



# TEST DATA OF MODULE Y

(RB series)

Regulated DC Power Supply  
November 5, 2018

Approved by : Jun Uchida  
Jun Uchida Design Manager

Prepared by : Hideaki Douguchi  
Hideaki Douguchi Design Engineer

**COSEL CO.,LTD.**



CONTENTS

1.Line Regulation . . . . . 1

2.Load Regulation . . . . . 2

3.Dynamic Load Response . . . . . 3

4.Ripple Voltage (by Load Current) . . . . . 4

5.Ripple-Noise . . . . . 5

6.Ripple Voltage (by Ambient Temperature) . . . . . 6

7.Ambient Temperature Drift . . . . . 7

8.Output Voltage Accuracy . . . . . 8

9.Time Lapse Drift . . . . . 9

10.Overcurrent Protection . . . . . 10

11.Overtoltage Protection . . . . . 11

12.Figure of Testing Circuitry . . . . . 12

(Final Page 12)



<b>COSEL</b>																																			
Model	MODULE Y	Temperature	25°C																																
Item	Line Regulation	Testing Circuitry	Figure A																																
Object	+24V6A																																		
<p>1. Graph</p> <p style="text-align: right;">             ---□--- Load 50%              —△— Load 100%         </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>85</td><td>24.225</td><td>24.227</td></tr> <tr><td>90</td><td>24.225</td><td>24.227</td></tr> <tr><td>100</td><td>24.225</td><td>24.227</td></tr> <tr><td>120</td><td>24.225</td><td>24.227</td></tr> <tr><td>200</td><td>24.225</td><td>24.227</td></tr> <tr><td>230</td><td>24.226</td><td>24.227</td></tr> <tr><td>264</td><td>24.226</td><td>24.227</td></tr> <tr><td>280</td><td>24.226</td><td>24.227</td></tr> <tr><td>--</td><td>-</td><td>-</td></tr> </tbody> </table>		Input Voltage [V]	Output Voltage [V]		Load 50%	Load 100%	85	24.225	24.227	90	24.225	24.227	100	24.225	24.227	120	24.225	24.227	200	24.225	24.227	230	24.226	24.227	264	24.226	24.227	280	24.226	24.227	--	-	-
Input Voltage [V]	Output Voltage [V]																																		
	Load 50%	Load 100%																																	
85	24.225	24.227																																	
90	24.225	24.227																																	
100	24.225	24.227																																	
120	24.225	24.227																																	
200	24.225	24.227																																	
230	24.226	24.227																																	
264	24.226	24.227																																	
280	24.226	24.227																																	
--	-	-																																	
<p>Note: Slanted line shows the range of the rated input voltage.</p>																																			

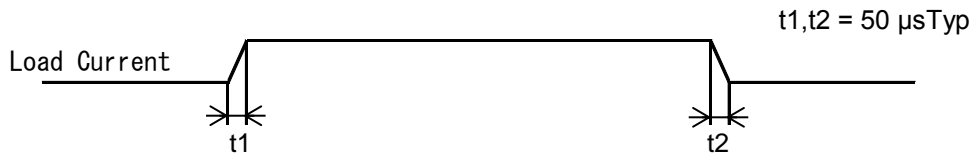


<b>COSEL</b>																																																						
Model	MODULE Y	Temperature	25°C																																																			
Item	Load Regulation	Testing Circuitry	Figure A																																																			
Object	+24V6A																																																					
<p>1.Graph</p> <p>                     —△— Input Volt. 100V                      - - - □ - - - Input Volt. 200V                      - · - ○ - · - - Input Volt. 230V                 </p> <p style="text-align: center;">Load Current [A]</p>		<p>2.Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Output Voltage [V]</th> </tr> <tr> <th>Input Volt. 100[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 230[V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>24.232</td><td>24.231</td><td>24.231</td></tr> <tr><td>1.0</td><td>24.228</td><td>24.228</td><td>24.228</td></tr> <tr><td>2.0</td><td>24.228</td><td>24.228</td><td>24.227</td></tr> <tr><td>3.0</td><td>24.228</td><td>24.227</td><td>24.228</td></tr> <tr><td>4.0</td><td>24.227</td><td>24.227</td><td>24.227</td></tr> <tr><td>5.0</td><td>24.227</td><td>24.227</td><td>24.227</td></tr> <tr><td>6.0</td><td>24.227</td><td>24.227</td><td>24.227</td></tr> <tr><td>6.6</td><td>24.227</td><td>24.227</td><td>24.227</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. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	0.0	24.232	24.231	24.231	1.0	24.228	24.228	24.228	2.0	24.228	24.228	24.227	3.0	24.228	24.227	24.228	4.0	24.227	24.227	24.227	5.0	24.227	24.227	24.227	6.0	24.227	24.227	24.227	6.6	24.227	24.227	24.227	--	-	-	-	--	-	-	-	--	-	-	-
Load Current [A]	Output Voltage [V]																																																					
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]																																																			
0.0	24.232	24.231	24.231																																																			
1.0	24.228	24.228	24.228																																																			
2.0	24.228	24.228	24.227																																																			
3.0	24.228	24.227	24.228																																																			
4.0	24.227	24.227	24.227																																																			
5.0	24.227	24.227	24.227																																																			
6.0	24.227	24.227	24.227																																																			
6.6	24.227	24.227	24.227																																																			
--	-	-	-																																																			
--	-	-	-																																																			
--	-	-	-																																																			
<p>Note: Slanted line shows the range of the rated load current.</p>																																																						



