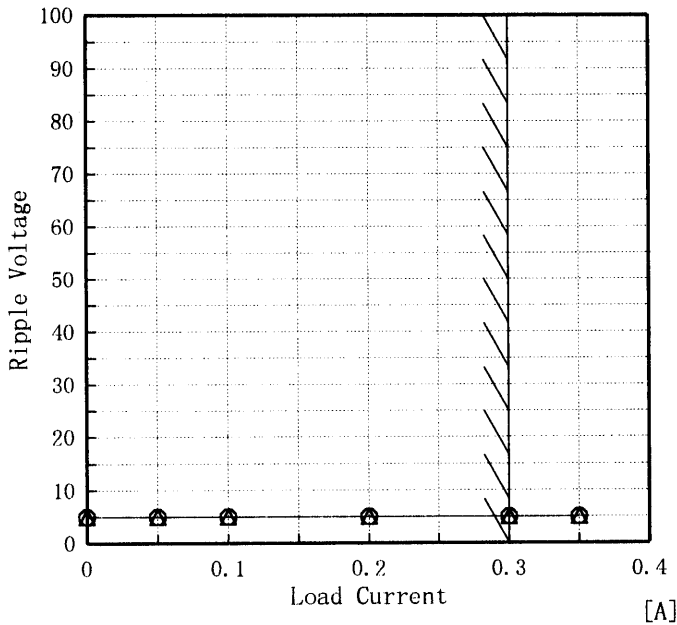
# COSEL

Model		RMC15A-1	Temperature		25°C																																						
Item		Ripple Voltage (by Load Current) リップル電圧 (負荷特性)	Testing Circuitry		Figure A																																						
Object		+5.0V2A																																									
<p>1. Graph</p> <p>—△— Input Volt. 85V - - -○- - - Input Volt. 132V</p>			<p>2. Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="2">Ripple Output Voltage [mV]</th> </tr> <tr> <th>Input Volt. 85 [V]</th> <th>Input Volt. 132 [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>5</td><td>5</td></tr> <tr><td>0.5</td><td>5</td><td>5</td></tr> <tr><td>1.0</td><td>10</td><td>5</td></tr> <tr><td>1.5</td><td>15</td><td>10</td></tr> <tr><td>2.0</td><td>15</td><td>10</td></tr> <tr><td>2.5</td><td>25</td><td>15</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>			Load Current [A]	Ripple Output Voltage [mV]		Input Volt. 85 [V]	Input Volt. 132 [V]	0.0	5	5	0.5	5	5	1.0	10	5	1.5	15	10	2.0	15	10	2.5	25	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Ripple Output Voltage [mV]																																										
	Input Volt. 85 [V]	Input Volt. 132 [V]																																									
0.0	5	5																																									
0.5	5	5																																									
1.0	10	5																																									
1.5	15	10																																									
2.0	15	10																																									
2.5	25	15																																									
—	—	—																																									
—	—	—																																									
—	—	—																																									
—	—	—																																									
—	—	—																																									
<p>Ripple Voltage is shown as p-p in the figure below.</p> <p>Note: Slanted line shows the range of the rated load current.</p> <p>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。</p> <p>T1: Due to AC Input Line 入力商用周期 T2: Due to Switching スイッチング周期</p> <p>Fig. Complex Ripple Wave Form 図 リップル波形詳細図</p>																																											

Model	RMC15A-1	Temperature	25°C
Item	Ripple Voltage (by Load Current) リップル電圧(負荷特性)	Testing Circuitry	Figure A

Object +12.0V0.3A

1. Graph  
 [mV]  
 —△— Input Volt. 85V  
 - - - ○ - - - Input Volt. 132V



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  
 スイッチング周期

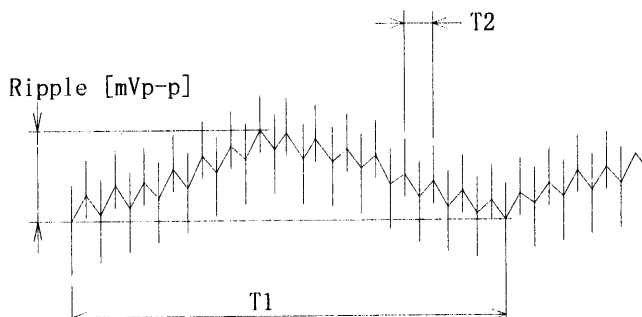


Fig. Complex Ripple Wave Form  
 図 リップル波形詳細図

2. Values

Load Current [A]	Ripple Output Voltage [mV]	
	Input Volt. 85 [V]	Input Volt. 132 [V]
0.00	5	5
0.05	5	5
0.10	5	5
0.20	5	5
0.30	5	5
0.35	5	5
—	—	—
—	—	—
—	—	—
—	—	—
—	—	—



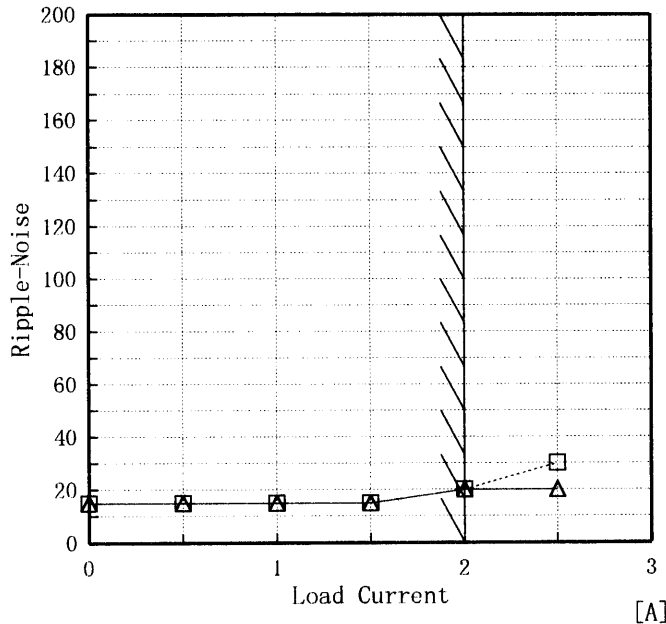


Model		RMC15A-1	Temperature		25°C																																						
Item		Ripple Voltage (by Load Current) リップル電圧(負荷特性)	Testing Circuitry		Figure A																																						
Object		-12.0V 0.2A																																									
<p>1. Graph</p> <p>—△— Input Volt. 85V</p> <p>—○— Input Volt. 132V</p>			<p>2. Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="2">Ripple Output Voltage [mV]</th> </tr> <tr> <th>Input Volt. 85 [V]</th> <th>Input Volt. 132 [V]</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>5</td><td>5</td></tr> <tr><td>0.05</td><td>5</td><td>5</td></tr> <tr><td>0.10</td><td>5</td><td>5</td></tr> <tr><td>0.15</td><td>5</td><td>5</td></tr> <tr><td>0.20</td><td>5</td><td>5</td></tr> <tr><td>0.25</td><td>5</td><td>5</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>			Load Current [A]	Ripple Output Voltage [mV]		Input Volt. 85 [V]	Input Volt. 132 [V]	0.00	5	5	0.05	5	5	0.10	5	5	0.15	5	5	0.20	5	5	0.25	5	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Ripple Output Voltage [mV]																																										
	Input Volt. 85 [V]	Input Volt. 132 [V]																																									
0.00	5	5																																									
0.05	5	5																																									
0.10	5	5																																									
0.15	5	5																																									
0.20	5	5																																									
0.25	5	5																																									
—	—	—																																									
—	—	—																																									
—	—	—																																									
—	—	—																																									
—	—	—																																									
<p>Ripple Voltage is shown as p-p in the figure below.</p> <p>Note: Slanted line shows the range of the rated load current.</p> <p>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。</p> <p>T1: Due to AC Input Line 入力商用周期 T2: Due to Switching スイッチング周期</p> <p>Fig. Complex Ripple Wave Form 図 リップル波形詳細図</p>																																											

Model	RMC15A-1	Temperature	25°C
Item	Ripple-Noise リップルノイズ	Testing Circuitry	Figure A

Object +5.0V2A

1. Graph  
 [mV]  
 -----□----- Input Volt. 85V  
 -----△----- Input Volt. 132V



2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 85 [V]	Input Volt. 132 [V]
0.0	15	15
0.5	15	15
1.0	15	15
1.5	15	15
2.0	20	20
2.5	30	20
—	—	—
—	—	—
—	—	—
—	—	—
—	—	—

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  
 スイッチング周期

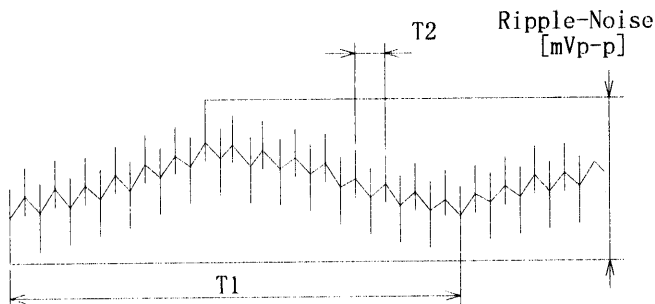
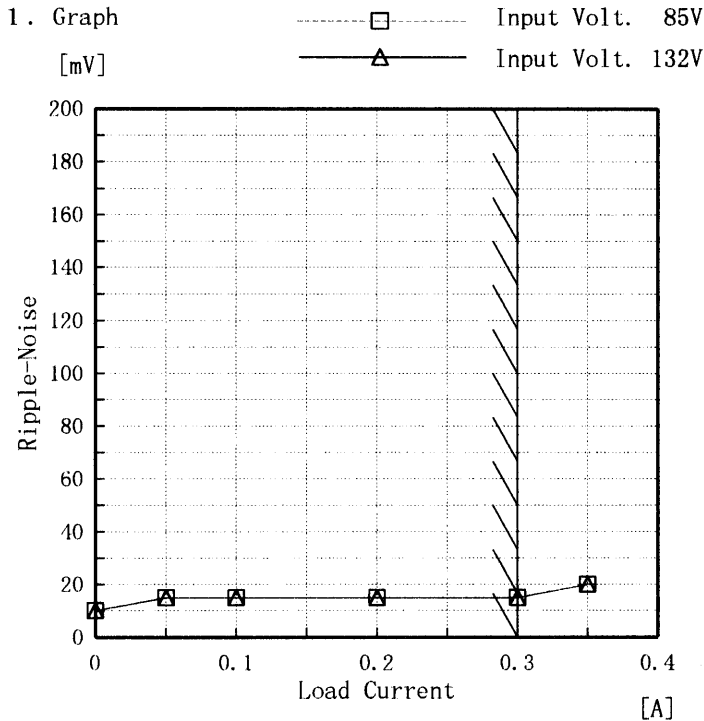


Fig. Complex Ripple Wave Form  
 図 リップル波形詳細図



Model	RMC15A-1	Temperature	25°C
Item	Ripple-Noise リップルノイズ	Testing Circuitry	Figure A

Object +12.0V0.3A



2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 85 [V]	Input Volt. 132 [V]
0.00	10	10
0.05	15	15
0.10	15	15
0.20	15	15
0.30	15	15
0.35	20	20
—	—	—
—	—	—
—	—	—
—	—	—
—	—	—

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  
 スイッチング周期

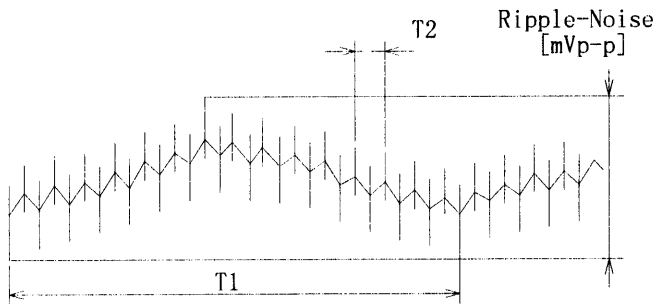


Fig. Complex Ripple Wave Form  
 図 リップル波形詳細図



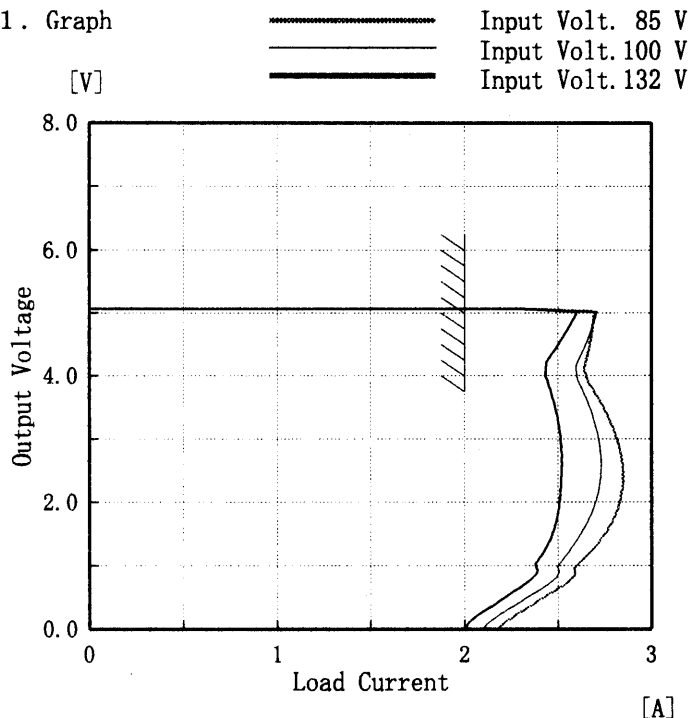
Model		RMC15A-1	Temperature	25°C																																						
Item		Ripple-Noise リップルノイズ	Testing Circuitry	Figure A																																						
Object		-12.0V0.2A																																								
1. Graph		<p>-----□----- Input Volt. 85V</p> <p>-----△----- Input Volt. 132V</p>	2. Values																																							
<p>[mV]</p> <p>Ripple-Noise</p> <p>Load Current [A]</p>		<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="2">Ripple-Noise [mV]</th> </tr> <tr> <th>Input Volt. 85 [V]</th> <th>Input Volt. 132 [V]</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>15</td><td>15</td></tr> <tr><td>0.05</td><td>20</td><td>20</td></tr> <tr><td>0.10</td><td>20</td><td>20</td></tr> <tr><td>0.15</td><td>20</td><td>20</td></tr> <tr><td>0.20</td><td>20</td><td>20</td></tr> <tr><td>0.25</td><td>20</td><td>20</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> <tr><td>—</td><td>—</td><td>—</td></tr> </tbody> </table>			Load Current [A]	Ripple-Noise [mV]		Input Volt. 85 [V]	Input Volt. 132 [V]	0.00	15	15	0.05	20	20	0.10	20	20	0.15	20	20	0.20	20	20	0.25	20	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Ripple-Noise [mV]																																									
	Input Volt. 85 [V]	Input Volt. 132 [V]																																								
0.00	15	15																																								
0.05	20	20																																								
0.10	20	20																																								
0.15	20	20																																								
0.20	20	20																																								
0.25	20	20																																								
—	—	—																																								
—	—	—																																								
—	—	—																																								
—	—	—																																								
—	—	—																																								
<p>Ripple-Noise is shown as p-p in the figure below.</p> <p>Note: Slanted line shows the range of the rated load current.</p>																																										
<p>リップルノイズは、下図p-p値で示される。</p> <p>(注)斜線は定格負荷電流範囲を示す。</p>																																										
<p>T1: Due to AC Input Line 入力商用周期</p> <p>T2: Due to Switching スイッチング周期</p>																																										
<p>Fig. Complex Ripple Wave Form</p> <p>図 リップル波形詳細図</p>																																										



Model	RMC15A-1	Temperature	25°C
Item	Overcurrent Protection 過電流保護	Testing Circuitry	Figure A

Object +5.0V2A

1. Graph

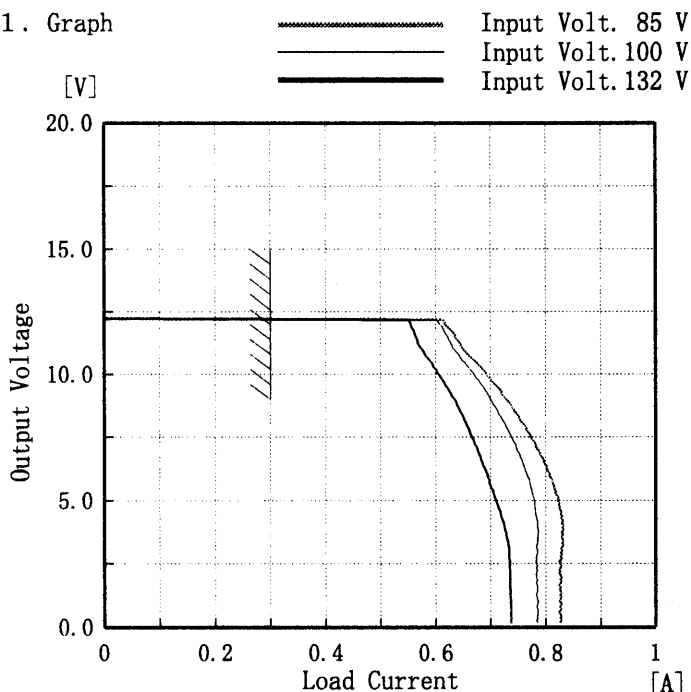


2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
5.00	2.69	2.70	2.59
4.75	2.69	2.68	2.55
4.50	2.67	2.65	2.50
4.00	2.65	2.60	2.43
3.50	2.75	2.67	2.49
3.00	2.82	2.72	2.51
2.50	2.85	2.73	2.52
2.00	2.83	2.70	2.51
1.50	2.75	2.62	2.47
1.00	2.60	2.50	2.38
0.50	2.42	2.33	2.21
0.00	2.18	2.11	2.02

Object +12.0V0.3A

1. Graph



2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
12.00	0.622	0.608	0.555
11.40	0.637	0.623	0.565
10.80	0.660	0.642	0.581
9.60	0.709	0.684	0.618
8.40	0.750	0.717	0.650
7.20	0.783	0.745	0.671
6.00	0.808	0.766	0.694
4.80	0.825	0.780	0.714
3.60	0.830	0.785	0.729
2.40	0.827	0.784	0.734
1.20	0.827	0.784	0.736
0.00	0.827	0.786	0.737

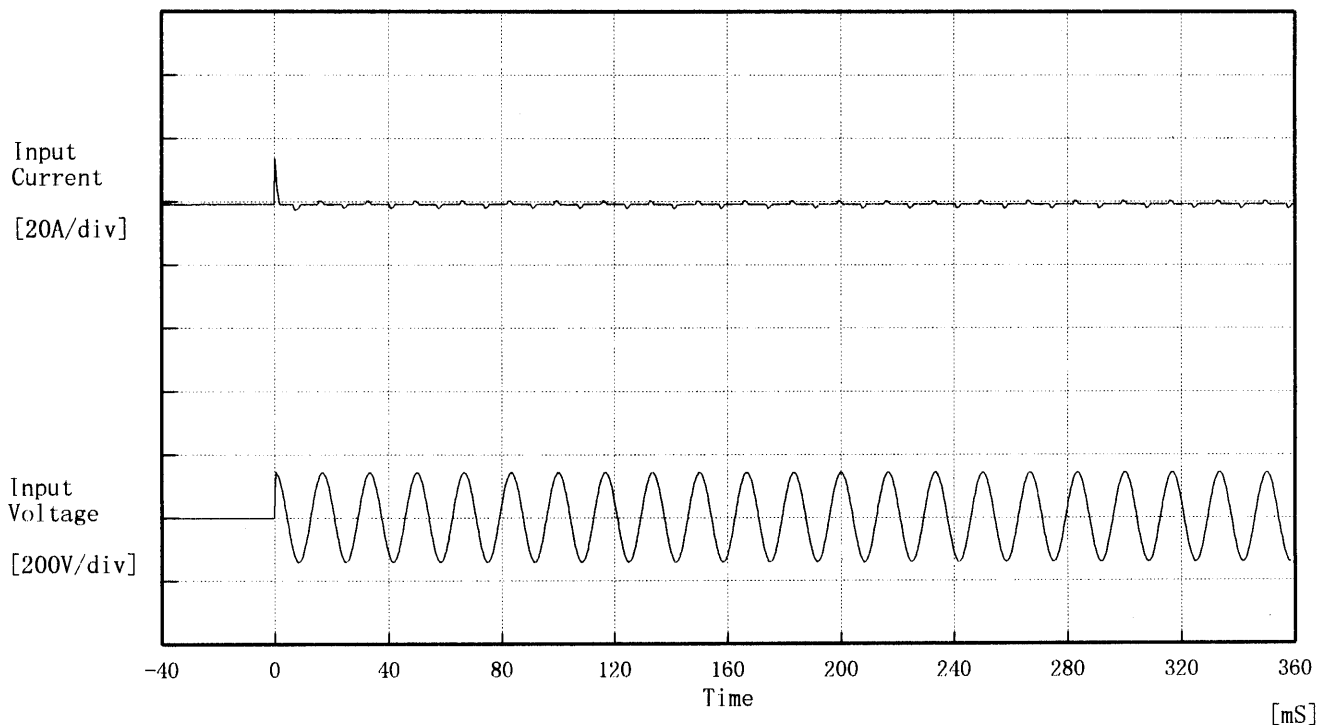
Note: Slanted line shows the range of the rated load current.  
 (注)斜線は定格負荷電流範囲を示す。