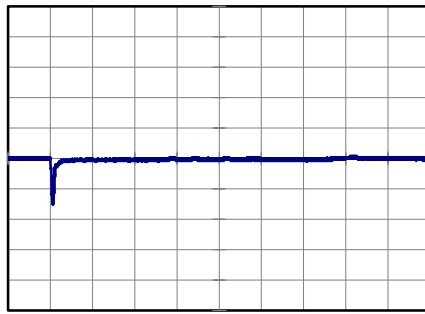
Model		MODULE Y	Temperature 25°C Testing Circuitry Figure A
Item		Dynamic Load Response	
Object		+24V6A	

Input Volt. 100 V  
Cycle 1000 ms

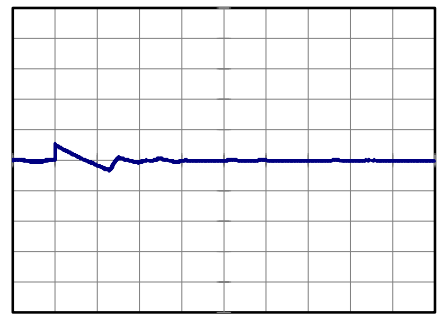


Min. Load (0A) ←→  
Load 100% (6A)

500 mV/div



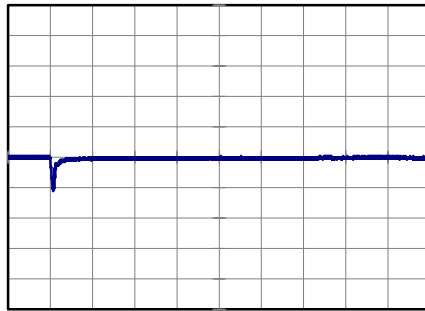
2 ms/div



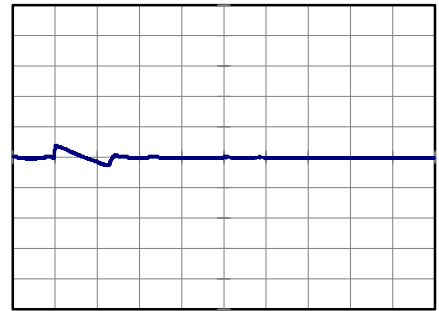
10 ms/div

Min. Load (0A) ←→  
Load 50% (3A)

500 mV/div



2 ms/div



10 ms/div



<b>COSEL</b>																																									
Model	MODULE Y	Temperature	25°C																																						
Item	Ripple Voltage (by Load Current)	Testing Circuitry	Figure B																																						
Object	+24V6A																																								
<p>1.Graph</p> <div style="text-align: right;"> <p>—△— Input Volt. 100V</p> <p>-·-○-·- Input Volt. 230V</p> </div> <p style="text-align: center;">Ripple Voltage [mV]</p> <p style="text-align: center;">Load Current [A]</p>		<p>2.Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="2">Ripple Voltage [mV]</th> </tr> <tr> <th>Input Volt. 100 [V]</th> <th>Input Volt. 230 [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>30</td><td>30</td></tr> <tr><td>1.0</td><td>40</td><td>40</td></tr> <tr><td>2.0</td><td>40</td><td>40</td></tr> <tr><td>3.0</td><td>45</td><td>45</td></tr> <tr><td>4.0</td><td>50</td><td>50</td></tr> <tr><td>5.0</td><td>55</td><td>55</td></tr> <tr><td>6.0</td><td>65</td><td>65</td></tr> <tr><td>6.6</td><td>70</td><td>70</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 Voltage [mV]		Input Volt. 100 [V]	Input Volt. 230 [V]	0.0	30	30	1.0	40	40	2.0	40	40	3.0	45	45	4.0	50	50	5.0	55	55	6.0	65	65	6.6	70	70	--	-	-	--	-	-	--	-	-
Load Current [A]	Ripple Voltage [mV]																																								
	Input Volt. 100 [V]	Input Volt. 230 [V]																																							
0.0	30	30																																							
1.0	40	40																																							
2.0	40	40																																							
3.0	45	45																																							
4.0	50	50																																							
5.0	55	55																																							
6.0	65	65																																							
6.6	70	70																																							
--	-	-																																							
--	-	-																																							
--	-	-																																							
<p>Measured by 20 MHz Oscilloscope.                  Ripple Voltage is shown as p-p in the figure below.                  Note: Slanted line shows the range of the rated load current.</p>																																									
<p style="text-align: center;">T1: Due to AC Input Line T2: Due to Switching</p> <p style="text-align: center;">Ripple [mVp-p]</p> <p style="text-align: center;">Fig. Complex Ripple Wave Form</p>																																									