# COSEL

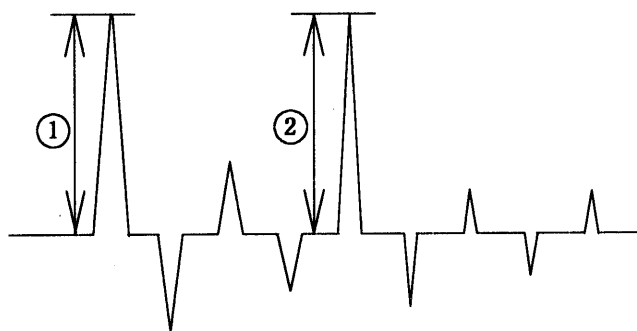
Model		RMC15A-1	Temperature		25°C																																																							
Item		Overcurrent Protection 過電流保護	Testing Circuitry		Figure A																																																							
Object		-12.0V0.2A																																																										
<p>1. Graph</p> <p>[V]</p> <p>----- Input Volt. 85 V          _____ Input Volt. 100 V          _____ Input Volt. 132 V</p> <p>Output Voltage [V]</p> <p>Load Current [A]</p>			<p>2. Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Output Voltage [V]</th> <th colspan="3">Load Current [A]</th> </tr> <tr> <th>Input Volt. 85[V]</th> <th>Input Volt. 100[V]</th> <th>Input Volt. 132[V]</th> </tr> </thead> <tbody> <tr><td>-12.00</td><td>0.000</td><td>0.000</td><td>0.000</td></tr> <tr><td>-11.40</td><td>0.586</td><td>0.568</td><td>0.508</td></tr> <tr><td>-10.80</td><td>0.623</td><td>0.601</td><td>0.537</td></tr> <tr><td>-9.60</td><td>0.690</td><td>0.661</td><td>0.589</td></tr> <tr><td>-8.40</td><td>0.745</td><td>0.709</td><td>0.634</td></tr> <tr><td>-7.20</td><td>0.790</td><td>0.752</td><td>0.675</td></tr> <tr><td>-6.00</td><td>0.830</td><td>0.785</td><td>0.710</td></tr> <tr><td>-4.80</td><td>0.858</td><td>0.809</td><td>0.743</td></tr> <tr><td>-3.60</td><td>0.869</td><td>0.822</td><td>0.767</td></tr> <tr><td>-2.40</td><td>0.866</td><td>0.828</td><td>0.787</td></tr> <tr><td>-1.20</td><td>0.884</td><td>0.850</td><td>0.804</td></tr> <tr><td>0.00</td><td>0.881</td><td>0.848</td><td>0.802</td></tr> </tbody> </table>			Output Voltage [V]	Load Current [A]			Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]	-12.00	0.000	0.000	0.000	-11.40	0.586	0.568	0.508	-10.80	0.623	0.601	0.537	-9.60	0.690	0.661	0.589	-8.40	0.745	0.709	0.634	-7.20	0.790	0.752	0.675	-6.00	0.830	0.785	0.710	-4.80	0.858	0.809	0.743	-3.60	0.869	0.822	0.767	-2.40	0.866	0.828	0.787	-1.20	0.884	0.850	0.804	0.00	0.881	0.848	0.802
Output Voltage [V]	Load Current [A]																																																											
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]																																																									
-12.00	0.000	0.000	0.000																																																									
-11.40	0.586	0.568	0.508																																																									
-10.80	0.623	0.601	0.537																																																									
-9.60	0.690	0.661	0.589																																																									
-8.40	0.745	0.709	0.634																																																									
-7.20	0.790	0.752	0.675																																																									
-6.00	0.830	0.785	0.710																																																									
-4.80	0.858	0.809	0.743																																																									
-3.60	0.869	0.822	0.767																																																									
-2.40	0.866	0.828	0.787																																																									
-1.20	0.884	0.850	0.804																																																									
0.00	0.881	0.848	0.802																																																									
<p>Note: Slanted line shows the range of the rated load current.</p> <p>(注)斜線は定格負荷電流範囲を示す。</p>																																																												



Model		RMC15A-1	Temperature		25°C
Item		Inrush Current 突入電流	Testing Circuitry		Figure A
Object		_____			



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



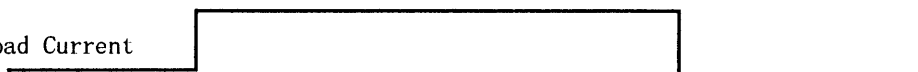


Model		RMC15A-1	Temperature		25°C
Item		Dynamic Load Responce 動的負荷變動	Testing Circuitry		Figure A
Object		+5.0V2A			

Input Volt. 100 V

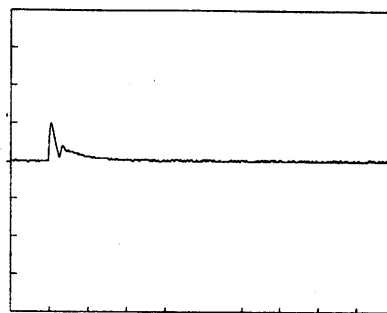
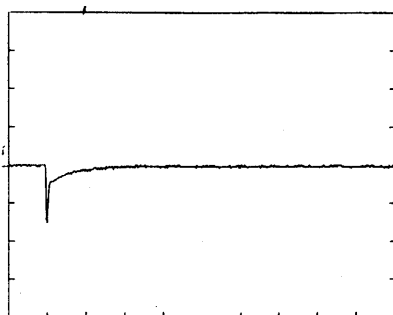
Cycle 1000 mS

Load Current



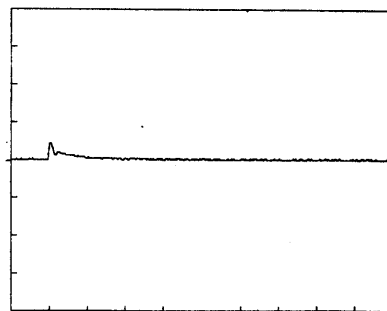
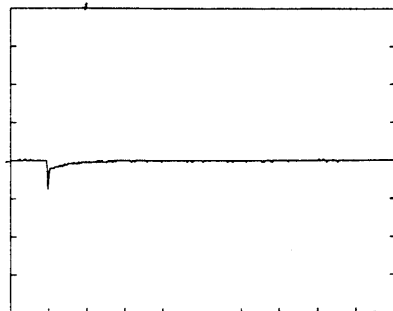
Load 0% ↔

Load 100 %



Load 0% ↔

Load 50 %



100 mV/div

10 mS/div



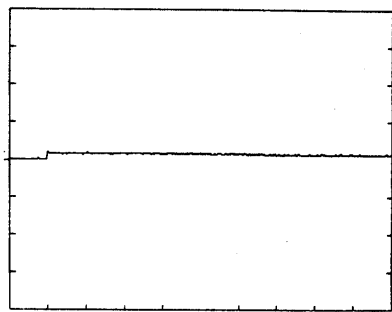
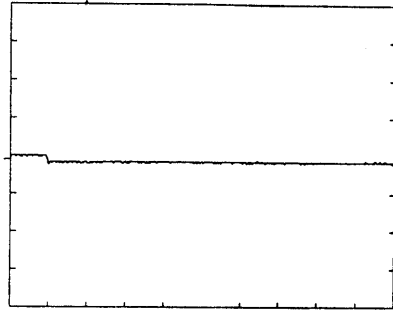


Model		RMC15A-1	Temperature		25°C
Item		Dynamic Load Responce 動的負荷変動	Testing Circuitry		Figure A
Object		+12.0V0.3A			

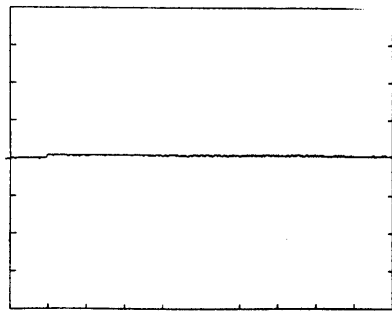
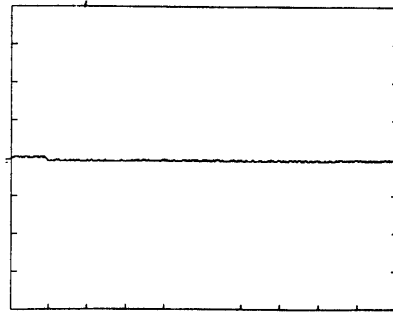
Input Volt. 100 V  
Cycle 1000 mS

Load Current

Load 0% ↔  
Load 100 %



Load 0% ↔  
Load 50 %



100 mV/div

10 mS/div

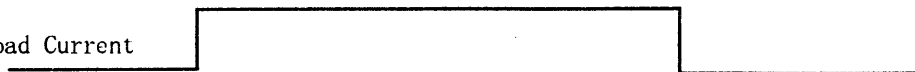


Model	RMC15A-1	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Responce 動的負荷変動	
Object	-12.0V 0.2A	

Input Volt. 100 V

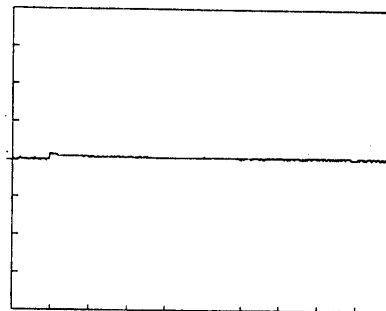
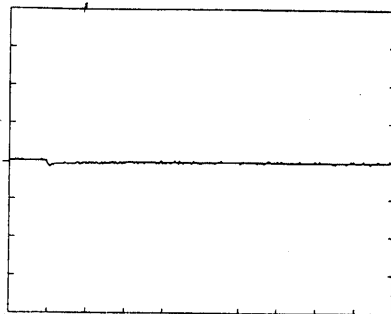
Cycle 1000 mS

Load Current



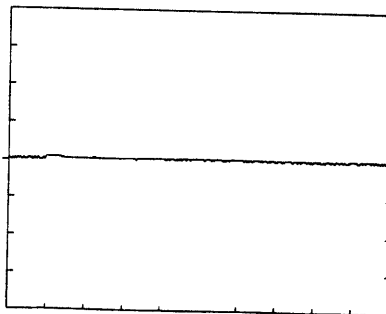
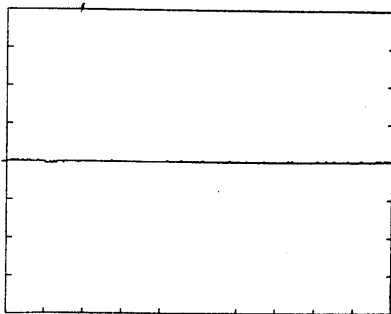
Load 0% ↔

Load 100 %



Load 0% ↔

Load 50 %



100 mV/div

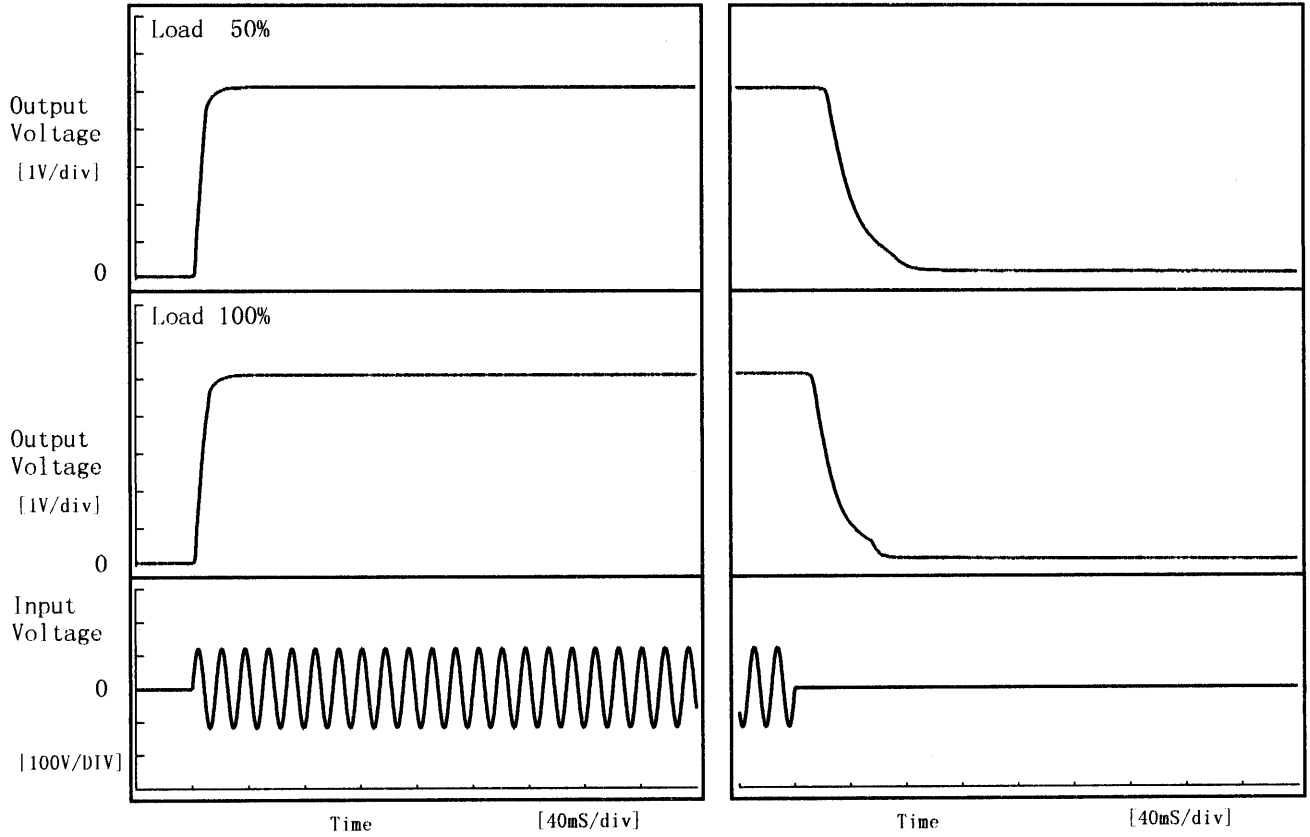
10 mS/div

# COSEL

Model	RMC15A-1	Temperature	25°C
Item	Rise and Fall Time 立上り、立下り時間	Testing Circuitry	Figure A
Object	+5.0V2A		

1. Graph

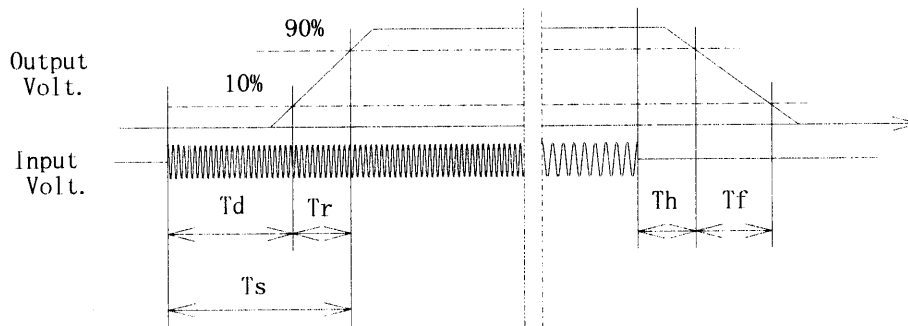
Input Volt. 85 V



2. Values

[mS]

Load \ Time	T <sub>d</sub>	T <sub>r</sub>	T <sub>s</sub>	T <sub>h</sub>	T <sub>f</sub>
50 %	2.0	8.2	10.2	26.6	47.6
100 %	2.2	10.0	12.2	16.4	41.2

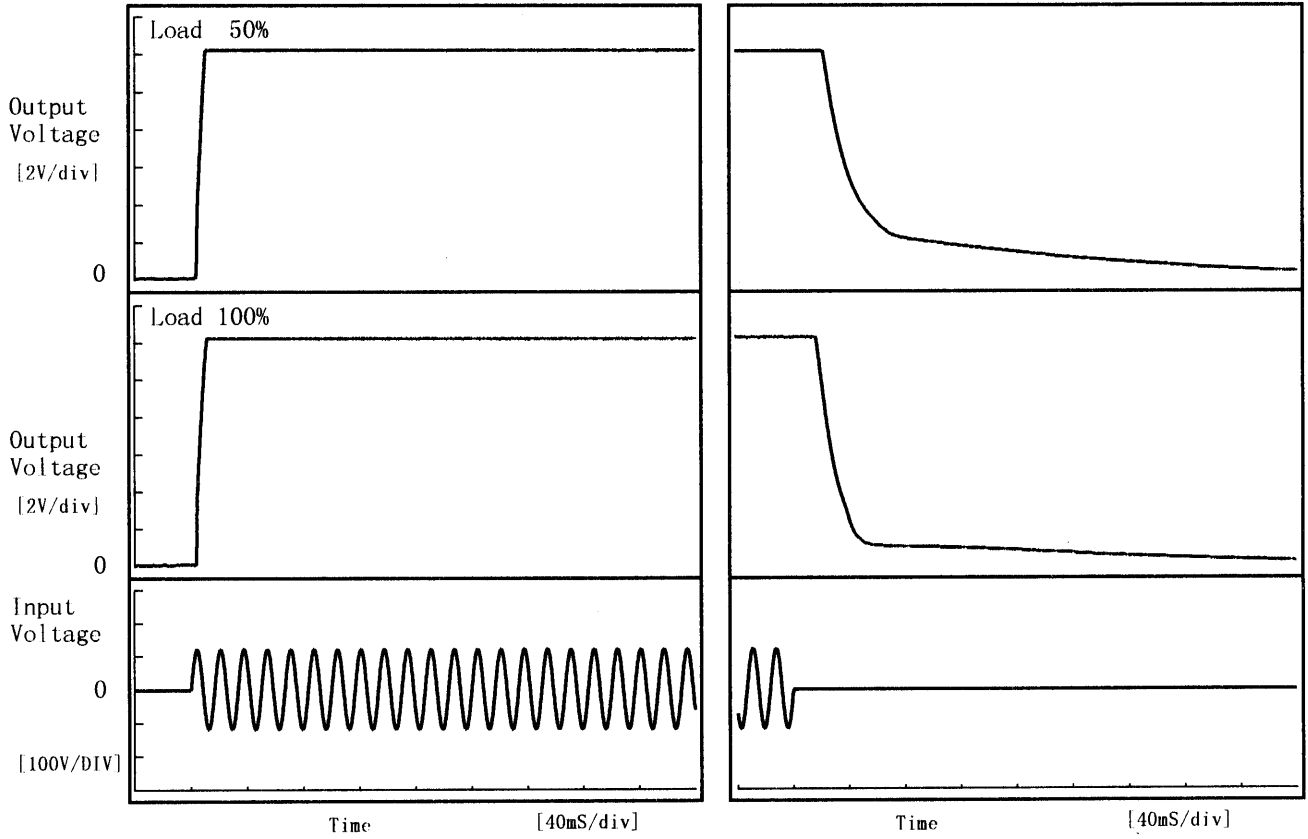




Model		RMC15A-1	Temperature		25°C
Item		Rise and Fall Time 立上り、立下り時間	Testing Circuitry		Figure A
Object		+12.0V0.3A			

1. Graph

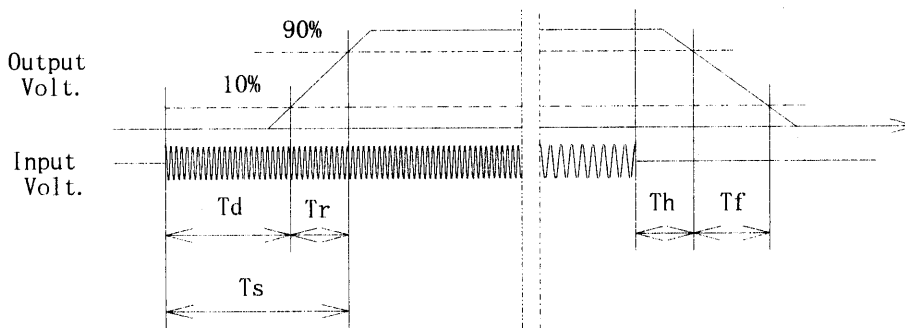
Input Volt. 85 V



2. Values

[mS]

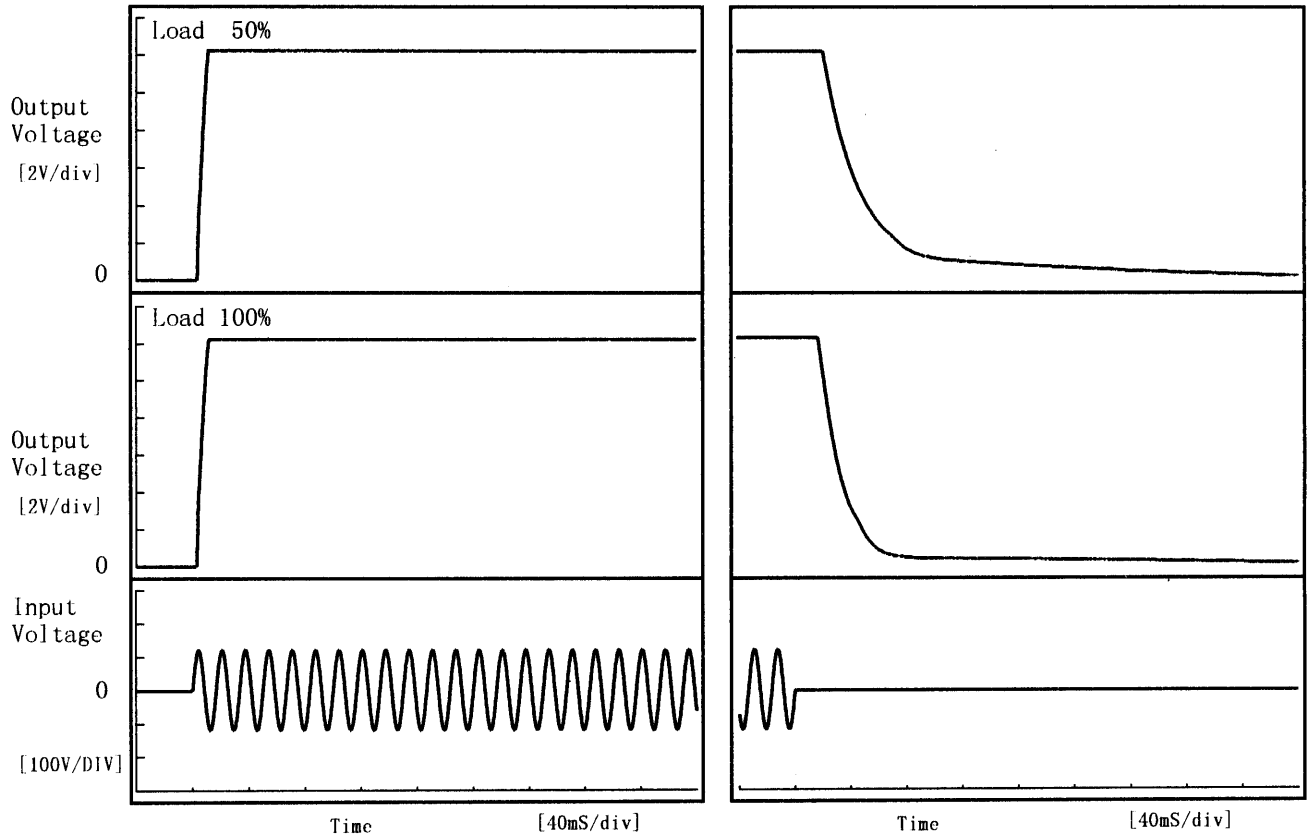
Load \ Time	T d	T r	T s	T h	T f
50 %	3.4	5.6	9.0	25.0	161.6
100 %	3.6	6.2	9.8	19.6	31.8