<b>COSEL</b>																																									
Model	MODULE Y	Temperature	25°C																																						
Item	Ripple-Noise	Testing Circuitry	Figure B																																						
Object	+24V6A																																								
<p>1.Graph</p> <div style="text-align: right;"> <p>—△— Input Volt. 100V</p> <p>-·-○-·- Input Volt. 230V</p> </div> <p style="text-align: center;">Ripple-Noise [mV]</p> <p style="text-align: center;">Load Current [A]</p> <p>Measured by 20 MHz Oscilloscope. Ripple-Noise is shown as p-p in the figure below. Note: Slanted line shows the range of the rated load current.</p>		<p>2.Values</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. 100 [V]</th> <th>Input Volt. 230 [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>60</td><td>60</td></tr> <tr><td>1.0</td><td>65</td><td>65</td></tr> <tr><td>2.0</td><td>65</td><td>65</td></tr> <tr><td>3.0</td><td>70</td><td>70</td></tr> <tr><td>4.0</td><td>80</td><td>80</td></tr> <tr><td>5.0</td><td>85</td><td>85</td></tr> <tr><td>6.0</td><td>90</td><td>90</td></tr> <tr><td>6.6</td><td>95</td><td>95</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. 100 [V]	Input Volt. 230 [V]	0.0	60	60	1.0	65	65	2.0	65	65	3.0	70	70	4.0	80	80	5.0	85	85	6.0	90	90	6.6	95	95	--	-	-	--	-	-	--	-	-
Load Current [A]	Ripple-Noise [mV]																																								
	Input Volt. 100 [V]	Input Volt. 230 [V]																																							
0.0	60	60																																							
1.0	65	65																																							
2.0	65	65																																							
3.0	70	70																																							
4.0	80	80																																							
5.0	85	85																																							
6.0	90	90																																							
6.6	95	95																																							
--	-	-																																							
--	-	-																																							
--	-	-																																							
<p style="text-align: center;">T1: Due to AC Input Line T2: Due to Switching</p> <p style="text-align: center;">Ripple-Noise [mVp-p]</p> <p style="text-align: center;">Fig. Complex Ripple Wave Form</p>																																									



<b>COSEL</b>																																											
Model	MODULE Y																																										
Item	Ripple Voltage (by Ambient Temp.)	Testing Circuitry Figure B																																									
Object	+24V6A																																										
<p>1.Graph</p> <div style="text-align: right;"> <p>---□--- Input Volt. 100V</p> <p>—△— Input Volt. 230V</p> </div> <p style="text-align: center;">Ambient Temperature [°C] Load 100 %</p>		<p>2.Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Ambient Temperature [°C]</th> <th colspan="2">Ripple Voltage [mV]</th> </tr> <tr> <th>Input Volt. 100 [V]</th> <th>Input Volt. 230 [V]</th> </tr> </thead> <tbody> <tr><td>-30</td><td>125</td><td>125</td></tr> <tr><td>-20</td><td>90</td><td>90</td></tr> <tr><td>0</td><td>65</td><td>65</td></tr> <tr><td>25</td><td>70</td><td>70</td></tr> <tr><td>50</td><td>75</td><td>75</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> <tr><td>--</td><td>-</td><td>-</td></tr> <tr><td>--</td><td>-</td><td>-</td></tr> </tbody> </table>	Ambient Temperature [°C]	Ripple Voltage [mV]		Input Volt. 100 [V]	Input Volt. 230 [V]	-30	125	125	-20	90	90	0	65	65	25	70	70	50	75	75	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-
Ambient Temperature [°C]	Ripple Voltage [mV]																																										
	Input Volt. 100 [V]	Input Volt. 230 [V]																																									
-30	125	125																																									
-20	90	90																																									
0	65	65																																									
25	70	70																																									
50	75	75																																									
--	-	-																																									
--	-	-																																									
--	-	-																																									
--	-	-																																									
--	-	-																																									
--	-	-																																									
--	-	-																																									
<p>Measured by 20 MHz Oscilloscope. Note: Slanted line shows the range of the rated ambient temperature.</p>																																											