# COSEL

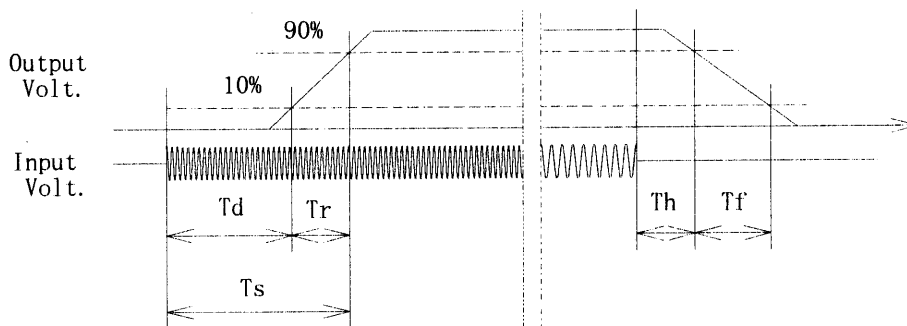
Model	RMC15A-1	Temperature	25°C
Item	Rise and Fall Time 立上り、立下り時間	Testing Circuitry	Figure A
Object	-12.0V0.2A		

1. Graph



2. Values

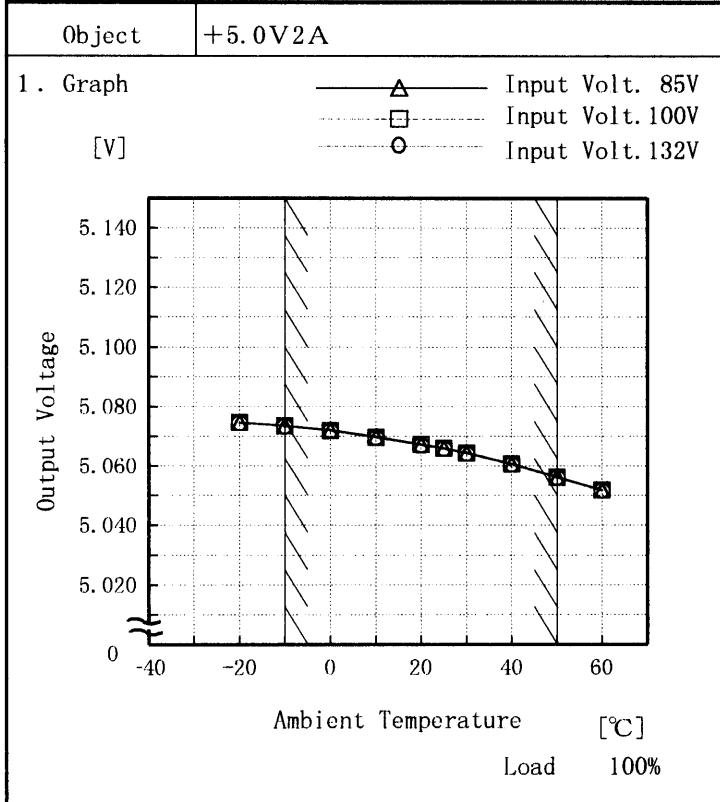
		[mS]				
Load	Time	T d	T r	T s	T h	T f
50 %		3.0	6.4	9.4	24.4	78.2
100 %		3.0	7.0	10.0	20.2	36.4





Model	RMC15A-1
Item	Ambient Temperature Drift 周囲温度変動

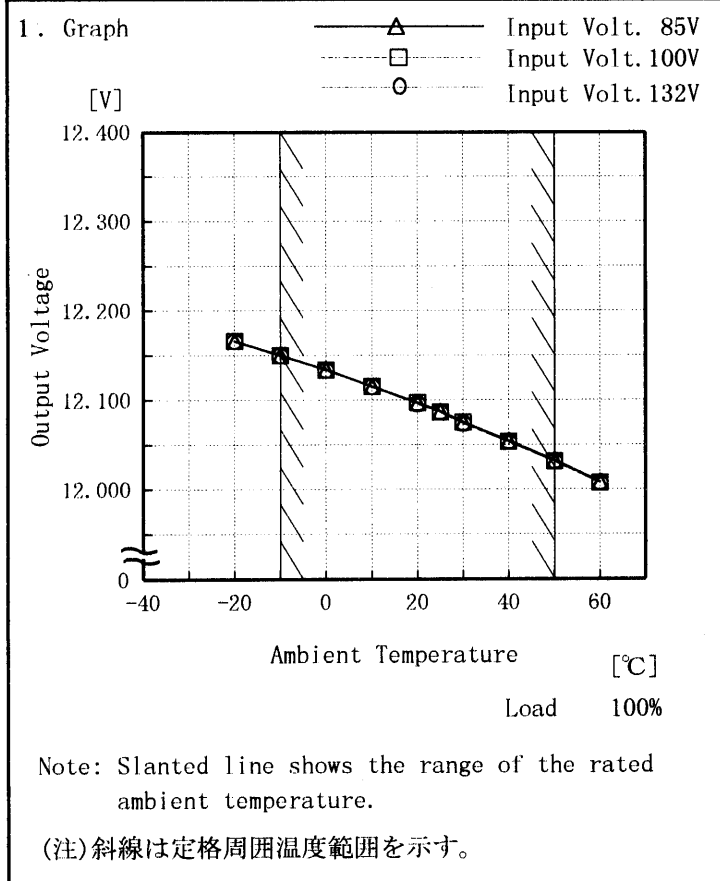
Testing Circuitry Figure A



2. Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	5.075	5.075	5.075
-10	5.074	5.074	5.074
0	5.072	5.072	5.072
10	5.070	5.070	5.070
20	5.067	5.067	5.067
25	5.066	5.066	5.066
30	5.064	5.064	5.064
40	5.061	5.061	5.061
50	5.056	5.056	5.056
60	5.052	5.052	5.052
—	—	—	—

Object +12.0V0.3A



2. Values

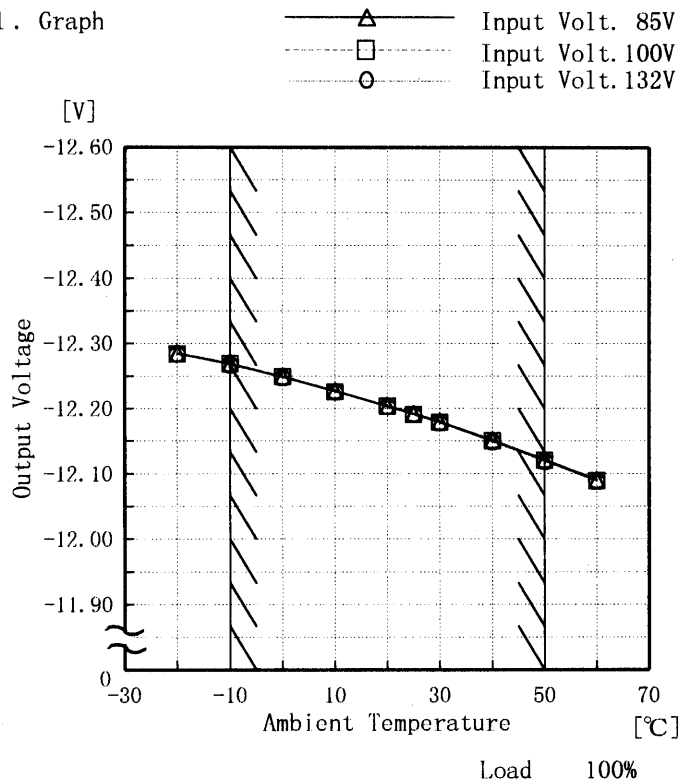
Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	12.166	12.166	12.166
-10	12.150	12.150	12.150
0	12.134	12.133	12.133
10	12.115	12.115	12.115
20	12.097	12.097	12.096
25	12.087	12.086	12.086
30	12.075	12.075	12.074
40	12.054	12.053	12.053
50	12.032	12.031	12.031
60	12.008	12.007	12.007
—	—	—	—



Model	RMC15A-1
Item	Ambient Temperature Drift 周囲温度変動
Object	-12.0V0.2A

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。

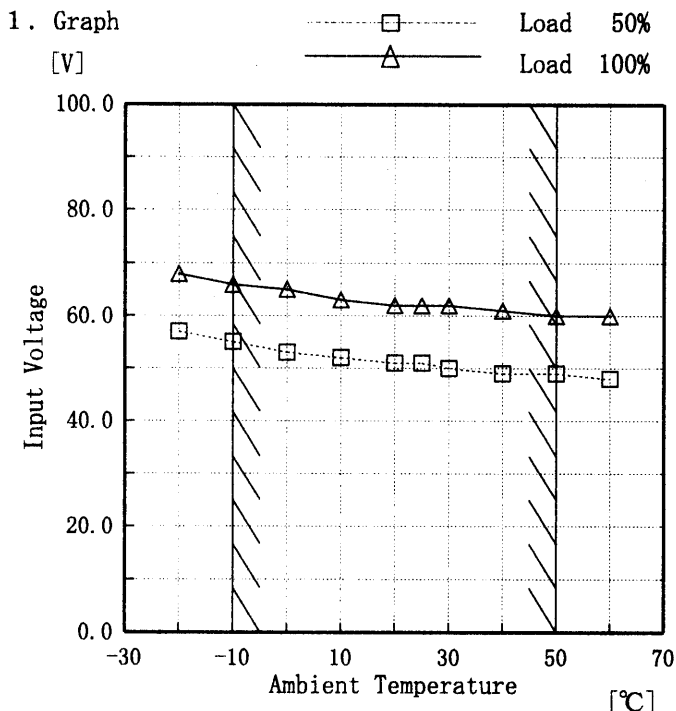
2. Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 85[V]	Input Volt. 100[V]	Input Volt. 132[V]
-20	-12.285	-12.284	-12.284
-10	-12.269	-12.269	-12.268
0	-12.249	-12.249	-12.248
10	-12.227	-12.226	-12.226
20	-12.204	-12.204	-12.203
25	-12.192	-12.191	-12.191
30	-12.180	-12.179	-12.178
40	-12.151	-12.150	-12.149
50	-12.121	-12.120	-12.119
60	-12.090	-12.089	-12.088
—	—	—	—



Model	RMC15A-1
Item	Minimum Input Voltage for Regulated Output Voltage 最低レギュレーション電圧
Object	+5.0V2A

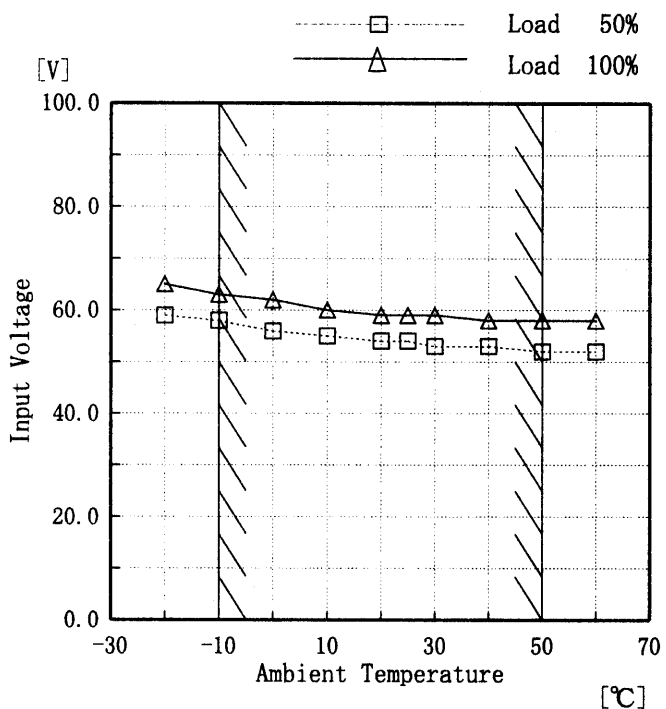
Testing Circuitry Figure A



2. Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-20	57	68
-10	55	66
0	53	65
10	52	63
20	51	62
25	51	62
30	50	62
40	49	61
50	49	60
60	48	60
—	—	—

Object	+12.0V0.3A
--------	------------



Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-20	59	65
-10	58	63
0	56	62
10	55	60
20	54	59
25	54	59
30	53	59
40	53	58
50	52	58
60	52	58
—	—	—

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

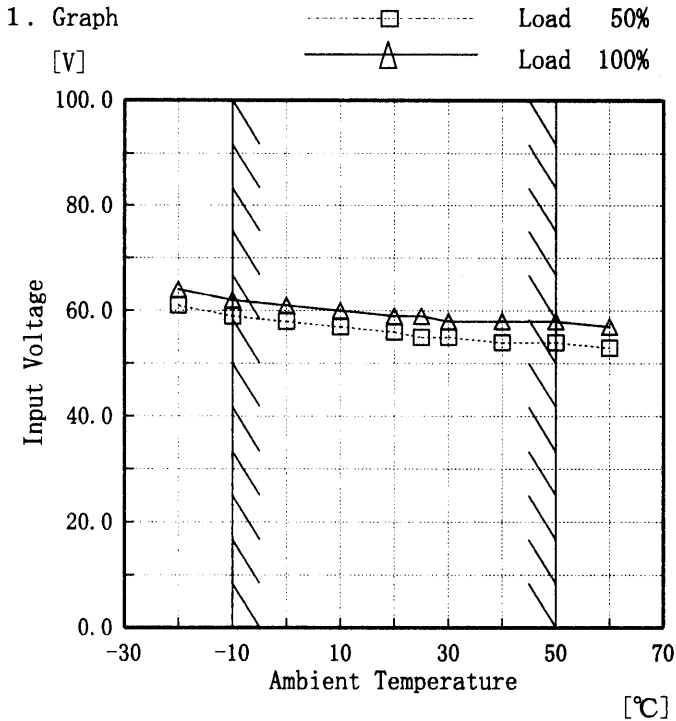
(注)斜線は定格周囲温度範囲を示す。





Model	RMC15A-1
Item	Minimum Input Voltage for Regulated Output Voltage 最低レギュレーション電圧
Object	-12.0V0.2A

Testing Circuitry Figure A



2. Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-20	61	64
-10	59	62
0	58	61
10	57	60
20	56	59
25	55	59
30	55	58
40	54	58
50	54	58
60	53	57
—	—	—

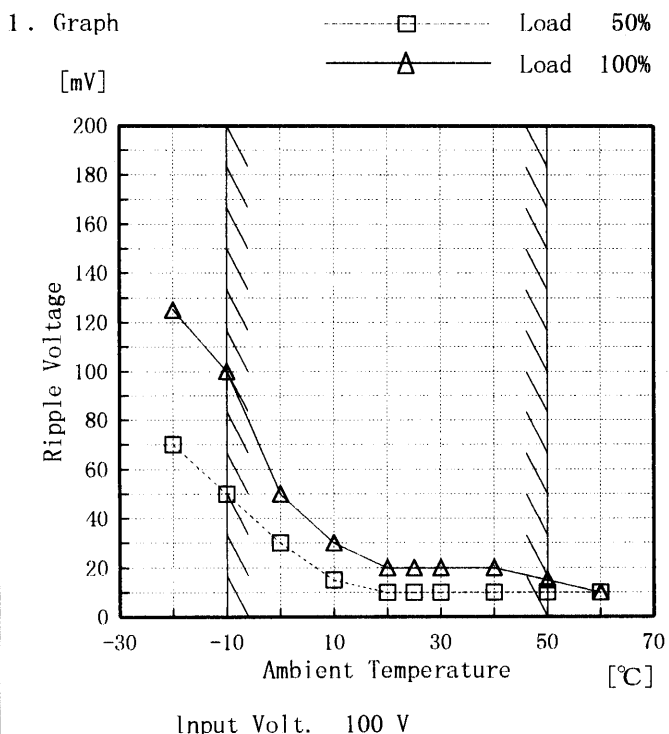
Note: Slanted line shows the range of the rated ambient temperature.

(注) 斜線は定格周囲温度範囲を示す。



Model	RMC15A-1
Item	Ripple Voltage (by Ambient Temp.) リップル電圧 (周囲温度特性)
Object	+5.0V2A

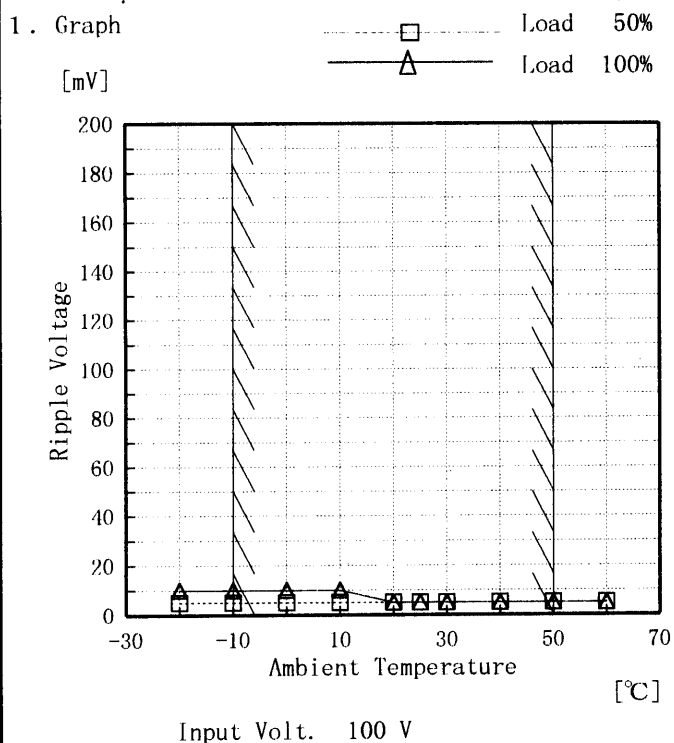
Testing Circuitry Figure A



2. Values

Ambient Temperature [°C]	Ripple Output Voltage [mV]	
	Load 50%	Load 100%
-20	70	125
-10	50	100
0	30	50
10	15	30
20	10	20
25	10	20
30	10	20
40	10	20
50	10	15
60	10	10
—	—	—

Object	+12.0V0.3A
--------	------------



2. Values

Ambient Temperature [°C]	Ripple Output Voltage [mV]	
	Load 50%	Load 100%
-20	5	10
-10	5	10
0	5	10
10	5	10
20	5	5
25	5	5
30	5	5
40	5	5
50	5	5
60	5	5
—	—	—

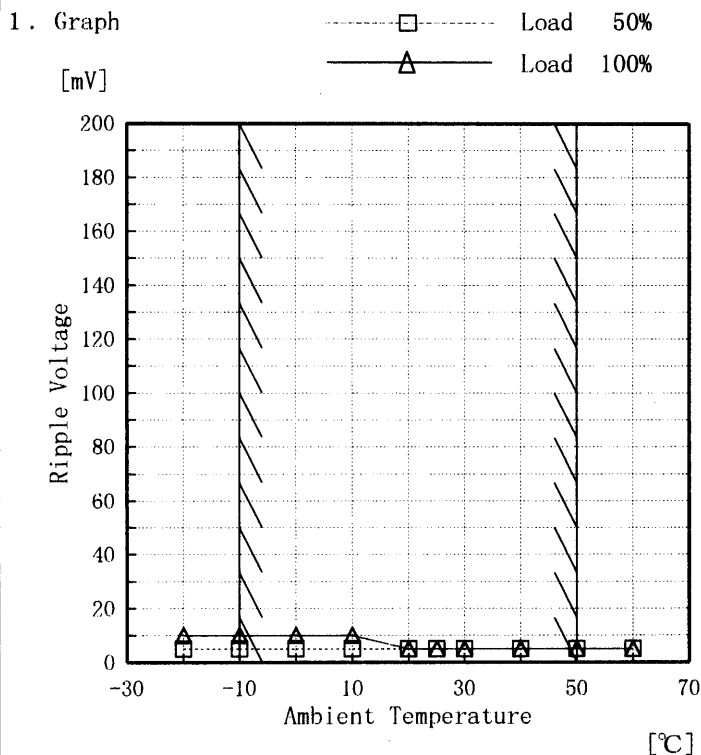
Note: Slanted line shows the range of the rated ambient temperature.