<p><b>Model</b>      MODULE Y</p>																																																						
<p><b>Item</b>        Ambient Temperature Drift</p>		<p>Testing Circuitry    Figure A</p>																																																				
<p><b>Object</b>        +24V6A</p>																																																						
<p>1.Graph</p> <p> <span style="margin-right: 20px;">—△—</span> Input Volt.    100V  <span style="margin-right: 20px;">- - - □ - - -</span> Input Volt.    200V  <span style="margin-right: 20px;">- · - ○ - · - -</span> Input Volt.    230V                 </p> <p style="text-align: center;">Ambient Temperature [°C] Load 100%</p>		<p>2.Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Ambient Temperature [°C]</th> <th colspan="3">Output Voltage [V]</th> </tr> <tr> <th>Input Volt. 100[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 230[V]</th> </tr> </thead> <tbody> <tr><td>-30</td><td>24.155</td><td>24.155</td><td>24.155</td></tr> <tr><td>-20</td><td>24.171</td><td>24.172</td><td>24.171</td></tr> <tr><td>-10</td><td>24.189</td><td>24.189</td><td>24.190</td></tr> <tr><td>0</td><td>24.206</td><td>24.206</td><td>24.206</td></tr> <tr><td>10</td><td>24.217</td><td>24.218</td><td>24.218</td></tr> <tr><td>25</td><td>24.227</td><td>24.227</td><td>24.227</td></tr> <tr><td>30</td><td>24.227</td><td>24.227</td><td>24.227</td></tr> <tr><td>40</td><td>24.232</td><td>24.232</td><td>24.232</td></tr> <tr><td>50</td><td>24.235</td><td>24.235</td><td>24.235</td></tr> <tr><td>60</td><td>24.236</td><td>24.236</td><td>24.236</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>		Ambient Temperature [°C]	Output Voltage [V]			Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	-30	24.155	24.155	24.155	-20	24.171	24.172	24.171	-10	24.189	24.189	24.190	0	24.206	24.206	24.206	10	24.217	24.218	24.218	25	24.227	24.227	24.227	30	24.227	24.227	24.227	40	24.232	24.232	24.232	50	24.235	24.235	24.235	60	24.236	24.236	24.236	--	-	-	-
Ambient Temperature [°C]	Output Voltage [V]																																																					
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]																																																			
-30	24.155	24.155	24.155																																																			
-20	24.171	24.172	24.171																																																			
-10	24.189	24.189	24.190																																																			
0	24.206	24.206	24.206																																																			
10	24.217	24.218	24.218																																																			
25	24.227	24.227	24.227																																																			
30	24.227	24.227	24.227																																																			
40	24.232	24.232	24.232																																																			
50	24.235	24.235	24.235																																																			
60	24.236	24.236	24.236																																																			
--	-	-	-																																																			
<p>Note: Slanted line shows the range of the rated ambient temperature.</p>																																																						



<b>COSEL</b>		Testing Circuitry Figure A
Model	MODULE Y	
Item	Output Voltage Accuracy	
Object	+24V6A	

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 : -20 - 50°C

Input Voltage : 85 - 264V

Load Current : 0 - 6A

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

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

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	50	264	0	24.236	±35	±0.1
Minimum Voltage	-20	85	6	24.167		