(注) 斜線は定格周囲温度範囲を示す。



Model	RMC15A-1
Item	Ripple Voltage (by Ambient Temp.) リップル電圧 (周囲温度特性)
Object	-12.0V0.2A

Testing Circuitry Figure A



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

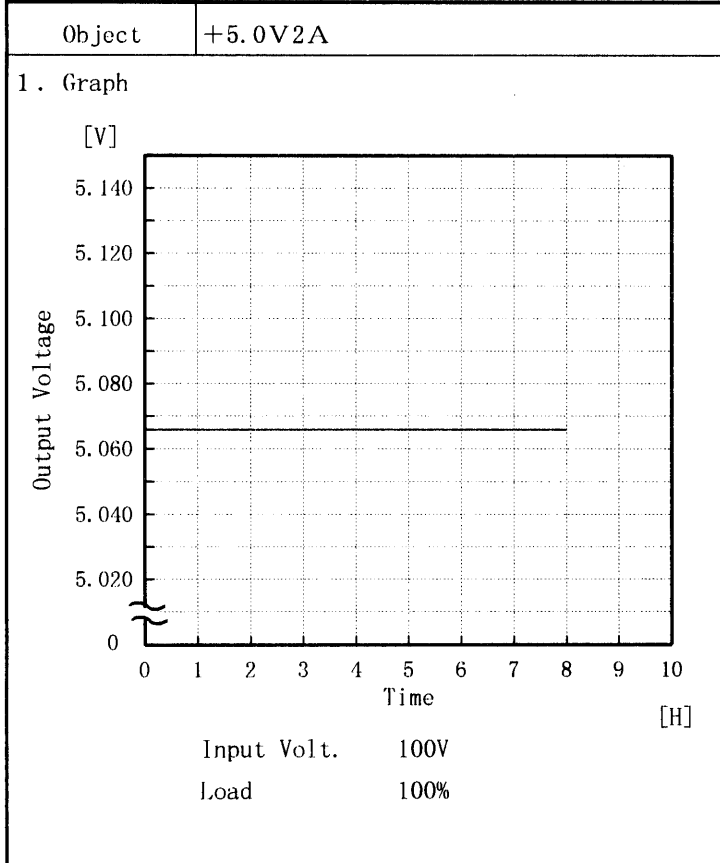
(注)斜線は定格周囲温度範囲を示す。

2. Values

Ambient Temperature [°C]	Ripple Output Voltage [mV]	
	Load 50%	Load 100%
-20	5	10
-10	5	10
0	5	10
10	5	10
20	5	5
25	5	5
30	5	5
40	5	5
50	5	5
60	5	5
—	—	—

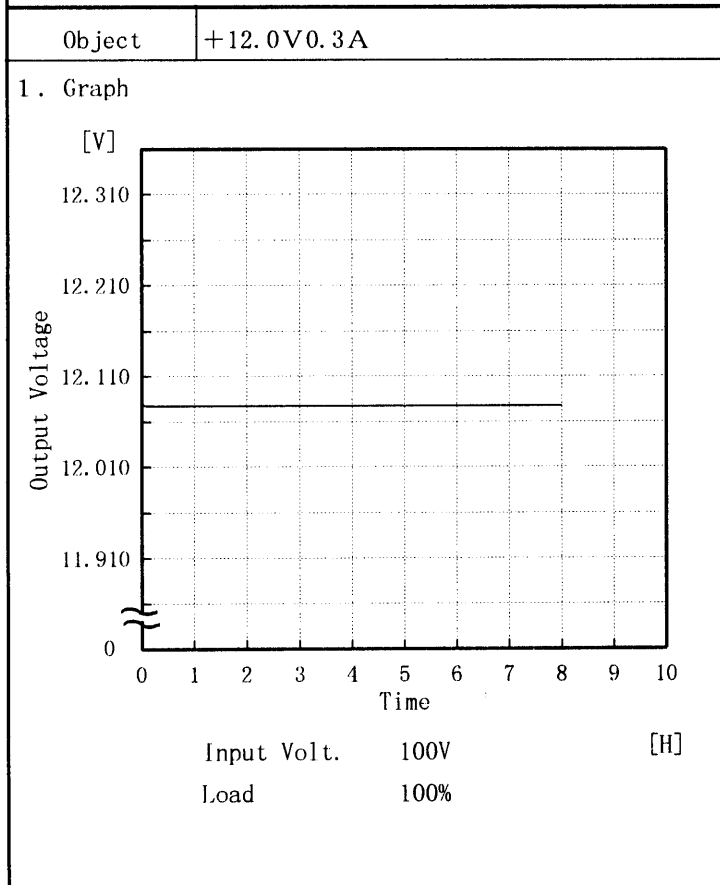


Model		RMC15A-1	Temperature	25°C
Item		Time Lapse Drift 経時ドリフト	Testing Circuitry	Figure A



2. Values

Time since start [H]	Output Voltage [V]
0.0	5.068
0.5	5.066
1.0	5.066
2.0	5.066
3.0	5.066
4.0	5.066
5.0	5.066
6.0	5.066
7.0	5.066
8.0	5.066



2. Values

Time since start [H]	Output Voltage [V]
0.0	12.109
0.5	12.077
1.0	12.077
2.0	12.077
3.0	12.077
4.0	12.077
5.0	12.077
6.0	12.077
7.0	12.077
8.0	12.077



<b>COSEL</b>																								
Model	RMC15A-1																							
Item	Time Lapse Drift 経時ドリフト	Temperature 25°C Testing Circuitry Figure A																						
Object	-12.0V0.2A																							
<p>1. Graph</p> <p style="text-align: center;">Input Volt. 100V Load 100%</p>		<p>2. Values</p> <table border="1"> <thead> <tr> <th>Time since start [H]</th> <th>Output Voltage [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>-12.222</td></tr> <tr><td>0.5</td><td>-12.185</td></tr> <tr><td>1.0</td><td>-12.185</td></tr> <tr><td>2.0</td><td>-12.185</td></tr> <tr><td>3.0</td><td>-12.185</td></tr> <tr><td>4.0</td><td>-12.185</td></tr> <tr><td>5.0</td><td>-12.185</td></tr> <tr><td>6.0</td><td>-12.185</td></tr> <tr><td>7.0</td><td>-12.185</td></tr> <tr><td>8.0</td><td>-12.185</td></tr> </tbody> </table>	Time since start [H]	Output Voltage [V]	0.0	-12.222	0.5	-12.185	1.0	-12.185	2.0	-12.185	3.0	-12.185	4.0	-12.185	5.0	-12.185	6.0	-12.185	7.0	-12.185	8.0	-12.185
Time since start [H]	Output Voltage [V]																							
0.0	-12.222																							
0.5	-12.185																							
1.0	-12.185																							
2.0	-12.185																							
3.0	-12.185																							
4.0	-12.185																							
5.0	-12.185																							
6.0	-12.185																							
7.0	-12.185																							
8.0	-12.185																							



Model		RMC15A-1	Testing Circuitry Figure A
Item		Output Voltage Accuracy 定電圧精度	

1. 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 °C

Input Voltage : 85~132 V

Load Current (AVR 1) : 0~2 A (AVR 2) : 0~0.3 A (AVR 3) : 0~0.2 A

\* Output Voltage Accuracy =  $\pm (\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

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

1. 定電圧精度

周囲温度、入力電圧、負荷電流を下記仕様内で、任意に変動させたときの出力電圧の変動をいう。

周囲温度 -10~50 °C

入力電圧 85~132 V

負荷電流 (AVR 1) : 0~2 A (AVR 2) : 0~0.3 A (AVR 3) : 0~0.2 A

\* 定電圧精度(変動値) =  $\pm (\text{出力電圧の最高値} - \text{出力電圧の最低値}) / 2$

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

2. Values

Object	+5.0V2A					
Item	Temperature [°C]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	-10	85	0	5.078	±11	±0.3
Minimum Voltage	50	132	2	5.056		

Object	+12.0V0.3A					
Item	Temperature [°C]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	-10	85	0.0	12.183	±81	±0.7
Minimum Voltage	50	132	0.3	12.022		

Object	-12.0V0.2A					
Item	Temperature [°C]	Input Voltage [V]	Output Current [A]	Output Voltage [V]	Output Voltage Accuracy [mV]	Output Voltage Accuracy(Ration)[%]
Maximum Voltage	-10	85	0.0	-12.277	±83	±0.7
Minimum Voltage	50	132	0.2	-12.111		



<b>COSEL</b>		
Model	RMC15A-1	
Item	Condensation 結露特性	Testing Circuitry Figure A

1. Condensation test

Testing procedure is as follows.

- ① Keeping and cooling the unit in a tank at -10°C 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°C and the humidity is 40%RH.
- ③ Testing electrical characteristics of the unit to confirm there be no fault.

1. 結露特性試験

入力を切った状態で、恒温槽で-10℃に冷却しておき、約1時間後に恒温槽から取り出し、室温25℃、湿度40%RHの状態におき結露させ、その電気的特性の測定を行い、異常のないことを確認する。

2. Values

Object	+5.0V2A
--------	---------

Item	Data	Testing Conditions
Output Voltage [V]	5.066	Input Volt.: 100V, Load Current:2A
Line Regulation [mV]	1	Input Volt.: 85~132V, Load Current:2A
Load Regulation [mV]	4	Input Volt.: 100V, Load Current:0~2A

Object	+12.0V0.3A
--------	------------

Item	Data	Testing Conditions
Output Voltage [V]	12.079	Input Volt.: 100V, Load Current:0.3A
Line Regulation [mV]	1	Input Volt.: 85~132V, Load Current:0.3A
Load Regulation [mV]	18	Input Volt.: 100V, Load Current:0~0.3A

Object	-12.0V0.2A
--------	------------

Item	Data	Testing Conditions
Output Voltage [V]	-12.182	Input Volt.: 100V, Load Current:0.2A
Line Regulation [mV]	2	Input Volt.: 85~132V, Load Current:0.2A
Load Regulation [mV]	6	Input Volt.: 100V, Load Current:0~0.2A



Model		RMC15A-1	Temperature 25°C Testing Circuitry Figure B
Item		Leakage Current 漏洩電流	
Object		_____	

1. Results

Standards	Leakage Current [mA]		
	Input Volt. 85 [V]	Input Volt. 100 [V]	Input Volt. 132 [V]
(A) DENTORI	0.11	0.13	0.18
(B) IEC60950	0.12	0.14	0.18

2. Condition

Leakage current value is concluded after measuring both phases of AC input and by choosing the larger one.

交流入力 of 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。

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





Model	RMC15A-1
Item	Conducted Emission 雑音端子電圧
Object	

Testing Circuitry Figure D

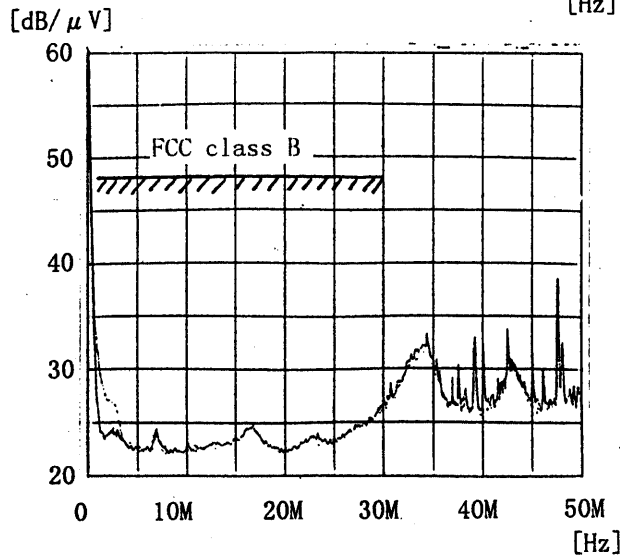
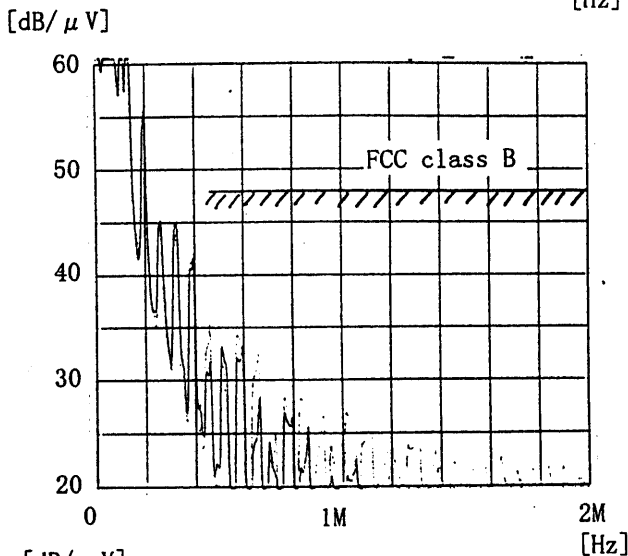
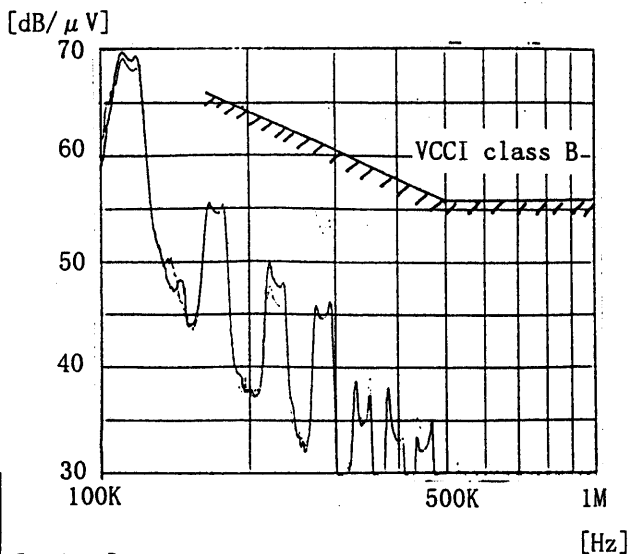
1. Graph

Remarks

Input Volt. 120 V (VCCI:100V)  
Load 100 %

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

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



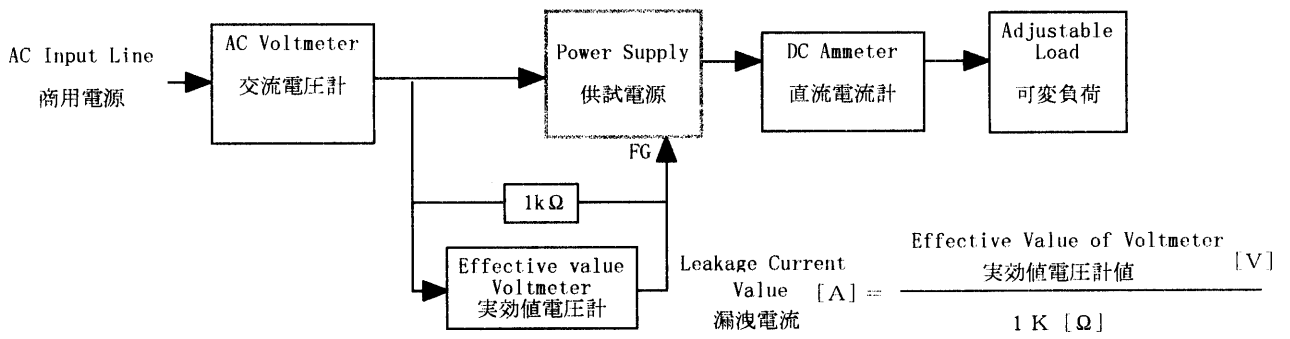
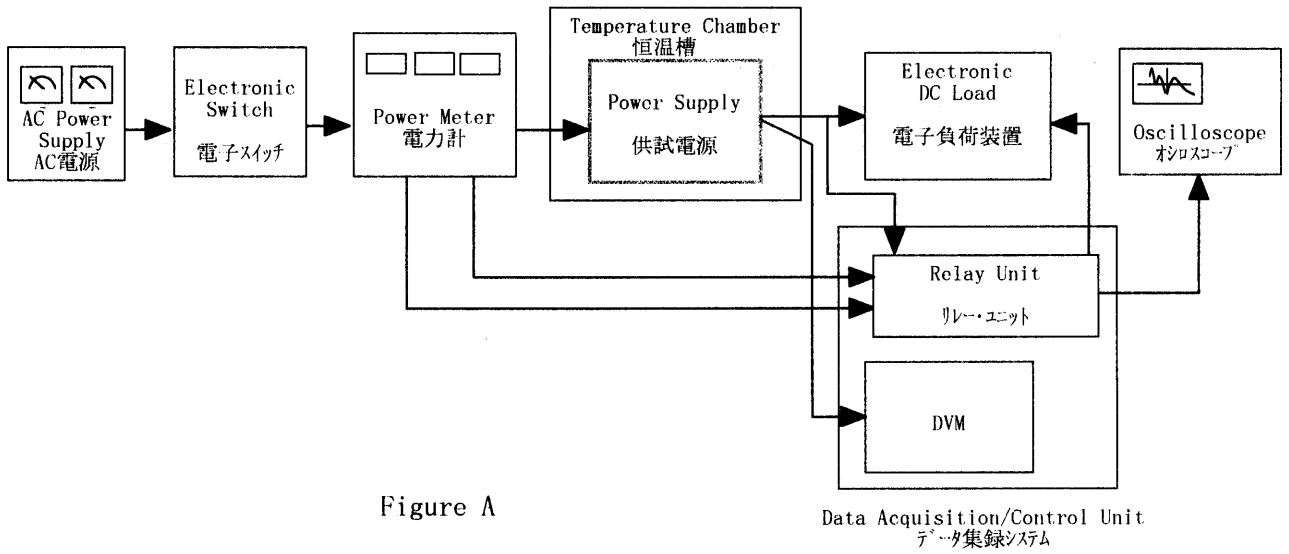


Figure B (DENTORI)

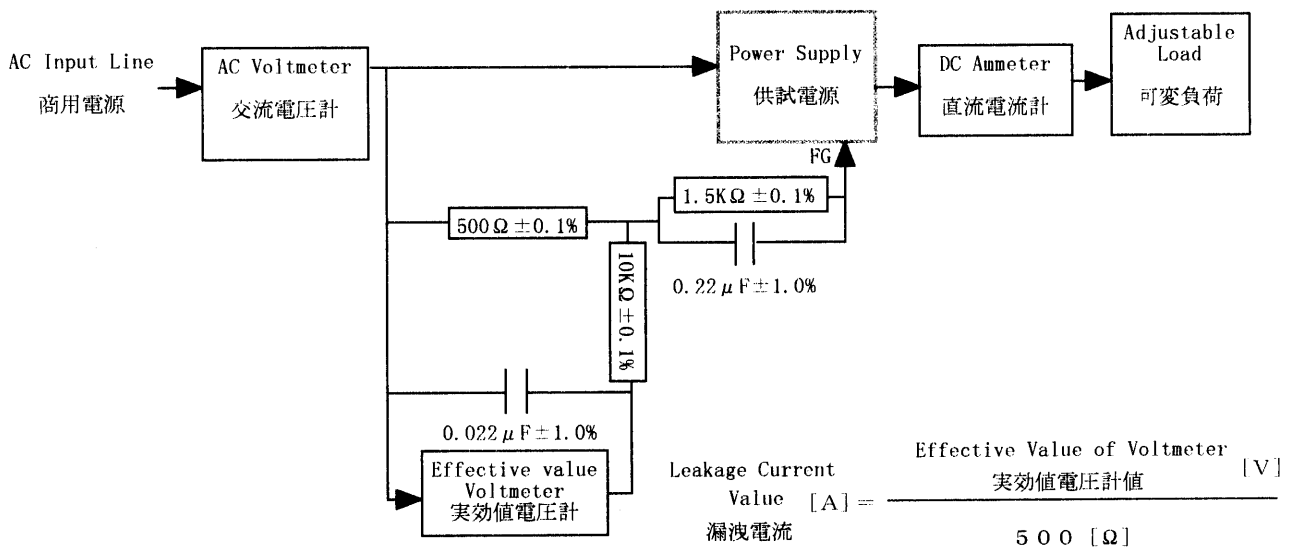


Figure B (IEC 60950)

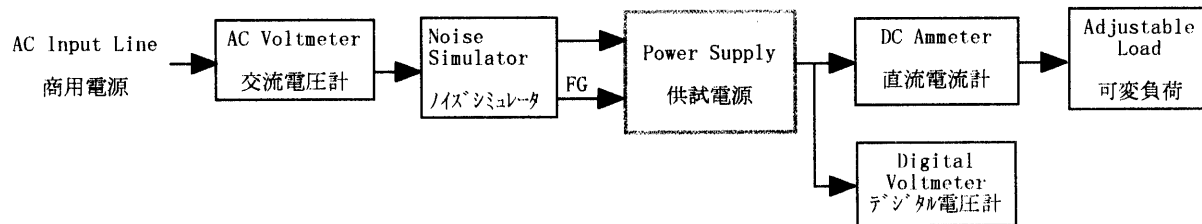


Figure C

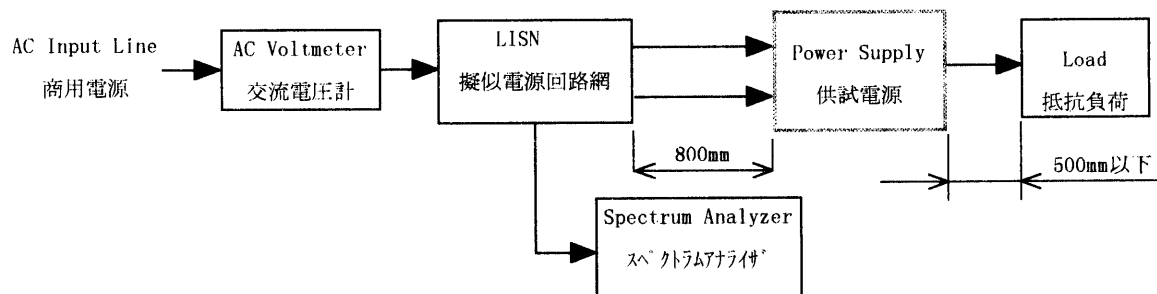


Figure D

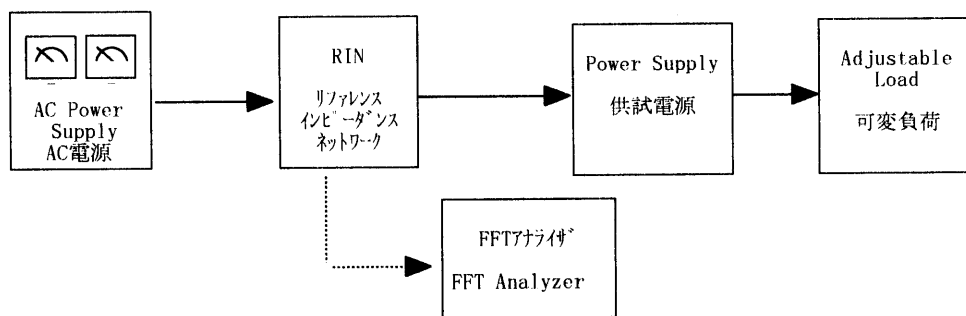


Figure E