<b>COSEL</b>																									
Model	MODULE Y	Temperature	25°C																						
Item	Time Lapse Drift	Testing Circuitry	Figure A																						
Object	+24V6A																								
<p>1.Graph</p> <p style="text-align: center;">Time [H]</p> <p>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>24.164</td></tr> <tr><td>0.5</td><td>24.172</td></tr> <tr><td>1.0</td><td>24.173</td></tr> <tr><td>2.0</td><td>24.173</td></tr> <tr><td>3.0</td><td>24.173</td></tr> <tr><td>4.0</td><td>24.173</td></tr> <tr><td>5.0</td><td>24.173</td></tr> <tr><td>6.0</td><td>24.173</td></tr> <tr><td>7.0</td><td>24.173</td></tr> <tr><td>8.0</td><td>24.173</td></tr> </tbody> </table>		Time since start [H]	Output Voltage [V]	0.0	24.164	0.5	24.172	1.0	24.173	2.0	24.173	3.0	24.173	4.0	24.173	5.0	24.173	6.0	24.173	7.0	24.173	8.0	24.173
Time since start [H]	Output Voltage [V]																								
0.0	24.164																								
0.5	24.172																								
1.0	24.173																								
2.0	24.173																								
3.0	24.173																								
4.0	24.173																								
5.0	24.173																								
6.0	24.173																								
7.0	24.173																								
8.0	24.173																								
<p>* The characteristic of AC230V is equal.</p>																									



<p>Model MODULE Y</p>		<p>Temperature 25°C Testing Circuitry Figure A</p>																																																											
<p>Item Overcurrent Protection</p>																																																													
<p>Object +24V6A</p>																																																													
<p>1.Graph</p> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 20px;"> <p>—△ Input Volt. 100V</p> <p>—□ Input Volt. 200V</p> <p>—○ Input Volt. 230V</p> </div> </div> <p>Output Voltage [V]</p> <p>Load Current [A]</p> <p>Note: Slanted line shows the range of the rated load current.</p> <p>Intermittent operation occurs when overcurrent protection is activated.</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. 100[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 230[V]</th> </tr> </thead> <tbody> <tr> <td>24</td> <td>7.07</td> <td>7.07</td> <td>7.07</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> <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> <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>	Output Voltage [V]	Load Current [A]			Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	24	7.07	7.07	7.07	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
Output Voltage [V]	Load Current [A]																																																												
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]																																																										
24	7.07	7.07	7.07																																																										
--	-	-	-																																																										
--	-	-	-																																																										
--	-	-	-																																																										
--	-	-	-																																																										
--	-	-	-																																																										
--	-	-	-																																																										
--	-	-	-																																																										
--	-	-	-																																																										
--	-	-	-																																																										
--	-	-	-																																																										
--	-	-	-																																																										
--	-	-	-																																																										



<b>COSEL</b>																																								
Model	MODULE Y																																							
Item	Overvoltage Protection	Testing Circuitry Figure A																																						
Object	+24V6A																																							
<p>1.Graph</p> <div style="text-align: right;"> <p>—△— Input Volt. 100V</p> <p>- - -□- - - Input Volt. 230V</p> </div> <p style="text-align: center;">Ambient Temperature [°C]</p> <p style="text-align: right;">Load 0%</p> <p>Note: Slanted line shows the range of the rated ambient temperature.</p>		<p>2.Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Ambient Temperature [°C]</th> <th colspan="2">Operating Point [V]</th> </tr> <tr> <th>Input Volt. 100[V]</th> <th>Input Volt. 230[V]</th> </tr> </thead> <tbody> <tr><td>-30</td><td>30.49</td><td>30.42</td></tr> <tr><td>-20</td><td>30.64</td><td>30.64</td></tr> <tr><td>-10</td><td>30.85</td><td>30.85</td></tr> <tr><td>0</td><td>31.05</td><td>31.05</td></tr> <tr><td>10</td><td>31.26</td><td>31.26</td></tr> <tr><td>25</td><td>31.53</td><td>31.53</td></tr> <tr><td>30</td><td>31.67</td><td>31.60</td></tr> <tr><td>40</td><td>31.89</td><td>31.82</td></tr> <tr><td>50</td><td>32.10</td><td>32.03</td></tr> <tr><td>60</td><td>32.25</td><td>32.25</td></tr> <tr><td>--</td><td>-</td><td>-</td></tr> </tbody> </table>	Ambient Temperature [°C]	Operating Point [V]		Input Volt. 100[V]	Input Volt. 230[V]	-30	30.49	30.42	-20	30.64	30.64	-10	30.85	30.85	0	31.05	31.05	10	31.26	31.26	25	31.53	31.53	30	31.67	31.60	40	31.89	31.82	50	32.10	32.03	60	32.25	32.25	--	-	-
Ambient Temperature [°C]	Operating Point [V]																																							
	Input Volt. 100[V]	Input Volt. 230[V]																																						
-30	30.49	30.42																																						
-20	30.64	30.64																																						
-10	30.85	30.85																																						
0	31.05	31.05																																						
10	31.26	31.26																																						
25	31.53	31.53																																						
30	31.67	31.60																																						
40	31.89	31.82																																						
50	32.10	32.03																																						
60	32.25	32.25																																						
--	-	-																																						

